

Meeting of the Trust Board
Wednesday 18 September 2019

Dear Members

There will be a public meeting of the Trust Board on Wednesday 18 September 2019 at 1:00pm in the Charles West Boardroom, Barclay House, 37 Queen Square, Great Ormond Street, London WC1N 3BH.

Company Secretary Direct Line: 020 7813 8230

AGENDA

	Agenda Item <u>STANDARD ITEMS</u>	Presented by	Attachment	Timing
1.	Apologies for absence	Chair	Verbal	1:00pm
Declarations of Interest All members are reminded that if they have any pecuniary interest, direct or indirect, in any contract, proposed or other matter which is the subject of consideration at this meeting, they must disclose that fact and not take part in the consideration or discussion of the contract, proposed contract or other matter, nor vote on any questions with respect to it.				
2	Minutes of Meeting held on 18 July 2019	Chair	J	1:05pm
3.	Matters Arising/ Action Checklist	Chair	K	
4.	Chief Executive Update	Chief Executive	L	1:10pm
5.	Patient Story Draft Patient Experience and Engagement Framework (for information)	Chief Nurse	M	1:20pm
6.	Pharmacy presentation	Acting Chief Operating Officer/ Medical Director	N	1:35pm
	<u>STRATEGY</u>			
7.	Sustainability Transformation Partnership Finance Return	Chief Finance Officer	Q	2:05pm
	<u>RISK</u>			
8.	Board Assurance Framework Update	Company Secretary	R	2:15pm
9.	Preparations for Brexit	Acting Chief Operating Officer	S	2:25pm
10.	Children's Cancer Centre Outline Business Case	Chief Executive/ Director of Development	T	2:35pm
11.	Update on implementation of Electronic Patient Record	Acting Chief Operating Officer	U	3:00pm
	<u>PERFORMANCE</u>			
12.	Integrated Quality and Performance Report – August 2019	Medical Director/ Chief Nurse/ Acting Chief Operating Officer/	V	3:10pm
13.	Finance Report - Month 4 (July) 2019	Chief Finance Officer	W	3:25pm

14.	Better Value Update	Director of Transformation	X	3:35pm
15.	Safe Nurse Staffing Report (June and July 2019)	Chief Nurse	Y	3:45pm
16.	Sustainability Management Plan	Director of Development	Z	3:55pm
	<u>ASSURANCE</u>			
17.	Children and Young Person’s Inpatient Survey Results	Chief Nurse	1	4:05pm
18.	Well Led Action Progress Update	Company Secretary	2	4:15pm
19.	Workforce Equality <ul style="list-style-type: none">• Workforce Race Equality Standard 2019• Workforce Disability Equality Standard 2019	Director of HR and OD	3 12	4:25pm
20.	Revised Assurance and Escalation Framework	Company Secretary	4	4:40pm
21.	Board Assurance Committee reports <ul style="list-style-type: none">• Quality, Safety and Experience Assurance Committee update – July 2019 meeting• Finance and Investment Committee Update – July 2019• People and Education Assurance Committee Update – July 2019 and September 2019	Chair of the Quality, Safety and Experience Assurance Committee Chair of the Finance and Investment Committee Chair of the People and Education Assurance Committee	5 6 Verbal	4:50pm
22.	Council of Governors’ Update – July 2019	Chair	8	5:10pm
	<u>GOVERNANCE</u>			
23.	Trust Board Terms of Reference	Company Secretary	9	5:20pm
24.	Schedule of Matters Reserved for the Board	Company Secretary	10	5:35pm
25.	Register of Seals	Company Secretary	11	5:40pm
26.	Any Other Business (Please note that matters to be raised under any other business should be notified to the Company Secretary before the start of the Board meeting.)			5:45pm
27.	Next meeting The next public Trust Board meeting will be held on Wednesday 28 November 2019 in the Charles West Room, Barclay House, Great Ormond Street, London, WC1N 3BH.			

ATTACHMENT J

**DRAFT Minutes of the meeting of Trust Board on
18th July 2019**

Present

Sir Michael Rake	Chair
Mr Matthew Shaw	Chief Executive
Lady Amanda Ellingworth	Non-Executive Director
Mr James Hatchley	Non-Executive Director
Ms Kathryn Ludlow	Non-Executive Director
Mr Akhter Mateen	Non-Executive Director
Prof Rosalind Smyth	Non-Executive Director
Dr Sanjiv Sharma	Medical Director
Professor Alison Robertson	Chief Nurse
Ms Helen Jameson	Chief Finance Officer
Ms Caroline Anderson	Director of HR and OD

In attendance

Mr Matthew Tulley	Director of Development
Ms Cymbeline Moore	Director of Communications
Dr Shankar Sridharan	Chief Clinical Information Officer
Ms Claire Williams*	Interim Head of Patient Experience and Engagement
Ms Emma James*	Patient Involvement and Experience Officer
Mr Lee Hudson*	Chief of Mental Health
Mr Richard Collins*	Director of EPR
Ms Lynn Shields*	Director of Education
Dr John Hartley*	Director of Infection Prevention and Control
Ms Helen Dunn*	Deputy Director of Infection Prevention and Control
Mr Jon Schick*	PMO Programme Director
Dr Renee McCulloch*	Guardian of Safe Working
Mr Peter Hyland	Director of Operational Performance and Information
Dr Anna Ferrant	Company Secretary
Ms Victoria Goddard	Trust Board Administrator (minutes)
Mr Colin Sincock	Public Governor (observer)
Two members of the public	

**Denotes a person who was present for part of the meeting*

*** Denotes a person who was present by telephone*

87	Apologies for absence
87.1	Apologies for absence were received from Mr Chris Kennedy, Non-Executive Director and Professor Andrew Taylor, Acting Chief Operating Officer. It was noted that Mr Peter Hyland, Director of Operational Performance and Information was in attendance in Professor Taylor's stead.
88	Declarations of Interest
88.1	No declarations of interest were received.

89	Directorate presentation from Mental Health Chief of Service
89.1	Mr Lee Hudson, Chief of Mental Health Services gave a presentation on GOSH's mental health strategy and the national picture for mental health services. He said that when people experienced a medical problem the risk of deteriorating mental health was amplified and the team was working on integrating mental and physical health care. Mr Hudson said that mental health concerns in the workforce was a significant issue and stigma remained around mental health across the world.
89.2	The NHS 10 year plan highlighted mental health services however this was primarily focused on provision within schools rather than hospitals such as GOSH. Mr Hudson said that in the first instance this was likely to lead to increased pressure as GOSH treated very unwell patients who were often not able to attend school in the traditional way. Education around mental health was generally poor for the majority of healthcare professionals and GOSH had launched a simulation for mental health scenarios which had been successful. A nurse training day had also been developed and delivered.
89.3	Sir Michael Rake, Chair queried whether sufficient psychologist support was present in the Trust and Dr Hudson said that the service had grown over time in the absence of a specific strategy. He said that psychologist provision was high quality however there were many complex families who were involved with GOSH and support from psychologists was insufficient to manage this. He said that psychiatry and family therapy support was also required in these instances however Dr Hudson said he felt that insufficient numbers of psychiatrists were employed by the Trust.
89.4	Mr James Hatchley, Non-Executive Director asked how many CAMHS beds the Trust had and highlighted the significant national issue of eating disorders. He queried whether other services were available in London and whether the Trust refused referrals due to tariff issues. Dr Hudson said that there were currently seven beds in the Mildred Creek Unit however across London 50% of beds for young people were filled with children and young people from outside London. GOSH admissions were only for patients from 7 – 14 years of age and there were only seven units in England and Wales which operated in this way. NHS England were changing provision for patients over 15 years to be locally led however it was not yet clear how this would be done.
89.5	Mr Hatchley said that it was important to be clear about the Trust's mental health services strategy in the medium term and how focus would be placed on this. Mr Shaw said that GOSH had unique expertise in supporting patients with both physical and mental health concerns. He added that consideration must be given to whether partnering with specialist London mental health Trusts would produce key improvements for children and young people's mental health. He said that a meeting would be taking place to discuss this further.
89.6	The Board congratulated the team on the Mildred Creek Unit having received an initial rating of 'outstanding' following an inspection by NHS England.
90	Minutes of Meeting held on 22 May 2019
91.1	The minutes of the previous meeting were approved .

92	Matters Arising/ Action Checklist
92.1	The actions taken since the previous meeting were noted.
93	Chief Executive Update
93.1	Mr Shaw said that an area of focus had been people. Good engagement was taking place with staff and there had been increased attendance at staff briefing sessions as well as over 50% of staff reading the refreshed weekly newsletter. Members of the Executive Team were also regularly writing blogs, however work continued to be required to improve engagement further.
93.2	Speaking up for safety training was continuing positively and approximately 35-40% of staff had been trained within the first month.
93.3	A consultation had been launched by NHS England on children's cancer services and a joint response would be submitted with the Children's Alliance.
93.4	The official opening of the Zayed Centre for Research had taken place on 1 st and 2 nd July 2019 and was attended by representatives from the Abu Dhabi Royal Family. The building provided an excellent research opportunity through the mix of clinical and academic staff who would occupy the space.
94	Patient Story
94.1	The Board received a patient story via video of three families' experiences over the EPR go live period. Parents in the video had been aware of the Epic go live date as a result of the clock in the main reception counting down to go live and the posters which had been placed on walls and lift doors. Parents reported that some delays and cancellations had been experienced following go-live particularly in terms of medication although it was noted that this was improving and staff had been helpful about updating families when delays occurred. Some families reported that it had not been clear how the roll out of Epic would impact them and some staff had not been able to provide support with signing up to the MyGOSH portal. Parents felt that a few staff had been stressed over the go-live period. They had also noted that MyGOSH for inpatients was not yet available and therefore the platform could not be accessed whilst using the GOSH wifi.
94.2	Dr Shankar Sridharan, Chief Clinical Information Officer said that the roll out of the EPR system had been an extremely significant transformation and had replaced over 370 individual IT systems. Issues had been experienced initially with delays in pharmacy which had partly been related to the use of a new system but also due to double diligence. Delays had been mitigated by welcoming approximately 150 visiting doctors and nurses from Epic in the US. The Trust already had the highest national uptake of MyGOSH however the inpatient version was not being rolled out until August as it had been vital to prioritise the parts of the system which were implemented at go live.
94.3	Dr Sridharan said that parents had experienced issues with the Trust's wifi however as a site which operated within London school gateway for safeguarding, certain restrictions were required. He said that it was possible to be given greater access by ward administrators. Sir Michael agreed that the work which had taken place to implement EPR was considerable as was the size

94.4	of the transformation. He said that although excellent progress had been made overall delivery of the benefits would take time.
94.5	Ms Alison Robertson, Chief Nurse said that the patient story indicated that it would have been beneficial to provide verbal briefing for families. Dr Sridharan said that the Trust had been asked to provide a briefing to NHS England to support other Trusts going through an EPR implementation.
94.6	Mr Akhter Mateen, Non-Executive Director asked how communication with families would take place when upgrades to Epic were required. Dr Sridharan said that improved guidance about communication had been produced and added that down times had been shortened for upgrades and a 'pause' to the service would be required rather than a longer outage which would be communicated throughout the Trust.
	Mr Hatchley noted that communication had been a key theme of complaints and PALS contacts for some time and said that it had been anticipated that Epic would support an improvement. Dr Sridharan said that there as had been an excellent uptake of the MyGOSH service, this would also support communications in the longer term.
95	Electronic Patient Record (EPR) Programme Update
95.1	Mr Richard Collins, Director of EPR said that the programme was currently in the planned stabilisation phase following go-live on 19 th April 2019. Epic had been successfully adopted across the Trust however there were areas where introduction of the new system continued to be a greater challenge to staff. Mr Collins said that there were challenges in pharmacy and interventional radiology.
95.2	Mr Mateen asked for a steer on the key challenges and Mr Collins said that it was important to ascertain why some colleagues were not using the system as designed and to change this through education.
96	Children's Cancer Centre (CCC) Update
96.1	Mr Matthew Tulley, Director of Development said that work was taking place to set out the workstreams which were required to deliver the plans agreed by GOSH Children's Charity and the GOSH Board. The Outline Business Case was being written in the 'five case model' which was the standard HM Treasury model. Mr Tulley said it was anticipated that chapters of the business case would be issued for review and comment to enable a familiar outline business case to be issued in September 2019.
96.2	Following discussions with NHS Improvement it had been confirmed that as a predominantly charity-funded project, HM Treasury and Department of Health approvals were not required. However NHS Improvement did require approval and timeframes for this were under discussion. In the event that both the Hospital and Charity Boards approved the business case in September 2019, design work would recommence in October 2019.
96.3	Ms Shaw said that plans were on track compared to the agreements made at the Board to Board meeting in May 2019 and documents would be shared in a workshop at the beginning of September.

96.4	Sir Michael highlighted the importance of continuing to work within the £250million budget and emphasised that the Trust could not agree to take on debt. Mr Hatchley said that it was important to ensure that the Charity Trustees were comfortable that the project would deliver what was required within the budget and to consider the certainty that was in place over costs and issues such as inflation and value of sterling.
97	Gastroenterology Review Update
97.1	Dr Sanjiv Sharma, Medical Director said that following the invited review of the Gastroenterology Service by the Royal College of Paediatrics and Child Health in 2017 a number of Freedom of Information requests were submitted to the Trust including one request to release the first draft of the report. GOSH had denied the request on the basis that it was part of the process of working towards the final report and in recognition of the importance of creating an environment in which a report could move through draft versions to create the most accurate possible outcome. The FOI request had been referred to the Information Commissioner's Office and the Trust had been required to release the first draft. This had been done on 5 th June 2019.
97.2	As part of the process of preparing for the disclosure of the draft report it was identified that the copy of the RCPCH report which was submitted to the Trust Board did not include five of the seven appendices and that this was the same version of the report which was shared with regulators. In order to be transparent the full report including all appendices, which did not change the body of the report, were included in the Board papers.
97.3	The action plan resulting from the RCPCH review was monitored through the Patient Safety and Outcomes Committee and those actions which were overdue would be addressed by the time of the next QSEAC meeting.
97.4	Mr Shaw highlighted the good work of the Gastroenterology Team who were working with other local centres to support the development of a network for paediatric gastroenterology in London.
98	GOSH Learning Academy: Charity Grants Case
98.1	Ms Lynn Shields, Director of Education presented the paper and said that the full grants case had been presented to the GOSH Children's Charity Grants Committee on 25 th June and set out the vision for the development of a Learning Academy and the impact it would have on the hospital and its patients.
98.2	Professor Rosalind Smyth, Non-Executive Director welcomed the ambition and high level vision to work with the UCL GOS Institute of Child Health (ICH) but highlighted that the paper did not include analysis of the current provision of external facing courses. She said that the ICH current operated 12 masters' courses and a large number of short courses and suggested that the total income from GOSH Learning Academy could be substantially more than the £1million anticipated.
98.3	Ms Shields said that GOSH currently offered 10 post graduate courses in partnership with a university which supported 400 candidates and it was hoped that this number would be built upon. A learning academy group had been established with GOSH Children's Charity which also had ICH involvement.

98.4	Ms Helen Jameson, Chief Finance Office said that the financial risk would be around sustainability going forward and said that it was vital that the Trust established itself as a leader in the area. GOSH currently paid approximately £1million as an apprenticeship levy but accessed only a small proportion of this. The education tariffs were being reviewed by the NHS and Health Education England and as a result, key areas would change for GOSH going forward.
98.5	Mr Hatchley queried whether the Trust had sufficient skills in house to enable GOSH to fully commercialise the work which was taking place. He added that this was also a cultural shift. Sir Michael agreed that the commercialisation of the project must remain under continuous review. Dr Sharma said that good governance and continuous open communication with the Charity was key.
98.6	Ms Caroline Anderson, Director of HR and OD said that the people strategy which was being developed included considerable work on reshaping the workforce and added that education would be instrumental in this. The Virtual Learning Environment provided opportunities beyond London.
99	Integrated Quality and Performance Report – May 2019
99.1	Dr Sharma presented the report and said that during the period of the EPR roll-out there had been a reduction in statutory and mandatory training and PDR rates and focus was being placed on improving this. Discussion had taken place with CQC around their data request given the Epic implementation. Mr Peter Hyland, Director of Operational Performance and Information said that a section of the information request was around data quality and any issues would be fully articulated. The data requested was up to and including June 2019 however the Trust had offered to submitted July 2019 data in order to show improvement following EPR implementation.
99.2	Dr Sharma highlighted that the timeliness for closing the incident required improvement. This had been discussed with directorates and was being monitored at performance review meetings.
99.3	Ms Alison Robertson, Chief Nurse said that following EPR go-live it had become difficult to measure the Friends and Family Test response rate accurately and work was taking place between the performance and patient experience teams to correct this. The rate of respondents who were likely to recommend GOSH had also fallen in three directorates and work was taking place to understand the cause.
99.4	Mr Hyland said that discharge summary performance had reduced following go-live and this was being tracked on a daily basis with teams focusing on the backlog which had already been reduced from approximately 1500 letters to 75. A number of discharge summaries had been sent but not recorded within Epic due to the way in which the summaries had been sent through the system. In some cases this had been appropriate and other cases required a change of practice with education continuing within teams.
99.5	Dr Sharma said that the Medicines and Healthcare products Regulatory Agency (MHRA) had inspected pharmacy and found significant areas for improvement in the manufacturing process. The Trust was in frequent discussion with the MHRA. The team had experienced a number of challenges with EPR and Epic had brought a number of team members from the USA to work on this.

99.6	Action: Mr Hatchley requested that further information was provided around the PALS contacts in directorates as a percentage of the volume of activity. Ms Robertson confirmed that this was discussed in greater detail at the Patient and Family Engagement and Experience Committee (PFEEC) where directorates were invited to present the information.
99.7	Action: It was agreed that the staff data for the research and innovation directorate would be reviewed as the paper reported a vacancy rate of -71%.
99.8	Mr Mateen highlighted the PDR completion rate which was below the 90% target in seven of nine corporate directorates and five of eight clinical directorates. Mr Shaw agreed that this was not acceptable and said it was important to improve performance in basic areas such as this.
100	Infection Control Annual Report 2018/19
100.1	Dr John Hartley, Director of Infection Prevention and Control presented the report and said that the Trust had invested in antimicrobial stewardship through expansion of the team and activity taking place in 2018/19. Dr Hartley confirmed that the full QCUIN for this area had been met.
100.2	Audit days had been in place since October 2018 with all link members of staff having completed hand hygiene, point prevalence audits and developed associated action plans. Refreshed education had taken place around the audit process and peer auditing and this had led to a reduction in hand hygiene compliance. There had been a reduction in needle stick incidents which was likely to be as a result of the roll-out of safer sharps. The Trust had experienced its first increase in anti-microbial resistance in 2018/19.
100.3	Lady Amanda Ellingworth, Non-Executive Director queried whether the Infection Control team had all it needed to undertake its role effectively and Dr Hartley said that the team was high performing however he suggested that additional resources were required in estates and facilities to ensure that the environment, primarily around water and ventilation, was optimal.
100.4	Mr Hatchley asked for a steer on GOSH's infection control activity in comparison to that of other Trusts and Dr Hartley said that he felt GOSH's activity was high quality. Ms Helen Dunn, Lead Nurse for Infection Prevention and Control said that despite this it was important to learn from, and collaborate with, other organisations.
100.5	Ms Dunn gave a summary of the 'Gloves Are Off' campaign which had worked to reduce the use of non-sterile gloves. It had been shown through audits that one of the most common reasons for failure in hand hygiene audits was due to staff wearing gloves in place of washing their hands. Staff had been asked to risk assess the use of gloves and this had resulted in a reduction of 3.7million gloves being ordered with a cost saving of £90,000 and a reduction of waste of 18 tonnes. This had been a news item in the British Medical Journal and had showcased how improvements could be made through infection control. Focus in 2019/20 would be placed on isolation precautions.
100.6	The Board welcomed the work that was taking place and approved the annual report for publication on the GOSH website.

101	Month 2 2019/20 Finance Report
101.1	Ms Helen Jameson, Chief Finance Officer said that at month 2 the Trust was £0.5million behind control total as a result of income being £3million below plan. NHS income which was not on a block contract was below plan by £3million and reduced activity in IPP had led to it being £1.9million behind plan year to date. Cash remained strong.
101.2	Ms Jameson said that costs would not be recovered on cost and volume areas of the contract as a result of reduced depth of coding due to staff continuing to become familiar with EPR. She said that this would impact on negotiations for 2020/21 and it had been indicated to NHS England and Improvement that the Trust would look to remove the first few months of the financial year from negotiations.
101.3	Mr Mateen highlighted the reduction in IPP debtor days and queried whether activity in the directorate was increasing. Ms Jameson said that debtor days had continued to reduce due to approximately £11million having been paid in year. She said that whilst activity had not deteriorated, it had also not recovered following the period presented in the report.
101.4	Ms Kathryn Ludlow, Non-Executive Director highlighted that pay was underspent by £1.9million year to date and queried the impact this would have on income. Ms Jameson said that whilst it would impact on the ability to open beds to deliver activity, the block contract and reduction in activity for the Epic roll out mean that the impact had been considerably reduced.
101.5	Lady Ellingworth asked whether modelling had taken place of the potential implications of the pension tax issue for senior staff. Ms Anderson said that whilst it was too early to be able to model in the impact, work was taking place to ascertain which members of staff were likely to be affected.
102	Safe Nurse Staffing Report (April and May 2019)
102.1	Ms Alison Robertson, Chief Nurse presented the report and said that actual versus planned hours were within the recommended range however two Directorates had been outside this range and work was taking place to ascertain why. Care hours per patient per day had been higher than average due to the planned reduction in patient activity during the Epic launch along with a planned increase in nurses to support the clinical areas at this time.
102.2	The Trust had rolled out SafeCare which linked to the rostering system allowing measurement of staffing against patient acuity. Work was taking place in HR to review temporary staffing as there had been an increase in requests. Ms Robertson added that band 6 vacancies remained above the Trust's target.
102.3	Mr Mateen noted that the net of the Trust's joiners and leavers was approximately equal and queried the impact of the recruitment of newly qualified nurses while more experienced nurses left the Trust. Ms Robertson said that overall GOSH had a younger and more junior workforce than other Trusts. She said that for this reason a key focus of the Nurse retention plan was around retaining band 5 and band 6 nurses. Professor Smyth said that despite the good fill rate for shifts the Trust was not able to open all beds and therefore further work was required. Ms Robertson said that PICU and NICU had made good

102.4	<p>progress in recruitment including more experienced nurses and improvements would be seen once these individuals began to join the Trust.</p> <p>Mr Mateen asked whether the Trust continued to attract nurses internationally and Ms Robertson said although GOSH had not traditionally relied on this approach, an international recruitment group had been established to look at the potential for filling vacancies in areas with higher than average vacancy rates such as IPP, theatres and critical care.</p>
102.5	Mr Shaw said that the outcome of the review of the change to the specialist bank rate would be presented to the Executive Management Team in the coming weeks.
103	Better Value Update
103.1	Mr Jon Schick, PMO Programme Director presented the report and said that over £10million in schemes had now been approved and assigned to cost centres. Discussions had taken place with members of staff who had offered ideas following the extraordinary big briefing by the Chief Executive and a presentation would be provided to the Young People's Forum in recognition of the importance of developing an inclusive programme. Schemes continued to be identified however some were higher risk in terms of likely delivery. Mr Schick confirmed that there was a good level of confidence that better value schemes were not adversely impacting quality and safety due to the governance processes in place.
103.2	Mr Shaw said that following the appointment of a Transformation Director good progress was being made. Lady Ellingworth emphasised the importance of developing a multiyear programme and highlighted that only half the required schemes had been identified at this point in the year. She asked whether additional external support was required. Mr Schick said that the Trust was working with the Advisory Board and with individuals with experience in the airline industry and considerable work had taken place to learn from other Trusts. Ms Jameson said that work was taking place over the summer to review the details of the plan, the differences between GOSH and other Trusts and the reasons for those differences. Mr Schick said that benchmarking was taking place specifically against children's providers.
104	Guardian of Safe Working report Q1 2019/20
104.1	Dr Renee McCulloch, Guardian of Safe Working said that exception reporting was not culturally well embedded within the Junior Doctor workforce. She said that in general junior doctors felt that they were working as part of a team to complete tasks however reports were helpful to indicate areas which required follow up.
104.2	The work of the task and finish group which reviewed the work of Junior Doctors on the MEGGA rota had approved the implementation of a new rota across eleven specialties as a result of concerns expressed by Junior Doctors around the extent of work out of hours was almost complete.
104.3	Professor Smyth asked for a steer on the issues raised by trainees and fellows and whether these were aligned. She said that fellow posts were not being filled as readily as previously and suggested that different models of working were

104.4	<p>required such as increased responsibilities for Advanced Nurse Practitioners and reduced reliance on doctors from overseas. She said that it was important to scope the future impact of a reduction in fellows which was likely to place a considerable strain on junior doctors. Dr McCulloch said that as fellows and junior doctors shared the same rota the issues were often similar. She said that the junior doctor rota gap was approximately 7% which was less than nationally.</p> <p>Mr Mateen asked whether it was possible to create an automated system to enable some exceptions to be automatically captured and Dr McCulloch said that whilst this would be extremely helpful it was important to have relationships with junior doctors and to understand their issues. Ms Kathryn Ludlow, Non-Executive Director asked whether there was a sense of the Trust's compliance with the 2016 Junior Doctor contract Terms and Conditions if all required exception reports were submitted and Dr McCulloch said that it was likely that a number of Junior Doctors were working above their contracted hours and added that this was particularly likely where there were rota gaps.</p>
104.5	Dr Sharma thanked Dr McCulloch for her work on rota issues across specialties particularly around hospital at night which had been a longstanding issue.
105	Learning from Deaths Mortality Review Group - Report of deaths in Q4 2018/2019
105.1	Dr Sharma said that 29 deaths had been reviewed since the last report and two cases had been found to have modifiable factors. A 'Closing the Loop' Group had been established in order to more effectively disseminate learning across the Trust.
105.2	Sir Michael asked how far the issues raised in the mortality reviews affected clinicians at other Trusts and Dr Sharma said that a national mortality review processes was beginning in September which would ensure that learning was highlighted nationally. Mr Hatchley asked whether learning could also be facilitated through Epic and Dr Sharma said that while this could support the dissemination it was vital to communicate the learning. He said that Closing the Loop included representatives for different areas of the hospital to make this more efficient.
106	Responsible Officer Annual Report 2018/19
106.1	Dr Sharma said that appointment of a revalidation and appraisal support lead had been extremely positive and work had taken place to refresh the list of appraisees for whom GOSH was the designated organisation. All appraisals were undertaken using a specific IT system and it was important to ensure that individuals with honorary contracts were using the system to provide an overview of completion rates.
106.2	Lady Ellingworth noted that revalidation had been deferred for 21 individuals and queried the reasons for this. Dr Sharma said that in some cases it was around the quality of the appraisal as the Trust was being more robust about the quality required and the number of appraisals required between revalidation.
107	Safeguarding Annual Report 2018/19

107.1	Ms Alison Robertson, Chief Nurse said that specific work had taken place in 2018/19 to ensure that recommendations arising from the two reviews of safeguarding were complete. More integrated working was taking place between the safeguarding and social work teams, including the CLIC Sargent social work team who support haematology and oncology families. There had been a reduction in the number cases referred however cases were often complex and time consuming.
107.2	An internal audit of safeguarding arrangements had provided a rating of significant assurance with minor improvement potential.
107.3	Action: Lady Ellingworth welcomed the helpful report and asked for a steer on the timescales for the 2019/20 priorities and Ms Robertson said that this would be agreed and monitored at the strategy safeguarding meeting. Lady Ellingworth requested that the next annual report show progress against the priorities.
108	Board Assurance Committee reports
108.1	<u>Audit Committee update – May 2019 meeting</u>
108.2	Mr Mateen said that the May 2019 meeting had been focused on the recommendation of year end documents to the Board for approval and confirmed that a verbal update had been provided at the May Trust Board meeting.
108.3	<u>Quality, Safety and Experience Assurance Committee update – July 2019 meeting</u>
108.4	Lady Ellingworth said that the committee welcomed the work to separate the culture and education part of QSEAC's agenda into a People and Education Assurance Committee. She added that the work of the committee would be more in line with the Trust's priorities going forward.
108.5	<u>Finance and Investment Committee Update –June 2019</u>
108.6	Mr Hatchley confirmed that he had provided a full report to the Council of Governors' meeting the previous day.
108.7	<u>People and Education Assurance Committee Update – July 2019 (verbal) including update on BAF culture risk</u>
108.8	Ms Kathryn Ludlow, Chair of the People and Education Assurance Committee said that this had been the committee's first meeting and work would take place at the next meeting to agree the Committee's priorities. A discussion had taken place on the BAF culture risk and it was felt that this was not correctly expressed given the changes made by the new Director of HR and OD and the establishment of the PEAC. The Board noted the update on the BAF culture risk.
109	Council of Governors' Update – July 2019 (Verbal)
109.1	Sir Michael said that the Council of Governor meeting had taken place on 17 th July and a presentation had been received on Epic. The Council had approved a second term for Mr James Hatchley, Non-Executive Director.

110	Revised Standing Financial Instrcutions and Scheme of Delegation
110.1	Ms Jameson said that it had been agreed that the SFIs and scheme of delegation would be reviewed and considered by the Board on an annual basis. Mr Mateen said that he was satisfied with the content of the documents which had been circulated to him, Mr Hatchley and Mr Kennedy outside the meeting. He said that the approval of capital overspend on an individual overspend basis was good practice.
110.2	The Board approved the revised SFI and Scheme of Delegation.
111	Register of Seals
111.1	The Board endorsed the use of the company seal.

ATTACHMENT K

TRUST BOARD – PUBLIC ACTION CHECKLIST
September 2019

Paragraph Number	Date of Meeting	Issue	Assigned To	Required By	Action Taken
99.6	18/07/19	Mr Hatchley requested that further information was provided in the integrated quality and performance report around the PALS contacts in directorates as a percentage of the volume of activity. Ms Robertson confirmed that this was discussed in greater detail at the Patient and Family Engagement and Experience Committee (PFEEC) where directorates were invited to present the information.	AR	September 2019	On agenda
99.7	18/07/19	It was agreed that the staff data for the research and innovation directorate would be reviewed as the integrated quality and performance report reported a vacancy rate of -71%.	SS	September 2019	On agenda
107.3	18/07/19	Lady Ellingworth requested that the next annual safeguarding report show progress against the priorities.	AR	July 2020	Noted for next report to Board

Trust Board 18th September 2019	
Chief Executive Report Submitted by: Matthew Shaw, Chief Executive	Paper No: Attachment L
Aims / summary Update on key operational and strategic issues.	
Action required from the meeting For noting.	
Contribution to the delivery of NHS Foundation Trust strategies and plans <ul style="list-style-type: none"> • Compliance with CQC Well-Led framework • Delivery of trust strategy 'Fulfilling Our Potential' 	
Financial implications <ul style="list-style-type: none"> • None (business as usual) 	
Who needs to be told about any decision? Not applicable	
Who is responsible for implementing the proposals / project and anticipated timescales? CEO and executive colleagues	
Who is accountable for the implementation of the proposal / project? CEO	

Part 1: People

1.1 Listening to staff

This week we are consulting with staff, patients and families across the hospital to get their feedback on the work we have done so far to refresh our strategy. Our *Mission GOSH* stand (see display visual and leaflet, attached) presents a five-year timeline which develops the static elements of the strategy 'house' into a timeline showing us where we want to go and how we are going to get there. We have also revised our strategic framework themes to highlight the importance of education, digital innovation, culture and working in partnership with the wider healthcare system.

We are holding a half-day workshop on Monday, 16th September 2019 to engage with a wide range of staff to develop the Culture theme of the GOSH strategy. This session will be professionally facilitated as a pilot and the HR team plans to adopt it in-house and repeat it as part of the roll out of the people strategy. A series of other strategy workshops are being held over the coming weeks to refine some of the other key strategic themes including clinical service transformation, quality and partnerships.

The strategy materials will be refined and circulated to the Board by 21st October 2019 so that we can road test them at our away day on 30th October 2019.

1.2 Developing staff

In June we launched the Trust-wide roll-out of *Speak Up for Safety* workshops as part of the Safety, Reliability and Improvement Programme (SRIP). The *Speak Up* programme aims to transform culture within GOSH by supporting and encouraging our staff to speak up for patient safety. It is also part of our GOSH Strategy commitment on the 'Care' pillar – to achieve zero preventable harm and deliver the best possible outcomes through providing safe, effective and efficient care.

Sign-up and attendance at the workshops since launch is going really well and 65 per cent of staff are now booked onto a workshop or have already attended one. The executive team have also been informed of some good examples where the Speak Up principles are being used in clinical settings to effect positive change.

1.3 Workforce Race Equality Standard (WRES) 2019

I would like to highlight within my report a watch point around the organisation's WRES data to help ensure we stay accountable to each other in making better progress in this area. I am pleased that we are reporting some improvement since 2018 in the proportion of BAME staff reporting discrimination, harassment, bullying and abuse and in BAME representation at Board level. However, I am concerned about our overall performance, including the indicators for total workforce composition, appointment following shortlisting and relative proportion of BAME staff undergoing disciplinary action.

We have to do better to understand and deal with the causes of these issues and ensure equality of opportunity and experience for BAME staff. I am pleased that our People Strategy is placing Diversity and Inclusion as a first-year priority and that we will be working with our BAME staff forum and the recently established PEAC committee to expedite progress.

1.4 Review of agency bank rates

We've done a full review of all clinical and non-clinical bank rates and benchmarked these against our partners as per our discussion at the July board meeting. The review was presented to EMT and the team has concluded that no changes to rates are necessary at present.

The Trust benchmarks well against other organisations, offering competitive rates, many of which are above average for local trusts. Being competitive ensures that the trust has been able to minimise agency spend and operate a staff bank that supports safe staffing levels.

1.5 Leadership

As the Board will recognise, we are in a period of transition following the roll out of our electronic patient record. During this transformational change GOSH staff have had to work very hard to deliver business as usual in the context of transformational change. The Board will see significant improvements in our metrics in the IQPR and this is a testament to the energy and determination of our teams.

I want to thank our executive team and their staff for driving improvements at the hospital and in particular for their recent progress in improving the quality of board papers. As we continue to focus on our priority areas (culture, quality and finance) I am grateful for their support, talent and hard work.

1.6 Board development

Over the past couple of weeks I circulated some board development suggestions based on feedback from interviews with non executive directors with the King's Fund. The executive team is well established on their team development journey and feels that now is a good time for us to consider a whole-team approach. We will arrange a session to develop support co-design of the programme at our upcoming board strategy away day in October. In the meantime I welcome any ideas or comments board members would like to raise.

Part 2: Financial sustainability

2.1 Hospital Funding Priorities Steering Group

The Hospital Funding Priorities Steering Group meets bi-monthly and is chaired by our non executive director James Hatchley in partnership with the charity. It provides a framework for arriving at hospital priorities for charitable funding. The group takes a holistic view of funding and assets and encompasses all aspects of charitable activity – grants, property assets and redevelopment and commissioned projects. It will also help align the hospital and charity strategies, which are both being refreshed.

The group has identified 6 thematic areas for charitable investment that will help to improve outcomes for children and allow them to fulfil their potential: Research and innovation, education, environment, people, patients & families and technology.

Hospital and Charity leads have been identified for each theme. A framework of questions has been distributed to support the development of a baseline review (including current charitable support, future goals and the relative impacts anticipated from varying levels of funding), which will allow opportunities to be weighed against each other and establish a clear set of priorities.

Part 3: Service quality

3.1 High profile case at inquest

The Board will be aware of the recent inquest into the death of our former patient Amy Allan. Amy was admitted to GOSH last year, aged 14, for spinal surgery with the background of a complex cardiac condition. After the surgery she was admitted to intensive care, but sadly her condition deteriorated and she died a month after the operation. Amy's family have concerns about the standards of care she received at GOSH and are calling for a full CQC investigation into what happened.

At the heart of this case is a family who have had to re-live a terrible tragedy and I am so sorry that Amy didn't get the level of care she should have. We know there are things the hospital could have done better and that we will learn from. We've already made some changes to practice and are looking closely at the Coroner's findings to see if we need to make any further changes and will share this with the Board.

Naturally such cases also have an enormous impact on our staff and we are providing support for those involved. It is worth noting that myself and the rest of the team have received feedback recently from clinical staff that they have noticed a step-change in the support that is being offered to those handling complex and high profile cases. This is important because colleagues are in a far better position to reflect, learn, make the necessary improvements and move on with caring for their patients everyday if they are well supported by the organisation.

3.2 Pharmacy

We are making good progress on delivering the required improvements in pharmacy and are continuing to monitor the situation closely. The team is working hard to deliver against their action plan and is receiving support including coaching. The MHRA are visiting to get an update on our progress during the week commencing 16th September. The CQC visited on 10 September 2019 to meet with the Pharmacy team and discuss the key issues ahead of their inspection.

3.3 Accommodation review

We have established three working groups who are reviewing staff accommodation, parent accommodation and patient accommodation. Each group has revised Terms of Reference to look at current policy as well as future needs for the coming 5 years. A more detailed appraisal has been prepared for the executive team and can be provided to non executive directors on request.

There is no national NHS expectation to provide parent accommodation and therefore, all parental and family accommodation is an enhanced provision supported through our partnership with the GOSH Charity. The long term vision for parent accommodation is to make provision for high quality, family friendly accommodation near to the hospital for any parent who needs it. 21 staff accommodation rooms in Powis Place are being renovated to expand the quantity and improve the quality of our existing provision.

We are also working to improve facilities for staff accommodation and establish payment management processes to ensure it is sustainable and protected into the future. We have reviewed our on-call accommodation to address increasing demand and recent closure of 11 on-call rooms in Powis Place. 21 basic rooms have been provided in the Southwood Building to address the shortfall and work is ongoing to monitor utilisation, streamline the booking process and determine ongoing usage requirements. This intelligence will help us to better understand what staff need from us and work towards an appropriate long term solution.

Part 4: Partnerships

4.1 North Thames Paediatric Network

The Board is aware that Great Ormond Street Hospital hosts the North Thames Paediatric Network, providing not only operational support but also senior management strategic input, with our CEO acting as chair of the Network board. We have attached the Memorandum of Understanding for this partnership for reference.

The Network brings together 24 providers of paediatric services across the North Thames region; 18 acute care and six specialist providers with in-patient facilities. It also provides a forum for these providers, NHS England & NHS Improvement and local commissioners of paediatric services to work closely together to ensure that specialist service provision in particular are configured around children and young people rather than organisations.

Formally commissioned in April 2019 for a three-year programme of work, the Network has made significant progress in terms of stakeholder engagement and operational delivery. Clinically-led work streams have been established to determine how pathways of care in paediatric critical care, surgery, neurology and gastroenterology could be improved both for patients and their families – and for our colleagues working in district general hospitals.

We are also working closely with colleagues in other similar networks, including the GOSH and Barts Health Centre's congenital heart disease network which is also hosted by the Trust. Where appropriate, the networks provide an opportunity to do things once for London and the wider south east.

4.2 North Central London Sustainability and Transformation Partnership update

As GOSH CEO I am currently chairing the joint STP procurement group and many of our executive team are engaged within their individual workstreams to support the partnership. The Company Secretary and I are inviting the STP's Accountable Officer Helen Pettersen to our board strategy day to discuss the role of GOSH as a specialist trust within the STP.

The STP team is working on a financial recovery plan and establishing rapid actions that can be taken in 2019/20 to ensure the partnership delivers on its commitment to return to a more stable financial position. The areas of mitigation will fall to internal organisations' actions as well as joint working across partners, each of which has been asked to contribute ideas, approaches and areas which must be actioned now rather than in future years, to meet the agreed 2019/20 plan. An update on progress will be provided at the STP CEO meeting at the end of September and the letter attached provides further detail.

4.3 UK Children's Hospitals Alliance update

During August GOSH hosted the UK Children's Hospitals Alliance Specialised Services Quality Dashboard pilot benchmarking framework working group. Representatives from alliance hospitals and NHS England reviewed the dashboard and explored the ways in which they can make best use of the fact that they can now access to each other's data. Members have agreed to engage with their clinical teams to work towards collection of more meaningful outcome measures within the quality dashboard and to working through two dashboards initially to develop a benchmarking framework.

GOSH will continue to support in a project leadership capacity and the next meeting is planned at the Evelina before the end of the year.

4.4 European Children's Hospitals Organisation

We are hosting the next board meeting of the European Children's Hospitals Organisation on 21st November. We have proposed an agenda starting with an innovation breakfast workshop at DRIVE, a session with the charity on fundraising for children's hospitals, a tour of the hospital and the Zayed Centre for Research and a board meeting followed by dinner. ECHO delegates will also be our guests for the GOSH conference on care of the complex child on 22nd November.

4.5 GOSH Play Street and engagement with LB Camden

On Thursday, 19 September 2019 we will be hosting our second Play Street event, a collaborative project involving GOSH, the London Borough of Camden and local clean air campaigners. The street outside the hospital will be closed to traffic for four hours and transformed into a play area, with a host of activities championing the therapeutic, emotional and psychological benefits of play, in a safe, clean-air environment.

4.6 Brexit preparedness

The GOSH Brexit Working Group is meeting on a weekly basis to maintain oversight on our own progress and monitor policy developments and guidance from NHS England and other bodies. Our Brexit SRO (Acting COO Andrew Taylor) and team have completed NHS England's checklists on preparedness and risks are being reported into EMT and RACG.

The Acting COO and Emergency Planning Officer will attend Regional EU Exit Workshop run by NHS England for the London region on 19 September 2019. Communications to EU Nationals working at GOSH are being reviewed in the light of recent changes in Government positioning to ensure that we are supporting staff as well as we can.

[Ends]

MISSION GOSH

Making our hospital out of this world by 2025



2019

Make GOSH a great place to work

Investing in the wellbeing and development of GOSH staff. Creating a culture of tolerance, openness and respect and an environment in which innovation and excellence thrive.



Future Hospital Programme

Transformational change to streamline our patient pathways, enable all our staff and patients to participate in research activities, embrace digital technologies and minimise our impact on the planet

Develop the GOSH Learning Academy

To become the first-choice provider for multi-professional paediatric healthcare education, training and development

Launch virtual hospital services

Smart use of digital technologies and shared models of care to provide support for our patients, their families and local clinical teams even when they aren't here with us at the hospital, giving them the confidence to live a more independent life

Improving patient access to GOSH teams

Working with patients, families, clinical teams and our NHS partners to design a service that assesses children and young people who need specialist care urgently

Launch 'GOSH Breakthroughs'

A support service partnering with academia and industry to accelerate translational research into new treatments and innovations for GOSH patients

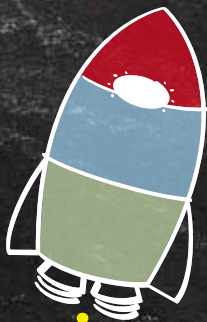
Open a Children's Cancer Centre

A custom-built cancer research hospital improving outcomes for children through holistic, personalised and coordinated care

2025

MAKING GOSH OUT OF THIS WORLD

Our five-year mission
to make world-leading,
specialist care available
to more children and
young people.



Great Ormond Street
Hospital for Children
NHS Foundation Trust

The background of the left half of the image is a dark chalkboard with faint white chalk lines. In the bottom left corner, there is a stylized illustration of the Earth with green continents and blue oceans. A red and white rocket is shown launching from the Earth, leaving a trail of red dots that curves upwards and to the right, ending in a solid red arrowhead pointing towards the '2025' text.

OUR VISION

2025

A future in which every child and young person with rare and complex health needs can access expert care and the latest treatments, helping them to fulfil their potential and to live their best life.



We are refreshing our organisational strategy – and we need your help

During the past few months we have been consulting with patients, families, staff and partners to review and refresh the 2017 Trust strategy, 'Fulfilling Our Potential'.

This project builds on our current strategy 'house', with its static boxes, to create a timeline which shows us where we want to be in future.

We want to create a shared vision of the future for Great Ormond Street Hospital for Children (GOSH), responding to the needs of our patients and families, playing more of a role in their care across the health care system and contributing to exciting developments in science and technology as well as the Government's new 10-year plan for the NHS.

This leaflet provides an update for everyone in the GOSH community on the key elements of the refreshed strategy, so that we can get your views on it before we finalise it with the Trust Board later this year.

At the heart of the strategy is a vision to create a future in which every child and young person with complex health needs gets access to expert care and the latest treatments, helping them to fulfil their potential and to live their best life.

GOSH specialises in caring for children with rare and complex conditions and is often a place of last resort for children who can't be helped elsewhere. It is our duty not only to provide excellent care by today's standards, but also to drive the discovery of new and better approaches to care, ensuring these children have more treatment options available in future.

This commitment to care and discovery is captured in our Mission GOSH materials, which set out our ambition to transform our clinical services by embedding research and innovation, embracing digital technologies and becoming a learning organisation.

Underpinning these transformational changes is a commitment to supporting our people, to driving up quality, to strengthening our financial position and to working in partnership with others as a force for good in children's health.

Your input is really important because successful strategies are not created in boardrooms. GOSH's future belongs to the patients and families we are here to serve, the staff who work so hard on their behalf and the partners who share our passion to ensure children and young people benefit from the best possible care – at GOSH and beyond. We need your help to shape that future.

Please take some time to read this leaflet and share your thoughts with our strategy team at our roving space-themed exhibition stand or by email to strategyandplanning@gosh.nhs.uk.

Thanks everyone!

Mat Shaw, Chief Executive
Great Ormond Street
Hospital for Children
NHS Foundation Trust



MISSION GOSH

Making our hospital out of this world by 2025



2019

Make GOSH a great place to work

Investing in the wellbeing and development of GOSH staff. Creating a culture of tolerance, openness and respect and an environment in which innovation and excellence thrive.



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2025

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Launch virtual hospital services

Smart use of digital technologies and shared models of care to provide support for our patients, their families and local clinical teams even when they aren't here with us at the hospital, giving them the confidence to live a more independent life

Develop the GOSH Learning Academy

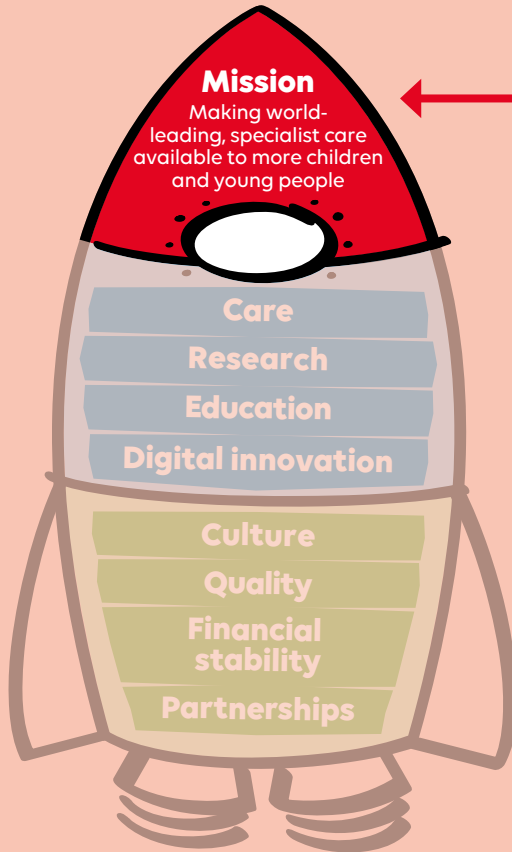
To become the first-choice provider for multi-professional paediatric healthcare education, training and development



Improving patient access to GOSH teams

Working with patients, families, clinical teams and our NHS partners to design a service that assesses children and young people who need specialist care urgently





Our vision

A future in which every child and young person with rare and complex health needs can access expert care and the latest treatments, helping them to fulfil their potential and to live their best life.

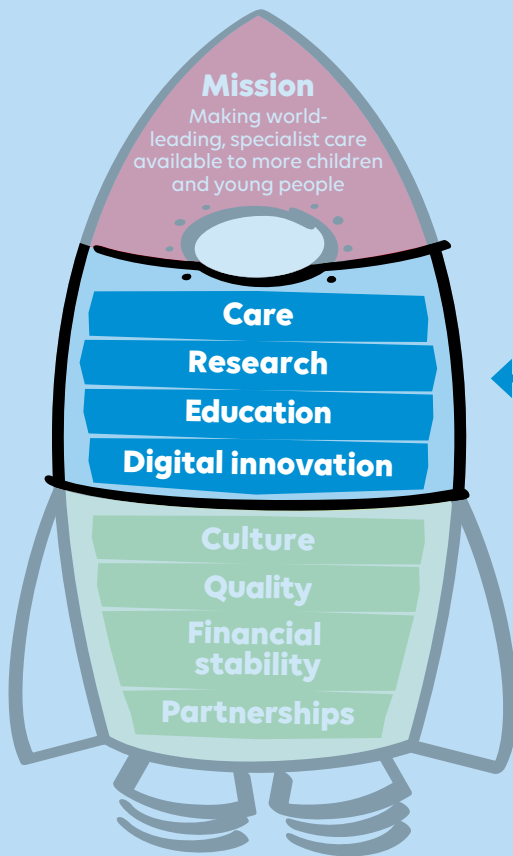
Our mission

At Great Ormond Street Hospital it is our mission to make world-leading, specialist care available to more children and young people every day.

We continuously improve the quality of care for children and young people by discovering new and better treatments for rare and complex conditions and using digital innovation to make specialist care available for families across the healthcare system.

We nurture a supportive and inclusive culture with teams that learn together and share their knowledge to ensure we provide the best quality services, maximise our resources and work in partnership with others as a force for good in children's health.





What we do: Care, Research, Education and Digital innovation

At Great Ormond Street Hospital we specialise in the care and treatment of children and young people with rare and complex conditions and collaborate with our partners on improving the health and wellbeing of children everywhere.

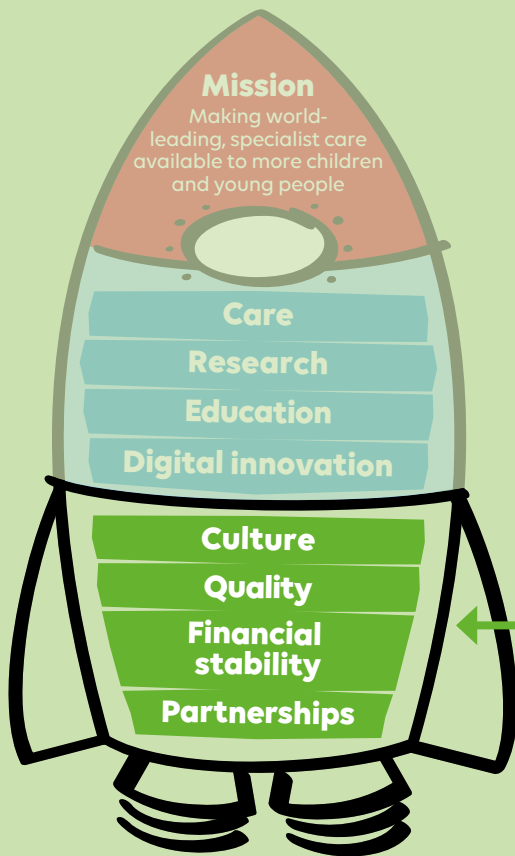
We advance **care** for children and young people by embedding **research** and innovation across all our clinical activities, providing world-class **education** opportunities and harnessing the potential of **digital innovation**.

Since GOSH opened its doors in 1852 it has focused on activities that provide care for children, education for those caring for them and research that discovers new and better ways to treat childhood illnesses.

Fast forward to 2019 and the way that healthcare, education and research are being delivered is changing rapidly as a result of digital technology. The needs and expectations of our young patients and their families are changing too. We have to keep pace with what they want from their healthcare, and increasingly – this means digital services.

We aspire to play a leading role in developing digital innovations that are tailor-made for the unique requirements of specialist paediatric healthcare, education and research. We are providing more support for our patients, their families and local clinical teams even when they aren't here with us at the hospital, giving them the confidence to live a more independent life.





How we do it

Great Ormond Street Hospital is a community of hard-working people who all play their part in achieving our mission and contribute to the following core priorities:

Culture

GOSH is a place of tolerance, openness and respect, where people enjoy coming to work and live the GOSH Values – Always Welcoming, Always Helpful, Always Expert, Always One Team. We invest in the wellbeing and development of GOSH staff and create an environment in which innovation and excellence thrive.

Quality

Our services provide high quality, safe and effective care and a great patient experience. We are world-leading in clinical outcomes and patient-led service design and provide comprehensive support for patients' mental health and wider emotional, social, educational and spiritual needs.

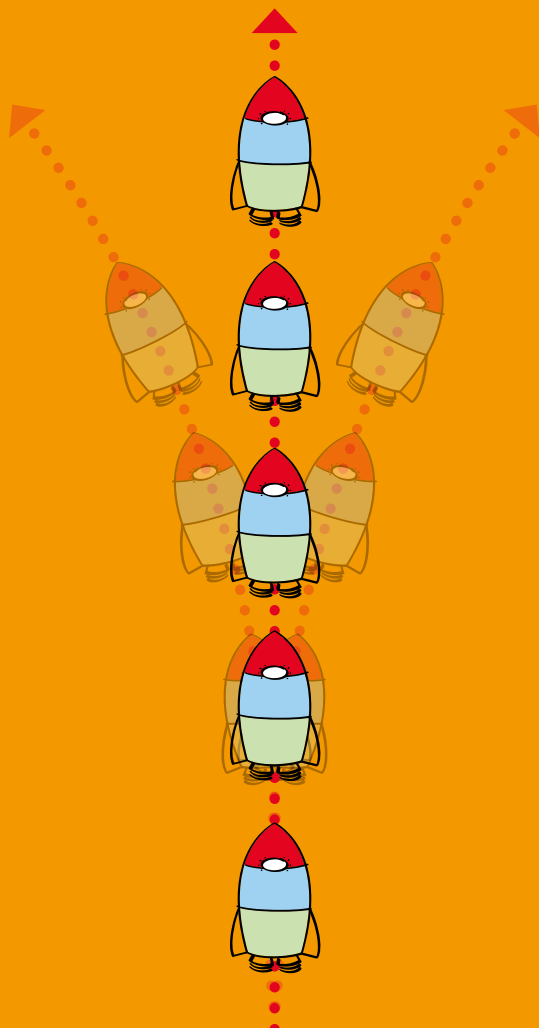
Financial stability

GOSH operates a secure, sustainable and diverse financial model. We work with NHS partners to deliver sustainable funding for our NHS services and with our charity to maintain momentum on our mission to advance care for more children and young people. We nurture diverse streams of income to stabilise our financial position and take care to make the best use of our resources.

Partnerships

GOSH is more than an organisational entity. It is a community working together towards shared goals. Where we are better placed to advance these interests by working with others, we never work in isolation. Our NHS, charitable, academic and business partnerships allow us to make faster progress on shared goals – pooling resources, competencies and capabilities, contributing where we are strongest and bringing in the expertise we need.





How we stay on track

GOSH leaders will apply the following guiding principles to make important decisions, helping to ensure that we stay on course during our five-year mission:

Prioritising the basics

To deliver transformational change we must get the basics right – consistently high quality services; caring, skilled and motivated staff and a secure financial position.

Working together to better serve our patients

Any redesign of services must be consulted on so it delivers what our patients and their families need. We need to collaborate more across teams to improve clinical outcomes, provide a better patient experience and increase our ability to learn and innovate.

Developing the capacity to support more patients at GOSH and beyond

We must work with our patients, families, clinical teams and NHS partners to improve access to our expert teams and to help more children and families – wherever they are in the healthcare system.

Driving discovery, innovation and partnerships to make things better for our patients

GOSH specialises in caring for children and young people with rare and complex conditions and is often a place of last resort for patients who can't be helped elsewhere. We must provide excellent care by today's standards, while also driving the discovery of new and better approaches to care, ensuring these patients have more treatment options available in future.



Tell us what **you want
GOSH to achieve during
this five-year mission
to make world-leading,
specialist care available
to more children and
young people.**

Your input is really important because
successful strategies are not created
in boardrooms.

GOSH's future belongs to the patients
and families we are here to serve,
the staff who work so hard on their
behalf and the partners who share our
passion to ensure children and young
people benefit from the best possible
care – at GOSH and beyond.

**We need your help
to shape that future.**

Email us:
strategyandplanning@gosh.nhs.uk



North Thames Paediatric Network

Memorandum of Understanding

Purpose

The North Thames Paediatric Network (the Network) for specialist services brings together 24 providers of paediatric services across the region; 18 acute care and 6 specialist providers with in-patient facilities. It also provides a forum for these providers, NHS England & Improvement, and local commissioners of paediatric services to work closely together to ensure that services are configured around children and young people.

Therefore, this memorandum of understanding (MOU) confirms an agreement between us, the provider organisations listed in Appendix A, that we will work in partnership with each other for the benefit the children and young people in the North Thames region. It also confirms NHS England & Improvement (London)'s and the North London Sustainability and Transformation Partnerships (STPs) agreement to support the Network, its vision and desired outcomes.

Background

Ongoing reviews by NHS England and others have identified that specialist paediatrics requires improvement. Services are not organised in the best way to ensure consistent, high quality, cost effective care for patients. The pathways of care do not always put the child or young person at the centre of service configuration. Consequently, patient – and family – experience can be variable.

With these issues in mind, and with the support of NHS England (London), work began in 2018 to establish a multi-provider specialist paediatric network for the North Thames: the North Thames Paediatric Network (the Network).

It is envisioned that the Network will:

- represent all paediatric service providers in the North Thames region who have in-patient facilities;
- facilitate close working between providers and commissioners of paediatric services: both acute and specialist;
- improve the efficiency and effectiveness of service provision through a reduction in the variation of treatment;
- develop sustainable pathways of care for specialist paediatric services; and
- in light of the significant workforce challenges across the Network, support sustainability of services through training and the development of new models of care.

Our shared vision is that together we will build a virtual children's hospital across the North Thames region that provides equitable access for children and young people to outstanding care in the right place, at the right time

We will work together regardless of organisational boundaries to develop cost-effective, new models of paediatric specialist care that are planned around children and young people not organisations.

This MOU sets out the commitments that each of us will make to the Network and its work.

Once signed, it confirms that our individual Trust boards have agreed the MOU. It also confirms that NHS England & Improvement (London)'s and the North London Sustainability and Transformation Partnerships (STPs) have agreed to support the Network, its vision and desired outcomes.

The principles

As signatories to this MOU, we – the provider organisations listed in Appendix A - commit to the following principles that outline the shared expectations which will underpin the Network; and to implementation of any interventions agreed by member organisations.

We will:

- release a reasonable level of clinical time to engage and support delivery, recognising the importance of core staff being part of the solution;
- work together regardless of organisational boundaries to develop cost-effective, innovative pathways of specialist care that are centred around children and young people rather than the organisation;
- seek opportunities to achieve improved outcomes across specified areas of specialist paediatric care - including standardisation of clinical management and upskilling all members of the Network;
- share relevant service activity data - both internal and as collected via national service reviews. Such data to be used to support further analysis and inform planning in regards to pathways of care;
- share relevant cost and income data to support further analysis of benefits and their realisation; and
- uphold the terms of reference for the Network's board, including its governance structure.

Recognising that all of us are likely to face strategic, financial and operational pressures over the course of implementation, we agree to be fully committed to the above principles notwithstanding these pressures.

In addition, our Chief Executives, Medical Directors, Chief Operating Officers and Clinical Leads for paediatric services - or their nominated representatives - commit to supporting the establishment and progress of the Network by:

- promoting the Network and its activities throughout their organisations;
- using the Network's logo on communication relating to paediatric services in order to demonstrate membership of and commitment to the Network;
- acting as ambassadors for the Network across their respective sustainability and transformation partnership (STP) footprints;

- supporting and championing the programme of work agreed by the Network's board;
- acting as advisors to the Network when troubleshooting any issues that arise; and
- facilitating closer system working and collaboration across organisations to support the Network to deliver agreed interventions

The Network board will provide partners to the MOU with updates on a regular basis; this will include an annual report.

August 2019

**North Thames Paediatric Network
Memorandum of Understanding**

For the provider organisation: Great Ormond Street Hospital for Children NHS Foundation Trust

Chief Executive: Matthew Shaw

Signature: _____ Date: _____

Medical Director: Sanjiv Sharma

Signature: _____ Date: _____

Chief Operating Officer (name): _____

Signature: _____ Date: _____

For the commissioning bodies

We the undersigned confirm that we support the Network, its vision and desired outcomes.

NHS England & Improvement (London)

Name: Joanne Murfitt

Role: Regional Director of Specialised Commissioning and Health in the Justice, NHS England & Improvement (London)

Signature: _____ **Date:** _____

North West London STP

Name:

Role:

Signature: _____ **Date:** _____

North Central London STP

Name: Helen Petersen

Role: Accountable Officer, NCL CCGs

Signature: _____ **Date:** 14 August 2019

North East London STP

Name: Les Borrett

Role: Director of Strategic Commissioning, NEL Commissioning Alliance

Signature: _____ **Date:** _____

North Thames Paediatric Network

Members¹

Trust/Provider	Hospital	Region
Barking, Havering and Redbridge University Hospitals NHS Trust	Queen's Hospital	North East
Barking, Havering and Redbridge University Hospitals NHS Trust	King George Hospital	North East
Barts Health NHS Trust	Newham University Hospital	North East
Barts Health NHS Trust	The Royal London	North East
Barts Health NHS Trust	Whipps Cross University Hospital	North East
Basildon and Thurrock University Hospitals NHS Foundation Trust (BTUH)	Basildon University Hospital	East of England
Chelsea and Westminster Hospital NHS Foundation Trust	Chelsea and Westminster Hospital	North West
Chelsea and Westminster Hospital NHS Foundation Trust	West Middlesex University Hospital	North West
East and North Hertfordshire NHS Trust	The Lister Hospital	East of England
Great Ormond Street Hospital for Children NHS Foundation Trust	GOSH	North Central
Homerton University Hospital NHS Foundation Trust	Homerton University Hospital	North East
Imperial College Healthcare NHS Trust	St Mary's Hospital	North West
London North West University Healthcare NHS Trust	Northwick Park Hospital	North West
Luton and Dunstable University Hospital NHS Foundation Trust	Luton and Dunstable University Hospital	East of England
Mid Essex Hospital Services NHS Trust - part of BTUH	Broomfield Hospital	East of England
North Middlesex University Hospital	North Middlesex University Hospital	North West
Royal Brompton and Harefield NHS Foundation Trust	RBHT	North West
Royal Free London NHS Foundation Trust	Royal Free Hospital	North Central

¹ Membership may change from time to time as new provider organisations join the Network

Royal Free London NHS Foundation Trust	Barnet Hospital	North Central
Southend University Hospital NHS Foundation Trust - linked to BTUH	Southend University Hospital	East of England
The Hillingdon Hospitals NHS Foundation Trust	Hillingdon Hospital	North West
University College London Hospitals NHS Foundation Trust	University College Hospital	North Central
West Hertfordshire Hospitals NHS Trust	Watford General Hospital	North Central
Whittington Health NHS Trust	The Whittington Hospital	North Central

Helen Pettersen
 Accountable Officer & STP Convenor
North Central London CCGs
 River Park House
 225 High Road
 Wood Green
 London N22 8HQ

Email: h.pettersen@nhs.net
 Tel: 0203 688 2725

5th September, 2019

CEOs Provider Trusts and CCGs North Central London

Dear Colleague

We are writing to you following discussions with the NHS London Regional Finance Director Ann Johnson this week around the current financial position in the North Central London and the wider NHS London Region. The clear expectation is that we must address the current financial position between now and the end of the 2019/20 financial year to ensure that the system in North Central London (NCL) delivers the plan set at the beginning of this financial year and agreed with the NHS London Region.

There remains a real concern that there are a number of risks across the commissioning and provider NCL system which needs to be better understood and addressed to ensure the delivery of the planned position for the system. Accordingly we have discussed and agreed with the NHS London Region that we will undertake the following, in the form of a high level rapid organisation by organisation review in September:

- the current agreed plan for 2019/20 for each organisation will be compared to the predicted forecast delivery of the plan in by 31 March 2020 at the end of month 05;
- the risks and opportunities in the forecast will be demonstrated and the assumptions behind the forecast with relevant supporting information;
- the mitigations developed and presented to deliver the plan in 2019/20 at an organisational and system level.

This shouldn't be a significant additional requirement since your Governing Bodies and Boards will be considering these matters regularly as part of their own governance at an organisational level.

Gary Sired and Peter Sharpe in the STP team have been asked to produce a series of standard templates for Commissioners and Providers which will be issued this week to your finance directors. Again, we hope this won't be too onerous as you will be undertaking this work anyway within your organisations.

Cont/...

The requirement from NHS London is to provide this by 26/09/19 and this work will inform our delivery in year and the Medium Term Financial Strategy, as well as being used by the London region in their national discussions. We will need your teams to provide this information in the three areas noted above by Wednesday 18th September (in 11 days' time). There will then be a process during 18/9/19 to 26/9/19 where the senior leadership of individual Trusts and CCGs will be asked to meet with the Programme Director - Financial Improvement (Mark Hackett) and other colleagues to discuss the forecast position and the mitigations that you are pursuing either internally or with NCL system partners to meet their plans agreed for 2019/20.

The purpose of these meetings will be to:-

- understand the individual organisational response and the assumptions behind this;
- establish the gap between forecast and the mitigations and the level of ambition, realism, drive and rigour behind these;
- to provide support, commitment and help to areas where joint working at borough or system level could improve the system delivery of the plan and the actions required to deliver this which drive down total system cost.

The STP team will also be working with all work streams to establish what rapid actions can be taken in 2019/20 to ensure we deliver the commitment to deliver to plan given to NHS London. These will be considered in conjunction with the work we are asking individual organisations to produce.

The areas of mitigation will inevitably fall to internal organisations' actions as well as joint working across partners. We would ask you to start to bring forward ideas, approaches and areas which your organisations genuinely feel need to be actioned now rather than in future years, to meet the agreed 19/20 plan.

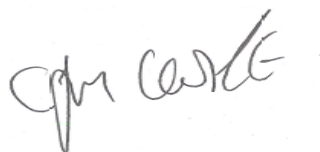
The timescales we have been given are very tight. There will be a call set up early next week to discuss this with your finance team and clarify or discuss issues to ensure we deliver a credible, robust output. This will be organised through Helen Pettersen's office. We will aim to have a full discussion of findings at the CEO meeting at the end of September.

We thank you for your help, co-operation and support in this work which we must deliver in order to honour our commitments and enable the system to return to a more stable position.

Best Wishes



Helen Pettersen
NCL CCGs Accountable Officer and STP
Convenor



Caroline Clarke
Group Chief Executive
Royal Free Group and SRO for the MTFS

cc: Trust Finance Directors
CCG Directors of Finance
Mark Hackett – Programme Director

Trust Board 18 September 2019	
Patient Story – Experiences of a sibling Submitted on behalf of Alison Robertson, Chief Nurse Author: Emma James, Involvement and Engagement Officer	Paper No: Attachment M
Aims / summary <p>The Great Ormond Street Hospital Patient Experience Team works in partnership with ward and service managers, the Patient Advice and Liaison Service (PALS), and the Complaints and Patient Safety Teams to identify, prepare and present suitable patient stories for the Trust Board.</p> <p>Each story includes information on actions which were taken to improve aspects of a service, if applicable. Stories which are selected represent a range of families' experiences across a variety of wards and service areas across the directorates, ensuring that the experiences of families are captured.</p> <p>The story to be shared on 18 September will be in person. Hannah is a sibling of a patient with a long term condition. Whilst Hannah will be focusing on her own experience, she has also sought the views of other YPF members who are siblings via a conference call.</p> <p>The story will cover four areas:</p> <ol style="list-style-type: none"> 1. An introduction to Hannah, her age, what she does in and out of school etc. 2. Hannah's experience of what it is like to be a sibling of a patient e.g. not feeling normal, not feeling involved – having a turning point where she gained confidence and strengthened her relationships within her family. 3. The positives of being a sibling of a GOSH patient: Joining the YPF, developing a deeper understanding of equality, helping Hannah to mature, inspiring Hannah to make a difference to others. 4. What action Hannah believes staff can take: <ol style="list-style-type: none"> A. Remind staff to think - when the parents are involved, why isn't the sibling? B. Involve siblings and allow them to choose their role C. Creating a group of young people responsible for gaining sibling feedback across the hospital D. Create a panel of siblings dedicated to representing the sibling perspective and feedback that has been collected <p>Also attached for information is the latest draft of the Patient and Family Experience and Engagement Framework. Work will continue work to further develop this document which has been circulated widely for comment. It will be presented to the Trust Board in November for approval. Comments from board members are welcome.</p>	
Action required from the meeting Review and comment	

Contribution to the delivery of NHS / Trust strategies and plans <ul style="list-style-type: none">• The Health and Social Care Act 2010• The NHS Constitution for England 2012 (last updated in October 2015)• The NHS Operating Framework 2012/13• The NHS Outcomes Framework 2012/13• Trust Values and Behaviours work• Quality Strategy
Financial implications None
Who needs to be told about any decision
Who is responsible for implementing the proposals / project and anticipated timescales Emma James – Involvement and Engagement Officer
Who is accountable for the implementation of the proposal / project Claire Williams – Interim Head of Patient Experience and Engagement
Author and date Emma James – Involvement and Engagement Officer – August 2019

DRAFT: Patient Experience and Engagement Framework 2019-2020

1. Introduction

The Great Ormond Street Hospital (GOSH) Strategy ‘Fulfilling our Potential’ (2017) sets out eight priorities. Collectively, these priorities will ensure that we help children with complex needs to fulfil their potential.

The Patient Experience and Engagement framework is aligned to the first priority¹ to:

Achieve the best possible outcomes through providing the safest most effective and efficient care.

Good experience of care, treatment and support alongside clinical effectiveness and safety is the marker of an excellent health service. We are committed to providing safe, high quality and compassionate care. This framework sets out our vision for patient experience and engagement taking consideration of the Patient Experience Improvement Framework produced by NHS Improvement², the views of patients and their families and our staff, the Trust’s Strategy for Patient and Public Involvement and Patient Experience in Research³, and GOSH Arts: Vision and Strategy 2017 – 2020. It seeks to ensure that GOSH consistently delivers excellent experiences that meet, and wherever possible, exceed expectations of patients, families and carers and fulfils their physical and emotional needs.

This framework will form an overview which detailed corporate, directorate and service specific action plans will feed into.

2. What is Patient Experience and Engagement?

The Department of Health defines patient experience as:

“Getting good treatment in a comfortable, caring and safe environment, delivered in a calm and reassuring way; having information to make choices, to

¹ The ‘Fulfilling our Potential’ strategy is currently being revised. This framework will be reviewed to ensure that it is aligned with the updated strategy and priorities.

² <https://improvement.nhs.uk/resources/patient-experience-improvement-framework/>

³ <https://www.gosh.nhs.uk/research-and-innovation/nhr-gosh-brc/patient-and-public-involvement>

feel confident and feel in control; being talked to and listened to as an equal and being treated with honesty, respect and dignity” (DoH, 2009)

More simply GOSH defines patient experience as:

“This is what happened to me and this is how I feel about it”

Definitions of engagement vary considerably but GOSH view this as working together with patients and families to develop, shape, improve and enhance how we work, the care we provide and the experience of patients, families and carers at GOSH.

3. Ambition

To lead and innovate in the field of patient experience and engagement for children, young people and their families working towards collaborative, tangible improvement in the holistic experiences of patients and families at GOSH.

4. External landscape

[under review]

5. Patient Experience at GOSH

Patient experience is the collective responsibility of everyone at GOSH. The illustration below sets out the teams which fall under the remit Nursing and Patient Experience directorate.



However, there are a number of teams who also have a specific focus to support and enhance patient experience and engagement at GOSH. This includes but is not limited to:

- GOSH Arts
- Built Environment
- GOSH Biomedical Research Centre and Clinical Research Facility
- Centre for Outcomes and Experience Research in Children's Health Illness and Disability (ORCHID)
- Social Work
- Citizen's Advice Bureau at GOSH
- Learning Disabilities

- Family Liaison teams
- Quality Improvement

6. Our vision:

We will:

- ensure opportunities for children and young people to thrive by supporting their right to access play, recreation and the arts
- strive to ensure patients and families can access the comprehensive range of support services available to them
- enable patients, families and carers to provide feedback (both positive and negative) through involvement and meaningful engagement
- listen to feedback to understand what is important to patients, families and carers, what we are doing well and where we need to do better
- shape, develop and improve services and experience informed by the feedback we receive from patients, their families and carers
- ensure that information produced for patients and families is reflective of experiences at GOSH and incorporates up to date and best practice
- share information about changes made in response to feedback with patients, families, carers, volunteers, staff and governors
- use feedback to promote good practice through relevant forums within GOSH
- ensure that our Young Person's Forum is actively consulted and involved in changes and decisions made within GOSH
- work in collaboration with patients, families and carers to design, create and make changes to services informed by their experiences, knowledge and expertise
- actively reach out to diverse and underrepresented groups, respecting individual and recognised differences, to ensure that everyone who wishes to provide feedback has the opportunity to do so
- support and continue to provide services and initiatives that ease the burden on families/ carers, raise spirits, and support children and young people through treatment

We will achieve this by:

1. Ensuring that feedback methods are accessible and appropriate

- We will continue to promote the various mechanisms for feedback including via Friends and Family Test 'FFT' (paper or online), Pals and Complaints through information displayed and available around the Trust, in addition to social media.
- We will continue to seek feedback from bereaved parents/carers in the context of 'When a Child dies' and will explore other methods of doing so to minimise added distress to families.
- We will continue to work with our volunteers to actively seek feedback from patients, families, and carers in wards, in outpatient clinics and around the hospital.
- We will continue to work with the Trust's Young Person's Forum to explore, evaluate and enhance existing and new feedback mechanisms
- We will develop and launch a bespoke online feedback tool for children and young people to enable and encourage them to share their experiences
- We will create and implement a child/young person friendly process for Pals and Complaints which enables patients to raise concerns with us directly and offers reassurance that this will not adversely affect their care
- Continue to ask patients and families to feedback on GOSH Arts activities
- We will develop mechanisms to engage with patients and families (including but not limited to a consultation/ readers' panel) to review Trust-wide information resources

2. Supporting staff to optimise opportunities for feedback and engagement with patients, families and carers

We will provide ad hoc training and support to staff to help to increase feedback. This will include information on engaging patients and families by highlighting the importance of feedback and evidencing positive changes made as a result of feedback received. The Heads of Nursing and Patient Experience will also share action plans via the Patient and Family Experience and Engagement Committee (PFEEC) of how they will optimise feedback (including how they will achieve Trust targets for the Friends and Family Test) and have acted on feedback given about our services.

3. Actively listening to ensure we understand what matters to patients, families and carers and that we use their views and feedback to improve services and experience

We will communicate with families to ensure that we understand the nature of any concerns and the outcomes they are seeking in raising them. We will respond to feedback honestly and will be open about the outcomes and change we can achieve.

Both positive and negative FFT comments are shared with the relevant services and directorates. Responses and actions taken following negative FFT feedback are recorded and shared via Patient Experience reports and PFEEC.

Pals and Complaints also focus on individual outcomes and wider learning to address issues and prevent them happening again. This information is shared through individual responses as well as wider reports and committees.

Learning is discussed and shared through a number of avenues including directorate governance meetings and can also be referred to the Closing the Loop Group which further seeks to triangulate learning from feedback.

We will participate in mandated national surveys and will also develop further surveys to obtain feedback on issues including but not limited to decision making, communication particularly with children and young people, holistic

and spiritual care, and support for families. We will use and develop mixed methodologies to become leaders in patient feedback and experience.

We will support directorates to produce SMART action plans in response to feedback gained through national and local surveys.

We will measure feedback from our bereaved families about their end of life experience when a child dies in line with National NHS England requirement of a bereavement experience measurement (BEM)

4. Sharing feedback received and our learning/ actions with patients, families, carers and staff

As above Patient Experience reports outline actions and learning outcomes from feedback. We will work to ensure that these reports are shared more widely with staff. However, it is recognised that we need to improve how we share this information more effectively. We will work with the directorates to ensure that 'You Said We Did' information is incorporated into Quality and Safety/ information boards which are updated regularly.

We will continue to present Patient Stories to Trust Board and will publish details of those stories and actions taken on the Trust intranet site. This will also be shared via meetings at Matron, Ward Managers, Nursing Boards and wider directorate level.

We will hold Listening Events to enable the voice of patients and their families to be heard more widely and to act as a springboard for service level actions to address issues raised.

We will publish quarterly bulletins for patients, families, carers and staff which give an overview of feedback received, themes and how we have used it to improve services or promote good practice. The bulletins will also include upcoming Patient Experience events and highlights of activities

5. Working in collaboration with patients, families and carers

We will continue to seek and develop opportunities for working in collaboration with patients, families and carers to shape and design our services. We will also provide expert support to directorates to do this. The Young Person's Forum will continue to be at the heart of this through consultation on proposed changes, involvement in key recruitments and ensuring that the voice of young people is heard throughout the Trust. Building on the success of the first Trust Open Day in July 2019 we will seek to hold similar events to enable us to capture the views of patients, families, and carers and we will continue to target more diversity of participation in focus groups

Through the Family Equality and Diversity Group, we will continue to explore ways of reaching out to families who have traditionally faced barriers to participation owing, for example, to their age, disability, gender, ethnicity, religion and belief or language by organising special events to listen to their views.

6. Supporting and continuing to provide services and initiatives that ease the burden on families/ carers, raise spirits, and support children and young people through treatment

As shown above, the Patient Experience team's remit is wide and it encompasses extensive work to support children, young people, families and carers.

The Bereavement, Chaplaincy, Play, GOSH Arts, Volunteer Services in particular play a fundamental role in providing practical and emotional support to patients, families and staff.

We will continue to promote services and to enhance a culture of responsiveness and creativity to ensure they evolve to meet the needs of patients and families. This will involve seeking feedback from service users, ensuring transparency and openness in practice, and carrying out evaluations of the services provided by us and by our partner organisations.

We commit to ensuring we adapt our communication style to fit the needs of patients and families. We will continue to invest in staff training in Makaton and support the roll out of communication tool packs throughout the Trust

We will explore ways of expanding the reach of our services through technology and innovation using Drive as a key resource where possible.

We will contribute to the further development and optimisation of MyGOSH and MyGOSH Bedside to ensure greater access to information and communication with clinical teams. We will ensure that feedback is gathered to ensure that the voice of patients and families drives further changes and further development of MyGOSH and MyGOSH Bedside.

We will continue to build a strong, well trained and prepared volunteer base to support services to patients and families. Recognising that volunteers are invaluable to the Trust, we will ensure that appropriate support, escalation and governance processes are in place.

We will seek to secure funding to ensure the continued growth of these services through robust impact evaluation and creative planning.

Recognising the value of the work and the impact of this on staff, we will seek to create a culture of mutual respect, support, collaboration, positive challenge and continuous learning across the Trust.

Trust Board 18 th September 2019	
Pharmacy Update Submitted by: Andrew Taylor, Acting Chief Operating Officer	Paper No: Attachment N 1. Pharmacy Update Board 18SEP19 2. MHRA Action Plan 9-8-19 3. HPTP Project Plan 21082019
Aims / summary To update the board on the current state of Pharmacy within the Trust	
Action required from the meeting For information and assurance	
Contribution to the delivery of NHS Foundation Trust strategies and plans Care People	
Financial implications None	
Who needs to be told about any decision? Trust Board EMT Hospital Pharmacy Transformation Programme (HPTP)	
Who is responsible for implementing the proposals / project and anticipated timescales? Pharmacy team: Chief Pharmacist – Stephen Tomlin, General Manager (Medicines, Tests and Therapies (MTT)) – Chris Longster, Chief of Service (MTT) Prof Allan Goldman	
Who is accountable for the implementation of the proposal / project? Clinical Director of Operations, via the Hospital Pharmacy Transformation Programme (HPTP)	

Background:

Review of Pharmacy commenced after the creation of Charles West Division in April 2016.

External review commissioned in January 2017 and commenced February 2017 – Tony West (retired Chief Pharmacist from GSTT) worked in the Department for 2-3 days per week for 6 months – included benchmarking with other organisations.

3rd October 2017 the external review report was presented to CEO and Deputy CEO. Action plan developed.

Oversight for the actions from the external review set up as the Hospital Pharmacy Transformation Programme Oversight Board (in line with the Carter review) – Chaired by the Deputy CEO, and subsequently by the Acting COO from January 2019. The key themes are covered in the HPTP project plan – see **HPTP Project Plan 21082019**.

New GOSH Chief Pharmacist – Stephen Tomlin – commenced July 2018.

Risks around Pharmacy placed on BAF in December 2018 – 20.
Then elevated to May 2019 – 25, reduced back to 20 now.

MHRA review of manufacturing occurred in May 2019.

Outcome: 1 critical and 2 major findings.

These needed to be addressed urgently – see **MHRA Action Plan 9-8-19**

Team presented at QSEAC July 2019 in response to questions posed by the NEDs:

- Update the committee on the outcome of the recent MHRA inspection in pharmacy
- Update the committee on the action plan to address key findings from the inspection
- Provide assurance outcomes of the inspection are being addressed through an agreed action plan
- Provide an update on the progress of the Hospital Pharmacy Transformation Programme (HPTP)

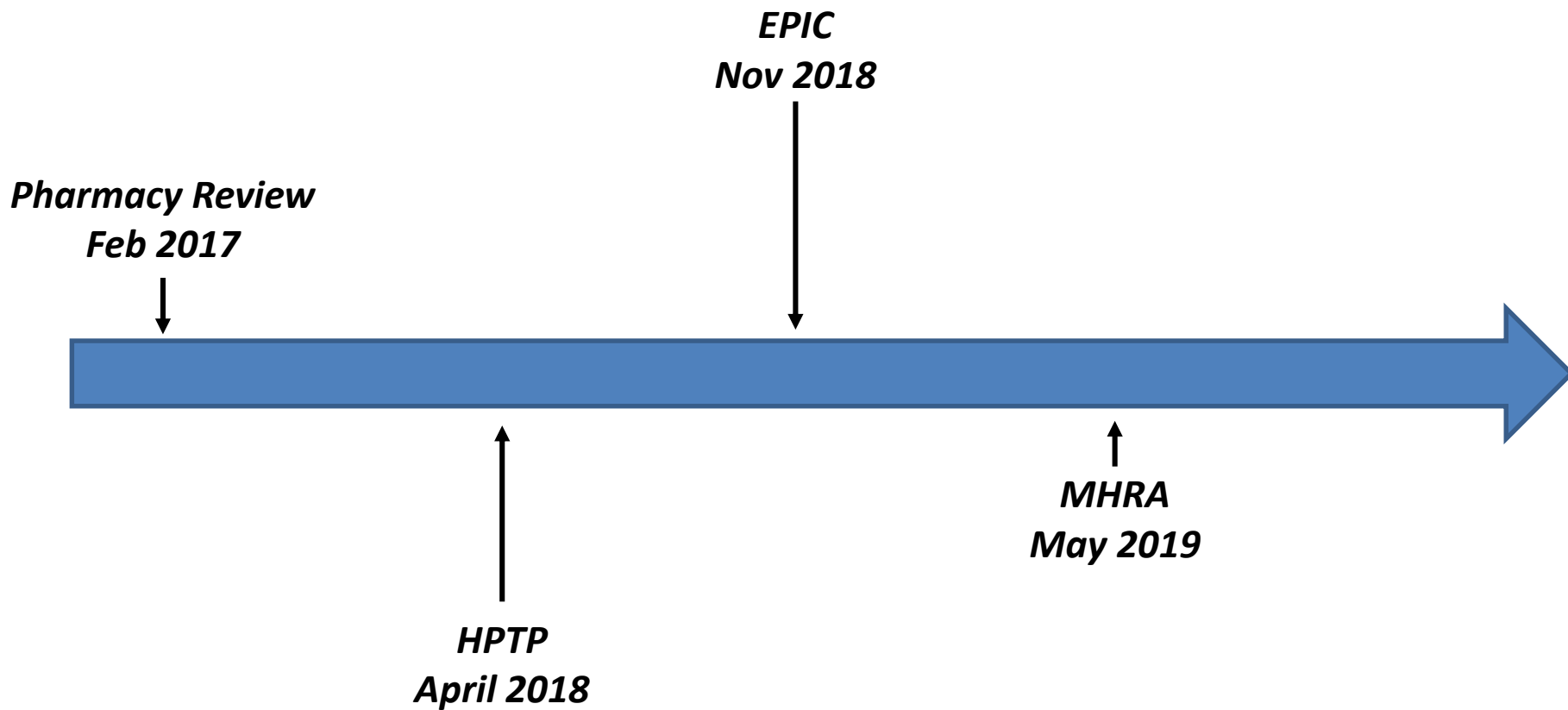
Presentation (**Pharmacy Update Board 18SEP19**) summarises the journey for Pharmacy over the last 2-3 years.

Andrew Taylor
Acting Chief Operating Officer



Pharmacy Update

Pharmacy Update



Pharmacy Update

Pharmacy Review

Feb 2017

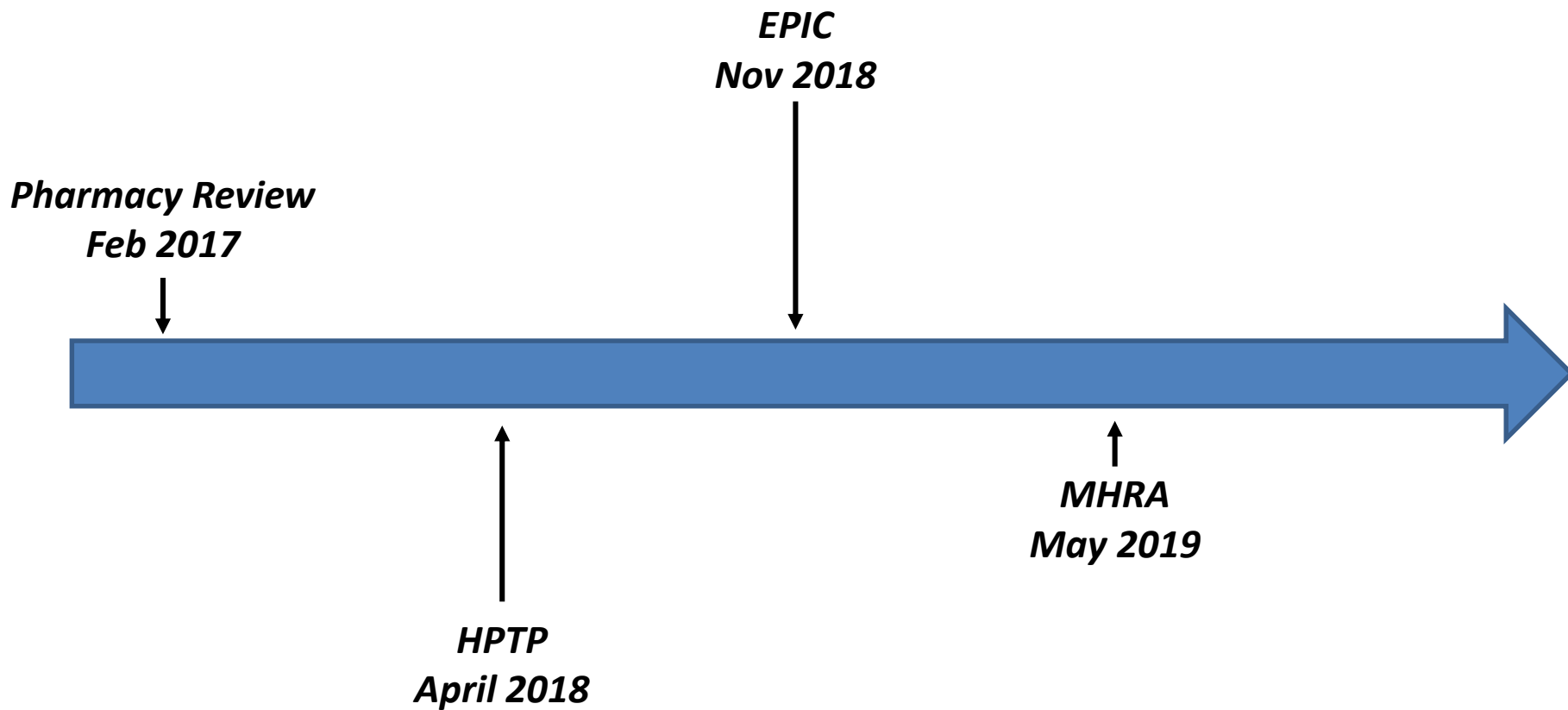


Pharmacy Review

- In February 2017 an external review of Pharmacy was commissioned to assess all aspects of the service and highlight any improvements which were required.
- The inspection was in response to a number of factors including
 - Issues raised by the Medicines and Healthcare products Regulatory Agency (MHRA)
 - Poor feedback from patients and staff
 - The need to ensure a safe service ahead of plans to increase the demand on the service (PICB expansion)
 - A need to build a case for further investment in Pharmacy (Phase 4).
- Tony West, formally Chief Pharmacist for GSTT was brought in to carry out the review and spent 6 months working closely with Pharmacy and interviewing numerous members of staff.
- The final report focussed on three key recommendations: -
 - Establish a Hospital Pharmacy Transformation Programme (HPTP)
 - Adopt key principles (deliver GOSH strategy, avoid wastage of medicines, etc)
 - Agreement for Targeted Investment



Pharmacy Update



Pharmacy Update

Pharmacy Review
Jan 2018



HPTP
April 2018

HPTP

- HPTP is an established term within NHS England and is linked to the Lord Carter Review
- The programme has 6 main workstreams: -
 - Embedding GOSH Values
 - Excelling in Quality and Safety
 - Building Estate Capacity
 - Developing and Retaining our Staff
 - Medicines Optimisation
 - Utilising Information and Technology

Progress to date:-

- HPTP established (Project plan attached)
- New Chief Pharmacist appointed
- Pharmacy strategy produced in line with GOSH strategy
- Behaviour charter developed in house to contextualise the Always Values for Pharmacy



Medicines, Therapies
and Tests

Hospital Pharmacy Transformation Programme

Embedding
GOSH values

Excelling in
quality and safety

Building estate
capacity

Developing and
retaining our staff

Medicines
optimisation

Utilising
information and
technology

Building leadership
at all levels

Medication safety

Dispensary
(inpatient and
outpatient)

Boost outpatient
dispensary staffing

Homecare
medicines

Epic/EPR

Communication
upwards and
downwards

Pharmacy quality
and safety

Clinical trials area

Residency

Better value
programme

KPIs / Scorecard

Our Always Values
and behaviours

MHRA quality
management
system

CIVAs (main and
satellite)

Weekend /
extended hours
working

Medicines
optimisation
strategy & policy

PLICs - SLR

Pharmacy
response to GOSH
strategy

Human factors -
safety

Gene and cell
therapy area

Educational
programme and
leadership
Development

Commercial
Outsourcing

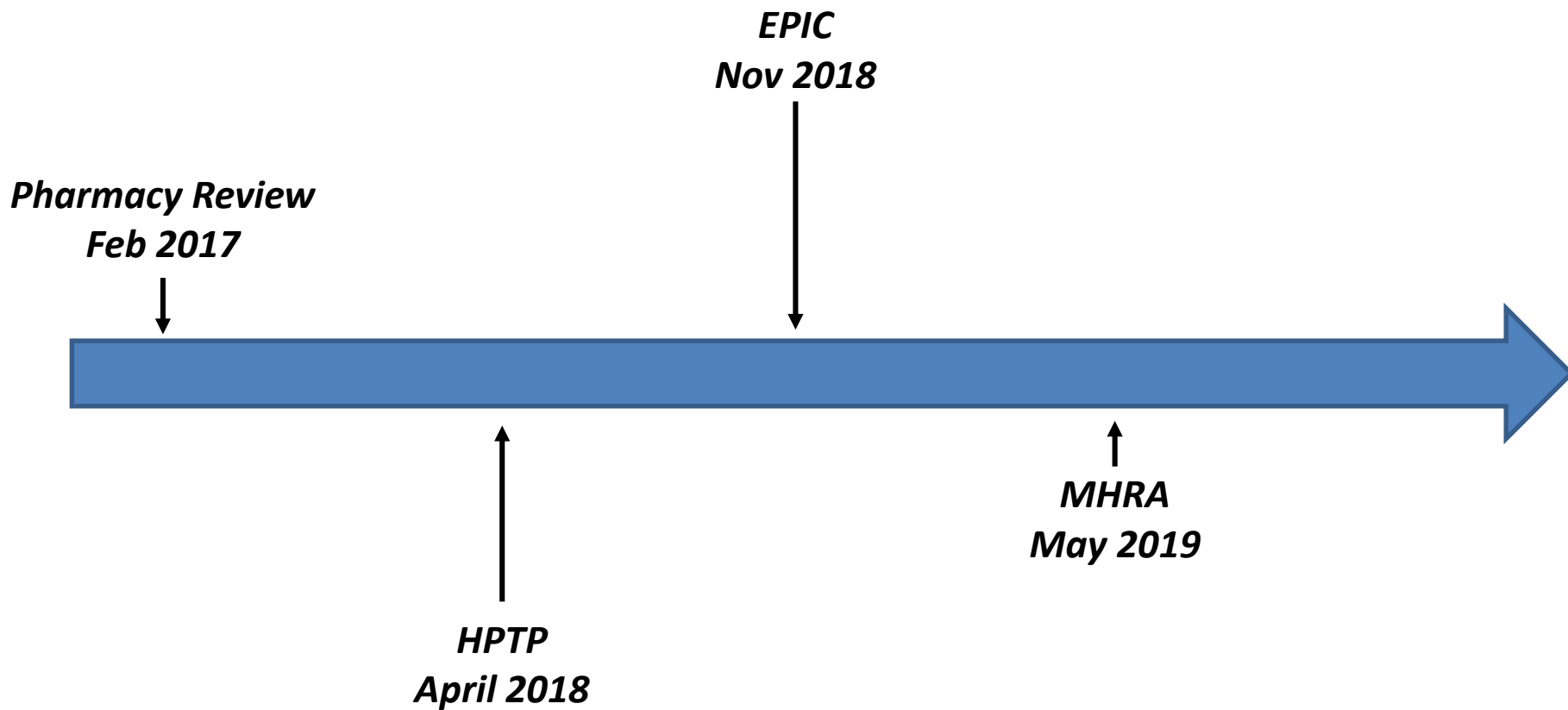
Harnessing
automation

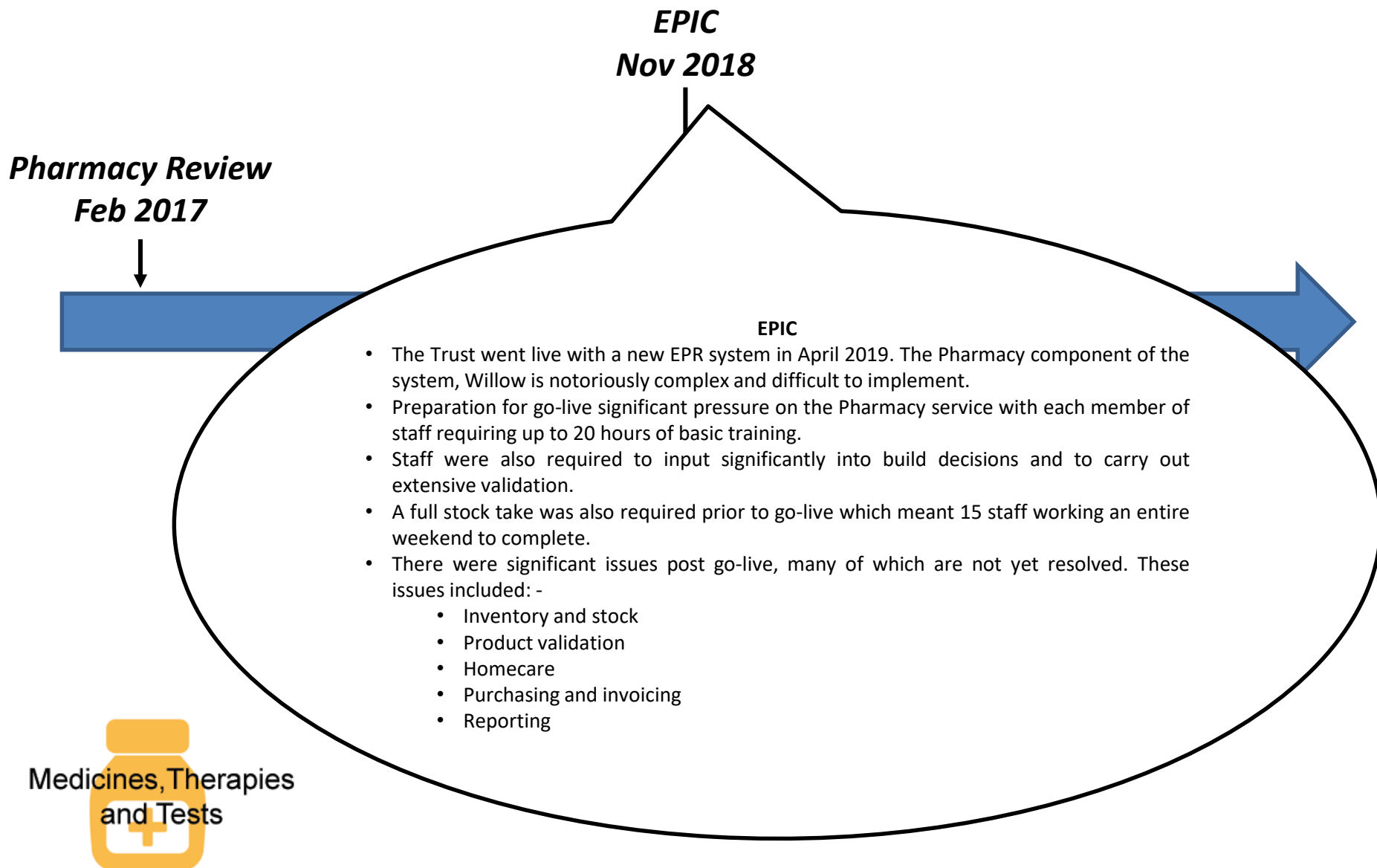
New ways of
working on the
wards

Research &
innovation

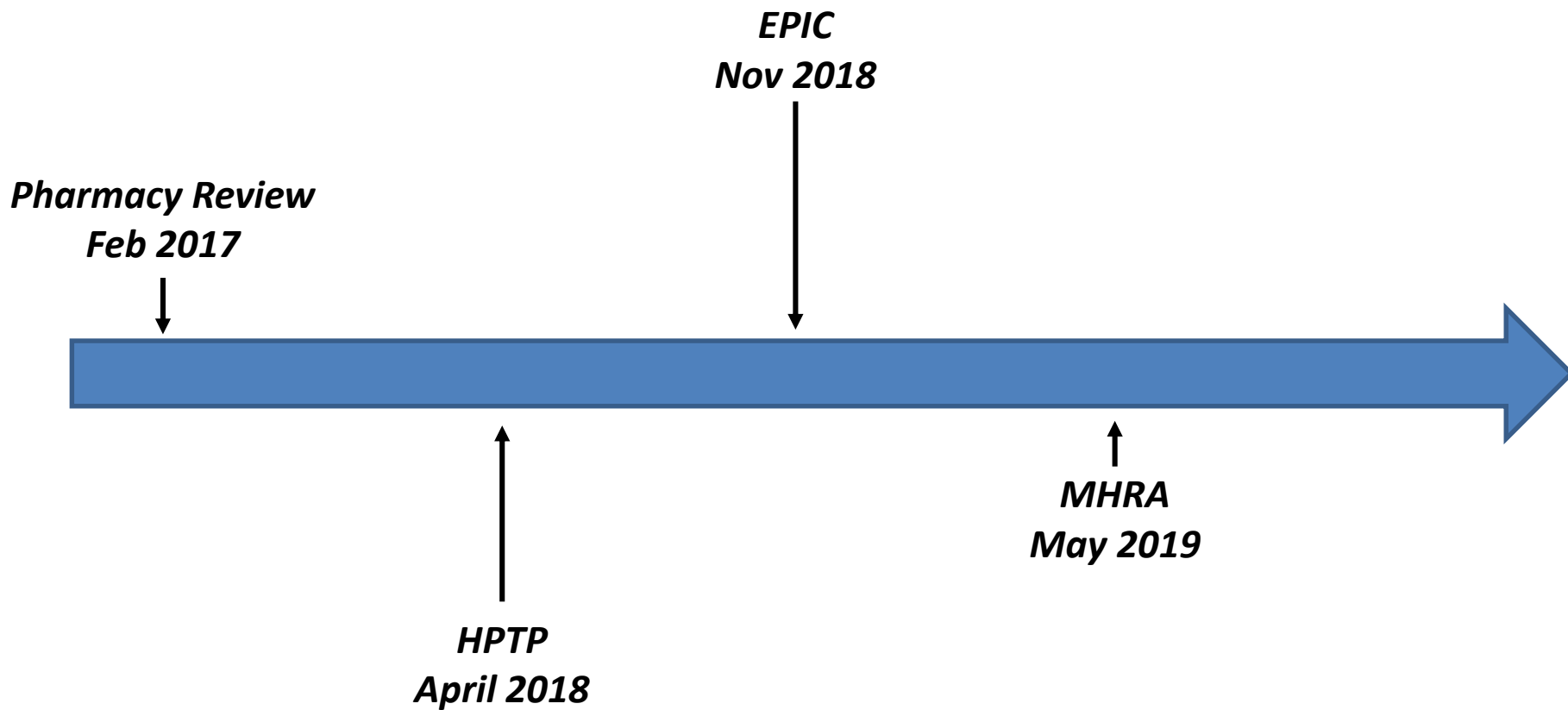


Pharmacy Update





Pharmacy Update



MHRA

- Shortly after Epic go-live the Trust were notified by the MHRA that Pharmacy Technical Services would be inspected.
- Previous inspection in 2015 had raised a number of issues, which in part led to the Pharmacy review. The main issues were: -
 - Workflow through CIVAS
 - Satellite manufacturing unit
 - Quality Management System (QMS)
- Prior to the inspection, we had addressed the issues with Satellite and CIVAS. However, there due to Epic taking up the majority of senior management focus and a lack of expert resource within the technical services the QMS was not managed effectively.
- This led to a critical finding when the MHRA inspected the units in May 2019.

Progress to date: -

- External expert brought in to oversee the transformation of the unit.
- Additional senior technician posts created to provide more focus on the management of the QMS.
- Regular communication with the MHRA and action plan put in place to address the findings (attached).

↑
MHRA
May 2019

Key for risk to delivery	
No identified risk to delivery	<div> <div>+</div> <div>= Current week</div> </div>
Moderate risk to delivery based on time or resource	
High risk to delivery requiring significant mitigation	

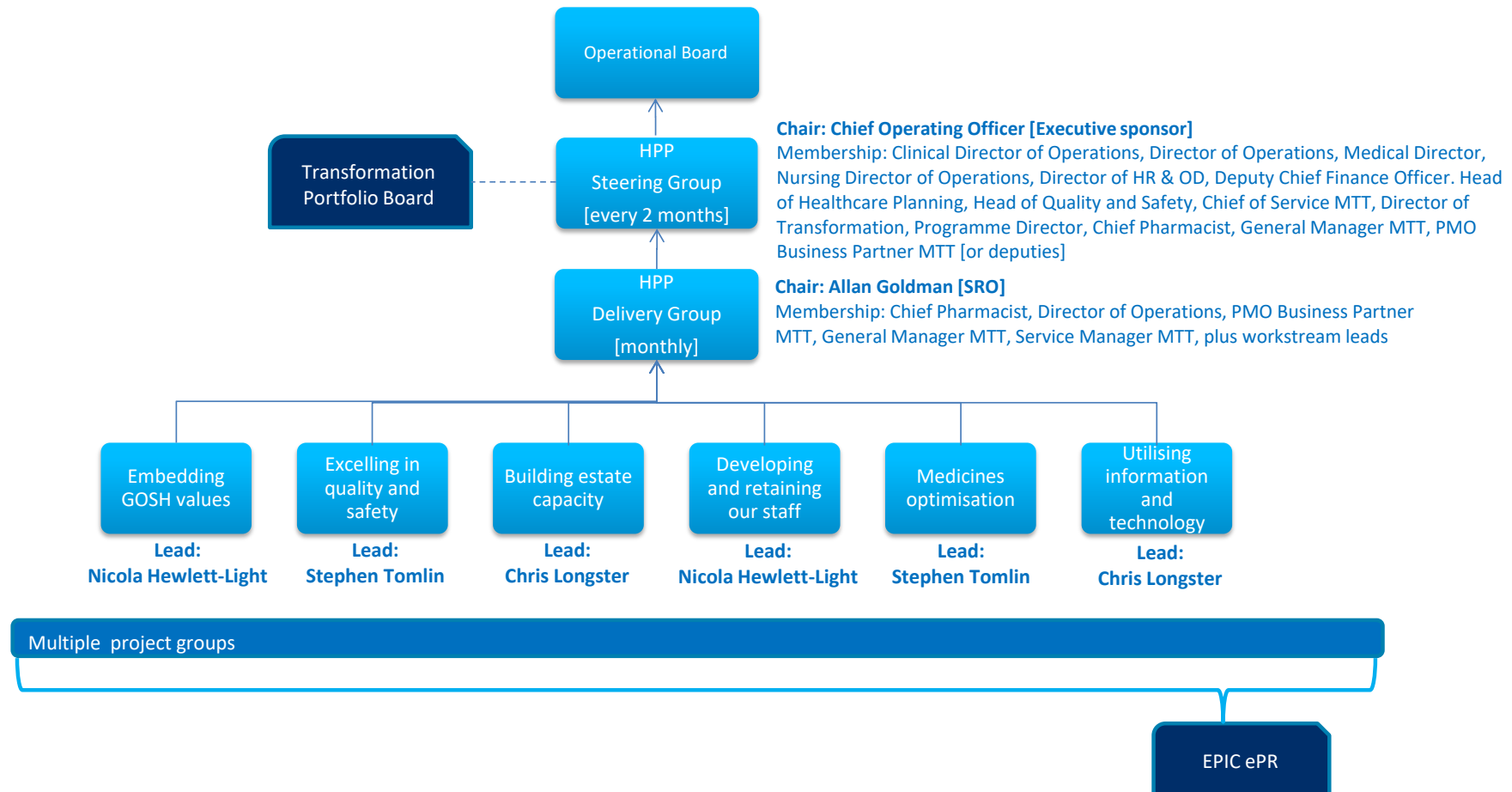
19/10/2018	26/10/2018	02/11/2018	09/11/2018	16/11/2018	23/11/2018	30/11/2018	07/12/2018	14/12/2018	21/12/2018	28/12/2018	04/01/2019	11/01/2019	18/01/2019	25/01/2019	01/02/2019	08/02/2019	15/02/2019	22/02/2019	01/03/2019	08/03/2019	15/03/2019	22/03/2019	29/03/2019	05/04/2019	12/04/2019	19/04/2019	26/04/2019	03/05/2019	10/05/2019	17/05/2019	24/05/2019	31/05/2019	07/06/2019	14/06/2019	21/06/2019	28/06/2019	05/07/2019	12/07/2019	19/07/2019	26/07/2019	02/08/2019	09/08/2019	16/08/2019	23/08/2019	30/08/2019	06/09/2019	13/09/2019	20/09/2019	27/09/2019	04/10/2019	11/10/2019	18/10/2019	25/10/2019	01/11/2019	08/11/2019	15/11/2019	22/11/2019	29/11/2019	06/12/2019	13/12/2019	20/12/2019	27/12/2019	03/01/2020	10/01/2020	17/01/2020
29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42

[illegible]

HPP Programme Governance

Reporting requirements:

- Quality, Safety and Assurance Committee
- Operational Delivery and Performance Group [following HPP Steering Group]



CAPA Action No.	Month	Section	Audit Scope/Title	Date	Source	Observation	Severity	Action	Action Owner	Owner Section	Initial Target Date for Completion	Status
19-134	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1 The Trust had failed to demonstrate that the Pharmaceutical Quality System (PQS) was operating within a state of control to assure patient safety in that: 1.1.1 Progress and effectiveness of corrective actions to address the November 2016 inspection deficiencies was not adequate in that: four actions including major deficiency 2.1 (related to state of control) remained open. There had been no assessment of impact of these delays.	Critical	Close these outstanding 2016 CAPAs	Utie Dediare	PTS	14 June 2019	Delayed
19-135	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2 Management of Errors, Deviations and Investigations were deficient in that: 1.1.2.1 Critical deviations had been raised within the site PQS which remained open for an extended period without investigation or CAPAs to prevent reoccurrence. For example: 1.1.2.1.1 DRF 19-004 raised 16th January 2019 for the Parenteral Nutrition (PN) made using sodium acetate instead of copper sulphate.	Critical	Complete Investigation Report	Sharanja Rajalingam	PTS	07 June 2019	Complete
19-137	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.1.3 DRF 19-030 for a Grade A 20 CFU settle plate, taking over three months for investigation.	Critical	Update SOPQ004 Deviation Reporting Procedure to state all grade A micro excursions will be assessed as being Critical and product and patient impact assessed as being urgent on the day	Attia Hasnain	QA	30 May 2019	Complete
19-138	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.1.3 DRF 19-030 for a Grade A 20 CFU settle plate, taking over three months for investigation.	Critical	Set up system for overseeing and monitoring outstanding QMS items especially Critical deviations and Chair these each week for at least 6m until the QMS is under control.	Steve Tomlin/ Chris Longster	PTS	31 December 2019	In Progress
19-139	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.1.4 DRF 18-251 for an end of session media fill failure open since July 2018 and remained open at the time of inspection.	Critical	Complete Investigation Report	Felix Akinsulire	PTS	14 June 2019	Delayed
19-140	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.2 Investigations into out of specification results where high glucose concentrations were detected due to inadequate mixing had not resulted in a full investigation to prevent re-occurrence.	Critical	Update SOPPN024 Procedure for the Sampling and Assessment of Glucose Concentration in Parenteral Nutrition Bags Using Polarimetry to include step requiring operator sampling the bag to record their name on sample syringe	Michael Hall	PTS	03 June 2019	Complete
19-141	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.2 Investigations into out of specification results where high glucose concentrations were detected due to inadequate mixing had not resulted in a full investigation to prevent re-occurrence.	Critical	Update SOPQ056 Managing Out of Specification/Atypical Quality Control Results to improve the investigation procedure for OOS results	Andy Frary	QA	03 June 2019	Complete
19-142	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.3 Error logs in Production areas were not regularly reviewed. For example the cytotoxic area where significant errors such as 'calculation errors' had not been reviewed by senior personnel.	Critical	Hold education and training sessions for all PTS staff to re-emphasise the importance of completing and submitting error logs for review to the PTS Unit Manager and appropriate QA Lead	Utie Dediare	PTS	11 June 2019	Complete
19-143	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.3 Error logs in Production areas were not regularly reviewed. For example the cytotoxic area where significant errors such as 'calculation errors' had not been reviewed by senior personnel.	Critical	Monitor at weekly meetings (chaired by Chief Pharmacist/General Manager) and check whether Error log have been submitted by each of the PTS Unit and errors assessed appropriately for at least 6m until it is assured that error logs are being submitted each week.	Steve Tomlin/ Chris Longster	PTS	31 December 2019	In Progress
19-144	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.4 A calcium chloride reconciliation error detected on 17th May 2019 (DRF19-099) which affected products made during the session had not been appropriately documented on batch worksheets to support release of affected products.	Critical	Complete all associated document (WS and Releasing officer Form) and file with DRF	Sharanja Rajalingam	PTS	03 June 2019	Delayed

19-145	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.4 A calcium chloride reconciliation error detected on 17th May 2019 which affected products made during the session had not been appropriately documented on batch worksheets to support release of affected products.	Critical	Complete Investigation Report for DRF19-099	Felix Akinsulire	PTS	21 June 2019	Delayed
19-146	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.5 Investigations into Grade A viable environmental monitoring excursions were deficient in that: 1.1.2.5.1 DRF19-030 for 20CFU on a finger dab did not include a product impact assessment.	Critical	Inform all staff of the need to treat such grade A excursions as being Critical and to carry out product impact assessment as soon as becoming aware of the results	Attia Hasnain	QA	28 May 2019	Complete
19-147	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.5 Investigations into Grade A viable environmental monitoring excursions were deficient in that: 1.1.2.5.1 DRF19-030 for 20CFU on a finger dab did not include a product impact assessment.	Critical	Update SOPQ004 Deviation Reporting Procedure to state all grade A micro excursions will be assessed as being Critical and product and patient impact assessed as being urgent on the day	Attia Hasnain	QA	30 May 2019	Complete
19-148	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.5 Investigations into Grade A viable environmental monitoring excursions were deficient in that: 1.1.2.5.1 DRF19-030 for 20CFU on a finger dab did not include a product impact assessment.	Critical	Carry out a product assessment		PTS	03 June 2019	Complete
19-149	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.5.2 Grade A recoveries were routinely inappropriately categorised as "other".	Critical	Inform all staff of the need to treat such grade A excursions as being Critical and to carry out product impact assessment as soon as becoming aware of the results	Attia Hasnain	QA	28 May 2019	Complete
19-150	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.5.3 A 5% failure rate that was deemed an acceptable limit for Grade A environments was inappropriate and not based on sound rationale.	Critical	Review the last 12 months' worth of microbiological environmental monitoring data for PTS and produce report including statistical analysis to set appropriate limits for all areas within PTS including grade A.	Sunxing Shi	QA	03 June 2019	Complete
19-151	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.6 PN end of session broth media failure investigation (DRF18-251) was deficient in that: 1.1.2.6.1 There was no product impact assessment conducted, despite this media failure potentially affecting all products made during that session.	Critical	Update SOPQ004 Deviation Reporting Procedure to state all grade A micro excursions will be assessed as being Critical and product and patient impact assessed as being urgent on the day	Attia Hasnain	QA	30 May 2019	Complete
19-152	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.6 PN end of session broth media failure investigation (DRF18-251) was deficient in that: 1.1.2.6.2 The incident had been classed as a 'major' rather than 'critical' during the risk assessment, despite the potential risk to patient of supplying a non-sterile product.	Critical	Update SOPQ004 Deviation Reporting Procedure to state all grade A micro excursions will be assessed as being Critical and product and patient impact assessed as being urgent on the day	Attia Hasnain	QA	30 May 2019	Complete
19-153	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.6.3 There was no evidence of immediate actions such as consideration of whether suspension of any operators involved was needed.	Critical	Review this in the Investigation report for DRF18-251	Felix Akinsulire	PTS	14 June 2019	Delayed
19-154	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.6.4 There was no CAPA related specifically to address the potential root cause or the identification of the Bacillus species.	Critical	Review this in the Investigation report for DRF18-251	Felix Akinsulire	PTS	14 June 2019	Delayed
19-155	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.6.5 The root cause analysis was not complete, and indicated issues such as operators transferring items from Grade B to A not routinely observing the 2 minute hold time, and no action was underway to address this issue.	Critical	Purchase more timers and carry out random checks over 3m to ensure staff are using these to comply with the 2 minute hold time stipulated in our procedures.	Utie Dediare	PTS	03 September 2019	In Progress
19-156	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.6.5 The root cause analysis was not complete, and indicated issues such as operators transferring items from Grade B to A not routinely observing the 2 minute hold time, and no action was underway to address this issue.	Critical	Carry out a education training session to re-emphasise to all PTS staff the importance of ensuring a 2 minute hold time.	Utie Dediare	PTS	03 June 2019	Complete

19-157	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.7 There was no deviation raised for an overdue personnel broth validation since April 2019. A change control had been raised but this did not contain appropriate risk assessments as to the impact on product whilst the operator was still overdue.	Critical	Ensure there is a clear and systematic process for confirming that all staff undertake their personnel validations in the appropriate timescale by introducing an afternoon closure of the PTS unit on a quarterly basis to ensure that there is appropriate time and resource available to complete the validations	Utie Dediare	PTS	01 July 2019	Complete
19-158	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.7 There was no deviation raised for an overdue personnel broth validation since April 2019. A change control had been raised but this did not contain appropriate risk assessments as to the impact on product whilst the operator was still overdue.	Critical	Develop a transparent and robust system to oversee monitor and all validations	Richard Goodwin/ Sarah Cornelius	PTS	06 July 2019	Delayed
19-159	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.8 Deviation procedure SOPQ004 Version 9, did not indicate how 'possible risk to patient' differed from 'possible hazard to patient' for classification of 'major' and 'critical' risk assessments.	Critical	Provide further clarification in SOPQ004 Deviation Procedure to differentiate between possible risk to patient and possible hazard to patient for classification of major and critical risk assessments.	Attia Hasnain	QA	30 May 2019	Complete
19-160	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.2.8 Deviation procedure SOPQ004 Version 9, did not indicate how 'possible risk to patient' differed from 'possible hazard to patient' for classification of 'major' and 'critical' risk assessments.	Critical	Arrange for an external trainer to come on site within the next 1-2 months depending on their availability and provide training to all PTS, GCT and QA staff on how to risk assess and carry out product impact assessments for deviations.	Attia Hasnain	QA	30 July 2019	Complete
19-161	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.3 Core elements of the PQS were significantly behind planned timelines, with no plan in place to return the site to a state of control. For example: 1.1.3.1 With respect to CAPAs, 74 remained open and overdue since 2015; 114 were open and overdue since 2016; 129 were open and overdue since 2017 and 64 were open and overdue since 2018.	Critical	Review all the Critical CAPAs	Utie Dediare	PTS	14 June 2019	Complete
19-162	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.3 Core elements of the PQS were significantly behind planned timelines, with no plan in place to return the site to a state of control. For example: 1.1.3.1 With respect to CAPAs, 74 remained open and overdue since 2015; 114 were open and overdue since 2016; 129 were open and overdue since 2017 and 64 were open and overdue since 2018.	Critical	Review all the Major CAPAs	Utie Dediare	PTS	28 June 2019	Delayed
19-163	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.3.2 With respect to deviations, 17 remained open and overdue since 2017.	Critical	Review and close the 9 remaining DRFs from 2017	Utie Dediare	PTS	30 June 2019	Delayed
19-164	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.3.3 The majority of self-inspections performed in 2018 were significantly overdue, for example PN Product release, scheduled for between April and June 2018, performed 4th September 2018 and approved 01 May 2019.	Critical	Recruit experienced staff resource to lead on QMS issues	Steve Tomlin/ Chris Longster	PTS	21 June 2019	Complete
19-165	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.3.3 The majority of self-inspections performed in 2018 were significantly overdue, for example PN Product release, scheduled for between April and June 2018, performed 4th September 2018 and approved 01 May 2019.	Critical	In the interim second an experienced staff member to review all outstanding PTS QMS activities	Steve Tomlin/ Chris Longster	PTS	30 September 2019	In Progress
19-166	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.3.4 SOPs were significantly past their review period, for example the Procedure for the BAXA EM 2400 Compounder Master Product Database was overdue for review since 2014.	Critical	In the interim second an experienced staff member to review all SOPs passed their review date and issue in QPulse	Steve Tomlin/ Chris Longster	PTS	30 September 2019	In Progress
19-167	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.4 Quality Management reviews had not been conducted in accordance with procedures since Feb 2019 and did not consider trends such as complaints and deviations.	Critical	Carry out management reviews by attending and Chairing weekly meetings and assess trends in complaints and deviation for at least 6m until it is assured that the system is under control	Steve Tomlin/ Chris Longster	PTS	31 December 2019	In Progress

19-168	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.5 Recall investigation DRF18-318 where an expired sodium chloride infusion bag was used to manufacture a CIVAs product was deficient in that: 1.1.5.1 It was raised on 25 Sept 2018 but was not closed out at the time of inspection. 1.1.5.2 There was no investigation documented or root cause analysis. There were only reflective staff accounts available which indicated a root cause of being overworked but had not been investigated further by senior management.	Critical	Carry out an investigation and write an Investigation report reviewing all the above factors	Utie Dediare/ Attia Hasnain	PTS	12 June 2019	Complete
19-169	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	Corrective and preventative actions were limited to informing staff of the incident.	Critical	CAPAs identified in the Investigation report in CAPA19-168 will be logged and communicated to PTS staff and actioned within two working days of the report being issued.	Utie Dediare	PTS	14 June 2019	Complete
19-170	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	DMRC had not been contacted to inform of the occurrence.	Critical	Contact the DMRC.	Attia Hasnain	QA	25 May 2019	Complete
19-171	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	DMRC had not been contacted to inform of the occurrence.	Critical	Update SOPQ004 Deviation Reporting Procedure to clarify this is as being a mandatory requirement for such Critical incidents.	Attia Hasnain	QA	30 May 2019	Complete
19-172	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.6 Senior management had failed to ensure that there was adequate staff and resource to support the PQS and licensed activity in that: 1.1.6.1 There was no formal system for monitoring capacity of PN, cytotoxic and CIVAs output to ensure that there was a sufficient level of staff to support production.	Critical	The PTS Capacity Plan is being finalised and will be issued on 03/06/2019.	Utie Dediare	PTS	03 June 2019	Complete
19-173	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.6.2 Day-to day output was not being monitored appropriately by senior teams to ensure that they were working within capability nor were formal defined capacity limits enforced.	Critical	Write an SOP detailing the monitoring of capacity within the PTS Units on a daily basis and include in it the workload and actions required if this deviates from the Capacity Plan.	Utie Dediare	PTS	14 June 2019	Delayed
19-174	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.6.2 Day-to day output was not being monitored appropriately by senior teams to ensure that they were working within capability nor were formal defined capacity limits enforced.	Critical	Implement daily "huddles" with PTS Unit Managers and Pharmacists	Utie Dediare	PTS	03 June 2019	Complete
19-175	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.6.3 Capacity plans (SOPN027 Version 3) had not been reviewed for PN and cytotoxic facilities since 2014.	Critical	Finalise the PTS Capacity Plan to assess workload and capacity.	Utie Dediare	PTS	03 June 2019	Complete
19-176	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.6.4 There was no capacity monitoring of the amount of QA resource required.	Critical	Issue QA Department Capacity Plan QAMD-CP002 for the QA team	Attia Hasnain	QA	10 June 2019	Complete
19-177	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	1.1.6.5 Concerns had been raised within deviations by staff around capacity and workload. There was no evidence available of how this had been assessed or actioned by the management team.	Critical	Senior management will conduct a full analysis of staffing in line with the Capacity Plan	Steve Tomlin/ Chris Longster/ Utie Dediare	PTS	14 June 2019	Complete
19-178	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1 Production controls were deficient in that: 2.1.1 There was a significant risk of microbial and cross contamination as there was no restriction on the number of times a syringe could be used during a manufacturing session in PN. Also, syringes were not capped when awaiting transfer as micro-additions to the bag, or when not in use in between additions.	Major	Carry out a risk assessment to determine what is acceptable with respect to how many times the same syringe can be used	Michael Hall	PTS	07 June 2019	Complete

19-179	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1 Production controls were deficient in that: 2.1.1 There was a significant risk of microbial and cross contamination as there was no restriction on the number of times a syringe could be used during a manufacturing session in PN. Also, syringes were not capped when awaiting transfer as micro-additions to the bag, or when not in use in between additions.	Major	Update SOPPN002 Setting up the EM2400 Compounder for Manufacturing and Sessional Operating Checks to stipulate that syringes should not be used more than 5 times based on a risk assessment	Michael Hall	PTS	07 June 2019	Complete
19-180	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1 Production controls were deficient in that: 2.1.1 There was a significant risk of microbial and cross contamination as there was no restriction on the number of times a syringe could be used during a manufacturing session in PN. Also, syringes were not capped when awaiting transfer as micro-additions to the bag, or when not in use in between additions.	Major	Update SOPPN002 to state that syringes must be capped when not being used.	Michael Hall	PTS	07 June 2019	Complete
19-181	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.2 Competency logs had not been done and completed for one operator's training for using the compounder (FORPN012) despite this being a requirement of the training programme and the trainer having signed them off to use it.	Major	Update FORPN012 to include the required competency for the compounder.	Michael Hall	PTS	31 May 2019	Complete
19-182	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.2 Competency logs had not been done and completed for one operator's training for using the compounder (FORPN012) despite this being a requirement of the training programme and the trainer having signed them off to use it.	Major	Review the training of the Operator mentioned and checked for compliance before signing them off.	Utie Dediare	PTS	31 May 2019	Complete
19-183	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.2 Competency logs had not been done and completed for one operator's training for using the compounder (FORPN012) despite this being a requirement of the training programme and the trainer having signed them off to use it.	Major	Review all PTS staff training records to ensure they are up to date and compliant	Sarah Cornelius/ Richard Goodwin	PTS	01 July 2019	Complete
19-184	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.3 The compounder line verification process was not documented to confirm the cross-checker had verified the lines appropriately.	Major	Replace faulty printer (see also comments)	Utie Dediare	PTS	15 June 2019	Delayed
19-185	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.4 Transfer sanitisation processes were done in a hurried manner and did not cover areas such as folds on packaging.	Major	Update SOPPTS002 Procedure for the Prepping-in of Items into the Preparation Areas in Units Within Pharmacy Technical Services to include need for ensuring folds of syringes are sprayed and wiped appropriately.	Utie Dediare	PTS	03 June 2019	Complete
19-186	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.4 Transfer sanitisation processes were done in a hurried manner and did not cover areas such as folds on packaging.	Major	Reinforce this during the next education and training session and also include a practical demonstration.	Utie Dediare	PTS	03 June 2019	Complete
19-187	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.5 There was no rationale for the location of routine sessional monitoring in rooms during manufacturing sessions.	Major	As part of the shutdown planned to allow for PPM of the PTS Units arrange for the areas to undergo smoke visualisation tests to determine the most appropriate locations for routine sessional monitoring. It is expected this will take place within the next few months.	Sunxing Shi	QA	31 August 2019	In Progress
19-188	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.6 There was no qualification process for staff involved in product inspection.	Major	Finalise procedure for qualifying staff responsible for inspecting product	Utie Dediare	PTS	07 June 2019	Delayed
19-189	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.7 There was excessive cardboard and materials in the cleanroom support rooms.	Major	Remove all excess cardboard in the cleanroom support rooms.	Munir Awel/ Iskihl Ogundele	PTS	29 May 2019	Complete
19-190	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.1.8 Clothing worn in areas claimed to be Grade C in the Cytotoxic rooms, did not meet the requirements of Eudralex Volume 4, Annex 1	Major	All Grade C rooms will be reviewed and downgraded to grade D where appropriate using Change Control (CC19-018)	Sunxing Shi	QA	30 June 2019	Complete

19-191	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2 There was a significant risk of mix-up and error as evidenced by: 2.2.1 There was an unacceptable risk of mix-up from stacking of worksheets on PN support trollies and presence of multiple empty PN bags for different batches and patients in the LAFs, whilst awaiting transfer onto the PN compounding. Procedures were silent with respect to how workflows should be managed.	Major	In the interim, inform staff to stop this practice immediately due to the inherent risk	Utie Dediare	PTS	30 May 2019	Complete
19-192	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2 There was a significant risk of mix-up and error as evidenced by: 2.2.1 There was an unacceptable risk of mix-up from stacking of worksheets on PN support trollies and presence of multiple empty PN bags for different batches and patients in the LAFs, whilst awaiting transfer onto the PN compounding. Procedures were silent with respect to how workflows should be managed.	Major	Reinforce this further with PTS staff at the PTS monthly meeting.	Utie Dediare	PTS	03 June 2019	Complete
19-193	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2 There was a significant risk of mix-up and error as evidenced by: 2.2.1 There was an unacceptable risk of mix-up from stacking of worksheets on PN support trollies and presence of multiple empty PN bags for different batches and patients in the LAFs, whilst awaiting transfer onto the PN compounding. Procedures were silent with respect to how workflows should be managed.	Major	Produce a process map and workflow for the PN Unit as part of a generic workflow SOP	Utie Dediare	PTS	14 June 2019	Complete
19-194	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2.2 Worksheets were not appropriately segregated to prevent errors when reading or selection of the wrong worksheet in the cytotoxic unit. This was observed when one tray was being put into the in-hatch whilst another tray was still in-process.	Major	Purchase appropriate trollies with shelves to allow segregation of worksheets	Utie Dediare	PTS	28 June 2019	Delayed
19-195	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2.2 Worksheets were not appropriately segregated to prevent errors when reading or selection of the wrong worksheet in the cytotoxic unit. This was observed when one tray was being put into the in-hatch whilst another tray was still in-process.	Major	Discuss this improved way of working with Staff at the PTS Monthly meeting include a practical session demonstrating how to use segregators.	Utie Dediare	PTS	03 June 2019	Complete
19-196	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2.3 There was a risk of mix-up for raw material selection in the PN and cytotoxic areas as there were no formal shelving and storage arrangements with some stock being stored 'ad hoc' where space was available. Shelving and containers were not appropriately labelled to indicate contents.	Major	Discussions with an external supplier how to design and make the best use of the limited storage space available and also to provide shelving to store items.	Utie Dediare	PTS	31 August 2019	In Progress
19-197	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.2.4 A label of methotrexate was noted on the label printer in the CIVAs room; despite this being actually required for the cytotoxic unit. Label printers could be used interchangeably across the units.	Major	Ask the EPIC team (supporting the new hospital Electronic Patient Record) to investigate this incident and review the printer mapping to ensure all labels print to the most appropriate printer.	Chris Longster	PTS	07 June 2019	Complete
19-198	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.3 Maintenance of facilities to ensure minimisation of the risk of contamination were deficient in that: 2.3.1 Rust was noted in several areas including: 2.3.1.1 The outside panels of the LAFs in the PN room.	Major	Book a planned shutdown to carry out all required remedial work.	Chris Longster	PTS	31 August 2019	In Progress
19-199	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.3.1.2 A chair located in the cytotoxic and CIVAs isolator rooms	Major	Replace rusty chair with a new chair	Chris Longster	PTS	28 May 2019	Complete
19-200	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.3.1.3 Grills in the CIVAs room and door connecting the change room to the isolator room.	Major	Arrange for Estates to carry out an initial review on 29th May 2019, and a comprehensive site visit to manufacturing units to assess works required.	Chris Longster	PTS	14 June 2019	Complete

19-201	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.3.2 Significant amounts of dust was noted on an extract grill in the Grade C PN support room	Major	Arrange for Estates to carry out an initial review on 29th May 2019, and a comprehensive site visit to manufacturing units to assess works required.	Chris Longster	PTS	14 June 2019	Complete
19-202	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.3.3 Some pillars and side walls were noted to be chipped and damaged in the classified areas	Major	Book planned shutdown tentatively to carry out all required remedial work.	Chris Longster	PTS	31 August 2019	In Progress
19-203	May	PTS	MHRA Inspection GMP/IMP Ref: 17328/9306-0021	20-22/05/2019	MHRA	2.3.4 The emergency door linking the isolator room to the unclassified storage corridor had not been appropriately sealed. Duct tape had been used to cover the gap linking this door from the Grade C to the unclassified area.	Major	Arrange for Estates to carry out an initial review on 29th May 2019, and a comprehensive site visit to manufacturing units to assess works required.	Chris Longster	PTS	14 June 2019	Complete

<p align="center">Trust Board 18 September 2019</p>	
<p>STP Finance Return <i>(derived from Long term Financial Model)</i></p> <p>Submitted by: Helen Jameson, Chief Finance Officer</p>	<p>Paper No: Attachment Q</p> <p>Attachment STP Finance Return narrative</p>
<p>Key Points to take away</p> <ol style="list-style-type: none"> 1. The NHS published the national Long Term Plan on 7th January 2019. As part of this plan Trust and providers have been asked to submit their projections on expenditure, income, workforce, efficiencies and activity for the next 5 years. These submissions will be collected at a Sustainability Transformation Partnership (STP) level for which GOSH is part of the North Central London. 2. The Trust has produced a draft submission using the base case in the Long term Financial Model, which has been developed for the children's cancer centre outline business case. This is based on the Trust's Month 4 financial forecast outturn for 2019/20. Planning assumptions are aligned with those being used nationally but are localised where appropriate. 3. The Trust must make a draft submission within September to the national collection which will be reviewed at a STP level. The final submission will be made nationally in November 2019. 	
<p>Action required from the meeting</p> <ul style="list-style-type: none"> • To note the approach to the submission. • To delegate authorisation of this and future returns to the trust Executive. 	
<p>Contribution to the delivery of NHS / Trust strategies and plans</p> <p>The delivery of the Long term Plan is a key requirement for the NHS and compliance with local and system led control totals will become increasingly important in future years.</p>	
<p>Financial implications</p> <p>If the Trust is not able to meet the conditions set out within its long term model, the Trust will lose potential funding that is covenant on achieving financial balance year on year.</p>	
<p>Legal issues</p> <p>None</p>	
<p>Who is responsible for implementing the proposals / project and anticipated timescales</p> <p>Chief Finance Officer / Executive Management Team.</p>	
<p>Who is accountable for the implementation of the proposal / project</p> <p>Chief Finance Officer.</p>	

Submission of the GOSH Long Term Plan

2019/20 to 2023/24

**National submission via regional STP's to NHSI/E for 4 year NHS planning
cycle via North Central London STP**

1. Executive Summary and background to the submission

In line with prior years, the NHS is keen to establish an overview of the long term financial projections of Commissioners and Trusts alike and has requested the development of local Long Term Plans (LTP) which will be collated at a system wide Sustainability and Transformation Partnership (STP) level. This is to achieve the objectives set out within the published National LTP (NLTP) and aims to achieve the following:

- Be clinically led.
- Be locally owned.
- Achieve financial balance at a system wide level.
- Based on realistic workforce assumptions.
- Deliver the entirety of the vision set out in the National LTP
- Phase activity over 5 years based on local need

This paper contains a review of national finance guidance and the proposed North Central London STP approach for completing the LTP submissions that have been requested by NHSI/E. The Trust is required to produce a draft submission in September and then a final submission in November 2019 which will be collated by the STP's and will represent each CCG and Trust's long term financial projections for 2019/20 to 2023/24.

Trust has been working with partners across North Central London and have agreed a local approach for submission as follows:

- Agreed outputs for the Strategic Planning tool within local timeframes/flagging the need for support where necessary. This includes the draft submission for internal review within the STP by the 12th September which will form the basis of the main initial return.
- Agreeing the principle of alignment between Commissioners/Providers. The STP are suggesting using agreed CCG/Specialist Commissioner provider envelopes.

Note: GOSH has conducted its own more in depth analysis based on latest tariff guidance, however has endeavoured to mirror published guidance where necessary.

- Working within fixed CCG allocation/CCG recovery trajectories to ensure the NCL STP region remains in financial balance.
- For the financial modelling agreeing to use National guidance assumptions (where available) and where national guidance is not available to use STP agreed assumptions. These largely mirror the assumptions used within the Trust's LTFM.
- Trusts with funding for Long term Plan initiatives cannot use any of this funding for Financial Recovery (*GOSH is not eligible for any of this and hence it is not relevant to this Trust*).
- Working out what the above means for provider Better Value (CIP) targets for 2020/21-2023/24.

2. Timetable for submissions

The timetable for submitting this return is as follows:

Milestone (Local and National)	Date
Draft STP Submission deadline	12/09/2019
STP FD Review meeting	17/09/2019
Approval of approach and draft submission at Trust Board	18/09/2019
Final draft for September submission	24/09/2019
Initial (draft) system planning submission to NHSI/E	27/09/2019
Final system plans agreed with NHSI/E	15/11/2019

The submission that has been developed for the Trust and will feed into the NCL return is summarised within this return.

3. Format of the return

The submission has been built from the information in the base case LTFM. It covers the following areas:

- **Income and expenditure plan**

This has been based on the base case LTFM. The STPs main focus is on the income assumed from local CCG's – this is minimal for GOSH (c£3m/ annum).

- **Capital Plan**

This has been mirrored from the LTFM

- **LTP Funding**

GOSH isn't eligible for this funding

- **Workforce**

This is linked to I&E growth projections and is an area of interest for the STP due to the difficulties in recruitment to certain key groups e.g. nursing.

- **Activity**

The anticipated activity numbers associated with the income above are requested from providers to enable triangulation with commissioners.

- **Efficiency Programmes (Better value)**

As the majority of STP's have an overall deficit and require a recovery trajectory to come into financial balance, there is significant oversight of the Better Value programme required by Trusts and in turn, QIPP plans from commissioners.

- **Qualitative questions**

There are a number of qualitative questions that the Trust must answer on its engagement with national programmes like GIRFT, along with its approach to financial and quality governance, along with some detail on Better Value schemes.

4. Approach to development of the GOSH model

The Trust has developed its long term plan submission from the Long Term Financial Model that has been used to inform the Children's Cancer Centre (CCC) Business Case. The current submission excludes any impact of the Children's Cancer Centre (though this is minimal as the 5 year plan is before any buildings works would be completed).

Though the STP is endeavouring to use common assumptions across providers and commissioners, for the initial submission, organisations have been asked to use their best assumptions and state what these are for comparison across the region.

The LTFM in use within the Trust seeks to identify the current financial position, presenting either deficits or surpluses as appropriate and then assumes a level of Better Value required to close any gaps to achieve the key conditions agreed within its Finance and Investment Committee in accordance with NHSI guidance. For GOSH, it is assumed that the Trust must always achieve breakeven within its control total and retain £40m+ surplus cash.

The GOSH LTFM uses a number of drivers to forecast future cost and activity growth. The assumptions used that drive the model are as follows:

- Growth is assumed from Demand and Capacity model that has been subject to a number of iterations and reviews within the Trust. The growth assumed in future years is principally demographic and hence can be considered prudent
- The future growth is based on forecast outturn at Month 4 (as submitted to NHSI).
- NHS income growth year on year assumed as follows:

	2020/21 £'000's	2021/22 £'000's	2022/23 £'000's	2023/24 £'000's
Year on year Income Growth	£6,930	£8,238	£9,635	£11,646

- IPP income is one of the key developments within the model; growth is assumed to grow at c. 5% per annum with 2% price inflation.
- Model assumes following inflation assumptions for other expenditure:

	2020/21 £'000's	2021/22 £'000's	2022/23 £'000's	2023/24 £'000's
Staff Costs	1.6%	2.9%	2.0%	2.0%
Other expenditure	1.9%	2.0%	2.0%	2.0%
Drugs	6.2%	6.2%	5.9%	5.9%
Pass through expenditure	5.0%	4.7%	4.0%	4.3%

Note: The above assumptions are ultimately based on those published by NHSE/I though have been revised upwards in accordance with the projections for Drugs and Devices expenditure where the Trust has seen historic significant growth in costs above inflation.

- Model assumes the full year impacts of committed service developments not yet completed, including EPR, the Learning Academy, the Sight & Sound Hospital, Zayed Centre for Research and Intraoperative MRI.

5. Outputs from the GOSH model

The draft outputs from the model are set out below and will form the basis of the initial submission to the STP. It is anticipated that following review and in light of the release of further guidance from commissioners and the updating of the Trust's forecasts, the LTFM model may change accordingly. The Board are asked to note the high level figures as derived from the model.

5.1 High Level I&E

Monetary values should include inflation

	Units	sign	2019/20	2019/20	2020/21	2021/22	2022/23	2023/24
			£'000	£'000	£'000	£'000	£'000	£'000
			Plan	Forecast	Forecast	Forecast	Forecast	Forecast
Provider Summary								
Provider Income	£000s	+ve	492,181	486,033	495,013	505,527	512,096	517,023
Provider Expenditure	£000s	-ve	(488,419)	(481,908)	(495,011)	(505,525)	(512,072)	(517,022)
Provider Surplus / (Deficit) excluding PSF, MRET, FRF	£000s	+/-ve	2	18	2	2	24	1
Provider Surplus / (Deficit) including PSF, MRET, FRF	£000s	+/-ve	3,762	4,125	2	2	24	1
Provider CDEL	£000s	+/-ve	21,823	18,603	19,301	15,082	13,503	12,884
Total Provider Workforce	WTEs	+ve	5,055	4,821	4,885	4,949	4,970	5,017

The I&E position assumes the minimum level of Better Value required to deliver a breakeven control total in each of the modelled years.

5.2 High Level Capital Plan, net of capital donations and broken down by funding source

Monetary values should include inflation

			2019/20	2019/20	2020/21	2021/22	2022/23	2023/24
			£'000	£'000	£'000	£'000	£'000	£'000
			Plan	Forecast	Forecast	Forecast	Forecast	Forecast
CDEL Calculation								
Property, Land and Buildings	£000s	+ve	45,373	41,263	16,555	6,970	7,456	4,700
Plant and Equipment	£000s	+ve	11,046	10,632	2,025	2,025	2,025	2,025
IT	£000s	+ve	3,051	2,601	11,372	8,812	5,509	9,225
Other	£000s	+ve	9,072	8,986	1,466	1,000	1,000	1,000
Gross Capital Expenditure	£000s	+ve	68,542	63,482	31,418	18,807	15,990	16,950
Disposals / other deductions	£000s	-ve	0	0	0	0	0	0
Charge after additions/deductions	£000s	+/-ve	68,542	63,482	31,418	18,807	15,990	16,950
Less Donations and Grants Received	£000s	-ve	(46,719)	(44,879)	(12,117)	(3,725)	(2,487)	(4,066)
Total CDEL	£000s	+/-ve	21,823	18,603	19,301	15,082	13,503	12,884
Funding Sources of CDEL								
Self Financed - Depreciation	£000s	+ve	24,219	24,219	21,457	22,943	24,100	25,417
Self Financed - other internal capital cash	£000s	+/-ve	(2,396)	(5,616)	(2,156)	(7,861)	(10,597)	(12,533)

The capital plan has no impact of CCC arising and hence, the charity funded capital programme reduces in future years as projects are yet to be agreed.

5.3 Workforce analysis

Monetary values should include inflation			2019/20	2019/20	2020/21	2021/22	2022/23	2023/24
			£'000	£'000	£'000	£'000	£'000	£'000
			Plan	Forecast	Forecast	Forecast	Forecast	Forecast
Staff Working for Trusts	WTEs	+ve	5,055	4,821	4,885	4,949	4,970	5,017
Medical and dental staff - Total	WTEs	+ve	750	678	680	682	684	686
Registered nursing, midwifery and health visiting staff - Total	WTEs	+ve	1,680	1,647	1,690	1,734	1,734	1,756
Qualified ambulance staff - Total	WTEs	+ve	0	0	0	0	0	0
Allied health professionals - Total	WTEs	+ve	569	568	568	569	570	570
Health care scientists - Total	WTEs	+ve	379	379	379	379	380	380
Other qualified scientific, therapeutic and technical staff - Total	WTEs	+ve	0	0	0	0	0	0
Support to clinical staff - Total	WTEs	+ve	306	284	290	296	303	312
Managerial, estates, and other support staff - Total	WTEs	+ve	1,371	1,266	1,277	1,288	1,300	1,312

The Provider workforce modelling assumes growth in line with the additional beds that are assumed to open within the model and includes service development growth in staff, predominantly relating to additional nursing and Scientific & Therapeutic staff and the new apprentices cohorts agreed as part of the GOSH Learning Academy programme.

5.4 Activity projections

Monetary values should include inflation			2019/20	2019/20	2020/21	2021/22	2022/23	2023/24
			£'000	£'000	£'000	£'000	£'000	£'000
			Plan	Forecast	Forecast	Forecast	Forecast	Forecast
Activity								
Acute	No.	+ve	259,635	-	223,446	227,473	231,487	235,119
Total consultant-led outpatient attendances	No.	+ve	221,164	-	179,715	182,946	186,168	189,083
Consultant-led first outpatient attendances	No.	+ve	34,573		32,557	33,131	33,702	34,216
of which: Commissioned by CCGs (within system)	No.	+ve			694	703	711	717
Commissioned by CCGs (outside system)	No.	+ve			4,430	4,482	4,534	4,577
Commissioned by Specialised commissioning	No.	+ve			27,433	27,946	28,457	28,922
Consultant-led follow up outpatient attendances	No.	+ve	186,591		147,158	149,815	152,466	154,867
of which: Commissioned by CCGs (within system)	No.	+ve			1,997	2,020	2,043	2,064
Commissioned by CCGs (outside system)	No.	+ve			11,223	11,355	11,486	11,596
Commissioned by Specialised commissioning	No.	+ve			133,938	136,440	138,937	141,207
Total elective spells	No.	+ve	36,146	-	40,899	41,651	42,400	43,078
Elective Spells – Day cases	No.	+ve	23,755		26,144	26,634	27,122	27,566
of which: Commissioned by CCGs (within system)	No.	+ve			734	744	753	762
Commissioned by CCGs (outside system)	No.	+ve			4,345	4,404	4,464	4,515
Commissioned by Specialised commissioning	No.	+ve			21,065	21,485	21,905	22,289
Elective Spells – Ordinary spells	No.	+ve	12,391		14,756	15,017	15,277	15,512
of which: Commissioned by CCGs (within system)	No.	+ve			514	523	531	539
Commissioned by CCGs (outside system)	No.	+ve			2,329	2,367	2,406	2,440
Commissioned by Specialised commissioning	No.	+ve			11,913	12,127	12,340	12,533
Total non-elective spells	No.	+ve	2,325	-	2,832	2,876	2,919	2,958
Zero length of stay spells	No.	+ve	178		0	0	0	0
of which: Commissioned by CCGs (within system)	No.	+ve			0	0	0	0
Commissioned by CCGs (outside system)	No.	+ve			0	0	0	0
Commissioned by Specialised commissioning	No.	+ve			0	0	0	0
1+ day length of stay spells	No.	+ve	2,147		2,832	2,876	2,919	2,958
of which: Commissioned by CCGs (within system)	No.	+ve			115	116	118	119
Commissioned by CCGs (outside system)	No.	+ve			243	247	250	253
Commissioned by Specialised commissioning	No.	+ve			2,474	2,513	2,552	2,586

The activity projections above are derived from internal Trust forecasts. The 'plan' figures relate to commissioner information that the Trust is seeking to reconcile as there are significant differences which it believes are due to data capture methods differing to those used by commissioners.

5.5 Efficiency requirements to deliver the proposed programme

Monetary values should include inflation

			2019/20	2019/20	2020/21	2021/22	2022/23	2023/24
			£'000	£'000	£'000	£'000	£'000	£'000
			Plan	Forecast	Forecast	Forecast	Forecast	Forecast
Efficiency Programmes (formerly known as CIPs)								
Net saving - Recurrent income efficiency schemes (CCG/NH)	£000s	+/-ve	0	0	0	0	0	0
Net saving - Recurrent income efficiency schemes (Other in)	£000s	+/-ve	6,849	5,612	0	0	0	0
Net saving - Non-recurrent income efficiency schemes (CCC)	£000s	+/-ve	0	0	0	0	0	0
Net saving - Non-recurrent income efficiency schemes (Othe	£000s	+/-ve	0	0	0	0	0	0
Net saving - Recurrent expenditure efficiency schemes	£000s	+/-ve	13,151	8,463	14,317	7,220	6,770	8,528
Net saving - Non-recurrent expenditure efficiency schemes	£000s	+/-ve	0	5,925	0	3,700	0	0
Total Efficiency	£000s	+ve	20,000	20,000	14,317	10,920	6,770	8,528
Total Efficiency as a percentage of expenditure (before efficiencies)								
Total operating income	£000s	+ve	492,181	486,033	495,013	505,527	512,096	517,023
Less capital donations/grants income impact	£000s	-ve	(44,089)	(44,089)	(12,117)	(3,725)	(2,487)	(4,066)
Remove impact of prior year PSF post accounts reallocat	£000s	-ve	0	(347)	0	0	0	0
Total Turnover	£000s	+ve	448,092	441,597	482,896	501,802	509,609	512,957
NHSE Specialised Commissioning income (High Cost Dri	£000s	+ve	56,247	61,598	65,545	69,900	73,949	78,208
CCG income (High Cost Drugs)	£000s	+ve	3,198	4,191	3,237	3,261	3,289	3,419
High cost drugs income from commissioners	£000s	+ve	59,445	65,789	68,782	73,161	77,238	81,627
Baseline for efficiency percentage calculation	£000s	+/-ve	404,885	391,683	428,428	439,559	439,116	439,857
Total Efficiency as a percentage of expenditure (before €	£000s	+ve	4.94%	5.11%	3.34%	2.48%	1.54%	1.94%

The above analysis is the minimum level of better Value required to deliver breakeven within each of the modelled years. Non Recurrent Better value is assumed in years where the cash position of the trust would drop below £40m.

6. Summary

The Trust is required to submit a 5 year plan to the NCL STP. This has been produced using the base case LTFM that has been used for the children's cancer centre outline business case.

The final STP wide consolidated plan will be submitted to NHSI/E in November 2019. Until this time the Trust will continue to update the LTFM for the latest financial position and planning assumptions (e.g. latest information on tariff changes) to ensure the model remains as accurate as possible.

The Board is asked to approve the approach to collating the return, noting the timetable above and delegate responsibility to the executive to sign off future returns that seek to update the assumptions contained within the current analysis.

<p style="text-align: center;">Trust Board 18 September 2019</p>	
<p>Update on Board Assurance Framework</p> <p>Submitted by: Dr Anna Ferrant, Company Secretary</p>	<p>Paper No: Attachment R</p>
<p>Aims / summary</p> <p>The purpose of this paper is to provide the Board with an update on the Board Assurance Framework (BAF).</p> <p>A high level summary of the risks on the BAF is provided at Appendix 1. Information on the controls and assurance are provided at Appendix 2 (<u>for information only</u>).</p> <p>BAF risk owners update their relevant BAF risk on a quarterly basis, reviewing the controls, assurances and actions for each risk and any other internal/ external matters that may inform/ impact the risk. The Board assurance committees (Audit Committee, Quality, Safety and Experience Assurance Committee and the People and Education Assurance Committee) review the risks relevant to their authority on rotation over the year and conduct deep dives into the robustness of the controls and assurances.</p> <p>Over two meetings in July and August 2019 the Risk Assurance and Compliance Group (RACG) reviewed all of the BAF risks and considered the following:</p> <ul style="list-style-type: none"> • Gross risk scores and Net risk scores • Robustness of the controls and assurances and any other information that impacted on the risk • Focus on those risks where the gross and net risk scores are the same • Proposed change to the categorisation for high risks in the Risk Management Strategy <p>The summary of the RACG meetings is attached with recommendations for the Board to consider.</p> <p>The BAF risks will be updated in readiness for the October 2019 Audit Committee and Quality, Safety and Experience Assurance Committee meetings.</p>	
<p>Action required from the meeting</p> <p>The Board is asked note the BAF update, the Trust's strategic risk profile and consider the recommendations from the RACG.</p>	
<p>Contribution to the delivery of NHS Foundation Trust strategies and plans</p> <p>Effective management of risk, particularly BAF risks, is critical to the achievement of all of the Trust's strategic objectives.</p>	
<p>Financial implications</p> <p>There are no direct financial implications.</p>	
<p>Who needs to be told about any decision?</p>	

Attachment R

Anna Ferrant, Company Secretary will liaise with staff affected by any decisions related to this paper.

Who is responsible for implementing the proposals / project and anticipated timescales?

The risk owners are identified alongside each BAF risk.

Who is accountable for the implementation of the proposal / project?

The Chief Executive Officer is accountable for the implementation of the Risk Management Strategy.

RACG review and recommendations

Over two meetings in July and August 2019, the Risk Assurance and Compliance Group reviewed all of the BAF risks and considered the following:

- Gross risk scores and Net risk scores
- Robustness of the controls and assurances and any other information that impacted on the risk
- Focus on those risks where the gross and net risk scores are the same
- Proposed change to the categorisation for high risks in the Risk Management Strategy

The Group made comments and recommendations on the following risks:

BAF Risk 1: Financial Sustainability and BAF Risk 8: Research Income

The RACG reviewed the controls and assurances cited and agreed that a lot of work had been conducted to future proof the Trust finances and that performance against financial targets were currently on track. In light of this, it was agreed that the net risk score was not equal to the gross risk score as currently stated.

The Brexit Steering Group met in August 2019 and requested that this risk statement is amended to include reference to the risk of the loss of EU research funding (under the Research risk) and the impact on procurement (added under the finance risk) as a result of leaving the EU without a deal (see **red** text):

- Reductions in tariffs and impact of new 2019/20 tariff and potential reduction in MFF
- Impact of inflationary costs and potential impact of Brexit of cost of drugs, supplies and staffing
- Challenges in completing contracts with NHS Commissioners
- Lack of capacity to deliver growth in activity /income targets for NHS and non NHS activities (including IPP);
- Challenges is obtaining appropriate growth funding in Contract;
- Inadequate local pricing in NHS contract;
- Delivery of financial efficiency targets;
- Failure to collect IPP debt;
- Lack of capital funding in the NHS potentially limiting major capital projects to those that can be supported by the Charity
- Changes to accounting standards could impact delivery of the control total
- Robust financial management across all operational and corporate teams to ensure the cumulative impact of all decisions is understood
- Risk to charity funding supporting both patient welfare and capital programmes in the current economic climate.
- *Risk of impact on procurement as a result of a fall in the value of pound following leaving the EU.*

Recommendation: Trust Board is asked to approve the additional wording for the financial sustainability risk statement.

Recommendation: Trust Board to consider reducing the likelihood net score to 3, to make a total net score of 3(L) x 5(C)

BAF Risk 2: Better Value

The RACG noted that the Trust had not achieved its Q1 2019/20 Better value savings target and that savings remained unidentified. The Trust has recently appointed a Director of Transformation responsible for overseeing the delivery of the target. The group agreed that the likelihood gross risk score should be 5. The group agreed that in light of the current status of the programme, the net risk score should remain at $4(L) \times 4(C) = 16$.

Recommendation: Trust Board is asked to approve a change to the **gross** risk likelihood score to 5 (taking it to $5(L) \times 4(C) = 20$).

BAF Risk 3: IPP Contribution

The RACG noted that the IPP target had not been achieved in Q1 2019/20 and on this basis agreed to amend the net score to $3(L) \times 5(C) = 15$ (an increase from 12 previously)

Recommendation: Trust Board is asked to approve a change to the **net** risk likelihood score: taking it to $3(L) \times 5(C) = 15$.

BAF Risk 4: Recruitment and Retention

The RACG reviewed the risk and agreed that there was no change to the gross or net risk scores.

BAF Risk 5: Operational Performance

The RACG reflected on the challenges of meeting the RTT target, despite the planned reduction in the target. It was noted that recovery had not happened as planned and on this basis the RACG proposed to increase the net risk score to 16 ($4(L) \times 4(C)$).

Recommendation: Trust Board is asked to approve an increase to the **net** risk score to $4(L) \times 4(C) = 16$.

BAF Risk 6: GOSH Strategic Position

The RACG noted that the Trust was actively engaged with the Children's Alliance, working on tariff negotiations for complex paediatric services and that in addition, it was part of the Shelford Group which was now being engaged by the centre as an expert panel group for specialist care.

On this basis, the RACG proposed that the net risk score is reduced to 6 ($2(L) \times 3(C)$).

Recommendation: Trust Board is asked to approve a reduction to the **net** risk score to $2(L) \times 3(C) = 6$.

BAF Risk 7: Unreliable Data

The RACG noted that the risk had been reviewed and on the basis of the data accuracy issues arising from the transition to EPIC that the risk owner had proposed that the risk score was increased to 12 ($3(L) \times 4(C)$). The RACG endorsed this proposal.

Recommendation: Trust Board is asked to approve an increase to the **net** risk score to $3(L) \times 4(C) = 12$.

BAF Risk 8: Research Income

The RACG agreed that this risk should reflect the risk of the loss of EU research funding (under the Research risk) as a result of leaving the EU without a deal. The Research team reviewed the risk and on the basis that on average the proportion of EU funding of the total R&I research income to the Trust is around 1%, it was proposed that the net risk score remains to 2(L) x 3(C).

BAF Risk 9: Research Hospital Status

The RACG made no changes to the gross or net risk scores.

BAF Risk 10: Electronic Patient Records

The RACG noted that the risk statement had been revised in light of the journey from implementation towards stabilisation of the EPR and the risks inherent with this transition from an operational perspective. The RACG reviewed the controls, assurances and gaps and proposed that the gross risk score is 4(L) x 4(C) = 16 and the net risk score is 3(L) x 4(C) = 12.

Recommendation: Trust Board to note the revised risk statement and associated controls, assurances and gaps and is asked to approve a gross risk score of 4(L) x 4(C) = 16 and a net risk score of 3(L) x 4(C) = 12.

BAF Risk 11: Business Continuity

The RACG agreed that the risk requires more information about the plans in place to respond to EPIC failing. Further assurance information was requested about the robustness of the testing of emergency plans and the staff knowledge of these plans. This information has been documented and the RACG is satisfied that the net risk score reflects this (3)L x 3(C)).

BAF Risk 12: Redevelopment

The RACG made no changes to the gross or net risk scores.

BAF Risk 13: Information Governance

The RACG noted that there had not been any significant issues raised recently for example SIs regarding loss of data or Subject Access Request matters. It was noted that the majority of clinical data was housed in EPIC which is auditable. On this basis it was proposed to reduce the risk to a likelihood of 3 (so 3(L) x 5(C) = 15).

Recommendation: Trust Board is asked to approve a reduction to the **net** risk score to 3(L) x 5(C) = 15.

BAF Risk 14: Medicines Management

The RACG noted that the net risk score (25) had recently been moved higher than the gross risk score (20). The RACG agreed that a medicines action plan was in place in response to the MHRA inspection report and the critical findings. A Medicines Safety Officer had also been appointed. On this basis the RACG proposed that the net risk likelihood score is reduced to 4, moving the total net risk to 20 (4(L) x 5(C) = 20).

Recommendation: Trust Board is asked to approve a reduction to the **net** risk score to 4(L) x 5(C) = 20.

BAF Risk 15: Consistent delivery of quality services

The RACG agreed that there was enhanced oversight of clinical services via the integrated quality and performance report, the quality rounds, stronger local management teams and regular robust performance reviews. It was agreed however, with oversight of the services currently under review by management, that the net risk score should be increased to 3 (L) x 4 (C) = 12.

Recommendation: Trust Board is asked to approve an increase to the **net** risk score to 3(L) x 4(C) = 12.

BAF Risk 16: Brexit

The RACG noted Brexit Steering Group had updated the risk and confirmed that the gross and net risk scores remained the same (4x5).

BAF Risk 17: Service Innovation

The RACG was informed that this risk is under review and is being revised. Since the RACG meeting, the BAF risk has been updated. The risk scores remain the same (3 (L) x 4 (C) = 12)

BAF Risk 18: Culture

The RACG was informed that following the recent People and Education Assurance Committee meeting, that it had been agreed that the risk controls and assurances are revised in line with the areas covered under the new People Strategy.

Analysis of current BAF risks

On the basis that all of the above recommendations are approved, at the date of the September Board meeting the BAF risk profile looks like this (net scores):

Ten (10) high net scored risks on the BAF Net scores 12 - 25	Brexit (4x5) Medicines Management (4x5) Better Value (4x4) Operational performance (4x4) Financial Sustainability (3x5) Information Governance (3x5) IPP Contribution (3x5) Recruitment and Retention (3x5) Unreliable data (3x4) Service Innovation (3x4) Culture (3x4) Consistent delivery of service (3x4)
Five (5) medium net scored risks on the BAF Net scores 8 - 11	Electronic Patient Record (3x3) Business continuity (3x3) Redevelopment (3x3)
Two (2) low net scored risks on the BAF Net scores 0 - 6	GOSH Strategic Position (2x3) Research income (2x3) Research Hospital Status (2x3)

Risk Appetite

Each of the BAF risks have been allocated a risk appetite (number) – a level of risk that the Board is willing to accept for the given risk area. Of the 18 BAF risks (taking into account the recommended changes in net scores above):

- One risks has a net risk score equal to the agreed risk appetite range
- Three risks have a net risk score less than the agreed risk appetite range
- Fourteen risks have a net risk score greater than the agreed risk appetite range. Of these, five risks have a high (red) risk rating and a low (green appetite). Actions have been identified to reduce the net risk scores.

The RACG will continue to scrutinise the level of risk cited by risk owners in relation to assurances provided that the controls are adequate and scrutiny of the level of gaps cited and timeliness of the actions being taken to close those gaps. This will be conducted with the aim of bringing the net risk scores down to a level that is acceptable and in line with Trust risk appetite.

No.	Short Title	Risk type and description		Gross Risk		Net Risk		Risk Appetite	Mitigation time horizon	Executive Lead	Reviewed By	Last Updated by Risk Owner	Assurance Committee	Last Reviewed by Assurance Committee
				L x C	T	L x C	T							
1	Financial Sustainability	Strategic & Operational	<p>Failure to continue to be financially sustainable due to:</p> <ul style="list-style-type: none">• Reductions in tariffs and impact of new 2019/20 tariff and potential reduction in MFF• Impact of inflationary costs and potential impact of Brexit of cost of drugs, supplies and staffing• Challenges in completing contracts with NHS Commissioners• Lack of capacity to deliver growth in activity /income targets for NHS and non NHS activities (including IPP);• Challenges is obtaining appropriate growth funding in Contract;• Inadequate local pricing in NHS contract;• Delivery of financial efficiency targets;• Failure to collect IPP debt;• Lack of capital funding in the NHS potentially limiting major capital projects to those that can be supported by the Charity• Changes to accounting standards could impact delivery of the control total• Robust financial management across all operational and corporate teams to ensure the cumulative impact of all decisions is understood• Risk to charity funding supporting both patient welfare and capital programmes in the current economic climate.• Risk of impact on contract procurement as a result of a fall in the value of pound following leaving the EU.	4 x 5	20	3 x 5	15	Low (1-6)	1-2 years	Chief Finance Officer	Helen Jameson, Chief Finance Officer	13/06/2019	Audit Committee	April 2017 January 2018 October 2018 April 2019 (TB)
2	Better Value	Operational	The risk that the organisation will not deliver productivity and efficiency targets and that targets indirectly impact on patient care	5 x 4	20	4 x 4	16	Low (1-6)	1 -2 years	Acting Chief Operating Officer	Jon Schick, Programme Director, PMO	27/06/2019	Audit Committee	April 2017 Jan 2018 October 2018 May 2019
3	IPP Contribution	Strategic & Operational	The risk that the organisation will not deliver IPP contribution targets	4 x 5	20	3 x 5	15	Med (8-10)	1-2 years	Acting Chief Operating Officer	Chris Rockenbach, General Manager, IPP	25/07/2019	Audit Committee	May-16 April 2017 Jan 2018 Sept 2018 (TB) May 2019

No.	Short Title	Risk type and description		Gross Risk		Net Risk		Risk Appetite	Mitigation time horizon	Executive Lead	Reviewed By	Last Updated by Risk Owner	Assurance Committee	Last Reviewed by Assurance Committee
				L x C	T	L x C	T							
4	Recruitment and Retention	Operational	The risk that the organisation will be unable to recruit and retain sufficient highly skilled staff	4 x 5	20	3 x 5	15	Med (8-10)	1-2 years	Director of HR and OD	Alison Hall, Deputy Director of HR and OD	17/06/2019	People and Education Assurance Committee	July 2016 April 2017 Oct 2017 May 2018 July 2019
5	Operational Performance	Operational	The trust is unable to demonstrate compliance with Performance Management Framework/ Monitor's licence	5 x 4	20	4 x 4	16	Low (1-6)	1 year	Acting Chief Operating Officer	Peter Hyland, Director, Planning & Information/ Anna Ferrant, Company Secretary	22/07/2019	Audit Committee/ Quality, Safety and Experience Assurance Committee	Oct-16 Oct 2017 (AC) May 2018 Jan 2019
6	GOSH Strategic Position	Strategic	Lack of priority given to specialist paediatrics in the NHS wide strategies leading to lack of progress in developing appropriate system wide services and support for GOSH's role	3 x 3	9	2 x 3	6	Med (8-10)	5-10 years	Acting Chief Operating Officer	Peter Hyland, Director, Planning & Information	22/07/2019	Audit Committee	Jan 2017 Jan 2018 October 2018
7	Unreliable Data	Operational	Failure to monitor data quality impacting on accurate, consistent and appropriate data reporting across the Trust and to external parties (commissioners etc.)	4 x 4	16	3 x 4	12	Low (1-6)	1-2 years	Acting Chief Operating Officer	Pippa Mullan, Head of Information, & Peter Hyland, Director, Planning & Information	22/07/2019	Audit Committee	Oct-16 May 2017 April 2018 January 2019
8	Research Income	Strategic	The Trust may not be able to provide the required level of research infrastructure or leverage additional research income as core research funding streams are reduced.	3 x 3	9	2 x 3	6	Med (8-10)	1-2 years	Director, Research & Innovation	Jenny Rivers, Dep Dir, R&I	16/06/2019	Audit Committee	July 2017 April 2018 Jan 2019
9	Research Hospital Status	Strategic	The Trust may not deliver its full Research Hospital vision if key research alliances are not fostered	3 x 3	9	2 x 3	6	Med (8-10)	3-5 years	Director, Research & Innovation	Jenny Rivers, Dep Dir, R&I	16/06/2019	Quality, Safety and Experience Assurance Committee	Oct-16 July 2017 April 2018 February 2019 (TB)
10	Electronic Patient Records	Operational	<p>The risk that the:</p> <ul style="list-style-type: none"> stabilisation of the EPIC system is not achieved and the appropriate systems are not adopted to embed new clinical and operational processes the EPR system is not maximised to ensure successful optimisation within a defined governance framework; not maximising accurate, timely and high quality data (performance, quality and financial data) the EPR system does not realise the benefits for the organisation (as outlined in the EPR Business Case) 	4 x 4	16	3 x 4	12	Low (1-6)	1-2 years	Acting Chief Operating Officer	Andrew Taylor, Acting Chief Operating Officer/ Richard Collins, Director of Transformation	26/07/2019	Audit Committee/ Trust Board	April 2019 May 2019 July 2019 (TB) September 2019 (TB)

No.	Short Title	Risk type and description		Gross Risk		Net Risk		Risk Appetite	Mitigation time horizon	Executive Lead	Reviewed By	Last Updated by Risk Owner	Assurance Committee	Last Reviewed by Assurance Committee
				L x C	T	L x C	T							
			<ul style="list-style-type: none"> the EPR has a detrimental impact on the quality, safety and experience of patients, families and carers. 											
11	Business Continuity	Operational	The trust is unable to deliver normal services and critical functions during periods of significant disruption.	3 x 4	12	3 x 3	9	Low (1-6)	1 year	Acting Chief Operating Officer	Camilla McBrearty, Emergency Planning Officer/ Andrew Taylor, Acting COO	20/08//2019	Audit Committee	May-16 May 2017 April 2018 (TB) April 2019
12	Redevelopment	Operational	Inadequate planning or management of infrastructure redevelopment may result in poor VFM or failure to deliver expected business benefit.	3 x 4	12	3 x 3	9	Med (8-10)	1-5 years	Dir, Development & Property Services	Stephanie Williamson, Dep Dir of Development & Property Services	23/06/2019	Audit Committee	May-17 Jan 2017 Oct 2017 April 2018 Dec 2018 (TB) April 2019 July 2019 (TBC)
13	Information Governance	Operational	Personal and sensitive personal data is not effectively collected, stored, appropriately shared or made accessible in line with statutory and regulatory requirements.	4 x 5	20	3 x 5	15	Low (1-6)	1 year	Acting Chief Operating Officer	Peter Hyland/ Anna Ferrant	04/07/2019	Audit Committee	April 2019
14	Medicines Management	Operational	Medicines are not managed in line with statutory and regulatory guidance (procuring, storing, prescribing, manufacturing and giving of medicines (including self-administration)) and that processes are not appropriately documented or monitored.	4 x 5	20	4 x 5	20	Low (1-6)	1-2 years	Acting Chief Operating Officer	Steve Tomlin, Chief Pharmacist/ Andrew Taylor, Acting Chief Operating Officer	04/07/2019	Quality, Safety and Experience Assurance Committee	April 2019 July 2019
15	Consistent delivery of quality services	Operational	All services are not appropriately managed or governed or are of the appropriate standing to deliver quality services within a complex, specialist health environment.	4 x 4	16	3 x 4	12	Low (1-6)	1-2 years	Medical Director	Sanjiv Sharma, Medical Director, Salina Parkyn, Head of Quality and Safety	13/06/2019	Quality, Safety and Experience Assurance Committee	April 2019
16	Brexit	Strategic	Brexit will have an adverse impact on the ability of Trust to ensure continuity of effective patient care including but not limited to financial sustainability,	4 x 5	20	4 x 5	20	Med (8-10)	1-5 years	Acting Chief Operating Officer	Anna Ferrant, Company Secretary/ Andrew Taylor,	01/09/2019	Trust Board	February 2019 (TB) September 2019 (TB)

No.	Short Title	Risk type and description		Gross Risk		Net Risk		Risk Appetite	Mitigation time horizon	Executive Lead	Reviewed By	Last Updated by Risk Owner	Assurance Committee	Last Reviewed by Assurance Committee
				L x C	T	L x C	T							
			availability of workforce, access to medicines and medical devices and participation in collaborative research and access to research funding, clinical trials and clinical networks.								Acting Chief Operating Officer			
17	Service Innovation	Operational	<p>Failure to embrace service transformation and deliver innovative, patient centred and efficient services including:</p> <ul style="list-style-type: none"> failing to identify where transformation is needed and continuing to operate inefficient and ineffective services failing to work in partnership with staff and others (commissioners, referrers other stakeholders including the third sector) to identify, plan and design service transformation failing to ensure appropriate resources (finances and workforce) are made available to lead and implement transformation of services failing to support staff in making change happen. 	4 x 4	16	3 x 4	12	Med (8-10)	1-5 years	Acting Chief Operating Officer	Richard Collins, Director of Transformation	03/09/2019	People and Education Assurance Committee	July 2019 - PEAC
18	Culture	Strategic	<p>Given the 2018 staff survey results which demonstrate the Trust to be below average in the majority of indicators and shows high levels of staff reporting bullying and harassment, there is a risk that GOSH fails to develop its culture and levels of staff engagement and motivation in alignment with its strategy and values, impacting on:</p> <ul style="list-style-type: none"> The effective implementation of plans and policies across the Trust and the associated impact on safety and quality of services and the patient and family experience. The ability of the Trust to attract competent staff and promote the Trust as a place to work and feel engaged. Missed market opportunities arising from a failure to remain agile and connected and adapt to the ever-changing NHS landscape. The Trust's reputation with partners, commissioners, regulators, the NHS and the public. 	4 x 4	16	3 x 4	12	Low (1-6)	1-5 years	Chief Executive	Alison Hall, Deputy Director of HR and OD	02/09/2019	Trust Board/ People and Education Assurance Committee	July 2019

GOSH BAF Risks – Gross Scores September 2019

		Consequences				
Likelihood		1 Negligible	2 Minor	3 Moderate	4 Major	5 Catastrophic
	5 Almost Certain				5. Operational Performance 2. Better Value	
	4 Likely				7. Unreliable data 10. EPR 18: Culture 15. Consistent delivery of services 17. Service Innovation	3. IPP Contribution 1. Financial Sustainability 14. Medicines Management 4. Recruitment & Retention 16. Brexit 13. Information Governance
	3. Possible			9. Research Hospital 8. Research Income 6. GOSH Strategic Position	11. Business Continuity 12. Redevelopment	
	2. Unlikely					
	1. Rare					

GOSH BAF Risks – Net Scores September 2019

		Consequences				
Likelihood		1 Negligible	2 Minor	3 Moderate	4 Major	5 Catastrophic
	5 Almost Certain					
	4 Likely				5. Operational Performance 2. Better Value	16. Brexit 14. Medicines Management
	3. Possible			12. Redevelopment 11. Business Continuity	18: Culture 10. EPR 17. Service Innovation 7. Unreliable data 15. Consistent delivery of services	4. Recruitment & Retention 3. IPP Contribution 13. Information Governance 1. Financial Sustainability
	2. Unlikely			9. Research Hospital 8. Research Income 6. GOSH Strategic Position		
	1. Rare					



Trust Board 18 September 2019	
Preparations for Brexit Submitted by: Andrew Taylor, Acting Chief Operating Officer	Paper No: Attachment S <ul style="list-style-type: none"> - BAF risk framework (Risk 16) - EU Exit Assurance Template used by EU Exit OSS Team, NHS England (London Region) - NHS England Bulletin
Aims / summary <p>Seven points EU Exit OSS Team, NHS England are asking us to report on:</p> <ul style="list-style-type: none"> - Operational communications Green - Operational readiness Green - Supply Amber/Green - Workforce Green - Clinical trials Green - Data Green - Finance Green - Health demand Amber/Green <p>Brexit is noted in the BAF risk framework as risk 16. BAF risk and EU Exit Assurance Template used by EU Exit OSS Team, NHS England (London Region) are both attached for reference.</p> <p>Brexit Steering Group will meet weekly from 12 September 2019. The Senior Responsible Officer will update EMT regularly.</p> <p>Andrew Taylor and Camilla McBrearty will attend the Regional EU Exit Workshop for the London region on the 19th September. The workshop will brief on the status of NHS preparations for the EU Exit on 31 October. Should there be any significant information that arises from the workshop, there will be communication to the board.</p> <p>The latest advice and direction we have received from NHS E is also attached, for reference.</p> <p>The steering group continues to monitor communications from NHS EI and other relevant bodies.</p> <p>We have also had notification that the National Audit Office are carrying out interviews with six randomly chosen NHS Trusts as part of their EU Exit planning review, specifically around the Continuity of Supply programme. We have read the briefing around this and are prepared, should we be chosen.</p> <p>An enhanced Command & Control structure is being developed for both GOLD and Silver command over the EU Exit period, which will be implemented for the week commencing 28th October 2018, and for a minimum of two weeks after. This will enable all incidents whether EU Exit related or otherwise, to be dealt with efficiently and with suitable management arrangements, increasing our resilience to deal with any critical or major incident over this time period.</p>	

Action required from the meeting <ul style="list-style-type: none">• Agreement with current work plan
Contribution to the delivery of NHS Foundation Trust strategies and plans <ul style="list-style-type: none">• Minimising impact of the UK's exit from the EU on 31st October• Assurance that GOSH can continue business as usual service delivery
Financial implications <ul style="list-style-type: none">• Concern that there may be an additional wave of increased costs if any tariffs are added as a result of EU Exit• Concern that unstable value of the pound will affect prices of supplies
Who needs to be told about any decision? <ul style="list-style-type: none">• Andrew Taylor, Senior Responsible Officer for EU Exit
Who is responsible for implementing the proposals / project and anticipated timescales? <ul style="list-style-type: none">• Brexit Steering Group• 31st October – current date for EU Exit
Who is accountable for the implementation of the proposal / project? <ul style="list-style-type: none">• Brexit Steering Group

BAF Risk 16: Brexit Brexit will have an adverse impact on the ability of Trust to ensure continuity of effective patient care including but not limited to financial sustainability, availability of workforce, access to medicines and medical devices and access to collaborative research, clinical trials and clinical networks.			Executive Owner: Chief Executive	
Risk Domain (NPSA):	Gross (strategic) risk score:	Net (current) risk score:	Target risk score (risk appetite):	
Service continuity and environmental impact	L4 x C5 = 20	L4 x C5 = 20	Medium	
Strategic Objective:	CQC Domain	Assurance Committee:	Date of last review by Assurance Committee:	
1.2 Provide the highest quality patient care, experience and health outcomes for patients and families.	Well Led	Trust Board	New Risk	
Current Controls and Assurance		Actions to Further Enhance Risk Management		
Current key controls to manage risks	Means of assurance (by control number)	Action required to close any gaps in controls and assurances	Action owner	Action review date
<u>Governance</u> Short-life Brexit Steering Working Group established, chaired by the Acting Chief Operating Officer <				

<p><u>Workforce</u></p> <p>Processes in place to support EU nationals working at GOSH including support with obtaining settled status</p> <p>Identification of the services that will be most impacted by a no deal scenario and mitigation plans being put into place (facilities etc.).</p>	<p>The trust ran a trust-wide engagement project to raise awareness for the Home Office's EU Settlement Pilot Scheme. The trust hosted on-site drop-in sessions, signposted the Home Office communications materials, issued reminders and an offered to reimburse the application fee, which was subsequently waved by the Government.</p> <p>130 staff have applied for the scheme to date and work continues to minimise impacts on staffing and recruitment, including with subcontractors.</p> <p>Estates and facilities are in contact with agency contractors and understanding mitigation plans in place.</p>			
<p><u>Medicines, Medical Devices and reagents</u></p> <p>The Department of Health has mandated all NHS Trusts use an online system to track medicine stocks from 1st February 2019, so that supply and demand can be monitored at a national level and stockpiling is avoided.</p> <p>The supply of medicines (and ingredients for medicines) to the NHS is being monitored and risk-assessed nationally by the Department of Health and Social Care (DHSC). This includes supply of radioisotopes, vaccines, immunoglobulins.</p> <p>Engagement with specialty groups on plans for managing medicines, devices and re-agents including consideration of storage requirements</p>	<p>DEFINE system in place at GOSH</p> <p>The hospital pharmacy is complying with the national requirement to maintain medicine stocks at no more than 16 days' supply. The DHSC has required that suppliers of unlicensed medicines and specialised drugs arrange for a six-week supply to be in place by March 2019. The trust is increasing its stock levels for these drugs on a case-by-case basis.</p> <p>The DHSC's Chief Pharmaceutical Officer (for GPs, Community Pharmacists and Hospital Pharmacists) wrote to trusts on 17th January to outline the steps taken nationally to date to protect the continuity of supply for medicines.</p> <p>The GOSH chief pharmacist is engaging with DHSC's Specialty Clinical Group on Paediatrics and the all-England Chief Pharmacists Group meetings to contribute to the national process and obtain updates that may affect GOSH operationally.</p>	<p>Work underway to determine how the DEFINE system will integrate with EPIC</p> <p>Storage of re-agents (require refrigeration) is key and reliant on space and availability of fridges. A review is underway.</p>	<p>Richard Collins, Director of EPR</p> <p>Paul Ryves, General Manager Labs</p>	<p>September 2019</p> <p>September 2019</p>
<p><u>Research, clinical trials and clinical networks</u></p>	<p>R and I Directorate is working with the pharmacy department to understand what needs stocking etc.</p>			

Contingency plans in place for clinical trials that are GOSH-sponsored to mitigate potential impacts on supply of drugs, devices and reagents.				
Contingency planning for clinical trials that are hosted at GOSH but sponsored by external parties (e.g. pharmaceutical companies) is being co-ordinated by the Department of Health.	The GOSH Research & Innovation team have contacted a selection of their key sponsors to obtain information on these contingency plans and seek assurance that they are practical for GOSH.			

Risk Reviewed By: Anna Ferrant, Company Secretary

Date Reviewed: 02 September 2019

EU exit update - August
23 August 2019

Dear colleagues,

Many of you will have taken part in the recent series of webinars run by Leaf Mobbs, our Director of EU Exit Transition. These were designed to give colleagues in CCGs and trusts working on EU exit an update on the current status of NHS preparations, and to brief you on the key activities that need to be progressed locally as we prepare for leaving the EU on 31 October.

This update provides you with further information on the key activities that need to be progressed locally in advance of a series of regional EU exit workshops taking place between 4 and 19 September. Regional EU Exit teams have now issued formal invites to these sessions and online registration is underway. Please do make sure that your organisation is represented at the relevant event.

The following actions need to be progressed so that your organisation is prepared, and geared up to respond to the messages that will be shared at the regional workshops:

- Complete the mitigation of any issues identified in the previous assurance processes
- Make sure your EU Exit team is in place. This should include:
- Advising your Board that the EU exit response is being stood up for leaving the EU on 31 October
- Having an EU Exit SRO in place, with supporting EU Exit team, and full management and oversight of the organisation's Single Point Of Contact (SPOC) email for EU exit communications
- Having relevant subject matter experts available for critical areas including supply/procurement, pharmacy, logistics, estates and facilities, workforce, data
- Reinstating on-call arrangements, and ensuring on-call directors understand what is required of them and the escalation routes for problems
- Ensure your business continuity plans are up-to-date and tested, including winter and flu plans
- Make sure you are engaged with local system preparations around EU exit through Local Health Resilience Partnerships and Local Resilience Forums, and have agreed to link with partner agencies including local authority, CCG and provider colleagues to collaboratively manage and address issues.
- Re-familiarise your teams with details of the EU exit operational guidance from 21 December 2018 bearing in mind some aspects of this may have been supplemented with further information (see link below) or may be updated in the coming weeks
- Register to attend the regional EU Exit workshops in September, where you will be updated on the operational guidance and planning context, including the key changes since April.
- Revisit your organisation's contract and supplier assurance process including 'walk the floor' checks, to include smaller and/or niche local suppliers not covered by national assurance exercises (this applies to both CCGs and providers)
- Ensure you communicate with healthcare professionals and patients using the available information on the GOV.UK, NHS England and Improvement websites and NHS Choices.

Next steps

We expect to begin assuring local preparations from the end of August. This assurance process will cover similar ground as previous exercises, including your plans, systems and contingency arrangements for key areas such as operational readiness, communication, continuity of supply, workforce, clinical trials, data, finance and health demand.

Following your feedback, we are currently working with NHS Digital to make improvements to the situation reporting system and process. We expect regular situation reporting to start from 21 October, however some testing is likely to take place before this. We will confirm further details when they are available.

All information published by the DHSC – and other parts of Government - on EU Exit can be viewed here. Any information published by NHS England and NHS Improvement will be available on the NHS England web pages. Patient facing messages will continue to be published on the nhs.uk website under the appropriate section.

Thank you for your continuing support, and the work you and your teams are undertaking as we finalise our preparations in anticipation of a possible no deal. Your efforts locally to minimise the impact on patient care is appreciated.

Professor Keith Willett EU Exit Strategic Commander Medical Director for Acute Care & Emergency Preparedness

If you have any questions or concerns about local preparations please send these to your regional EU Exit lead using the regional point of contact which is England.london-euexit@nhs.net

NHS England
PO Box 16738
Redditch
B97 9PT

For further information, please contact:
England.london-euexit@nhs.net

Great Ormond Street Hospital for Children

Questions to support EU Exit Executive meetings

Operational communications

- Is the board sighted on published operational guidance for EU Exit and subsequent publications and information shared at the recent national workshops?
 - CEO has updated the Board at Board meetings. Brexit on the agenda for board meeting on 18 September.
 - Brexit is a regular agenda item for Executive Management Team.
 - COO updated Operational Board based on regional workshop earlier in the year.
 - Chair and Board members updated by email with latest GOSH preparations for a no-deal exit on 21 March.
- Have you taken steps to communicate EU Exit preparation actions to front-line staff?
 - Communications have gone out via intranet, the external website and through a regular update to the Senior Leadership Team meeting.
 - Screensaver displays around the hospital to remind EU staff of support available.
 - Communicated directly with EU staff encouraging them to apply for the EU settlement scheme, hosted drop in sessions to walk EU staff through application process.
- Have you discussed EU Exit impact across the local health system and through LHRP?
 - COO attended regional meeting, and staying up to date via regional forum.
 - Acting COO and Emergency Planning Officer will attend Regional EU Exit Workshop for the London region on the 19th September.

Operational readiness for a response

- Has the organisation established its EU Exit team and planned for the potential to respond out of hours or over a sustained period of time?
 - Emergency processes are in place.
 - EU Exit team has been established and will meet weekly again commencing 12 September.
 - Andrew Taylor, Acting Chief Operating Officer (Chair)
 - Anna Ferrant, Company secretary
 - Camilla McBrearty, Emergency Planning Officer
 - Helen Jameson, Chief Finance Officer
 - Tom Burton, Deputy Chief Finance Officer

- Peter Hyland, Director of Operational Performance and Information
 - Sarah Ottaway, Associate Director of HR & OD
 - Jenny Rivers, Deputy Director of Research and Innovation
 - Clare Simcock, Lead Radiographer
 - Graham Sherlock, Director of Estates and Facilities
 - Diane Wilson, Head of Procurement
 - Steve Tomlin, Chief Pharmacist
 - Cymbeline Moore, Director of Communications
 - Georgina Day, Internal Communications Manager
 - Sarah Trewella, Chief Information Officer
 - Heather Goult, Events and Organisational Development Manager
- Have you established a single point of contact for EU Exit and communicated the escalation process across the organisation?
 - Yes – Andrew Taylor, Acting Chief Operating Officer (COO).
 - Escalation to Andrew Taylor and EU Exit Steering Group communicated via intranet.
 - Have you identified local leads for workforce, supply, data, research and medicines?
 - All local leads have been identified.

Supply

- Are national contingency arrangements for supply understood across the organisation and the local actions required in progress?
 - Arrangements for supply are understood by the EU Exit group, and these have been communicated across the organisation as appropriate.
 - Local action to ensure forward planning to accommodate possible additional lead time on orders has been communicated to teams.
- Are plans in place to “walk the floor” to escalate any further EU dependent supply issues that are not addressed nationally?
 - Supply issues that are not covered nationally have been addressed.
- Are plans in place to manage with longer lead times for supplies, and for potentially receiving deliveries out of hours?
 - Communication has been shared to allow for longer lead times.
 - Accommodation for out of hours delivery has been put in place.
 - Stock levels remain healthy. Pre-EU-exit scrutiny has not been maintained; however, there will need to be a reassessment of stock levels in August ahead of EU exit on 31 October.

Workforce

- Are systems in place to monitor uptake of the EU settlement scheme?
 - These systems are in place.
 - EU staff are asked to notify HR when settled status obtained.
 - Numbers of EU staff without settled status to be regularly reported to workforce assurance committee
- Are the key workforce risks of EU exit understood in the organisation and have actions been put in place to mitigate this and monitor impact?
 - Key risks are understood. These are minimal at this time.
 - Impact assessment undertaken, staff groups/ areas with highest exposure identified – monitoring of exit data in place.
 - Non-EU international recruitment opportunities being explored with partner groups (e.g. STP, Capital Nurse).

Clinical Trials

- Has information about EU funded clinical trials been sent to eugrantsfunding@ukri.org
 - This information has been shared.
- Have study sponsors for Investigational Medicinal Products (IMPs) used by the organisation been approached for assurance on continuity of supply?
 - Major sponsors have been approached, covering the majority of the trials in progress at this time.
 - Some sponsors have asked us to store 6 weeks of products; we are pushing back on these requests.

Data

- Have the critical data flows affected by EU Exit (including for clinical trials) been assured?
 - Two outstanding systems hosted in Europe.
 - Cloud services are required to host data in the UK.
 - Information sharing protocols have been reviewed for possible data transfers to EU.

Finance

- Are systems in place to record the costs of EU Exit preparations and impact?
 - Procurement recorded suppliers who have notified that costs will increase by more than 5% on 1 April 2019, and/or have identified Brexit as a cause of increased cost. 20 suppliers identified.
 - Note – concern that there may be an additional wave of increased costs if any tariffs are added as a result of EU Exit.

- Systems were in place to monitor the cost of EU preparations and impact. There was a rise in some costs, some of which were disputed successfully.
- Do you have any risks or concerns to flag?
 - Business Continuity Plans are all up to date to deal with potential risks.
- Is any additional support or information required from a national or regional level?
 - Not at present

Geography / Health Demand

- Have the wider risks of EU Exit on the local health and care system been assessed? E.g. increased demand, difficulties in accessing key sites.
 - As far as possible, these risks have been assessed. GOSH is in close contact with the North Central London STP.
 - Emergency plans are in place.
 - Anxiety over whether other organisations would give stock up, if it was needed.

Template for completion by EU Exit SRO (1 per NHS organisation) to be returned to Regional EU Exit mailbox by 25 March 2019

Topic	Great Ormond Street Hospital for Children NHS Foundation Trust	Comments & risks identified
Operational Communications	Green	
Operational Readiness	Green	
Supply	Amber/ Green	<i>Some suppliers suggest there may be an issue with delay to supplies. This has been fed back to regional/ national teams.</i>
Workforce	Green	
Clinical trials	Green	
Data	Green	
Finance	Green	
Health Demand	Amber/ Green	<i>GOSH is in close contact with the STP.</i>

Please RAG rate:

- Red – no preparations made
- Amber – preparation commenced, but some risks outstanding
- Green – organisation fully prepared

Trust Board 18 September 2019	
Update on the Children's Cancer Centre including submission for approval of the Outline Business Case Submitted by: Matthew Shaw, Chief Executive Helen Jameson, Chief Finance Officer Matthew Tulley – Director of Built Environment	Paper No: Attachment T <ol style="list-style-type: none"> 1. Status of the CCC project 2. CCC OBC 3. Gateway review report
Aims / summary <p>The Children's Cancer Centre (CCC) outline business case (OBC) is submitted for Trust Board approval. If approved GOSH will enter into the PCSA design agreement with John Sisk & Sons (subject to Charity Trustee's approval). Funding will also be allocated to progress the decant works.</p> <p>The OBC has been developed following the agreement of project principles and parameters at the joint Board to Board meeting held in May 2019. The vision for cancer services which supports the case was presented at the July Trust Board. The OBC demonstrates that a new build cancer centre is the preferred option to support the future clinical requirements of GOSH providing both an increase in capacity and essential improvements in the healthcare environment.</p> <p>The financial analysis shows that the revenue impact of the CCC investment is affordable. As demand grows the additional capacity provided by the CCC makes a positive financial contribution to the Trust's financial position. The basis of the current capital position is the Charity commitment to contribute £250m to support the CCC. GOSH will contribute £8m to support the decant programme. The project budget contains £32m contingency and optimism bias. At this stage of the project it is considered adequate but ideally would be higher. GOSH is looking at ways to increase the contingency through the optimisation of the decant plan and reviewing our forward capital programme.</p> <p>The procurement approach is described and is consistent with Cabinet Office best practice guidance. The early engagement of the contractor with the design team creates the conditions which are most likely to deliver a value for money solution. The process to select John Sisk and Son has previously been described and approved by the Trust Board.</p> <p>The management section of the OBC describes the resources and governance structure in place to deliver the CCC. This has been subject to discussions with the Charity. A clear scheme of delegation is being developed to ensure roles, responsibilities and accountabilities are agreed and clearly understood.</p> <p>The CCC project has been subject to two reviews. The first being an independent Gateway Review by the Cabinet Office Infrastructure Projects Authority review team. The second review was conducted by advisors employed the Charity. Both reports are included in the papers.</p>	

The Gateway Review has given an overall amber status. This reflects the known issues that require resolution, all of which the Gateway review considers resolvable with appropriate and continued management attention. The Gateway review team understood and considered sensible the evolution of the CCC project as the funding envelope changed. They also note GOSH needs to focus on the programmes of work to deliver the whole of the cancer vision as well as the physical infrastructure project. Plans are in place to respond to all of the recommendations.

The Charity review has examined the brief and design proposition developed following the reduction in the funding envelope. It is recognised that in reducing the capital by one third there will be compromises in terms of the brief, clinical functionality and ability to deliver the whole of the design aspiration. The report identifies a number of potential design issues that require attention during the next stage of design. The review also considers whether reverting to something close to the original design may provide a solution which delivers the design aspiration of the original brief. In reviewing the report the joint management committee recommends entering the PCSA and proceeding to the next stage of design of the “preferred” option (as described in the OBC). During this stage the extent to which the design meets the brief will be evaluated and compared with the earlier EDA scheme design drawings. Consideration will be given as to whether any compromises to the vision are of a fundamental concern and may require changes to the design or revisiting a smaller EDA scheme.

If approved by the Trust Board and Charity Trustees the OBC will be submitted to NHSI for review.

The next step is to enter into the PCSA with Sisk. The terms and conditions are being finalised. This process will be completed during October with the programme showing start of the RIBA2 design process first week of November. Note this is prior to the date for NHSI approval. An initial ‘kick off’ meeting will be held in November with all Hospital and Charity parties to ensure any concerns are fully understood and will be fully addressed. The total PCSA cost for the design team taking the project through to start on site is £11m. The total budget allocation including internal fees and advisor support during this period is £16m.

During the design stages GOSH will be developing the Full Business Case. This will be presented for approval after a planning consent has been obtained and a fixed price cost for the works has been agreed. It is only on approval of the FBC that GOSH and the Charity are committed to the works contract.

Action required from the meeting

- That the Board notes the contents of the reports.
- That the Board approves the CCC OBC.

Contribution to the delivery of NHS Foundation Trust strategies and plans

The CCC vision supports the continued delivery and development of our cancer services and enables significant improvements in the quality and capability to develop GOSH as a paediatric medicines centre. The CCC vision supports our goal of creating inspiring spaces and providing the right equipment and technology to support clinical services and enhance patient care.

Financial implications

On approval of the OBC GOSH is committed to provide £8m capital support during the PCSA period.

Attachment T

Who needs to be told about any decision?
GOSH Charity Trustees. John Sisk & Son. NHSI
Who is responsible for implementing the proposals / project and anticipated timescales?
Matthew Tulley - Director Built Environment
Who is accountable for the implementation of the proposal / project?
Matthew Shaw - CEO

The Children's Cancer Centre – programme update

Summary

The report covers the following items of the programme:

- 1) Outline business case
- 2) Independent reviews
- 3) Procurement of the CCC with John Sisk and Sons.

The OBC has been completed and submitted to the Trust Board as agreed. The draft chapters have previously been circulated for review and all comments processed. The economic and finance chapters demonstrate that the new build CCC proposal is the favoured option and that the CCC investment is affordable. Indeed the CCC positively contributes to GOSH finances.

The commercial and management sections have previously been reviewed. They support the continued development of the CCC following the approach of engaging with a design team and main contractor from the earliest stages of the project. Moving into the next phase of the project additional resource is required within the project team. The governance structure is robust but further work is required to ensure absolute clarity on roles, responsibilities and accountability.

Two independent reviews of the CCC have been completed. The first is a Cabinet Office Infrastructure Projects Authority Gateway Review. The second is the review undertaken by the GOSHCC technical advisors.

The IPA review has given an overall amber status with a number of useful recommendations. The key recommendation is to ensure the governance structure is robust and key roles and responsibilities are unambiguous. The IPA also support the need to invest in the project delivery team for the next phase. Finally the issue of the successful delivery of the cancer vision being a programme of work with many interconnected projects is noted with the need

for GOSH (and the Charity) to ensure there is sufficient focus on all work streams required to deliver the cancer vision.

The Charity review has focused mainly on the revised scope of the CCC scheme as dictated by the funding envelope. A number of potential issues that need to be addressed during the RIBA 2 design phase are raised although it is noted these are the result of the reduction to the funding envelope. The issues are all known to the design team and will be a focus during RIBA 2. The review notes a revised footprint for the CCC, moving back to something closer to the original EDA scheme, may be necessary if the design issues cannot be resolved. An evaluation of the scheme, including the potential compromises, will be completed during the RIBA 2 period (to report by the end of March 2020).

To progress the CCC with the John Sisk and Sons team the early design agreement (EDA) was extended in July. The Sisk team has been supporting GOSH in the development of the CCC prior to entering the PCSA design period. Negotiations are on-going to finalise the terms and conditions of the PCSA. These are largely agreed and are consistent with the documents developed during the CCC design competition. Some amendments are required to reflect the revised scope of the CCC. The PCSA cost is to be agreed but will be around £11m. Total costs to deliver the design, planning consent and works contract during the PCSA, including internal costs are estimated at £16m.

Outline Business Case

The OBC has been delivered to the Trust Board in September as agreed following the combined Trust/Charity meeting in May 2019. The OBC has been developed within the parameters established during this board to board meeting. The key sections are summarized:

- 1) **Cancer vision and strategic case:** This section sets out the purpose of the investment. An ambitious vision for the cancer services at GOSH has been developed requiring focus on the tripartite mission of clinical

services, research and education. The requirement to provide a resource that has a national and international impact has been articulated which will require GOSH developing partnerships and working with key stakeholders to expand our horizons and the access and impact of our services.

Within the strategic case the forthcoming capacity issues, which will see access to our cancer and other services becoming restricted from the mid/late 2020s, have been modeled. This has a subsequent impact GOSH financial performance and sustainability. Case for and benefits of providing a high quality environment are now very well understood and accepted and the significant limitations of our current estate are identified.

- 2) **Economic section:** This section describes the option analysis undertaken to select the preferred option to meet the needs and objectives set out in the strategic case. A number of options have been developed. The qualitative evaluation of the options, undertaken by a large multi-disciplinary team of GOSH staff, strongly favoured the new build option over the other options. The quantitative analysis supports the qualitative analysis and shows the new build option is the overall preferred option. The difference between the scores is significant and there is no credible scenario which would see the preference switch.
- 3) **Commercial section:** Within an OBC this section usually describes the market appetite for the project and the preferred procurement route. Having developed the innovative procurement route of the multi-disciplinary design team selected during the RIBA competition the section describes how the project will be delivered with the team selected via the design competition process. Recognising the time period and key activities required to be completed prior to the works starting and the key items of gaining a planning consent and delivering a fixed priced

works contract within the Works Cost Limit the contract structure, which provides a number of protections and approval gateways, is described.

The project is working to the agreed funding envelope of £258m. Within this the Works Cost Limit (excluding residual VAT and inflation) has been set at £121m. This is subject to final testing and confirmation from John Sisk prior to signing the PCSA. The budget includes circa £32m of contingency and optimism bias. At this stage of a project of this nature this contingency is considered adequate but ideally would be larger. A judgment needs to be taken to the size of the contingency whilst sensibly trying to maximize the value and impact of the available funding. The Trust is looking at opportunities to increase contingency through an examination of the decant plan and review of our five year capital programme.

The commercial section details the current plan to decant the Frontage Building which can be delivered within the identified £25m budget. This provides the base case within the OBC. There may be opportunities to improve on this position, reducing both cost and programme risk, through the better utilization of our existing estate. The clinical operational team has been challenged to identify options for a more efficient decant plan by the end of September.

- 4) **Finance Section:** The affordability impact of the investment has been modeled. This has been done through a 15 year Long Term Financial Model (LTFM) noting that the investment only comes on-line half-way during this period. The LTFM identifies the savings programme required to meet the financial parameters set by the board that as a minimum GOSH breaks even every year and has a cash balance of £40m. The LTFM shows that to meet these parameters in the next five years GOSH has a savings programme to deliver. This is unrelated to the CCC investment.

The LTFM modeling shows a base case with a savings programme over the LTFM period of £98m. Although this has no costs related to a CCC investment GOSH starts to lose income due to capacity constraints. The modeling with the CCC investment shows that the investment, allowing for the additional costs, reduces the 15 year savings programme to £95m. This is due to the additional activity the CCC investment supports.

- 5) **Management section:** The governance and resources required to deliver the CCC are set out. The governance structure has been subject to much discussion between GOSH and the Charity. The key feature is the revamped CCC Programme Board. This is jointly chaired by the CEOs of GOSH and the Charity. However in terms of responsibility and accountability the GOSH CEO is the Senior Responsible Office who is accountable for the delivery of the CCC works programme.

Independent Review of the CCC

The programme has been through two independent review processes. The first from the Cabinet Office Infrastructure Projects Authority who undertook a Gateway 2 review. This looks at the readiness of the project to proceed in terms of governance and resources the strategic purpose of the proposal and identifies key risks and issues.

The second review is part of the on-going Charity technical assurance process and was carried out by their appointed technical advisors.

The Gateway team conducted their review between the 2nd and 5th September. The full Gateway report is attached and the executive summary is in the Management Section of the OBC. The overall project status is amber. The definition of amber is:

“Successful delivery appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and, if addressed promptly, should not present a cost/schedule overrun.”

Given the change to the scope of the project and the requirement to complete the early design phase this is expected.

The key findings of the Gateway are:

- The project team delivering the CCC is highly experienced and expert. The team will require additional resources during the next phase of the project.
- The Governance arrangements need to be very clear with a transparent agreement regarding roles and responsibilities within GOSH and also between GOSH and the Charity.
- GOSH needs to clearly differentiate between the CCC programme and individual projects within the programme required to deliver the overall CCC vision.
- The revised scope of the scheme needs to be agreed as the functional content. This will allow the design team to apply this to the replanning of the build and start to develop the external appearance of the scheme.
- The timescale to secure full planning consent appears optimistic but there does appear to be some flexibility in the overall programme to secure the projected main construction date.
- The overall programme capital costs are based on a detailed appraisal of the original Phase 4 scheme and there has been independent assurance of the adequacy of these. The costs have been applied to the descoped scheme and will need to be tested as the design proceeds.
- The schedule of benefits clearly links to the project aims and objectives. During the next phase a more detailed exercise should be undertaken to baseline benefits against which to measure benefit realization.

- During the design period up to FBC developed work needs to be developed with regards to changing models of care, treatment modalities and staffing models.

The Charity review, undertaken in late August, focused on the revised scope of the CCC project following the change to the funding envelope and risks around the delivery of this revised brief. The review recognizes that significant work has been undertaken rapidly to respond to the changing project parameters and produce the revised brief.

The key issue identified in this review is the ability to deliver the revised functional content within the footprint available and the funding envelope. It is recognized that the reduction in the funding envelope inevitably has an impact on both the functional content and, possibly, the design aspirations of the CCC. The report raises a number of key design issues that may be compromised in the revised project that will need to be addressed during the next stage of the design. Indeed it is only by undertaking further design work that the information to fully understand the ability to deliver the brief will be available.

In the context of potential difficulties in delivering the brief the review raises the issue of reverting to the footprint of the scheme envisaged during the early design period. This is something that will be reviewed during the next stage of design when the information is properly available to effectively evaluate the options.

The review concludes supporting proceeding to the PCSA and commencing the necessary decant works.

Procurement of the PCSA with John Sisk and Sons

The Trust is in the final stages of agreeing the design agreement (PCSA) with John Sisk and Sons. The terms and conditions of the PCSA were agreed during the design competition phase and have previously been reported to the Finance

Attachment T

and Investment Committee and Trust Board. The contracts have been reviewed by the GOSH procurement team and also commented on by the Charity's legal advisors.

With the revised scope to the scheme and the requirement to repeat the RIBA 2 design stage there will be some amendment to the total cost of the PCSA. The costs are being finalized but will be consistent with the competition bid. In entering the PCSA Sisk will be confirming they can deliver the scheme within the agreed Works Cost Limit. They are undertaking the necessary due diligence to confirm this is the case.

Following approval of the OBC by the Trust Board and Board of Trustees the intention is to have the PCSA signed by the end of October with design work commencing the first week of November. The RIBA 2 design phase will be completed in March 2020.

Matthew Tulley
Director Built Environment

Children's Cancer Centre Outline Business Case



DRAFT Version: 4.0
September 2019
FOR ISSUE

Document Control and Amendment Record

Draft Version Control

Version	Date Issued	Brief Summary of Change	Owner's Name
Draft 0.1	July 2018	First issue to SW for comment	LG
Draft 0.2	August 2018	Second draft following SW comments	LG
Draft 0.3	June 2019	Incorporating revisions to scope	LG
Draft 0.4	June 2019	Incorporating additional revisions to scope	LG
Draft 0.5	July 2019	Incorporating additional revisions to scope	LG
Draft 1.0	July 2019	Incorporating comments and additional information from MS / CWL / SW / WM	LG
Draft 2.0	August 2019	Incorporating additional information from SW / WM	LG
Draft 3.0	August 2019	Incorporating additional information from SW / WM and Financial Case	LG
Draft 3.1	August 2019	Incorporating additional information and amendments from MT / SW / WM	LG
Draft 4.0	September 2019	Incorporating Economic and Financial Case information. Formal Trust Board issue.	LG

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1.0 Executive Summary

1.1 Introduction

This Outline Business Case (OBC) is in support of the development of a Children's Cancer Centre at Great Ormond Street Hospital, part of Great Ormond Street Hospital for Children NHS Foundation Trust (GOSH). This project will enable the development of accommodation in order to provide co-located and sustainable children's cancer services, delivering modern models of care in the most appropriate setting.

The OBC is based on the Five Case Model, which is the format recommended as best practice by HM Treasury.

The OBC received approval from the Executive Management Team in September 2019 and is now subsequently being presented to the Trust Board.

1.2 Vision

Great Ormond Street Hospital is the only exclusively specialist children's hospital in the UK delivering the UK's widest range of specialist health services for children on one site. Most of the children cared for by GOSH are referred from other hospitals throughout the UK and overseas; more than half of the patients come from outside London. GOSH hosts 17 highly specialised national services. Many children need the help of different specialist teams, and this is very much the case for cancer patients because of their increasing medical complexity. This makes GOSH one of a few, if not the only, place in the UK that has the full range of specialties under-one-roof, including intensive care and BMT, needed to treat children with cancer.

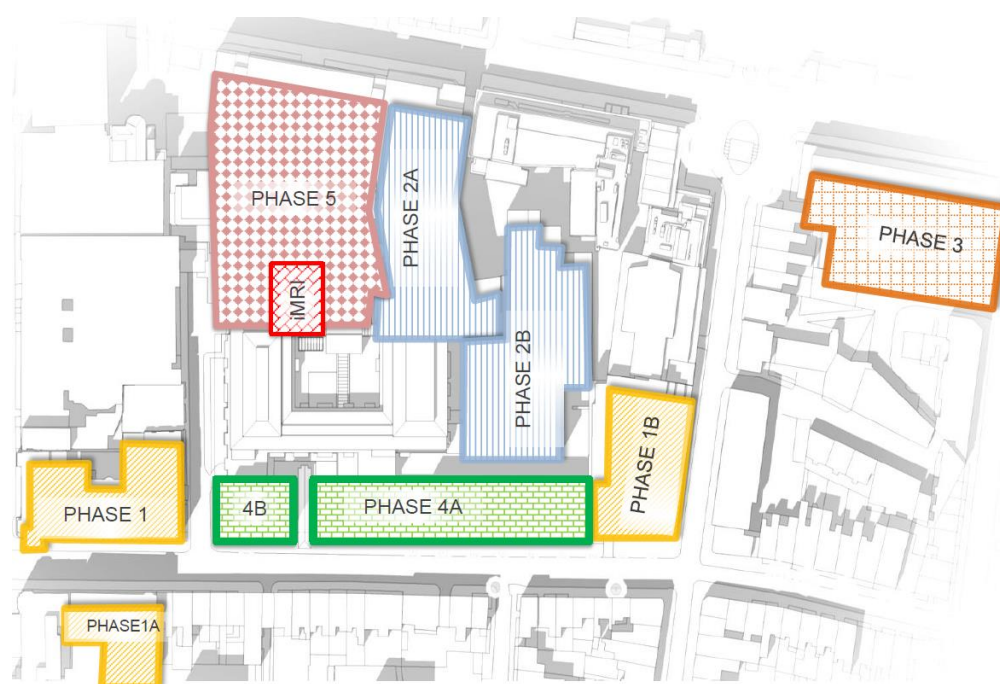
The Children's Cancer Centre at Great Ormond Street Hospital will be the physical embodiment of GOSH's cancer vision, providing inspiring and flexible spaces that can respond to the rapidly changing nature of cancer care and the research landscape. It will be a national resource and will act as a key enabler for GOSH to treat children with rare and difficult-to-treat cancers at an even faster pace in order to improve outcomes for children.

1.3 Strategic Case

The Strategic Case provides a summary account of GOSH in terms of clinical services and research delivered and sets the baseline position in the context of the approved Masterplan 2015. Phases 1 and 2 have been developed, and Phase 3 will be operational from autumn 2019.

As a continuation of the implementation of the long term Masterplan, this OBC details the preferred option for Phase 4A, Children's Cancer Centre.

The figure below summarises Phase 4A plus potential future options (which are outside the scope of this OBC).



The Children's Cancer Centre will align with the Trust's Clinical Strategy, to strengthen specialist and highly-specialist paediatric services, and to lead in future fields, and is also fully aligned with the Trust's Research Strategy, a key aim of which is to be one of the global leading children's research hospitals.

The national and local strategic direction fully aligns with GOSH's Vision and strategic direction.

The key drivers for change have been summarised as:

1. Limitations of the existing estate
2. Increasing demand for clinical services
3. Need to improve clinical quality
4. Drive to implement principles of research hospital

In response to these drivers the following project objectives have been agreed:

No.	Objectives
1	Achieve the best possible outcomes & safest and most effective care
2	Attract and retain the right people
3	Improve children's lives through research & innovation
4	Transform care and the way we provide it through harnessing technology
5	Use of voice as a trusted provider to improve care
6	Create inspiring spaces
7	Secure and diversify funding

The overarching benefits that will be realised as a consequence of this investment are shown below.

Category	Benefit Title
Clinical Benefit	Co-localisation of Oncology services
Clinical Benefit	Facilitating transition to ambulatory model of care
Clinical Benefit	Improvement in mortality and morbidity rates and increased quality of life
Clinical Benefit	Creating Clinical Flexibility
Clinical Benefit	Enabling all ICU beds to become compliant with modern technology and space standards
Clinical Benefit	Improved patient flows due to new models of care
Quality and Safety	Reduction in infection rates
Quality and Safety	Reduction in patient moves
Quality and Safety	Improved Pharmacy Estate
Training and Research	Increased research activity and income
Training and Research	Increased CRF capacity
Building Design	Parent Satisfaction
Building Design	Digital Strategy Enabler
Building Design	Recruitment and retention benefits: The CCC makes GOSH a more attractive place to work for staff
Building Design	Children and Young People Satisfaction
Building Design	Technology Advancements
Estates & Facilities	Improved Facilities Flow
Estates & Facilities	Reduced backlog maintenance
Estates & Facilities	Estate becoming more CO2 efficient
Estates & Facilities	Increase Estates Compliance
Societal Benefits	Construction of the CCC
Societal Benefits	Local economy
Societal Benefits	Local Involvement in Design
Reputational Benefits	Increased profile world wide

A long-term demand and capacity model has been developed to help forecast bed requirements and make important planning-based decisions, e.g. future phases and refurbishment projects that could deliver additional capacity and improved environments as part of the CCC development. The model includes an assessment of expected impact of demand, and current and future policy and commissioning trends. The demand and capacity plans in this OBC align to the Trust strategic areas of growth, including cancer services.

1.4 Economic Case

The Trust has undertaken a two-phase approach to the options appraisal:

- Scheme options appraisal: the aim of this appraisal was to determine the strategic option and location. A Do Nothing option was discounted by Trust Board at this stage and therefore Do Minimum is the benchmark option; and
- Functional content options appraisal: the aim of this appraisal was to determine the preferred functional content of the new facility, based on the outputs of the scheme option appraisal.

The shortlisted options for the functional content are summarised below.

Option 2 – Do Minimum	Description
	This option sees the Pharmacy centralise all of its services in the Frontage Building and expand cancer services in Southwood resulting in an increase of 16 beds. Safari Ward will relocate from level 9 to level 5 with the Outpatients being located on level 6 as the current accommodation is not suitable for them to remain in long term. The school will be given 2 wings of level 7 to relocate their offices from level 2 which creates space for improvements in that area. Magpie, RANU and Neurophysiology will move from level 4 to level 9 so the cancer services can be located together.
Option 3 – Creation of the Cancer Centre functional content within existing estate	Description
	This option delivers everything described in option 2 but then sees a far greater amount of building works to Southwood and Frontage, including the creation of a PET/MR suite on level 1 of Frontage. The level of intervention in the VCB is more significant with wards on level 5 and 6 being converted to PPVL single bedrooms. This option creates expansion of the Clinical Research Facility as per a recently approved Business Case.
Option 4 – Creation of the CCC Phase 4A	Description
	This option is a new build scheme on the Frontage building site. This option creates expansion of the Clinical Research Facility as per a recently approved Business Case.

The shortlisted functional content options were subjected to an economic appraisal using the Generic Economic Model (GEM). The outputs of this appraisal are that Option 4: Creation of CCC Phase 4A is the preferred option.

The capital costs associated with this option (on the basis of the commercial deal described in this Commercial Case) are summarised below.

Option 4 - CCC	Cost exc VAT £	VAT	Cost inc VAT £
Works Cost Subtotal inc. provisional location adjustment	98,190,151	19,638,030	117,828,181
Fees	21,972,350	-	21,972,350
Non-Works Cost	8,250,000	1,650,000	9,900,000
Equipment Cost (32.53% of Departmental Costs)	19,500,000	3,900,000	23,400,000
Planning Contingency	13,700,050	2,740,010	16,440,060
Total for approval purposes (exc. Optimism bias)	161,762,551	27,958,040	189,720,591
Residual Optimism Bias (14.03%)	22,696,000	4,539,200	27,235,200
Inflation Adjustments	42,296,181	8,459,236	50,755,417
VAT Recovery	-	35,437,433	35,437,433
Forecast Outturn Business Case Total – Main Building	226,754,733	5,519,043	232,273,776
Trust Enabling / Decant Works			24,994,980
Forecast Outturn Business Case Total – CCC Phase 4A Development			257,268,756

The Equivalent Annual Cost (EAC) has been established for each option. To inform the value for money assessment, the EAC has been divided by the weighted results of the Benefits Appraisal to produce a cost per benefit point as shown below.

Option	EAC (£m)	Benefits Appraisal	EAC per Benefit Point (£m)	Rank
1	425.61	14.00	30.40	4
2	437.40	24.30	18.00	3
3	436.47	43.50	10.03	2
4	443.21	83.80	5.29	1

The outcome of this cost benefit analysis demonstrates that Option 4 delivers the lowest cost in pounds to deliver one benefit point at £5.29 million. The next lowest cost option is Option 3 which costs £10.03 to deliver one benefit point.

A sensitivity analysis has been undertaken the outputs of which confirm Option 4 remains the preferred option.

1.5 Commercial Case

The scope of works to be provided via the CCC Phase 4A is a new build on the site of the existing Frontage building, located on the South area of the island campus. The scheme will involve the decant of services from the Frontage building, and its subsequent demolition.

A CCC Clinical Design Brief was produced in August 2019 which describes the functional content, clinical specification and overarching design philosophy and principles. The key elements of the proposed accommodation include:

Service / Area
Cancer ambulatory care including outpatients
Cross sectional imaging and iMRI facility
Inpatient wards
Paediatric intensive care unit
Bone Marrow Transplant Ward
Activity Centre / Hospital school
Pharmacy
Special feeds unit

As part of the Clinical Design Brief, GOSH has adopted a 'Horizontal Platforms of Care Model' that will be developed and built upon with each successive phase of the redevelopment masterplan. The model aims to achieve logical collocation of services to make wayfinding easier for families and establish better clinical adjacencies to improve efficiency and ensure patient safety.

The internal layouts are organised broadly into four zones: Level 01 (restricted access floor relating to pharmacy and production), Levels 02 and 03 patient services including day case, outpatients and complex imaging including iMRI and PET MR; Levels 04-08 (PICU, BMT and generic wards) and Level 09 (hospital school and activity centre and roof garden). CCC Phase 4A will provide 80 beds including 64 cancer services beds and 16 critical care beds and 2 basement levels. The stacking diagram below shows the high level accommodation of the CCC Phase 4A scheme, on a floor by floor basis. This

has been put into context of the potential development of Phase 4B, which would see the development of the adjacent Paul O’Gorman building (subject to a separate business case process).

	Phase 4B (PO’G)	Phase 4A (Frontage)
10	Plant	Plant
9	Parent Lounge	Hospital School and Activity Centre
8	Staff Rest	Inpatients: 16 Beds – Cancer Services (PPVL)
7	Offices/Teaching	Inpatients: 16 Beds – Cancer Services (PPVL)
6	Offices/Teaching	Inpatients: 16 Beds – Cancer Services
5	Offices/Teaching	Inpatients: 16 Beds – Cancer Services
4	Offices/Teaching	Inpatients: 16 Beds – Critical Care
3	Imaging: 1no MRI <u>or</u> CT	Complex Imaging: iMRI Suite; 1no PET MR; 1no CT <u>or</u> MRI (TBC)
2	Café/Retail	OP Dispensary
1	Facilities Management	Pharmacy
0		Plant inc. ICT Data Centre

The designs for the development primarily follow the HBN guidance. An Affirmations List has been developed in response to any planned variance from HBNs and HTMs. The Trust is targeting a BREEAM rating of ‘Excellent’ (based on BREEAM 2018), with a current targeted score of 82.80%.

The Trust agreed a preferred procurement route to appoint a multi-disciplinary design team with a Prime Contractor. This contract was the subject of an OJEU process, and the procurement was managed by the Trust in accordance with the requirements of the Competitive Dialogue procedure as set out with Regulation 30 of PCRs 2015. On the basis of the outputs of the tender evaluation, the recommendation to the Trust Board was that Bidder B, John Sisk & Son, partnered with BDP architects, was selected as the preferred partner to enter the Early Design Agreement. At the end of the PCSA, if there is agreement on the contract sum and it remains within the established works cost limit, the Trust or Charity can award the contract to John Sisk & Son (although there is no obligation to). The Trust has selected the NEC3 Engineering and Construction Contract (as amended) Option A for the delivery of the main project. There are five enabling works packages of varying values and proposed procurement routes and contracts.

There has been significant pre-application town planning engagement with London Borough of Camden. Pre-applications meetings and workshops have taken place and a Planning Performance Agreement (PPA) has been agreed, which brings certainty in terms of resources provided by LBC, officer ‘ownership’ and agreed target dates for the planning process. The preferred planning strategy is for the submission of a single planning application for Phases 4A and 4B.

The principal commercial / legal issue for the CCC Phase 4A project relates to the freehold on the Frontage building, which is part-owned by the Charity. In discussions between the Trust and the Charity the preferred approach is to consolidate the CCC 4A site as a GOSHCC freehold. The CCC

Phase 4A works contract may then be between GOSHCC and the chosen contractor, subject to NHSI approval. This approach is being pursued on the principle of no loss of assets to the NHS.

The principles for CCC Phase 4A workforce planning and redesign were agreed by Senior Management Team in August 2018. In terms of the LTFM modelling, GOSH has assumed incremental increases to staff in all years within the model. This is due to the Trust utilising more beds within its capacity. Current capacity will be exceeded during 2027/28; should the preferred option not be implemented the majority of growth in staff stops at this point. Beyond 2027/28 growth in staff will continue, but there will not be a significant step change at the point of opening the CCC.

The principal commercial / legal issue for the CCC Phase 4A project relates to the freehold on the Frontage building, which is part-owned by the Charity. In discussions between the Trust and the Charity the preferred approach is to consolidate the CCC 4A site as a GOSHCC freehold.

The GOSH Digital Strategy (2017) includes the vision for how the collaboration between the built environment and future-proofed technology will benefit the patient, parent, visitor and staff experience. The design brief provided some overarching aims for the digital strategy and over the next two years of design process, the teams will work closely to ensure that the layout and technology considerations of the building work to support current plans and possible future ICT developments.

1.6 Financial Case

The Financial Case outlines the approach and assumptions, financial impact and affordability of implementation of the new preferred option, Option 4 CCC Phase 4A. For the purposes of this appraisal, affordability is defined as the Trust maintaining financial surplus every year and a cash balance of a minimum of £40m.

The financial model utilises a number of key outputs from other parts of the OBC process, namely workforce planning, demand and capacity planning and design in establishing the capital and revenue implications of preferred option.

The information in this Case provides a long term financial model (LTFM) for the Trust and the subsequent impact on the Trust's Statement of Comprehensive Income (SOCi), Statement of Financial Position (SOFp) and Statement of Cash Flows (SOCF).

1.6.1 Impact on SOCi

The table below show the forecast SOCi following inclusion of costs relating to the CCC Phase 4A. This position includes a better value/savings programme that would be sufficient to meet the

required metrics of never going into deficit (maintaining a control total always equal to or better than breakeven) and always maintain cash reserves of at least £40m.

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating revenue															
NHS and non-NHS Activity Revenue	324.8	322.5	327.0	328.0	327.5	333.6	339.2	344.3	349.0	353.3	357.7	361.8	365.6	369.0	372.4
Passthrough income	65.9	68.5	71.1	73.1	75.1	79.1	83.2	87.3	91.5	95.7	100.2	104.7	109.3	114.0	118.9
IPP income	61.1	65.4	69.9	74.5	79.3	84.3	89.4	94.7	100.2	105.8	111.6	117.7	123.9	130.3	137.1
Other Operating income	34.3	38.6	37.6	36.5	35.1	35.3	33.7	34.0	34.4	34.7	35.3	36.0	36.6	37.3	38.0
Total operating income	486.0	495.0	505.5	512.1	517.0	532.3	545.6	560.4	575.0	589.6	604.9	620.2	635.5	650.6	666.3
Operating Expenses															
Employee benefits expense	(283.1)	(294.7)	(304.7)	(310.6)	(316.5)	(326.3)	(335.0)	(345.5)	(355.0)	(365.2)	(376.7)	(385.7)	(397.3)	(406.9)	(416.7)
Drug expense	(11.8)	(12.7)	(13.7)	(14.7)	(15.8)	(16.9)	(18.1)	(19.3)	(20.6)	(21.9)	(23.4)	(24.8)	(26.4)	(28.0)	(29.7)
Blood costs	(2.0)	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)	(2.5)	(2.6)	(2.7)	(2.8)	(2.9)	(3.0)	(3.1)	(3.2)	(3.3)
Clinical supplies	(44.1)	(45.6)	(47.2)	(48.8)	(50.3)	(51.8)	(53.3)	(54.7)	(56.1)	(57.4)	(58.8)	(60.1)	(61.4)	(62.6)	(63.8)
Non Clinical Supplies	(5.4)	(5.5)	(5.7)	(5.9)	(6.1)	(6.2)	(6.4)	(6.6)	(6.7)	(6.9)	(7.0)	(7.2)	(7.3)	(7.4)	(7.6)
Other Operating expenses	(50.3)	(54.8)	(55.7)	(56.7)	(58.1)	(59.4)	(66.7)	(71.0)	(72.5)	(74.6)	(76.1)	(77.7)	(79.2)	(80.7)	(82.3)
Operating lease charge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment of receivables	(0.6)	(1.6)	(0.9)	(1.0)	(1.0)	(1.0)	(1.1)	(1.1)	(1.1)	(1.2)	(1.2)	(1.3)	(1.3)	(1.3)	(1.4)
Pass Through expenditure	(65.9)	(68.5)	(71.1)	(73.1)	(75.1)	(79.1)	(83.2)	(87.3)	(91.5)	(95.7)	(100.2)	(104.7)	(109.3)	(114.0)	(119.0)
Better value	0.0	7.4	15.1	24.6	31.4	33.3	44.1	50.6	54.5	60.0	64.2	66.9	72.3	76.1	80.0
Total operating expenditure	(463.2)	(478.3)	(486.1)	(488.5)	(493.9)	(510.0)	(522.3)	(537.7)	(551.9)	(565.8)	(582.0)	(597.6)	(613.0)	(628.1)	(643.7)
EBITDA	22.8	16.8	19.5	23.6	23.1	22.3	23.3	22.7	23.1	23.7	22.8	22.6	22.5	22.5	22.5
Other income and expenses (PDC, dep'n etc.)	(18.7)	(16.7)	(18.5)	(19.8)	(21.2)	(22.3)	(23.3)	(22.7)	(23.1)	(23.7)	(22.8)	(22.6)	(22.5)	(22.5)	(22.5)
Control total	4.1	0.0	1.0	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.6.2 Impact of Statement of Financial Performance

The forecast SOFP after inclusion of the additional costs of CCC is as follows:

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Property, Plant & Equipment - Total	483.6	495.6	493.5	487.5	481.0	471.9	460.1	443.9	432.5	417.7	410.5	404.2	397.7	393.4	388.6
Intangible assets - Total	44.3	42.3	40.2	38.1	36.1	38.5	40.3	41.5	42.2	43.0	43.1	42.6	41.8	40.1	38.3
Trade and other receivables	6.0	6.4	6.4	6.4	6.4	6.7	6.8	7.0	7.1	7.2	7.3	7.5	7.6	7.8	7.9
Total Non Current Assets	533.8	544.3	540.1	532.0	523.5	517.1	507.1	492.4	481.8	468.0	461.0	454.3	447.1	441.3	434.8
Inventories	9.4	9.7	10.1	10.5	11.0	11.4	11.8	12.3	12.7	13.1	13.6	14.1	14.5	15.0	15.5
Trade and other receivables	87.4	85.1	87.3	89.9	92.7	97.3	100.8	105.0	108.8	112.7	116.9	121.2	125.7	130.3	135.1
Cash and cash equivalents (excluding loan capital)	56.5	45.0	40.0	40.0	40.0	40.2	46.0	49.2	51.2	54.5	56.3	57.9	59.4	60.2	61.0
Total Current Assets	153.3	139.8	137.4	140.5	143.7	148.9	158.7	166.5	172.6	180.3	186.8	193.2	199.5	205.5	211.6
Total Current Liabilities	(80.3)	(78.1)	(79.9)	(81.8)	(84.0)	(86.1)	(91.5)	(95.3)	(97.3)	(99.7)	(101.8)	(103.9)	(106.0)	(108.1)	(110.3)
Net Current Assets	73.0	61.7	57.5	58.6	59.8	62.8	67.2	71.3	75.3	80.6	85.0	89.2	93.5	97.4	101.4
Total Assets Less Current Liabilities	606.9	606.0	597.6	590.6	583.3	579.9	574.3	563.6	557.1	548.5	545.9	543.5	540.6	538.7	536.2
Total Non Current Liabilities	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)
Total Assets Employed	602.0	601.1	592.7	585.7	578.4	575.0	569.4	558.7	552.2	543.6	541.1	538.6	535.7	533.8	531.3

1.6.3 Impact on Statement of Cash Flow

The revised forecast Cash flow after inclusion of the additional costs of CCC is as follows:

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating surplus	37.2	7.4	0.3	1.9	1.7	5.7	3.5	(1.8)	2.0	(0.1)	5.8	5.9	5.3	6.2	5.7
Net cash generated / (used in) operations	30.5	19.3	18.5	22.2	21.7	18.9	24.2	21.2	20.7	21.4	19.9	19.5	19.4	19.1	19.0
Net cash generated / (used in) investing activities	(14.6)	(22.1)	(14.5)	(12.9)	(12.3)	(9.2)	(8.8)	(8.7)	(9.8)	(9.2)	(9.3)	(9.3)	(9.3)	(9.7)	(9.7)
Net cash inflow / (outflow) before financing	15.9	(2.8)	4.1	9.4	9.5	9.7	15.3	12.5	10.9	12.2	10.6	10.3	10.1	9.4	9.4
Net cash outflow from financing	(8.0)	(8.7)	(9.1)	(9.3)	(9.4)	(9.5)	(9.5)	(9.3)	(8.9)	(8.9)	(8.8)	(8.7)	(8.6)	(8.6)	(8.5)
Net increase / (decrease) in cash and cash equivalent	7.9	(11.5)	(5.0)	0.0	0.0	0.2	5.8	3.2	2.0	3.3	1.8	1.6	1.5	0.8	0.8
Opening cash balance	48.6	56.5	45.0	40.0	40.0	40.0	40.2	46.0	49.2	51.2	54.5	56.3	57.9	59.4	60.2
Net increase / (decrease) in cash and cash equivalent	7.9	(11.5)	(5.0)	0.0	0.0	0.2	5.8	3.2	2.0	3.3	1.8	1.6	1.5	0.8	0.8
Closing cash balance prior to loan capital (incl. P	56.5	45.0	40.0	40.0	40.0	40.2	46.0	49.2	51.2	54.5	56.3	57.9	59.4	60.2	61.0

1.6.4 Capital Costs

The total capital cost for the CCC Phase 4A is £257.7m, of which £250m of the funding for the project will be provided by GOSHCC who may build the new facility. Assuming so, the Trust would then lease the property from 1 April 2026 on a commercial rental.

1.6.5 Funding

The majority of the capital works for the project will be funded by the Charity. The funding plan is that the existing Frontage land and buildings along with other assets including office and residential accommodation will be sold to the Charity at Modern Equivalent Asset values. In return, the GOSHCC will sell to the Trust in exchange, assets of an equivalent value. The Trust would then lease the completed property at commercial rates. This will include the funding of all necessary equipment required within the building.

The remainder of the capital costs (£8m) will be funded by the Trust and will be used to fund some of the initial decanting costs and enabling works associated with the project. The Trust will also fund any additional costs caused by overruns.

1.6.6 Overall Affordability Assessment

The preferred option is affordable to the Trust provided that the saving programme is delivered in this time.

1.7 Management Case

A clear governance structure has been established which is overseen by the CCC Programme Board, which reports to the Trust Board and Charity Trustees (and also Board sub-committees FIC / PAD). Membership of the CCC Programme Board is drawn from across GOSH and GOSHCC. The CCC Programme Board has overall responsibility for delivery of the CCC Phase 4A programme. The Senior Responsible Owner (SRO) and Programme Sponsor is Mat Shaw, Chief Executive, GOSH.

The programme for the new build will be developed and handed over in a single phase. This will be preceded by the enabling works contract, and a series of decants moves.

Milestone	Start date	End date
OBC External Approval	October 2019	February 2020
PSCA	November 2019	April 2022
RIBA Stage 2 Design Phase 4A and 4B	September 2019	January 2020
RIBA Stage 3 Design Phase 4A and 4B	February 2020	January 2021
Planning Consent – Phase 4A	February 2021	May 2021
Planning Consent – Phase 4B	February 2021	August 2021
FBC Trust Board Approval	October 2021	October 2021
Contract Award	May 2022	May 2022
Construction commences- CCC Phase 4A Works	July 2022	July 2022
Project Completion	June 2025	June 2025

The Trust's approach to risk management, in accordance with its internal assurance framework, is designed to ensure that the risks associated with CCC Phase 4A are systemically identified, appraised and action plans developed for effective reduction, elimination and mitigation. The

objective of the risk management process is to establish and maintain a 'risk aware' culture that encourages on-going, proactive identification and assessment of programme risks. The risk register is a live document and is reviewed and updated on a frequent basis, and reported on a monthly basis to the Programme Board.

The Risk Potential Assessment has been completed and concluded the programme is Medium Risk. The Trust have procured an external Assurance Review which will be completed in September 2019. The Trust-retained contingency figure of £13.7m excluding VAT and inflation has been included in the capital cost forms. Optimism bias has been assessed and partially mitigated; the retained optimism bias is 14.03%.

GOSH is committed to a process of meaningful stakeholder engagement and communication. It has established formal and informal channels adapting its communications and engagement as far as possible to the methods and frequency preferred by stakeholders. The intention is to continue to maintain significant engagement with key stakeholders, namely GOSH staff, patients and families, Members' Council, CYPF, local planning authorities and the local community, throughout the CCC Phase 4A Programme. A range of engagement activities have been undertaken, and more are planned during the FBC development and construction works.

A benefits realisation plan (BRP) has been developed with the aim of providing an evidence base to support the intended health, quality and other identified benefits, where that evidence exists, and to quantify the benefits, wherever possible, to ensure that they can be measured and demonstrated over time. This will be further developed during FBC to ensure all benefits have been identified.

2.0 VISION

The Children's Cancer Centre at Great Ormond Street Hospital will be a national resource for children with rare and difficult-to-treat cancers.

The vision of the Centre will be to improve outcomes for children through holistic, personalised and coordinated care, across the child's entire cancer journey.

The Centre will be the physical embodiment of this aspiration and will provide inspiring and flexible spaces that can respond to the rapidly changing nature of cancer care and the research landscape. Facilitating accelerated adoption of new innovations and models of care.

2.1 Strategic Summary

A cancer diagnosis is instantly life changing. When a child is diagnosed with cancer, it has a big effect on them, and it is often the most difficult journey that they and their families must face. The routine of daily life changes and is replaced by frequent hospital visits and in many cases hospital stays, sometimes for up to 18 months. The time away from home may also mean time away from family, siblings, friends and school. This combined with the effects and side-effects of treatment, as well as worry about the impact of their diagnosis on their family, can affect a child's confidence and self-esteem. This can limit the child's ability to lead an ordinary life and fulfil their potential.

Around 1,600 new cases of childhood cancer are diagnosed each year in the UK, which equates to about four children every day. As a result of investment in research and treatment, survival has increased dramatically, and four out of five children can now be successfully treated. Fifty years ago, 75% of children diagnosed with cancer died and today more than 75% survive. However, cancer remains the most common cause of death in the UK in children aged 5-14 years and around 250 children lose their lives to cancer every year. GOSH often sees the most rare and difficult-to-treat childhood cancers and is often a place of last resort for these children.

The short- and long-term side-effects of treatment remain high for this group of children and can affect things such as mental health, sociability, education and fertility. There is an urgent need for more innovative and gentler treatments, especially as the overall number of children surviving cancer in childhood is increasing. This is now becoming a reality as a result of unparalleled advances in the understanding of the basic biology behind the disease, genomics and big data and digital technologies. These advances are making the potential for medicine limitless, and we are now in a position to develop a new paradigm based on a personalised precision medicine approach.

We are on the cusp of a revolution and, from 2019, all children with cancer will be offered whole genome sequencing to enable more comprehensive and precise diagnosis. This will start to make personalised precision medicine a reality by allowing us to build a map for each individual child that will determine the best approach to treatment and the likely trajectory of their disease. This will offer hope of cure and a lifetime without treatment or worry of the disease returning. Especially with the explosion of gene and cell therapies and other advanced therapeutics that can now be used to treat diseases such as cancer. The CAR-T cell breakthrough, pioneered here at GOSH, exemplifies this (see breakout box).

How we look after children with cancer is therefore changing and this paradigm-shift will only be realised through seamless and coordinated care across the patient's entire cancer pathway, whether they are at home, in their local care community, at GOSH, or transitioning to adult or other

services. Therefore, partnership at every level is integral, and GOSH is committed to playing a leading role in delivering the vision outlined in the NHS Long Term plan, which commits to develop and implement networked care to improve outcomes for children and young people with cancer, simplifying pathways and transitions between services and ensuring every patient has access to specialist expertise.

Improving outcomes for cancer is a major priority for the UK and paediatric cancer is assuming increasing importance. The timing is right to invest in a new Children's Cancer Centre (CCC) at GOSH, creating a national resource for children with rare and difficult-to-treat cancers. GOSH is one of the only places currently in the UK where the vision of the centre – to improve outcomes for children through holistic, personalised and coordinated care across the child's entire cancer journey – can be realised. This is for a number of reasons, including: the cohort of patients; the range of paediatric services including intensive care under one roof; the partnership with UCL and UCLH, including the investment in proton beam therapy; the investment in cancer research and research infrastructure such as the Genomics Laboratory Hub hosted at GOSH; our investment in digital technologies that will soon make GOSH one of the most digitally advanced hospital in the world; and GOSH's influence on national cancer committees and boards.

However, our cancer accommodation and co-dependent facilities are outdated and, in many cases, not fit-for-purpose for a modern hospital and the new innovations coming on stream. They are also fragmented at a time when the lines between in, out, day and ambulatory care services are becoming increasingly blurred. We currently see cancer patients, predominantly day cases with some overnight stays, in our oldest accommodation. In addition, we provide some of our most complex and sensitive services, oncology and neo-natal and paediatric intensive care, in facilities that will be 30 years old when the CCC opens. The standard of accommodation does not meet best practice, and some of our sickest patients, undergoing chemotherapy, are treated in Safari Ward in the 1930's Southwood Building. The new CCC will co-locate services in a nurturing environment and facilitate new models of care, improving clinical quality.

A true comprehensive cancer centre requires co-location of other hospital services and facilities and the CCC will see our pharmacy facilities, critical for the delivery of modern cancer medication upgraded as the current facilities are cramped and not fit for purpose. In addition, there will be further investment in imaging, specifically PET-MR; and education through the relocation of the hospital school to a much improved environment, demonstrating the value we place in education as part of child's development. Finally, the CCC will also provide a new front entrance for the hospital. It will create an appropriate, confident and outward physical representation of our value, our brand and place in the world.

In addition to investment in new facilities, there will be continued and sustained investment in cancer research and other cancer related programmes and initiatives that are integral to realising our vision and ensuring that the centre is a national and global resource.

The new CCC is a truly exciting opportunity. It will put the child and the family at the centre and ensure that we are prepared for the changes in how we diagnose and treat cancer that are imminent. It will be the physical embodiment of our cancer vision, providing an outstanding environment that will encourage creativity and thinking and help to attract and retain talent, as well as enhancing our ability to attract commercial, grant and other funding. The CCC will enable us to work at an even faster pace to improve outcomes for children with rare and difficult-to-treat cancers.

CAR-T therapies and Yuvan's story

CAR-T therapies are part of a new generation of personalised therapies that have been pioneered at GOSH for the treatment of acute lymphoblastic leukaemia (ALL). This cutting-edge therapy involves harnessing a type of immune system cells called T-cells to fight cancer.

Cricket fan and Lego enthusiast Yuvan was diagnosed with leukaemia in 2014 when he was six years old. His parents Sapna and Vinay say: "When Yuvan was diagnosed it was the most heart-breaking news we had ever received. We tried to stay hopeful as they say leukaemia in children has 90% cure rate, but sadly, his illness relapsed." ALL affects around 600 people per year, most of whom are children. Although treatments have improved steadily, approximately 10% of patients still relapse. Unfortunately, the standard treatments were not successful in treating Yuvan, so last year he underwent a bone marrow transplant. But, in October, he relapsed again.

In November, GOSH, along with two other UK hospitals, announced it would be one of the first hospitals to offer a treatment called Kymriah to NHS patients. Kymriah is a type of CAR-T therapy which modifies a patient's immune system cells, to attack cancer cells. This treatment has been tested in clinical trials in the US where it has been shown that approximately 50–62% of patients survive without leukaemia for 12 months or more.

Dr Sara Ghorashian, Consultant in Paediatric Haematology at GOSH and Yuvan's doctor says: "We are so pleased to be able to offer patients like Yuvan another chance to be cured. While it will be some time before the outcome of this powerful new therapy is known, the treatment has shown very promising results in clinical trials and we are hopeful that it will help". His parents Sapna and Vinay say: "This new therapy is our last hope. We are so glad that we at least have this new option. If he had relapsed a year ago it would have been a different story." Yuvan spent a lot of his time in hospital playing with Lego and drawing portraits of his nurses and doctors. He said: "I really hope I get better soon so I can visit Lego House in Denmark. I love Lego and am building a big model Bugatti while I'm in hospital."

While it will be some time before the results of his treatment are known, Yuvan has now finished the treatment and is back at home with his family. He finished building his Bugatti and has already started his next Lego project. Yuvan is eager to get back to school and see his friends, but he's still very vulnerable to infection. Sapna and Vinay are incredibly happy to have their boy home and are spending as much time as they can together as a family.



2.2 Why a new Children's Cancer Centre at GOSH?

There is no other place currently in the UK where the vision of the centre – to improve outcomes for children through holistic, personalised and coordinated care across the child's entire cancer journey – can be realised.

2.2.1 Patient population

The hospital has some of the largest cohorts of rare disease patients anywhere in the world, providing it with an unparalleled opportunity to study these diseases and make a step-change. GOSH is the largest children's cancer unit in the UK, receiving between 300 – 400 new referrals each year, and has one of the largest cohorts of paediatric cancer patients in Europe. GOSH sees some of the most rare and difficult-to-treat cancers. In particular, high risk brain cancers (which account for about 25%), chemotherapy resistant leukaemias (which account for about 20%), and relapsed solid tumours (which account for about 30%). The 5-year survival rate for the more difficult-to-treat childhood cancers is only about 40-50% (compared with 80-90% for those that are considered 'easier' to treat).

2.2.2 Widest range of specialist health services

The hospital is the only exclusively specialist children's hospital in the UK. Most of the children cared for by GOSH are referred from other hospitals throughout the UK and overseas, more than half of the patients come from outside London. There are 63 different clinical specialties at GOSH; the UK's widest range of specialist health services for children on one site. GOSH also hosts 17 highly specialised national services. Importantly, many children need the help of different specialist teams, and this is very much the case for cancer patients because of their increasing medical complexity. This makes GOSH one of a few, if not the only, place in the UK that has the full range of specialties under-one-roof, including intensive care and BMT, needed to treat children with cancer.

As a regional, highly specialised, tertiary and quaternary referral centre, children and their families travel long distances for treatment and care at GOSH. GOSH's cancer team provides care in partnership with secondary children's centres. Under these shared care arrangements, GOSH provides specialist care and most of the chemotherapy whilst the child's local hospital provides day to day care including home care, manages emergency events such as febrile neutropaenia and offers symptom control. The cancer service at GOSH sees children up to approximately age 13, at which point they are currently transferred to the adolescent service at University College London Hospital.

It is important to recognise that not all children that come to GOSH to be treated for cancer survive. These children and families are supported through the Louis Dundas Centre for Children's Palliative Care (the LDC), whose mission is to reduce suffering for children with life-limiting or life-threatening conditions and for the lives of their families. The LDC is a joint initiative between GOSH and UCL GOS Institute of Child Health (ICH), bringing together academic research, education and clinical care in children's palliative care. Children's palliative and end of life care is also an important priority for the NHS. But local NHS funding has not kept pace with growth in clinical care costs or inflation, and NHS England's children's hospice grant programme currently provides an annual contribution of £11m. Over the next five years NHS England will increase its contribution by match-funding clinical commissioning groups (CCGs) who commit to increase their investment in local children's palliative

and end of life care services including children's hospices. This should more than double the NHS support, from £11 million up to a combined total of £25 million a year by 2023/24.

2.2.3 Proton beam therapy at UCLH

Two NHS centres will provide high energy proton beam therapy in the UK, the Christie NHS Foundation Trust (Manchester) which opened in 2018 and University College London Hospital (UCLH) NHS Foundation Trust which is due to open in Summer 2020. Up to 750 people will be treated at the proton beam therapy centre each year at UCLH. Proton beam therapy (PBT) is a type of radiotherapy that uses a beam of high energy protons, rather than high energy x-rays to treat specific types of cancer. A dose of high energy protons can be precisely targeted at a tumour, minimising the damage to surrounding healthy tissues and vital organs, thus reducing long-term effects associated with irradiating healthy tissues, such as problems with growth, IQ, development through puberty, hormone deficiencies, fertility, as well as an increased risk of the development of a second cancer. Proton beam is particularly suitable for complex childhood cancers and other hard to treat cancers, especially where the cancer is close to a critical part of the body such as the spinal cord.

2.2.4 London North Genomic Laboratory Hub

As part of NHS England's (NHSE) strategy to establish a national genomics medicine service, building on the 100,000 Genomes Project, which will ensure the NHS fully benefits from advances in genomics, NHSE has commissioned 7 genomic laboratory hubs (GLHs) as part of a national network. GOSH hosts the London North GLH, which is a partnership between a number of Trusts across North London. Testing will focus on rare diseases, cancer and infectious diseases and from 2019 all paediatric cancer is moving to whole genome sequencing. No other national health system in the world is introducing sequencing in such a centralised way. Hosting the GLH will make us an even more attractive place for genomics research, as a result of improved capacity and capability.

2.2.5 Research

The partnership between the hospital, UCL Institute of Child Health and wider UCL, including the Crick Institute, creates the right conditions for extraordinary problem-solving and offers an unrivalled opportunity to tackle some of the challenges faced by children with cancer. The hospital and Institute together are one of the few places in the world where truly translational paediatric research can be undertaken, and together they form the largest concentration of paediatric research expertise outside of North America. The quality of the research output has been demonstrated through bibliometric analyses that consistently put GOSH/ICH in the top position children's hospitals in the world for citation impact.

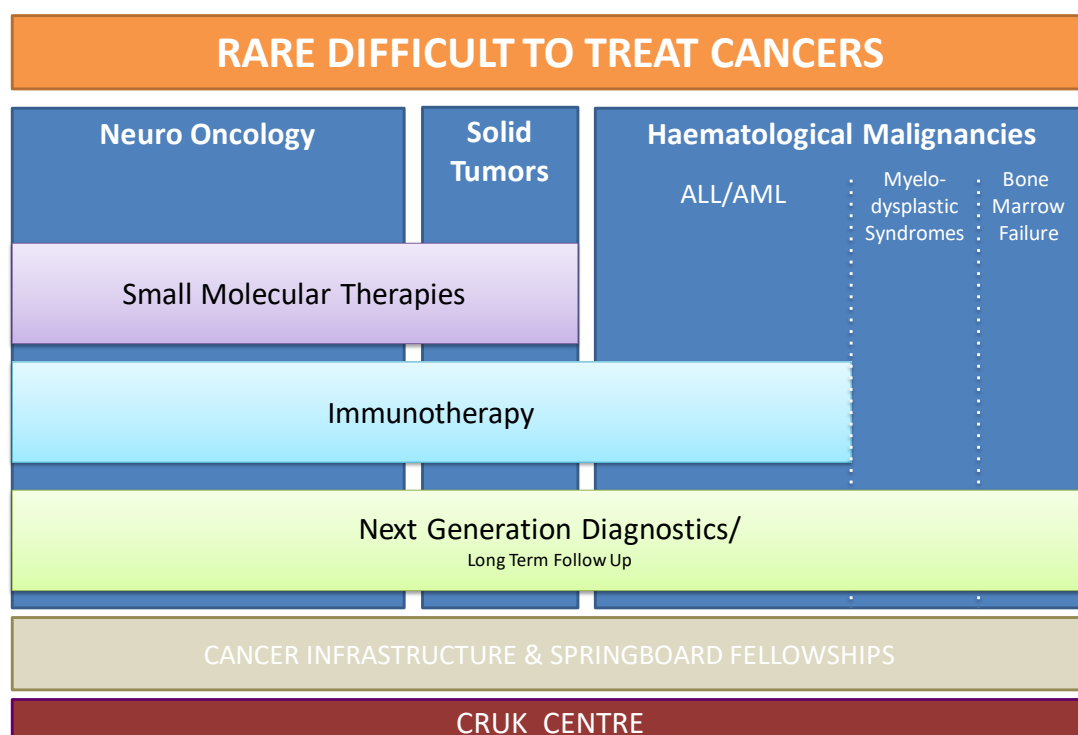
The environment for research at GOSH is supported by excellent local and national infrastructure. GOSH hosts the only National Institute of Health Research (NIHR) Biomedical Research Centre (BRC) in the UK focusing on paediatric research. The funding supports basic scientific discoveries made in laboratories to be translated into 'first in man' or 'first in child' clinical studies. The Zayed Centre for Research into Rare Disease in Children will be dedicated to a greater understanding of the genetic basis of rare childhood diseases, and house one of the largest GMP facilities in an academic and healthcare setting in Europe that will increase capacity to develop and offer gene and cell therapies for a large number of inherited and acquired conditions, including cancers. The hospital will also soon become one of the most advanced digital hospitals in the world through investment in the Digital Research, Informatics and Virtual Environments (DRIVE) unit. DRIVE will capitalise on

the investment in the new Electronic Patient Record system and utilise the power of big data to improve patient care at GOSH and beyond, from wearable technology that can detect tiny changes in a patients vital signs, to advanced home monitoring devices which enable more sick children to be treated at home.

Research at GOSH and ICH has also received a major boost as a result of the GOSH Charity Research Strategy. The strategy was developed in collaboration with the paediatric research community and outlines a plan to create a step-change in child health research. The ambition of the strategy is *'to put the child and the adult they will become at the centre by focusing on delivering personalised medicine for children with rare and complex conditions'*, and during the 5-year period of the strategy, direct research commitments towards rare and complex diseases are likely to exceed £50m.

A campus-wide paediatric cancer strategy was agreed (see Figure 2-A) as part of the GOSH Charity Research Strategy, with a focus on improving survival and long-term outcomes for children with rare and difficult to treat cancers. This is a strategic initiative between GOSH, ICH, UCL's Cancer Institute and Great Ormond Street Hospital Charity. These organisations came together with a commitment to make a c.£7m strategic investment in cancer expertise to build capacity and leadership and enhance clinical trial activity. The initial tranche of funding has gone towards the establishment of two new professorial positions in neuro-oncology and malignant haematology. These appointments at UCL's Institute of Child Health will work in close collaboration with the UCL Cancer Institute and have clinical responsibilities at GOSH. Additional funding is earmarked in the next iteration of the strategy, including further investment in clinical academic leadership.

Figure 2-A: Campus-wide Paediatric Cancer Strategy



Partnership and leverage are key investment principles for the strategy, and collaborations with other charities, such as Cancer Research UK, as well as industry and other partners, will continue to be developed as a priority. This will include an evolving partnership with the Wellcome Sanger

Institute around single cell sequencing of rare disease cohorts, including cancer. This partnership will aim to create a 'super highway' between GOSH and the Sanger Institute, capitalising on the incredible rare disease patient population at GOSH and the sequencing power of the Sanger, to develop new insights and scientific thinking.

2.2.6 Holistic care and support

The families who come to GOSH are incredibly resilient, but a little support can go a long way. GOSH Charity funds programmes and services that ease some of the stress on children and families during their stay at the hospital. There's increasing evidence that this holistic approach to care — offering support beyond medical care — can help children recover more quickly, avoid traumatic experiences, and reduce the risk of associated mental health problems now and in the future.

This support includes programmes and services such as the: Play Team, that use distraction and other techniques to reduce anxiety; GOSH Arts; the Centre for Outcomes and Experience Research in Children's Health, Illness and Disability (ORCHID), the Citizens Advice Bureau; the Social Work team; spiritual support; patient parties; family assistance vouchers; and accommodation for patients and families who need to be near the hospital. These added value programmes improve the experience for families, making a difficult time that bit easier and we will continue to work with families to tailor the support that is provided.

2.3 What Facilities are needed to deliver a comprehensive Children's Cancer Centre at GOSH?

There is increasing evidence of the benefit of improved environments across the spectrum of hospital care. It has been shown that improved physical settings can be an important tool in making hospitals safer, more healing, and better place to work. For many families and this is especially the case for cancer, stays at GOSH can be months and a nurturing homely and child-friendly environment is therefore important in reducing stress and promoting wellbeing, for both patients and families.

The new CCC will be the physical embodiment of our cancer vision, providing inspiring and flexible spaces that can respond to the rapidly changing nature of cancer care and the research landscape. This will facilitate accelerated adoption of new innovations and models of care, ultimately improving clinical outcomes. The building will also provide a new front entrance for the hospital, which currently can be difficult to find on a patient's first appointment. The new front entrance will give GOSH a greater sense of identity and be a more welcoming experience for all who come to the hospital, creating an entrance that draws the patient in and provides immediate comfort and reassurance.

2.3.1 Flexible and co-located clinical care pathways

The CCC will provide the most integrated pathway of care possible, improving the experience for families. The centre will improve flow across inpatient, day care, outpatient and ambulatory care facilities, which will also create staffing and other efficiencies across the entire multi-disciplinary team (MDT). Flexible and adaptable spaces are vital to facilitate this model of care, especially in the rapidly changing cancer care and research landscape. In this fast-moving environment, flexibility and adaptability will also encourage new and less traditional/outmoded ways of working.

It is difficult to predict what cancer care will look like in 10 years' time, so the building needs to be able to adapt flexibly to new models of care, which may include an increased reliance on tele-medicine, greater care at home and in the community perhaps linked to the incorporation of wearable sensors transmitting data to GOSH in real time, as well as changes to the age that children transition to adult services. Furthermore, the configuration of rooms may need to change from low intensity to high intensity or from a room with beds to one with chemotherapy chairs for adolescent patients.

Finally, as the time approaches for children to leave the hospital, step-down accommodation is important for successfully transitioning children back to home and their local community. Especially as around 50% of GOSH's inpatients come from outside of London. The patient hotel, supported by the charity, has enabled GOSH to change its model of care. The building combines short stay accommodation to facilitate children and families coming in for day treatment with long term accommodation for families of children with complex needs who benefit from learning skills in a homely environment before taking their child home.

2.3.2 Research Hospital

The hospital is transitioning from a hospital which undertakes research to a 'Research Hospital'. This means that every child and family referred to the hospital will have an opportunity to participate in research and where research occurs throughout the hospital irrespective of where the children and families are physically located. This is particularly important for cancer, where almost every child is either on a clinical trial or other research protocol, meaning that children have access to the very latest treatments. The hospital also has a high trial recruitment for paediatrics and therefore, in the new CCC, the intention is that every bed will be considered a research bed, and there will be no differentiation between the two. This approach will also continue to be complemented by the National Institute for Health Research (NIHR) Great Ormond Street Hospital (GOSH) Clinical Research Facility (CRF), which provides specialist day care accommodation for children and young people taking part in clinical research studies.

As part of our Research Hospital strategy we are also considering introducing integrated diagnostic Laboratory Medicine Platforms for advanced sample processing. This will enable faster and more accurate diagnosis and the development of new techniques that were previously not possible. GOSH can offer a unique diagnostic testing repertoire because of the collective knowledge and expertise under one roof. However, the current model, while successful, encourages silos of working and does not facilitate sharing of information, results, processes, techniques and resources. It also limits collaboration and potential for future services and does not support the research hospital vision. Although this facility will not be in the centre, its development will improve the speed to diagnosis for cancer and other rare diseases seen at GOSH.

2.3.3 Pharmacy – Children's Medicines Centre

Pharmacy is at the heart of the hospital and integral to all aspects of care and treatment. The pharmacy at the hospital operates at the highest level and is unlike an ordinary pharmacy due to the sophistication of care; the research and clinical trials that are undertaken across the Trust (there are 7-8 clinical trial pharmacists alone); the technology; as well as the acuity of the patients.

The pharmacy comprises three areas: 1) the dispensary; 2) the production facility, for things such as cytotoxic reagents (chemotherapy) and Total Parenteral Nutrition (TPN); and 3) the GMP facility, for the production of clinical grade gene and cell therapies, which will be accommodated in the

Zayed Centre for Research into Rare Disease in Children. However, current facilities are fragmented, cramped and not fit for purpose and demand is exceeding capacity, especially with the increasing number of clinical trials. The layout of the pharmacy means an increased risk of errors.

The new CCC will see our pharmacy facilities upgraded and co-located, excluding the GMP. It will see the creation of the Children's Medicines Centre, which in partnership with UCL, will create an internationally leading academic pharmacy programme. This research programme will develop and test new formulations and methods of drug delivery. This could lead to improved drug compliance and therefore ultimately improved outcomes for children.

2.3.4 Medical Imaging

Imaging technology is a critical part of cancer diagnosis and prognosis, including response to treatment. New techniques allow visualisation with more detail and clarity than ever before. The Trust has invested significantly in imaging over the last 5 years, with support from the charity. Including but not exclusively, the Turtle Imaging Suite with a state-of-the-art MRI and CT scanner, new SPECT-CT and Cardiac Catheter Lab, intraoperative MRI (iMRI), as well as upgrades of existing MR scanners. These advances have dramatically improved image quality, led to faster and more accurate diagnoses and faster scans have reduced the need for anaesthetic, as well as waiting times. Importantly, when it comes to CT, radiation exposure has been reduced to by up to 50%, making scans much safer.

However, further capacity is required, and a PET-MR will be a part of the Children's Cancer Centre, providing even more sophisticated imaging modalities on site that are essential for cancer diagnosis. Currently PET-MR is accessed at UCLH, however, only one slot is available per week and this could therefore compromise treatment through delay or if children are too sick to be transferred.

2.3.5 Hospital School

Education is arguably the next most important thing for children after health. The new CCC will provide a flagship school for the whole hospital, a clear demonstration of the value that GOSH places on education and the interactions that come through learning and education. The school is also psychologically important for children and their families, helping to maintain a sense of normality away from the clinical environment and preparing children for a life beyond the hospital.

The school will offer fully accessible schoolrooms – a space where patients do not need to be taken back to the ward for toilet breaks. There will also be dedicated space for short, simple medical procedures allowing patients longer periods of uninterrupted learning, and private spaces for patients taking GCSEs or A levels during their stay.

The new building will aim to also offer a safe space for immune compromised children (such as cancer patients) to learn. This will be facilitated through improved air handling that will enable vulnerable children to be schooled there. Hence, this will allow patients who are currently taught one-to-one at the bedside for limited periods of time, greater access to teaching and resources. It is also hoped that with new ways of treating cancer, children are likely to be less sick and therefore potentially able to benefit from the school if it is nearby. Ultimately, the support structure of the school, will not only help children make academic progress but also in improve their health and wellbeing.

2.3.6 Respite spaces for patients, families and health care professionals

Respite spaces will form an important part of the hospital, promoting wellbeing. This will include play areas for younger children, relaxation areas for older children, spaces for parents to rest, as well as quiet areas for staff to have a break and meet as an MDT.

3.0 STRATEGIC CASE

CHAPTER SYNOPSIS – Strategic Case

The Strategic Case provides a summary account of GOSH in terms of clinical services and research delivered and sets the baseline position in the context of the approved Masterplan 2015.

The key drivers for change have been summarised as:

1. Limitations of the existing estate
2. Increasing demand for clinical services
3. Need to improve clinical quality
4. Drive to implement principles of research hospital

In response to these drivers the following project objectives have been agreed:

No.	Objectives
1	Achieve the best possible outcomes & safest and most effective care
2	Attract and retain the right people
3	Improve children's lives through research & innovation
4	Transform care and the way we provide it through harnessing technology
5	Use of voice as a trusted provider to improve care
6	Create inspiring spaces
7	Secure and diversify funding

The national and local strategic direction fully aligns with GOSH's Vision and planned investment in children's cancer services.

A long-term demand and capacity model has been developed to help forecast bed requirements and make important planning-based decisions, e.g. future phases and refurbishment projects that could deliver additional capacity and improved environments as part of the CCC development. The model includes an assessment of expected impact of demand, and current and future policy and commissioning trends. The demand and capacity plans in this OBC align to the Trust strategic areas of growth, including cancer services.

3.1 Summary of the Need for a Children's Cancer Centre

GOSH is the largest children's cancer centre in the UK and the Cancer Service is one of GOSH's most significant clinical departments.

As part of the Trust's Masterplan 2015, the next stage of development will incorporate the disparate departments that form GOSH's cancer centre, school and pharmacy with a core aim being to provide a first class research and care facility and an outstanding environment for this patient population and their families. The development of a Children's Cancer Centre that co-localises in-patient beds, out-patient clinics, ambulatory care, intensive care, state of the art imaging technologies and

pharmacy will transform the current clinical infrastructure to enable GOSH to continue to lead in this area, providing the paradigm shift to delivering innovation at scale. The development of the Children's Cancer Centre will complete the built infrastructure support for the Trust's main strategic clinical areas of work having already invested in Rare Diseases (ZCR building), Neurosciences and Cardiac (Mittal Children's Medical Centre).

Development of the CCC will assist in the delivery of the Trust's strategic aims, shown at Figure 3-A.

Figure 3-A: Trust Strategic Aims

- **Care**
 - ❖ better, less toxic treatments
 - ❖ improved workflow through co-localisation of all cancer service
 - ❖ more patients having access to state-of-the-art treatments
 - ❖ excellent quality physical environments to significantly improve the patient's experience and assist in the recovery process
- **People**
 - ❖ better built environment improving patient, family & staff morale and staff retention
- **Research & Innovation**
 - ❖ continued development of new therapies to treat all cancers as part of GOSH's Research Hospital ethos
- **Technology**
 - ❖ PET/ MRI

These developments will boost interaction with the wider NHS system as GOSH trials new treatments, models of care, and technology that can be adopted more widely across the UK and the rest of the world.

3.2 National and Local Strategic Direction

The development of this Children's Cancer Centre (CCC) OBC sits within national, regional and organisational strategic frameworks which influence the need for change of cancer services at GOSH. Figures 3-B and 3-C provide summary positions of the national and local influencing factors.

Figure 3-B: National Strategic Direction

National Guidance	
NHS England's 'Next Steps on the NHS five Year Forward View' 2017	Identifies the NHS 10 Point Efficiency Plan which includes: the need to protect and improve estates and facilities and improve the efficiency of estate; and the need to get best value out of medicines and pharmacy, specifically the need for acute hospitals to consolidate pharmacy infrastructure.
NHS Long Term Plan, 2019	<p>Building on the Five Year Forward View (FYFV), the NHS Long Term Plan aims to develop networked care to improve outcomes for children and young people with cancer, simplifying pathways and transitions and ensure access to specialist expertise and treatments. Specifically, the Long Term Plan will:</p> <ul style="list-style-type: none"> • Ensure whole genome sequencing is offered to enable more comprehensive and precise diagnosis • Offer treatment by new generation of CAR-T cancer therapies, where appropriate • Support children and young people to take part in clinical trials • Extend vaccination programme against some cancers • Extend the children's hospice grant funding
'Achieving World-Class Cancer Outcomes: A Strategy for England 2015-2020' (DH)	<p>Of the six priorities set out in the Strategy, these are relevant to this OBC:</p> <ul style="list-style-type: none"> • Establish patient experience as being on a par with clinical effectiveness and safety • Making investments required to deliver a modern high-quality service
Operational Productivity and Performance in English acute hospitals: Unwarranted Variations (Feb 2016)	<p>The report contains a number of benchmarked metrics aimed at assisting Trusts to self-assess their own efficiencies and the means to improve efficiency. Central to realising the ambition of the FYFV is the estate. The report sets out the vision for how acute sector could make best use of its estate, reduce variation and improve efficiency. Of relevance to this OBC:</p> <ul style="list-style-type: none"> • Tackle backlog maintenance to improve quality of estate • Look at future needs of the estate given new care models, increased demand and the impact of technology • Create a capital investment plan with potential alternative funding sources • Reduce the significant variation in total pharmacy and medicines costs across acute Trusts
1996 Education Act	<p>Section 19 Education Act 1996 states that there must be <i>'suitable full-time education (or as much education as the child's health condition allows) for children of compulsory school age who, because of illness, would otherwise not receive suitable education'</i> and <i>'this education must allow them to take appropriate qualifications, prevent them from slipping behind their peers in school and allow them to reintegrate successfully back into school as soon as possible'</i>. In line with the Education Act, OSFTED is clear that <i>'These pupils, whether at home or in hospital, should have access to education, as far as possible from day one. Pupils should receive an education of similar quality to that available in school, including a broad and balanced curriculum'</i></p>
National Guidance - Alignment with OBC	
<ul style="list-style-type: none"> ➤ Contribution towards national drive for improved efficiencies, in line with NHS England strategic direction ➤ Alignment with Lord Carter and NHS Long Term Plan productivity review, specifically: <ul style="list-style-type: none"> ➤ The consolidation of Pharmacy and its associated stock into one area (relevant to recommendation 3). ➤ Improved use of space for benefits of users, including additional retail space (relevant to recommendation 6). ➤ Digital hospital, and its requirements, reflected in the design (relevant to recommendation 9). ➤ Improvement in quality of service and environment ➤ Meeting the demand for cancer services 	

Figure 3-C: Regional and Organisational Strategic Direction

Local Policy Guidance / Strategy	Potential Implication / Consideration
North Central London Sustainability and Transformation Plan	A place-based plan for the improvement of health and care services in North Central London. Of relevance to this OBC, the STP estate priorities include: 2. to respond to care requirements and changes in demand by putting in place a quality estate 3. to increase the operational efficiency of the estate 4. to enhance delivery capability 5. to enable the delivery of a portfolio of estates transformation projects that support the implementation of clinical change in the STP
'Fulfilling Our Potential' Corporate Strategy (GOSH, 2017)	Strategy which sets the focus on the strategic potential of the organisation and its priorities to ensure that it utilises its resources and operates as effectively and efficiently as possible.
Research Hospital Business Plan 2015-2020 (GOSH)	A five year plan to support GOSH in transitioning from a hospital which undertakes research to a 'Research Hospital'. A Research Hospital is one where research is integrated fully into the clinical and overall mission to improve the treatment and outcomes of patients. The vision of GOSH as a Research Hospital is one where: <ul style="list-style-type: none"> Research is integral to working lives of staff and patients / families treated and seen GOSH learns from each patient seen, using the knowledge gained to improve patients' health and the health of future patients Research is seen to benefit and not compromise NHS clinical activity Research is considered as a core component when recruiting to leadership positions across the organisation All clinical divisions / services develop and own their research agenda and are supported to do this Four work streams will enable delivery of these goals: 1) strategic alignment; 2) infrastructure; 3) facilitation; 4) communication and education
GOSH Pharmacy Review, 2017	GOSH-commissioned review of pharmacy produced in response to issues raised by Medicines and Healthcare products Regulatory Agency (MHRA), feedback received from patients and staff, need to assure continuity of safe & quality service and need to justify inclusion in Phase 4
Local Policy Guidance - Alignment with OBC	
<ul style="list-style-type: none"> ➤ Improve operational efficiency of estate ➤ Fully integrate research activities ➤ Improve efficiency of pharmacy across the Trust ➤ To maximise the site's potential to meet current and future healthcare needs 	

3.3 Organisational Overview

3.3.1 Summary

Great Ormond Street Hospital for Children NHS Foundation Trust (GOSH) has been a specialist children's hospital for more than 160 years, when the founder, Dr Charles West recognised that children needed different care and treatments to adults. The hospital opened with just 10 beds in 1852, and was the first hospital in the UK to offer dedicated inpatient care to children. Today the Trust provides a mixture of specialised and highly specialised services to a national and international population. In addition, the Trust carries out clinical research, education and training for staff working in children's healthcare.

The Trust is an international centre of excellence in the provision of specialist healthcare for children and young people, currently delivering the widest range of specialist care of any children's hospital in the UK. The hospital works in partnership with the ICH, part of University College London, and together they form the largest paediatric research and teaching centre in the UK.

The hospital is the only exclusively specialist children's hospital in the UK. It does not have an Accident and Emergency department and only accepts specialist referrals from other hospitals and community services. The population of children served by the hospital is characterised by those with multiple disabilities and/or health problems and rare and congenital conditions. Many children need the help of different specialist teams.

The existing hospital has 490 patient beds in total. GOSH receives 237,908 outpatient visits and 43,218 inpatient visits every year (2018/19 figures). Most of the children cared for by GOSH are referred from other hospitals throughout the UK and overseas. In total, 90% of GOSH services are commissioned by NHS England, with the remaining 10% being commissioned by 205 CCGs. There are 63 different clinical specialties at GOSH; the UK's widest range of specialist health services for children on one site. Including more than 60 different specialist and highly-specialist paediatric services. More than half of the patients come from outside London and GOSH is the largest paediatric centre in the UK for:

- paediatric cancer services including bone marrow transplants – with University College London Hospitals (UCLH), GOSH is one of the largest centres in Europe for children with cancer
- paediatric intensive care
- cardiac surgery – GOSH has one of the largest heart transplant centres for children in the world
- neurosurgery – GOSH carries out about 60 per cent of all UK operations for children with epilepsy
- nephrology and renal transplants
- children treated from overseas in the International and Private Patient (IPP) wing

Together with its research partner, the UCL Great Ormond Street Institute of Child Health, GOSH forms the UK's only academic Biomedical Research Centre specialising in paediatrics.

Around 4000 full-time and part-time staff work at the hospital, with approximately 600 staff at the ICH and many senior staff having roles within both organisations. The hospital has approximately 63 paediatric specialties, which uniquely enables it to diagnose and pioneer treatments for children with highly complex, rare or multiple conditions. It has 17 highly specialised national services.

It is supported by the Great Ormond Street Hospital Children's Charity (GOSHCC) which aims to raise about £100 million every year to support the hospital in remaining at the forefront of paediatric medicine. Over the last 20 years the Charity has made commitments totalling £457 million to the hospital's redevelopment.

3.3.2 Trust Mission and Objectives

GOSH's philosophy is summarised in its guiding principle, '*The Child First and Always*', together with the Trust's 'Always Values'. The 'Always Values' were developed in consultation with patients, parents, carers and staff and are intended to nurture a set of organisational behaviours which inform GOSH's approach and activities. GOSH aspires to be:

- Always Welcoming
- Always Helpful
- Always Expert
- Always One Team

With specific reference to the built environment:

- The buildings should be Always Welcoming – offering easy navigation for families who are already anxious about being at GOSH.
- The facilities should be Always Helpful, providing all the spaces and amenities that a long-stay patient and their family might need to make them feel more at home.
- The latest technologies should be provided, with resources readily to hand so that staff can be Always Expert in the care they provide. International best practice should be implemented to live up to these values in designing the healthcare environment.
- The organisation should also support staff to be Always One Team, creating internal spaces that facilitate communication and allow people to be fleet of foot so they can be collaborative in caring for each child and their family. In many ways this is the most complex Trust value as the large clinical and non-clinical workforce naturally work in professional teams which do not necessarily encourage integration. Patients and their families are also part of that team and GOSH is working towards improving integration.

Having just opened the Premier Inn Building GOSH is half way through the modernisation of its estate. The platform for GOSH's place in the world is the environment in which it operates as a tertiary and quaternary hospital and the environment in which the staff work to deliver the very best care.

Figure 3-D summarises the Trust's strategy, showing the four priorities identified to deliver the vision - outcomes, people, research, and technology - supported by four key enablers.

Figure 3-D: Trust Strategy



3.3.3 Research Strategy

Hospitals that are strongly engaged with research have better patient outcomes and experience. GOSH has a strategic aim to be one of the global leading children's research hospitals. GOSH's direct research income for 2018/19 was c. £27.8m. GOSH is in a unique position working in partnership with its academic partner UCL and with its diverse patient population to build on its research strengths, increase its research capabilities and embed research in the fabric of the organisation. GOSH works in partnership with the UCL Institute of Child Health but also has the benefit of access to the wealth of the wider UCL research capabilities and platforms.

Together GOSH and UCL Institute of Child Health host the only NIHR Biomedical Research Centre in the UK focusing on Rare Diseases. Clinical academic staff have appointments with both organisations (GOSH and UCL, both the Institute of Child Health and Institute of Cardiovascular

Sciences). The clinical academics provide a clinical service to GOSH and run research laboratories and /or teams at ICH.

The joint research output of the GOSH/ UCL Institute of Child Health partnership is one indicator of success, for example:

- A recent analysis completed by RAND demonstrated that 49% of GOSH publications are collaborative with UCL;
- A bibliometric analysis completed by Thomson Reuters demonstrated that the citation impact (the number of times others cite GOSH / Institute of Child Health research publications) of GOSH publications and ICH publications (1.86) is higher in papers published jointly: GOSH (1.42), ICH (1.86) and GOSH-ICH (2.0); and
- Between 2010-2014, GOSH and UCL Institute of Child Health research papers had the highest citation impact of any of the top children's hospitals in the world, as reported by Thomson Reuters.

GOSH has a Board-approved five year Research Strategy which will support GOSH in transitioning from a hospital which undertakes research to a 'Research Hospital' i.e. where research is integrated fully into its clinical and overall mission and is embedded in the structure, processes and staff of the organisation. The vision of GOSH as a research hospital is one where:

- Research is an integral part of the working lives of our staff and the patients and families we treat and see;
- We learn from each and every patient we see, using the knowledge gained to improve our patients' health and the health of future patients;
- Research is seen to benefit and not compromise NHS clinical activity;
- Research is considered as a core component when recruiting to leadership positions across the organisation; and
- All clinical directorates / services develop and own their research agenda and are supported to do this.

3.3.4 Clinical Strategy

The Clinical Strategy, approved in 2019, identifies two key elements:

1. Strengthening our specialist and highly-specialist paediatric services. Following analysis of the Trust's service portfolio four services have been identified that are core to the Clinical Strategy: cancer, cardiac, neuro, and rare diseases. Quality has a fundamental role in the Clinical Strategy, for example, continuing to understand the experiences of patients and their families as the Trust continues to move towards patient-centred care. The CCC provides the Trust with a significant opportunity to widen research groups and themes, to offer greater focus across the cancer pathways, including treatment, cure, and palliative care. Quality and quality of care are underpinned by research that focuses on supportive and psychosocial care. It is within these areas that patient experience is most likely to feature. The development of a new centre means that the Trust can maximise current and future strategies, rather than be constrained by historical approaches to care. The Trust's academic centre, Centre for Outcomes and Experience

Research in Children's Health, Illness and Disability (ORCHID), has two faculties – research and clinical. The CCC development offers opportunities to develop a new model of research, particularly in light of the policy drive that makes explicit the need to understand patient experience, to improve medical and psychosocial outcomes, and involve patients and family members in all parts of the research pathway.

2. Leading in future fields. Of relevance to this OBC for the CCC, the Clinical Strategy identifies that GOSH has the biggest children's cancer unit in the UK and the Trust's researchers have helped to dramatically improve survival rates for young people. GOSH is also one of the largest services in Europe - having the largest paediatric bone marrow transplant (BMT) service in Europe – and in North America. There are excellent links to networks, such as the North Thames children's cancer network coordinating group (CCNCG) and a strong research infrastructure. Future research within the organisation will focus on understanding the genetic profile of each child's cancer, so doctors can match young patients to the clinical trials and treatments most likely to work for them.

In support of this OBC, the following quote is taken from the Clinical Strategy:

"Our Cancer, cardiac, neuro, and rare disease services have prominent national and international profiles. They are core to our business and present opportunities to play a leading role in our local health economy and to be leading in future fields."

3.3.5 Clinical Services and Quality Standards

GOSH's overarching priorities, as set out in the Quality Account 2018/19, for improving the quality of care delivered are:

- Safety - to reduce all avoidable harm to zero.
- Effectiveness: to consistently deliver clinical outcomes that places GOSH among the top five children's hospital in the world.
- Experience: to consistently deliver an excellent experience that exceeds patients', families' and referrers' expectations.

CQC inspected the Trust in January 2018 and has rated the Trust as 'Good', with areas rated as 'Outstanding' (see Figure 3-E). There are two areas where improvement is required, namely outpatients and diagnostic imaging, and surgery.

One of the issues raised by CQC was the quality of the referral to treatment (RTT) data. This has been reviewed and issues addressed. For example, in March 2018, the Data Quality Review group approved an updated data quality action plan, which focused on the improvement work needed during progressions towards going live with the Epic system in April 2019. A monthly EPR group supports data quality improvement work and planning across the programme to ensure the Trust's position is robust in moving forward with Epic.

Figure 3-E: CQC – 2018 Summary

Outpatients and diagnostic imaging	Requires improvement
Outpatients	Good
Medical care	Outstanding
Neonatal services	Good
Transitional services	Good
Surgery	Requires improvement
Intensive/critical care	Good
Services for children & young people	Good
End of life care	Outstanding

3.3.6 Estates Context and Profile

GOSH runs its services from a number of buildings grouped around the main island site in the Bloomsbury area of London Borough of Camden. These buildings are a mixture of freeholds and leaseholds generally from the GOSH Charity, with a few exceptions (see Section 3.3.8 for ownership summary). Figure 3-F summarises the main properties. In addition to the GOSH properties is the Institute of Child Health to the North East of the site.

Figure 3-F: GOSH Island Site Properties

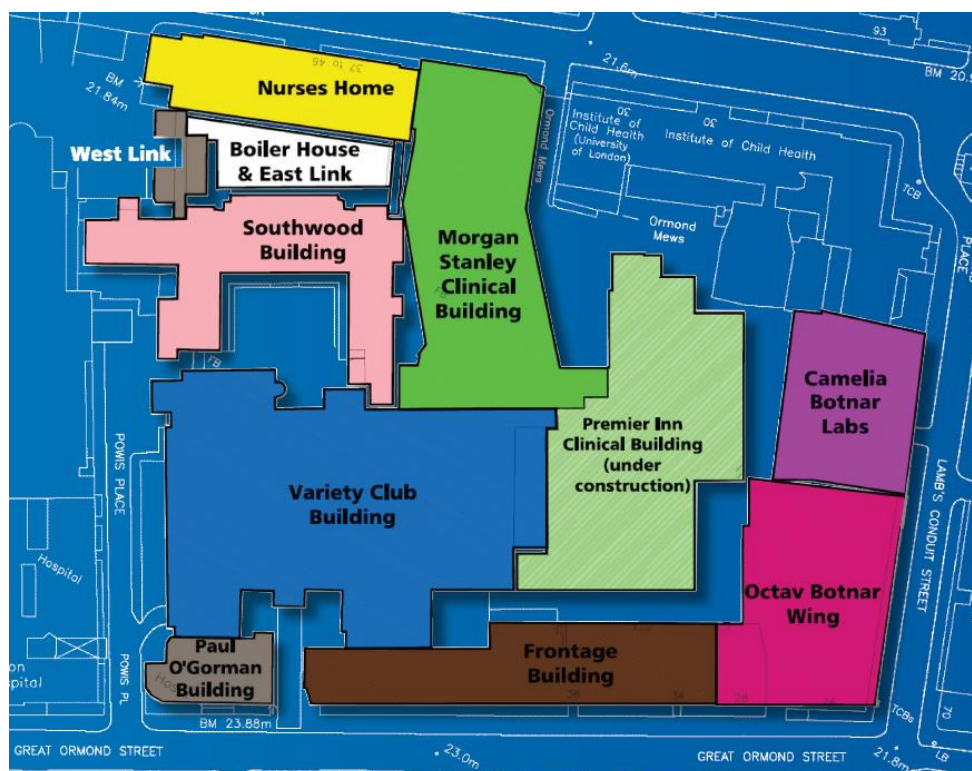


Figure 3-G provides a brief overview of the GOSH estate (as sourced from the 2018/19 ERIC returns).

Figure 3-G: Key Estate Facts

Key Estate Metric	Unit
Gross internal floor area	111,955m ²
Occupied floor area	105,957m ²
NHS estate occupied floor area	78.40%
Land area owned	1.88 hectares
Clinical space m2 (GIA)	65,305m ²
Non-clinical space m2 (GIA)	40,652m ²
Clinical space as % of occupied pace (GIA)	61.63%
Non-clinical space as % of overall occupied space (GIA)	38.37%

Figure 3-H summarises the properties occupied by GOSH. There is no occupation of any GOSH premises by third parties.

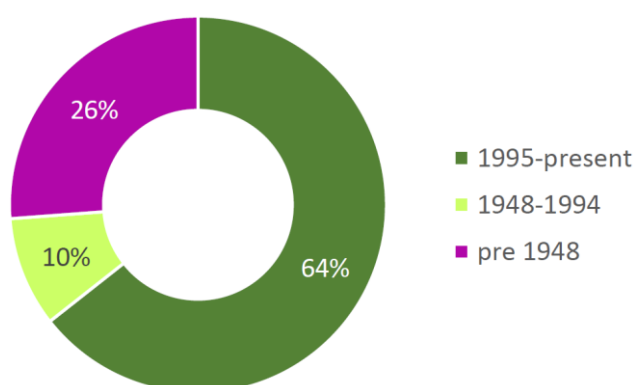
Figure 3-H: GOSH Occupied Properties

Property	Tenure	GIA m2	Lease Details
Weston House, 63-71 Great Ormond Street	Freehold	3,824	-
Royal London Hospital for Integrated Medicine	Leasehold	3,167	GOSH holds two 25 year leases
Ormond House, Boswell Street	Leasehold	274 (GF) 172 (third floor)	Tbc
5 Endsleigh Street	Freehold	424	-
Barclay House, 37 Queen Square	Leasehold	4779	GOSH holds 15 year lease
West Link	Freehold	978	-
Southwood Building	Freehold	11,865	-
Premier Inn Clinical Building	Freehold	14,070	-
Paul O'Gorman Building	Freehold	1,982	-
Princess Royal Nurses Home (MNH)	Freehold	6,290	-
Octav Botnar Wing	Freehold	10,128	-
Frontage Building	Part Freehold / Part Leasehold	5,806	No. 34 is leased from Special Trustees
Morgan Stanley Clinical Building		17,559	
Variety Club Building	Freehold	19,353	-
Chapel		148	
Camelia Botnar Laboratories	Freehold	6,309	-
Italian Hospital		3,500	
Boiler House & East Link	Freehold	804	-
ZCR	Leasehold	13,000 (approx.)	Shared with UCL

Whilst a significant amount of redevelopment has occurred on the island site resulting in approximately half of the estate being redeveloped, there remains a large proportion of the estate which is not fit for the purpose for which they were originally intended, do not maximise opportunities to deliver excellent care and research and do not maximise the massing opportunities of the island site.

Figure 3-1 provides an overview of the age profile of the GOSH estate (source: 2016/17 ERIC returns (latest available information)). This shows that over 26% of the GOSH estate (based on GIA m²) pre-dates 1948, primarily comprising the Paul O'Gorman Building (POGB), Southwood and the Main Nurses Home (MNH). The Frontage building is a part 1950's / part 1970's building.

Figure 3-1: Age Profile of GOSH Estate



The GOSH campus sits within the London View Management Framework (LVMF) viewing corridor 4A.1 (Primrose Hill to summit to St. Paul's Cathedral). It also falls within the background consultation areas for view 5A.2 and (Greenwich Park to St. Pauls) and view 6A.1 (Blackheath to St. Pauls). The viewing corridor for view 4A.1 (Primrose Hill to summit to St. Paul's Cathedral) provides the most restrictive constraint in terms of building heights because it sets a threshold plane, which new development must not exceed. Within this corridor, the LVMF guidance sets out a maximum height of 58 Above Ordnance Datum (AOD) to be used as a guide for which new development should not exceed. This is to protect views of St. Paul's Cathedral.

The front of the hospital site falls within the Bloomsbury Conservation Area and is located opposite two groups of Grade II listed early eighteenth century buildings. Some of these include:

- The Grade II* listed chapel within the main campus
- The National Hospital for Neurology
- Number 33 Queens Square and attached railings
- Numbers 3 – 6 Lamb's Conduit Street and railings
- A number of buildings on the south side of Great Ormond Street; and
- A number of buildings on the north side of Guilford Street
- The statue and public toilets at the end of Lambs Conduit

The Paul O’Gorman building, to the South West of the island site, although not included as a positive contributor to the Conservation Area, will be assessed as part of the CCC works as though it were.

The Trust’s Board-approved five year Estate Strategy was produced and approved in 2018.

In 2018 the Trust commissioned an external assessment of priority buildings for redevelopment. At the time of writing, the outputs of this assessment had been made for the Frontage building (part of CCC Phase 4A works), and Southwood building (part of Phase 5 works). The summary of the 10-year forward expenditure plans is shown at Figure 3-J. Significant expenditure in 2018/19 reflects the current backlog maintenance position.

Figure 3-J: 10 year planned expenditure on Frontage and Southwood buildings

	General works	Mechanical & Electrical works	Total 10-year planned expenditure
Frontage building	£11.6m	£4.0m	£15.6m
Southwood building	£16.8m	£17.4m	£34.2m

The previous Estate Strategy formed the foundation to develop the Trust Masterplan in 2015 which was prepared to address the remaining estate and service issues. A revised Estates Strategy was updated in 2018 to take into account the results of the 6 facet survey, the 10-year Condition Schedule, the estates department restructure and the Sustainability Development Management Plan.

3.3.7 Redevelopment Masterplan

The most recent Development Control Planning (DCP) commenced in 1985, when the aspiration to significantly improve the site resulted in two major projects: the Variety Club Building (opened in 1994) and the Camelia Botnar Labs (opened in 1995). The DCP was reviewed and updated in 1999 and 2005. These review cycles were informed by the planning and completion of redevelopment Phase 1 (in 2004) and planning for Phase 2.

The Trust has already realised plans for the following developments (see Figure 3-K):

- **Phase 1:** provided Weston House – the Trust’s patient and family hotel – as well as new facilities on the main hospital site and neighbouring Royal London Hospital for Integrated Medicine;
- **Phase 2:** Mittal Children’s Medical Centre: comprising the Morgan Stanley Clinical Building (Phase 2A), and Premier Inn Clinical Building (Phase 2B) in 2017; and,
- **Phase 3:** The Zayed Centre for Research into Rare Disease in Children commenced construction in January 2016 and is due to complete in September 2019.

Figure 3-K: Phases 1, 2 and 3

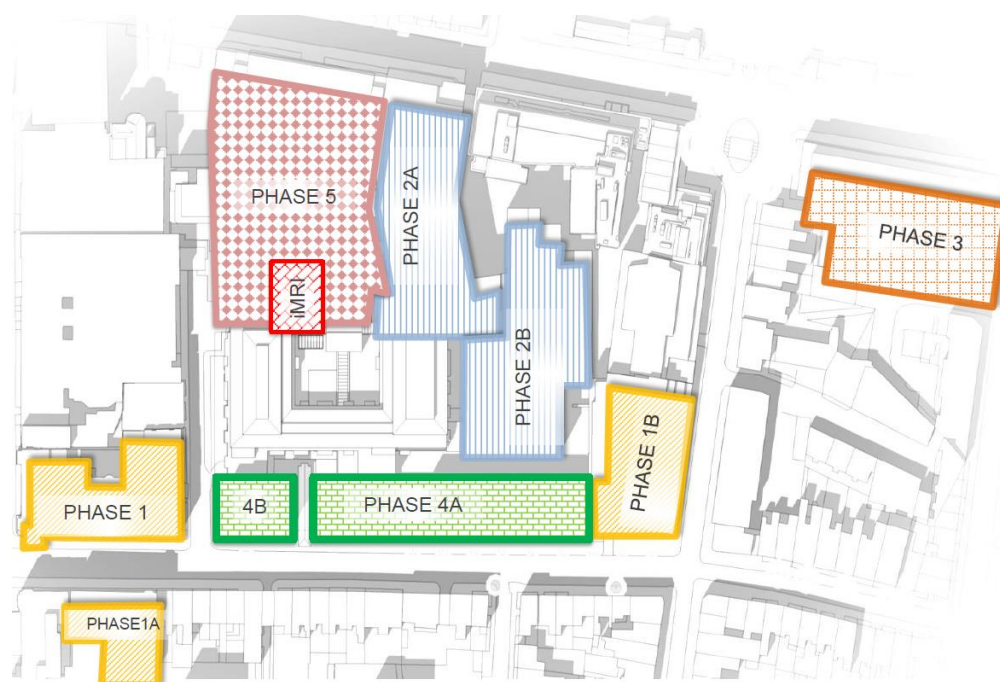


Timely and regular adjustments to the DCP have allowed the redevelopment programme to adapt to changing needs and priorities, ensuring optimum use of the island site to deliver accommodation in support of the Trust's clinical needs.

Masterplan 2015 was adopted by the Trust Board in February 2015. Masterplan 2015 provides a roadmap for further developing the site to meet rising demand, deliver increasingly complex care and offer a better patient experience. It allows services to be maintained on the existing site, consolidating resources and making best use of property assets, while still delivering on the aspiration to help children with complex health needs to fulfil their potential. It recognises that more than half of the island site has been redeveloped and limited options remain. The key output of Masterplan 2015 is how the redevelopment programme could be completed in two further phases. CCC Phase 4 (comprising Phase 4A and 4B – see Figure 3-L) will develop the south of the site, while phases 5A and 5B will replace the Southwood and MNH buildings to the north. The delivery of future phases is dependent on the delivery of CCC Phase 4A– without this development, the masterplan for future phases cannot be realised.

CCC Phases 4A is expected to deliver appropriate and fit for purpose accommodation for cancer and critical care services, pharmacy, imaging and the hospital school.

Figure 3-L: Phases 4A, 4B and 5



3.3.8 CCC Phase 4A Description

A Strategic Outline Case (SOC) was produced for the CCC programme in May 2016 and approved by GOSH Trust Board on 26 May 2016. Due to affordability issues, it is now planned to deliver the CCC in two phases – Phase 4A and 4B.

CCC Phase 4A comprises the decant and expected demolition of the Frontage Building and the redevelopment of the site, as identified at Figure 3-L. Phase 4B comprises the decant and either complete or partial redevelopment (yet to be determined) of POGB. It is the CCC Phase 4A that is the subject of this OBC.

The 4-storey Frontage building comprises two properties. The western section, alongside the main entrance, opened as an outpatient wing in 1954. The eastern section opened in 1970. With only one basement, four floors above ground levels and with a floor plate of between 7 and 13 metres width, it represents the most underdeveloped area of the main hospital site. It currently houses a series of outpatient departments along with the Child and Adolescent Mental Health Unit and Somers Clinical Research Facility. Parts of the Frontage building have been reconfigured and refurbished as part of the redevelopment process, but the building's space, extensive southern façade and infrastructure limitations mean that it is one of the least accommodating buildings on site with very limited clinical space suitability and long periods of overheating in summer months.

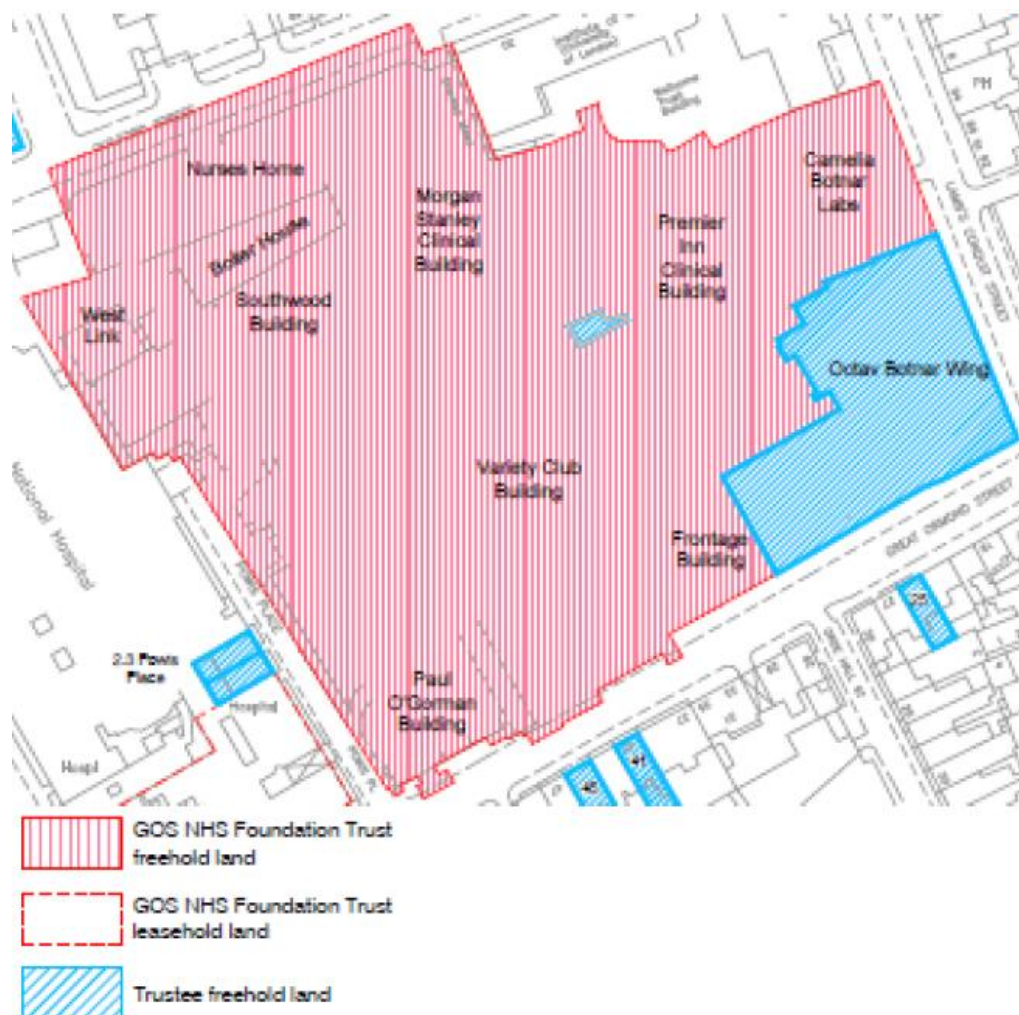
The GIA of the Frontage Building is 5,806m². A schedule of the GIA is shown at Figure 3-M.

Figure 3-M: GIA of Frontage building

Floor	Frontage Building	
	Use	GIA m ²
6	Plant Workroom	325
5	MCU – CAHMS inpatient Physiotherapy Therapies offices	934
4	CAMHS outpatients Neuropsych office	937
3	AFF Gym Panda daycare Medical records	983
2	Outpatient facilities Ophthalmology Audiology Cochlear implant	1246
1	Outpatients CRF OPD SLT Boiler room Plant External Plant	1371
	TOTAL	5,806

There are various tenancy and tenure arrangement with GOSH owned and occupied estate. Figure 3-N summarises the tenure arrangements of the estate affected by this OBC. This shows that GOSH and GOSHCC own the freeholds to the site of the Frontage building.

Figure 3-N: Tenure Arrangements



3.3.9 CCC Phase 4A Current Activity

CCC Phase 4A will incorporate the departments that form GOSH's cancer centre and a core aim is to provide a first class facility and outstanding environment for this patient population and their families. Cancer Services is one of GOSH's most significant clinical departments and GOSH is the largest children's cancer centre in the UK. Until the recent opening of the Princess Máxima Centre for Child Oncology in the Netherlands, GOSH was also the largest children's cancer centre in Europe. As a regional, highly specialised, tertiary and quaternary referral centre, children and their families travel long distances for treatment and care at GOSH. GOSH is proud of the care that is provided to this patient population and the intention is to deliver clinical facilities that will support clinicians in providing high quality, consistent care and a patient and family experience that is the best it can possibly be in what are extremely difficult and stressful circumstances. GOSH's cancer clinicians provide care in partnership with secondary children's centres. Under these shared care arrangements, GOSH provides specialist care and the majority of chemotherapy whilst the child's local hospital provides day to day care including home care, manages emergency events such as febrile neutropaenia and offers symptom control. The cancer service at GOSH sees children up to

approximately age 13, at which point they are transferred to the service at University College London Hospital (UCLH).

The GOSH services that are affected by this OBC are shown at Figure 3-O.

Figure 3-O: Affected Services

Service / Area
Cross sectional imaging and iMRI facility
Inpatient wards (cancer)
Activity Centre and Hospital school
Pharmacy
Special feeds unit
PICU

To put the CCC Phase 4A functional content into context with the previously briefed scheme, a reconciliation is shown at Figure 3-P between the current CCC Phase 4 (both Phases A and B) plus the original scheme at EDA scheme.

Figure 3-P: Affected Services Reconciliation with EDA Scheme

Dept	EDA scheme	Phase 4A	Phase 4B	Note
School & activity centre	included	included		
BMT	24 beds	32 beds		
Cancer	48 beds	32 beds		
IPP	24 Beds			omitted
PICU	24 Beds	16 beds		
iMRI	included	included		
MRI or CT	included	included		
PET MR	included	included		
Safari	included	included		
Children's medicine centre	included	included		
Special Feeds Unit	included	included		
Parent Lounge	included		included	
Staff rest	included		included	
Cafe	included		included	
FM	included		included	
Offices / teaching			included	New soft space
Front entrance	included	included		TBD
Bed Total	120	80		

3.4 Workforce Planning

The Children's Cancer Centre presents GOSH with a number of opportunities to address local workforce planning drivers, and the areas of focus identified within the Interim NHS People Plan:

3.4.1 Interim NHS People Plan

- *Making the NHS the best place to work:* The creation of modern, fit for purpose work environments will address current deficiencies, for example inadequate rest facilities, and will support improvements to staff physical and mental health and wellbeing, and contribute to reducing sickness absence. Making improvements to the working

environment for staff, particularly Pharmacy, Intensive Care and Oncology wards, is considered to a key enabler for attracting and retaining staff within these areas.

- *Delivering 21st century care:* The Children's Cancer Centre will continue to develop GOSH's existing strategy of harnessing the potential of scientific and technological developments. This creates modern, data-rich and digitally supported health and care services, able to adopt and spread scientific advances rapidly to improve the quality of patient care and health outcomes. Through the CCC GOSH will continue to enhance the skill mix of our workforce by developing and implementing of new roles and new models of advanced clinical practice – and by providing clear career pathways that enable people to continue developing and achieve their maximum potential.
- *Tackling the nursing challenge:* Colocation of purpose built cancer wards and facilities will support implementation of innovation within the new Releasing Time to Care programme – particularly in respect of reducing the time that clinical staff spend on non-clinical activity and creating opportunities for richer and more varied skill mix within clinical teams. Additionally colocation will improve the quality of student nurse experience within Oncology services – for example less clinical placement time spent acting as 'runners' between disparate locations, will generate time for higher quality clinical educational experience.
- *A new operating model for workforce:* Improvements to the work environment will act as significant leverage for GOSH to meet its obligation to positively influence the work experience for staff, and act as an enabler for developing the culture, purpose and vision of services within the CCC.

3.4.2 Local Drivers

- The CCC development presents opportunities for new clinical pathways which, in turn, will generate prospects for innovative new roles included extended scope nursing and allied health professional roles.
- The development will create opportunities for new career structures aligned to new roles, with complimentary educational and academic pathways to support increasing specialisation in clinical roles
- It is anticipated staff may be deployed into new working patterns as a result of productivity improvements enabled through colocation of services
- 7 day working models will need to be developed to ensure delivery of scientific, therapeutic and technical services to support patient care

3.4.3 CCC Phase 4A Workforce Planning

In developing the Long Term Financial Plan (LTFM), GOSH has assumed incremental increases to staff in all years within the model. This is due to the Trust utilising more beds within its capacity. Capacity will be reached by 2027/28 and therefore recruitment associated with general growth (rather than CCC specific) will cease at this time, unless there is further investment in additional capacity (as proposed in this OBC).

The proposal is not expected to have negative impacts on the workforce. Any workforce changes will be managed in line with the Trust's agreed Organisational Change Policy and sufficient time will

be allowed to ensure appropriate engagement with stakeholders and meaningful consultation on any changes.

Staff engagement sessions have been on-going to gather workforce views and listen to feedback. This has included engagement with clinical leaders, senior managers, and ward staff, as well as open sessions that staff members have been encouraged to attend and contribute to.

The workforce planning will be further developed at FBC, and will be informed by the projected activity projections, and models of care.

3.5 The Case for Change

There are significant key issues driving the case for change. The specific issues with the current system, underscored by the Board-approved Masterplan 2015, are shown at Figure 3-Q.

Figure 3-Q: Drivers for Change

Strategic Direction	Key Drivers for Change
Masterplan 2015	1. Limitations of the existing estate
	2. Increasing demand for clinical services
	3. Need to improve clinical quality
	4. Drive to implement principles of research hospital

Key Driver 1: Limitations of the estate

GOSH, in common with other hospitals, with a long history of providing excellent healthcare on their original sites, iteratively seeks to repurpose available space on its constrained 'island' site to ensure it is fit for modern healthcare.

Over time expert understanding of the importance of the healthcare environment has evolved to a point where GOSH's older buildings are now seen as no longer fit for purpose because their out-dated dimensions and proportions cannot be reconfigured to meet modern needs optimally. This was recognised in the 2016 report from CQC:

'Where the trust had completed a refurbishment or rebuild, the facilities were modern, extremely child friendly and conducive to excellent patient care and dignity. There remained some wards, not yet refurbished, rebuilt or relocated where the environment was less good.'

CQC also noted in this 2016 report that GOSH should:

'ensure early improvements in the environments of wards which have not been refurbished, rebuilt or relocated'.

Too much of GOSH's estate has:

- restricted floor plates and ceiling heights that are too small to support modern care delivery;
- buildings no longer functionally suitable for purpose;
- significant issues making health, safety and infection control standards difficult to maintain; and
- significant parts of the engineering infrastructure at increasing risk of breakdown.

Two such buildings are clinically the poorest around the Trust estate - the Victorian Paul O'Gorman building and its neighbour the Frontage building, built in the 1950's, with 1970's extension. Neither can be clinically utilised optimally and neither are conducive to offering an internationally renowned cancer treatment and research centre. Additionally, neither building maximises the use of the island site. The ten year maintenance plans, including the existing backlog maintenance liabilities for the Frontage building show that £15.6m is required to be spent on this building in order to address statutory requirements. This will not however improve the functional suitability of the space, which will remain poor.

3.5.1 Current Cancer Facilities

With specific regard to this OBC, cancer day case, inpatient and outpatient services, and supporting services are provided from a number of buildings located on the island site. There have been improvements to the clinical quality of other services through the delivery of previous phases of development. Phases 2 (cardiac and neuro services) and 3 (rare disease research) demonstrate GOSH's commitment to improving clinical quality for its patients. However, further significant improvements are critical. Without them for example:

- Cancer services would remain fragmented over the existing site. A solution would need to be found for cancer day care (Safari ward) which is presently located in unsuitable accommodation in GOSH's oldest building, Southwood, built in 1938. Cancer inpatients are cared for in the Variety Club Building, opened in 1994. The connectivity between the cancer inpatient wards and Safari ward is poor. This prevents clinicians from exploring innovative models of care and patient pathways as well as resulting in clinical risks associated with the separation of cancer departments.
- Currently the iMRI is planned for a temporary and somewhat isolated facility in Southwood Courtyard but requires a permanent location where it is of optimum use and location for surgeons performing complex procedures safely.

3.5.2 Current Pharmacy Facilities

GOSH Pharmacy manufactures 3000 items a month and is involved in 240 trials. However, an independent external review of GOSH's pharmacy was completed in October 2017 in response to MHRA inspection concerns and executive views that the environment and staffing levels were potentially unsafe. Pharmacy services are fragmented and scattered around various parts of the estate. MHRA has judged the main CIVAs units, where chemotherapy drugs are prepared, to be '*unfit for purpose*'. The layout of the pharmacy means an increased risk of errors. Demand for pharmacy was noted as likely to grow given higher clinical activity since the opening of Premier Inn Clinical Building in 2017. The review notes '*space constraints potentially impacting on safe processing of prescriptions, both in dispensary and technical services*'. May 2019 saw another

MHRA inspection focussing more on the Quality Management System than the estate. The MHRA were pleased with efforts to improve small aspects of the environment, but their overarching concerns have not changed since 2017 and it is the MHRA's belief that the inappropriate estate is a major factor in the Trust's ability to manufacturing safely. These concerns extend to the storage facilities of disposables as well as the actual manufacturing environment.

3.5.3 Hospital School

The school's overarching aim is to minimise the interruption and disruption to children and young people's education so that academic progress and an interest in learning will continue as far as medical circumstances permit. As an integrated part of the hospital it is essential that it is used to:

- support recovery and medical improvement
- minimise the risk of children falling behind their peers
- support patients to sit public exams if they are well enough to do so
- help patients continue a relationship with their 'home' school
- prepare patients for the life they will return to when they leave hospital

The Trust Board and Executive team have acknowledged that the current space is not fit for purpose. The school must provide its statutory service (section 19 of 1996 Education Act) to provide education for children and young people aged 3-18 and is facing increasing demand as the hospital continues to grow; the school schoolroom spaces have remained static and space is not sufficient.

Greater numbers of children of different ages are forced to work in an open plan space which hinders concentration and progress in their studies. The increasing demand on the wards means the teaching team has grown from 21 to 43 since 2011.

OFSTED (Office for Standards in Education) regularly feedback concerns about the lack of appropriate space.

3.5.4 Summary

Therefore the situation means if CCC Phase 4A did not go ahead as planned in the Masterplan 2015, the Trust must still invest in existing estate through a refurbishment programme which is highly unlikely to deliver similar benefits to those anticipated through CCC Phase 4A delivery.

Key Driver 2: Increasing demand for clinical services

Demand and capacity is a significant issue for the Trust and NHS, and demand-based pressures, including expectations to moderate demand growth, utilise capacity as efficiently as possible and implement reduction measures have been set out by NHS Improvement and NHS England. This includes the need for more rigorous activity modelling in the operational and contractual planning round. However, this is one part of a rapidly changing health service, and managing rising demand

needs to be done in the context of trying to restore performance against operational targets, achieve financial balance, recruit and retain staff, and transforming services.

GOSH has continued to see the demand for its services grow, and the increasing demand for specialist services like cancer, cardiac, and neurosurgery is a significant pressure on the current beds. Demand for GOSH's services is expected to continue to grow due to:

- Rising UK population;
- New treatments for complex conditions, for example, CAR T Cell Therapy for childhood cancers;
- Increased long term survival rates for children with chronic conditions leading to continuing interventions, therapy and palliative care.

This growth is taking place in a context of trying to restore performance against operational targets, achieve financial balance, recruit and retain staff, and transform services. The NHS recognises the significance of current demand pressures – the planning guidance estimates the NHS needs to absorb cost and demand pressures of 2.1% and 3.1% respectively across primary and secondary care – so there are clear expectations to moderate demand growth. As a result, and consistent with Trust strategy to '...achieve the best possible outcomes through providing the safest, most effective and efficient care' the Trust has developed a demand and capacity model.

The long-term (i.e. twenty-one year) model was built to forecast the current and future requirements for outpatients, diagnostics, theatres, and beds and will be a critical tool for strategy development and operational planning, such as considering future phases and refurbishment projects that could deliver additional capacity and improved environments for services that will not be housed in Phase 4.

The forecasted bed requirements show (based on current physical capacity) NHS capacity will be operating in a high-risk operational and clinical environment from 2027/28. It also shows that despite the introduction of PICB, which has improved the Trust's total NHS capacity with critical care and day case seeing the most sustainable improvements, overall inpatient capacity would continue to operate with risk, so CCC Phase 4A is critical.

Key Driver 3: Need to improve clinical quality

There have been improvements to the clinical quality of services through the delivery of previous phases of the Development Control Plan (DCP) implementation. For example, Phases 2 and 3 demonstrate GOSH's commitment to improving clinical quality for its patients. The Mittal Children's Medical Centre brings together services into one building that were spread across the site. It was designed as a nurturing environment for patients and families who might be going through the toughest times of their lives while receiving treatment and care at GOSH. GOSH, together with UCL Great Ormond Street Institute of Child Health, already forms the largest centre in Europe devoted to paediatric research and sees one of the biggest patient cohorts for rare disease in the world. Phase 3 of the redevelopment programme provides the purpose-built centre to optimise this work. The Zayed Centre for Research into Rare Disease in Children is a new research building, due to open in September 2019, where scientists and medical staff will work together to discover better ways to

treat children with rare diseases. Such high calibre facilities attract and retain high-calibre staff which is an important driver of excellence, intended to improve clinical quality.

This split between in- and outpatient cancer accommodation causes staffing inefficiencies with two nursing teams working separately in two locations. Clinicians make the journey between the two locations in separate buildings many times a day. It hinders clinical collaboration and discussion. A patient's condition and treatment however necessitates moves between the two service locations. Capacity issues are already impacting on patient experience with clinicians short of space to have difficult and often emotional conversations with families about their child.

Clinical Quality and the Environment

Another compelling reason for developing a cancer centre is the evidence that these buildings can be ground-breaking in how the built environment is carefully designed and delivered to enhance the patient experience. A patient's experience is shaped by everything and everyone in the care environment. The paradigm is where the environment of care is considered as carefully as are the drugs, surgery or radiation.

Thus the quality of hospital buildings plays a fundamental role in patient safety, recovery, psychological well-being and the effectiveness of research and treatment. Poor environments impede recovery just as effectively as good environments support that recovery. The psychological wellbeing of people is impacted by lighting, acoustics, access to daylight, privacy and environmental conditions.

Through the implementation of CCC Phase 4A there will be a significant improvement to the quality of services by providing:

- a state-of-the-art international cancer centre, co-locating inpatients and outpatients' services for the first time in a nurturing environment and siting it next to intensive care. This will improve clinical quality through a reduced need to move patients across sites within the island site;
- replacement NICU facilities next to the cancer floors, reducing the risk of infection to immuno-suppressed cancer patients who will no longer have to move through the hospital for step down or step up care;
- single bedrooms with controlled air quality to reduce the risk of cross-infection;
- consolidated pharmacy services on one site for safer medicines preparation and rectifying major regulatory compliance issues;
- additional new spaces to reduce the stress caused by wide age ranges and creating opportunity to achieve educationally and enjoy age-appropriate activities and friendships.

Key Driver 4: Drive to implement principles of research hospital

GOSH has a Board-approved five year Research Strategy which will support GOSH in transitioning from a hospital which undertakes research to a 'Research Hospital' i.e. where research is integrated fully into its clinical and overall mission and is embedded in the structure, processes and staff of the organisation. Integral to the success of GOSH as a research hospital is that partnerships that it has,

especially with UCL Institute of Child Health and Institute of Cardiovascular Sciences. The partnership is recognised for its work, evidenced as the partners hosting the only NIHR Biomedical Research Centre in the UK focusing on Rare Diseases. Between 2010-2014, GOSH and UCL Institute of Child Health research papers had the highest citation impact of any of the top children's hospitals in the world, as reported by Thomson Reuters. A recent analysis completed by RAND demonstrated that 49% of GOSH publications are collaborative with UCL. The proximity of the institutions is critical to their success, and therefore GOSH's presence at Great Ormond Street is vital. However, the current infrastructure does not support this ambition. Research is delivered by teams often physically remote from the patients and not embedded in the clinical care, which does not support an integrated, translational approach.

3.6 CCC Phase 4A Investment Objectives

The project investment objectives and definitions (overarching and by service), in response to the drivers for change and the principles for development, have been developed by the Programme Team and are shown at Figure 3-R.

Figure 3-R: Project Investment Objectives

No.	Objectives	Definition
1	Achieve the best possible outcomes & safest and most effective care	<ul style="list-style-type: none"> • Recognised for our expertise and innovation • Recognised for quality of patient and family experience • Timely access through appropriate capacity • Efficient environment through sustainable planning
2	Attract and retain the right people	<ul style="list-style-type: none"> • Create environment that embodies the culture to inspire staff and demonstrates the Trust values • Provide staff with the facilities they need to learn and improve
3	Improve children's lives through research & innovation	<ul style="list-style-type: none"> • Provide an environment that supports patients and families participating in research • Provide the space for translational research to take place close to patients • Provide the opportunity for researchers and clinicians to come together
4	Transform care and the way we provide it through harnessing technology	<ul style="list-style-type: none"> • Provide the facilities for a digitally mature organisation. • Ensure rapid uptake of technology to improve outcomes, experience and productivity • Provides an adaptable environment • Improves environmental quality • Improves staff facilities
5	Use of voice as a trusted provider to improve care	<ul style="list-style-type: none"> • Provides good access for patients – both emergency & non-emergency • Use our voice to deliver and promote highest standards of design for children's hospitals • Play a leading role in supporting our UK and international networks in delivering better project outcomes
6	Create inspiring spaces	<ul style="list-style-type: none"> • Deliver most highly sustainable buildings, educating staff and patients in stewardship • Maximise site potential to meet future needs • Provide clinical teams with most advanced equipment they need
7	Secure and diversify funding	<ul style="list-style-type: none"> • Create flexible capacity to allow for varying demand and type of care • Maximise the Charity's potential to attract donors through exciting and interesting projects • Need to ensure project is financially sustainable

3.7 CCC Programme Benefits

The overarching benefits that will be realised as a consequence of this investment are shown at Figure 3-S. These benefits form the basis of the benefits realisation planning (see Management Case).

Figure 3-S: Project Benefits

Category	Benefit Title
Clinical Benefit	Co-localisation of Oncology services
Clinical Benefit	Facilitating transition to ambulatory model of care
Clinical Benefit	Improvement in mortality and morbidity rates and increased quality of life
Clinical Benefit	Creating Clinical Flexibility
Clinical Benefit	Enabling all ICU beds to become compliant with modern technology and space standards
Clinical Benefit	Improved patient flows due to new models of care
Quality and Safety	Reduction in infection rates
Quality and Safety	Reduction in patient moves
Quality and Safety	Improved Pharmacy Estate
Training and Research	Increased research activity and income
Training and Research	Increased CRF capacity
Building Design	Parent Satisfaction
Building Design	Digital Strategy Enabler
Building Design	Recruitment and retention benefits: The CCC makes GOSH a more attractive place to work for staff
Building Design	Children and Young People Satisfaction
Building Design	Technology Advancements
Estates & Facilities	Improved Facilities Flow
Estates & Facilities	Reduced backlog maintenance
Estates & Facilities	Estate becoming more CO2 efficient
Estates & Facilities	Increase Estates Compliance
Societal Benefits	Construction of the CCC
Societal Benefits	Local economy
Societal Benefits	Local Involvement in Design
Reputational Benefits	Increased profile world wide

3.8 Project Constraints, Dependencies and Assumptions

The constraints, dependencies and assumptions of the proposed development are laid out in Figure 3-T. Financial assumptions are included in the Financial Case.

Figure 3-T: Constraints, Dependencies, Assumptions

Element	Constraint	Dependency	Assumption
The development of the Phase 3 and Italian Hospital projects (new clinical building off-precinct)		✓	
Access for deliveries to site	✓		
Decant of CCC Phase 4A buildings in line with agreed programme enabling schemes		✓	
Delivery of enabling schemes for CCC Phase 4A in line with agreed programme		✓	
Funding availability/affordability through delivering within the works cost limit	✓		
GOSH Charity committed to fundraise £250m for the scheme		✓	
GOSH committed to fund £10m for the scheme, and to underwrite any cost overrun above £258m		✓	
The preferred option assumes the land swap proceeds			✓
NHSI approval of the proposed asset swap between GOSH and GOSHCC		✓	
The costings included within this OBC assume no change to the future VAT structure.			✓
Capital cost associated with works to Safari ward are outside of the capital costs of this OBC, and will be funded via the Charity's infrastructure capital plan			✓
It is assumed that any repatriation of services off site is excluded from the scope of works in this OBC			✓
Requirement to interface with existing estate and public realm	✓		
Town planning requirements	✓		
Ability of Charity to fundraise funds in accordance with their stated plans		✓	
Robust project governance and successful engagement with strategic stakeholders		✓	
Programme for scheme delivery is dependent on effective passage through external approvals chain		✓	
Redevelopment team has sufficient in-house resource and expertise, supplemented by external advisors, where necessary			✓
GOSH will manage situations likely to lead to cost overruns			✓

3.9 Demand and Capacity Modelling

GOSH has developed a long-term (i.e. twenty year) demand and capacity model to help forecast bed requirements and make important planning-based decisions, e.g. future phases and refurbishment projects that could deliver additional capacity and improved environments as part of the CCC development. The model includes an assessment of expected increases in demand, over and above demographic growth; expected reductions in demand; and current and future policy and commissioning trends. The large increases in demand and thus bed requirements, align to the Trust Strategic areas of growth, namely Cancer, Cardiac, Critical Care and Neurosurgery.

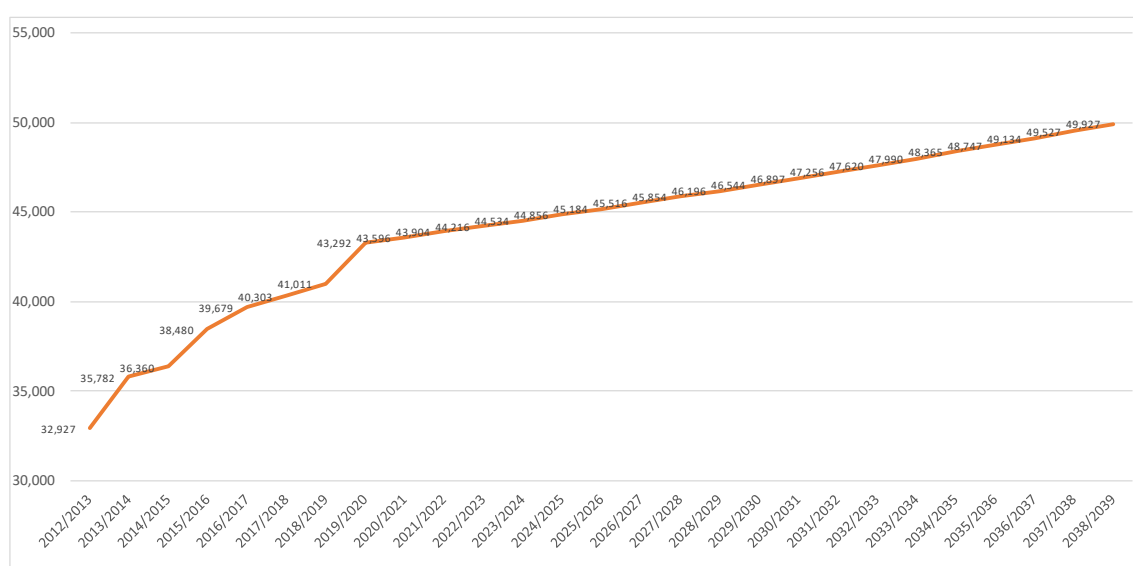
The modelling takes a conservative view of growth based on ONS demographic data given the current commissioning climate. There may be limited areas where demand increases as care is consolidated in specialist centres but this is difficult to assess. Demand is under regular review by the internal team.

3.9.1 NHS Demand and Capacity Modelling

The projected numbers of admitted NHS patient spells are based on: (1) demographic assumptions (based on population projections from the Office of National Statistics); (2) other long term trends, such as incidence and survival rates; and (3) specific initiatives and service developments, such as recurrent activity to sustainably reduce waiting lists.

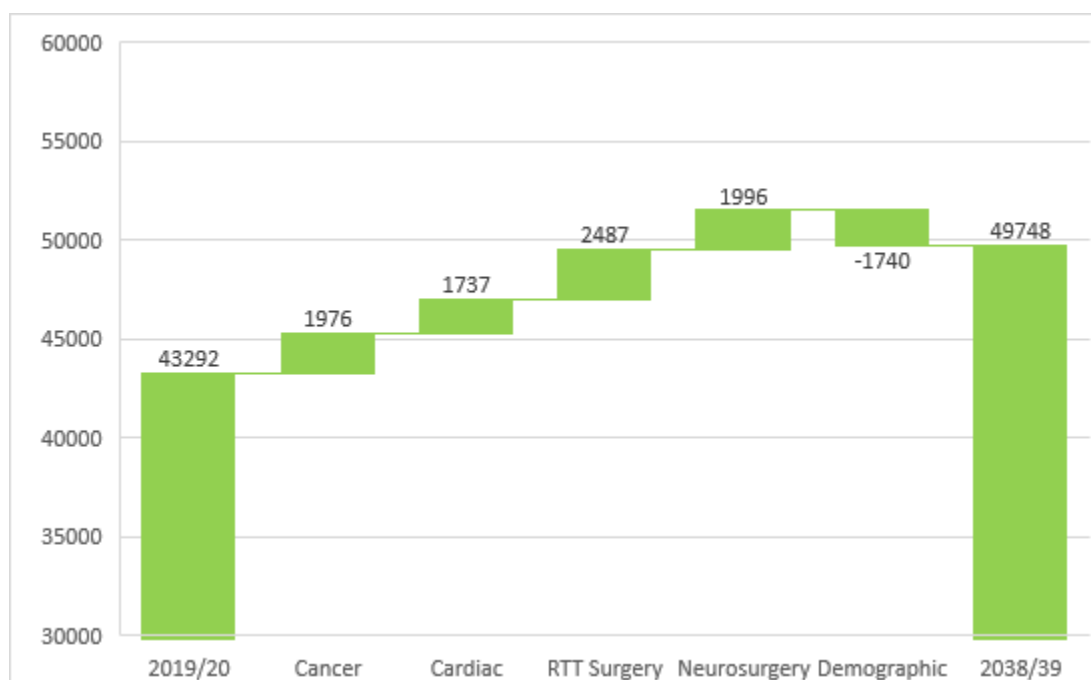
Figure 3-U below summarises the inpatient spells activity since 2012/13. It shows a noticeable period of growth occurred in 2013/14 enabled by the Morgan Stanley Clinical Building as well as the long-term projection.

Figure 3-U: NHS Inpatient Admitted Spells (historical and long term projection)



Forecast demand growth is not in excess of historical growth and for NHS services as the model currently tracks at an increase in demand of approximately 0.7% per annum. A notable increase in NHS admissions of 5% was seen during 2018/19. While the demographic growth element of demand does diminish, the current trends within activity growth are maintained, in-line with previous years. Figure 3-V present a summary of the activity forecast in the model up to 2038/39.

Figure 3-V: NHS activity bridge analysis – 2019/20 – 2038/39



Activity forecast up to 2038/39, as summarised above, includes the following key assumptions (please note that demographic growth is captured within the relevant defined areas where it is captured above):

- **Cancer** – A number of specific factors are driving the increased level of activity for cancer patients over the next twenty years. Firstly a change in two of the key protocols for children with cancer care is likely to lead to an increase in the volume of patients referred to GOSH. Demographic growth also drives a small annual increase in the volume of patients. Finally based on the trends seen in referrals over previous years cancer demand has been uplifted by 1% per annum to reflect this trend in demand. What is not captured within the model is likely output as a result of the current review taking place around paediatric cancer nationally.
- **Neurosciences** - based upon the levels of demand that have been seen across neurology services over the past few years, together with the increase in the elective and non-elective work that GOSH is likely to see in this highly specialised area, a 2% increase in neurology, neurosurgery, neurodisability and epilepsy services has been modelled into this position on top of the demographic growth seen.
- **Surgery growth** - relating to additional recurrent capacity being put in place through the opening of PICB to address growing waiting lists – particularly spinal, plastics, urology, ENT and general surgery. This growth will align capacity with a sustainable waiting list size, ensuring that RTT performance targets can be met. The activity assumptions used here are consistent with the current activity assumptions for the 2019/20 activity plan.
- **Cardiac** – GOSH had previously predicted a significant increase in the volume of cardiac referrals to the Trust, especially in view of the Congenital Heart Disease (CHD) reconfiguration as a result of the national review of CHD by NHS England. The previously predicted increases in 2019/20 have not materialised, however it is expected that there

will be some increase in the volume of referrals moving forward and this has currently been modelled at rates of increase, 2% per annum on top of demographic growth. This will help to address the volumes of refused admissions the Trust sees currently.

The demographic growth within the demand and capacity model is consumed within the profiled increases in service activity within the above. It should be noted that:

- Demographic change based on ONS projections – these range from 1.1% in 2020/21 declining to 0.1% by 2027/28.
- Demographic growth then profiles a slight decline in activity from 2028/29 onwards, in-line with the predictions around patient's care moving away from a hospital based setting going forward. Although slightly less relevant to specialist care, a small allowance has been made for this based on our referral population. This year on year reduction in demographic growth can be seen in the bridge graph below with an aggregated negative impact on growth over the life of the model.
- Cancer – increasing survival rate based on CCRG / NCRT trend data by group.

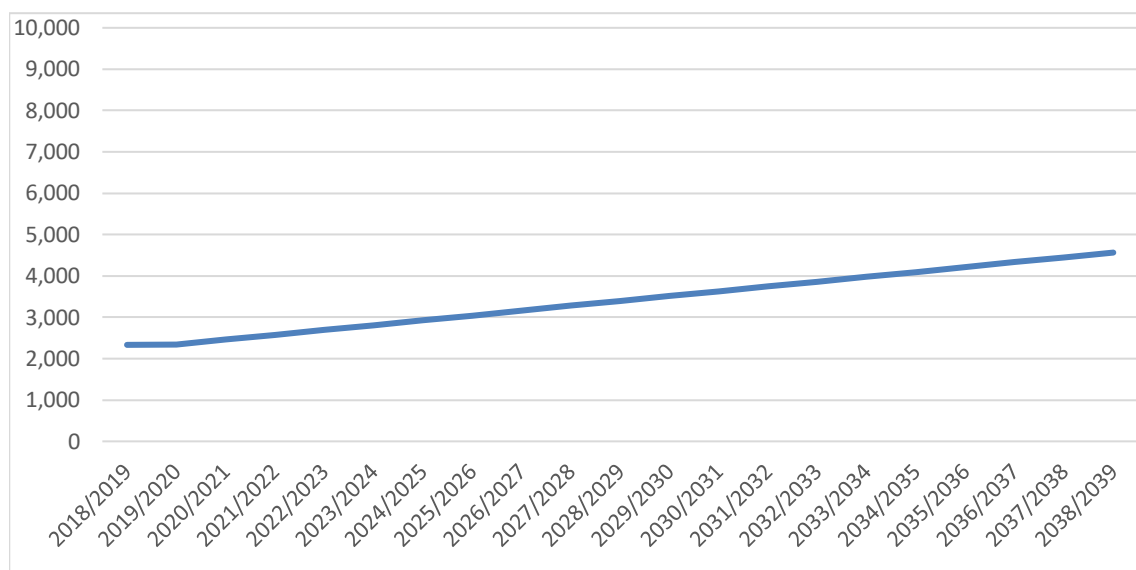
The modelling assumptions represent a conservative view of future demand. For example, no significant, long-term developments are included and it has been assumed that reducing length of stay through efficiency is offset by the impact of new technology and/or increasing acuity of casemix as specialised services become more concentrated at GOSH and less specialised activity increasingly stays with DGHs. However the model has been used to uplift NHS demand by a conservative amount within the Trust's key growth areas.

3.9.2 International and Private Patients

International Private Patients (IPP) plays an important role in GOSH's strategy, contributing to financial sustainability and raising the profile of the brand. Within the healthcare plan, IPP growth will be delivered through two streams of work: (1) Treatment in London; and (2) Overseas Partnerships. The IPP growth strategy targets 5% growth per annum based on a combination of growth delivered through additional demand from London as well as through Overseas Partnerships.

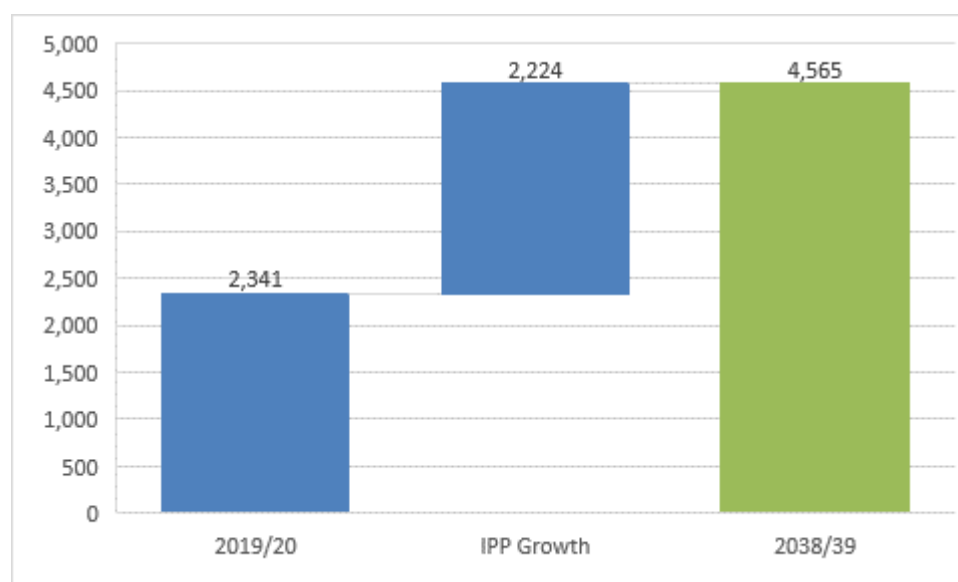
The Overseas Partnership is an emerging strategy. It will build on historical achievements to deliver overseas education and training, and visiting consultant programmes through a model of specialist paediatrics overseas and an international fellowship programme as well as closer clinical relationships with overseas partnerships and successful entry into new markets (e.g. China). Figure 3-W shows the 2018/19 outturn IPP in spells, with a projection to 2038/39.

Figure 3-W: IPP Bed Days 2016/17 – 2020-21



While the 5% growth in IPP demand per annum this captures a number of specific areas of growth that the IPP Directorate are currently focusing on, including growth in urology and craniofacial and cardiac. Beyond this (i.e. Figure 3-X below) a general assumption has been applied to align to IPP's growth strategy.

Figure 3-X: IPP Bed Days 2020-21 – 2038/39



3.9.3 Capacity Plan

This section shows how forecast NHS and IPP compares to bed capacity now, and bed capacity available after construction of the CCC. The Trust's baseline bed capacity is 490 beds (including capacity in the recently opened PICB). The addition of CCC Phase 4A is expected to increase this to 550 beds. This is the net effect of the Trust moving out of some areas with them not being

repurposed for inpatient ward space (Safari), while other clinical area can be used for ward space. This is set out in Figure 3-Y below.

Figure 3-Y: Current and Projected Bed Numbers

Facility	Current capacity	Capacity with CCC
Day Unit	87	91
Inpatient	281	337
ITU	69	69
IPP	53	53
Total	490	550

Figure 3-Z sets out the forecast demand for beds against the capacity of the Trust on the assumption that CCC Phase 4A proceeds. The current demand and capacity plans assumes CCC Phase 4A is opened in 2025/26. The Trust demand and capacity will be reviewed as part of the FBC planning to ensure it is aligned with the delivery programme.

Figure 3-Z: Forecast Demand for Beds against Current Capacity

	Bed requirement based on activity																				Physical beds	
																					Current	CCC-250
	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	36/37	37/38	38/39	19/20	28/29
Day unit	77	78	79	81	82	83	84	85	86	86	87	88	88	88	89	89	90	91	91	92	87	91
Inpatient	248	252	257	261	265	269	272	275	277	279	281	283	285	286	287	289	291	293	295	297	281	337
ITU	49	50	52	53	55	56	57	58	59	61	62	63	64	65	66	67	68	69	70	71	69	69
IPP	48	51	53	55	58	60	63	65	67	70	72	75	77	80	82	84	87	89	92	94	53	53
Total	422	431	441	451	460	468	476	483	490	496	502	508	514	518	524	530	535	541	548	555	490	550

Private patient capacity is located in two settings – dedicated private patient wards and within NHS wards. The 'IPP' line in Figure 3-Y represents dedicated private patient capacity. In 2016/17, in addition to this, private patient activity equating to around 11 beds was located in NHS wards. Conversely, in 2016/17, of the 47 occupied beds on dedicated private patient's wards, around 5 were occupied by NHS patients. The model assumes that the location of this activity remains within the same bed pools throughout the period of the model.

Key conclusions on demand vs current capacity:

- Private capacity begins to be exceeded in 22/23. At this point, demand for beds is at 55, while capacity is 53. This assumes that c. 5 beds continue to be occupied by NHS activity. If this NHS activity was removed or reduced, demand could be accommodated for one or two more years.
- Demand for inpatient beds and daycase beds begins to run out in 29/30, if additional capacity was not made available by this time.
- If it is assumed that all beds are interchangeable across the Trust, demand would exceed total current bed capacity in 2027/28, although by increasing the occupancy levels across the organisation could mitigate this if necessary.

- Offsetting excess demand in one area against excess capacity in another would require potentially significant reconfiguration and is likely to be impractical otherwise given different models of care operating in different areas.
- The bed requirement for cancer services is currently in excess of the capacity (56 beds required versus 50 beds currently available), however this is currently being managed through an increased level of bed occupancy on the unit (in excess of the currently modelled 85% occupancy). For the Safari daycase unit, the bed requirement will exceed capacity in 21/22.
- Based on the assumptions within the model and assuming the CCC is opened in the late 2020's, meeting the bed requirement of the organisation, GOSH would again begin to run out of capacity in 2038/39 where a bed requirement of 555 beds would be required against 550 physical beds available.

3.9.4 Demand and Capacity Plan Summary

The forecasted bed requirements show (based on current physical capacity) NHS capacity will be operating in a high-risk operational and clinical environment from 2026/27 and thereafter additional bed capacity will be required across the organisation.

The key clinical points to note are:

- CCC Phase 4A will replace poor outdated accommodation.
- CCC Phase 4A will increase day case capacity by 4 beds to 91.
- CCC Phase 4A will increase inpatient capacity by 56 beds to 337, inclusive of the bed moves from Variety Club Building (VCB) to Phase 4. This will address the forecasted bed capacity and reduce operational risk.

3.10 Schedule of Accommodation

Following reduction of the previous scheme, and developing the ward schedules first, the approach has been to schedule out all the clinical and non-clinical support space required for a compliant ward. This is because a basic ward requires similar levels of support space (such as staff rest, ward kitchen etc). Following the establishment of the departmental area the bed modelling was undertaken. Using cohorts of beds (1, 2, 4, 6 or 8 beds) that support nursing models, this ideally drives ward bed numbers of 24 to 36. Higher acuity patients tend to have smaller cohorts as nursing ratios are higher.

In affordability limits, the scheduling of the wards has resulted in a recommendation that 16-bed wards are developed. This has been confirmed as acceptable with the CNO for cancer wards and Nursing Director of Operations.

The target department floor areas (NIA) for Phase 4A building, split by level, is shown at Figure 3-AA. This schedule is based on the proposed land swap being achievable (see Commercial Case).

Figure 3-AA: Summary of Accommodation Requirements by Service / Level (NIA)

Floor Level	Department	SoA	Add 40m2/floor for FM Hub	Net Departmental Area	add 45% for Internal walls, circulation and communication	GIA Required	Allowance for Risers and ICT Hubs	Total GIA Required
0	Plant	1,500.00		1,500.00	0.00	1,500.00		1,500.00
1	Pharmacy	960.00	40.00	1,000.00	450.00	1,450.00	60.00	1,755.05
1	Special Feeds Unit	169.00		169.00	76.05	245.05		
2	Cancer Day Care/OPD	1,042.00	40.00	1,082.00	486.90	1,568.90	60.00	
2	Outpatient Dispensary	98.00		98.00	44.10	142.10		1,941.00
2	Main Entrance				170.00	170.00		
3	Complex Imaging	1,085.50	40.00	1,125.50	506.48	1,631.98	60.00	1,691.98
4	PICU Ward	985.00	40.00	1,025.00	461.25	1,486.25	60.00	1,546.25
5	Cancer Ward	887.50	40.00	927.50	417.38	1,344.88	60.00	1,404.88
6	Cancer Ward	887.50	40.00	927.50	417.38	1,344.88	60.00	1,404.88
7	Cancer Ward (PPVL)	926.00	40.00	966.00	434.70	1,400.70	60.00	1,460.70
8	Cancer Ward (PPVL)	926.00	40.00	966.00	434.70	1,400.70	60.00	1,460.70
9	Hospital School and Activity Centre	606.50	40.00	646.50	290.93	937.43	60.00	997.43
9	Roof Garden							
9	Plant	800.00		800.00	0.00	800.00		800.00
				11,233.00		Total:		15,962.85

There remains scope to develop the schedules of accommodation and ensure that the clinical departments provided are both functional and future proofed. This will result in significant improvements in patient and family satisfaction as well as delivering the optimal working environment for the Trust's staff.

In terms of the breakdown of inpatient beds, CCC Phase 4A of the GOSH redevelopment masterplan will provide 80 inpatient beds in 16-bed ward units across 5 floors (Levels 4-8). The current planned bed allocation is summarised at Figure 3-BB.

Figure 3-BB: Breakdown of Inpatient Beds for Phase 4A

Floor Level	Beds	Planned Occupants	Transferring From	Beds Transferring (July 2018 bed model)	New Beds
4	16	Critical Care	VCB Level 4	16	0
5	16	Cancer Services	VCB Level 6	31	1
6	16	Cancer Services	VCB Level 6		
7	16	Cancer Services inc. BMT	VCB Level 5	21	11
8	16	Cancer Services inc. BMT	VCB Level 5		
Totals	80			68	12

The design team will be issued with the detailed schedules of accommodation that sit behind these total areas and this information will be supplemented with narrative and information that explains the basis for the schedules as well as describing GOSH's vision and aspirations for the proposed departments.

3.11 Clinical Brief

The original brief for Phase 4 of the Redevelopment Masterplan was issued to bidders in late 2016. This document, co-authored by the Young People's Forum, described GOSH's philosophy and culture and included patient and parent stories in order to provide bidding teams with an illustration

of GOSH and its people. Detailed briefing was limited to functional content and quantities of facilities to be provided in order that design teams could be creative in their proposals.

In late 2017, at the conclusion of the design competition stage, this brief was supplemented with a more detailed description of the clinical functions and facilities required. This document included GOSH design standards and aspirations together with broad schedules of accommodation that were not prescriptive. The Clinical Design Brief was set in August 2019.

Now, with a clear understanding of the quantum of space within Phase 4A and Phase 4B, it is intended to take a more prescriptive approach to briefing the Pre-Contract Services Agreement (PCSA) stage. This will build on the work already undertaken during the design competition and with Sisk. In addition to narrative about the function and purpose of each department, the design team will be provided with detailed schedules of accommodation and target areas for both rooms and departments. This information has been collated following detailed work that has assessed the possible development area and made allowances for essential functions such as circulation, plant space and vertical risers. This identifies within the costed target GIA a target departmental area from which schedules are produced.

The maximum target total departmental area for a GOSH CCC scheme on the Frontage site (Phase 4A) is 11,233m². For Phase 4B the departmental area is approx. 3,300m².

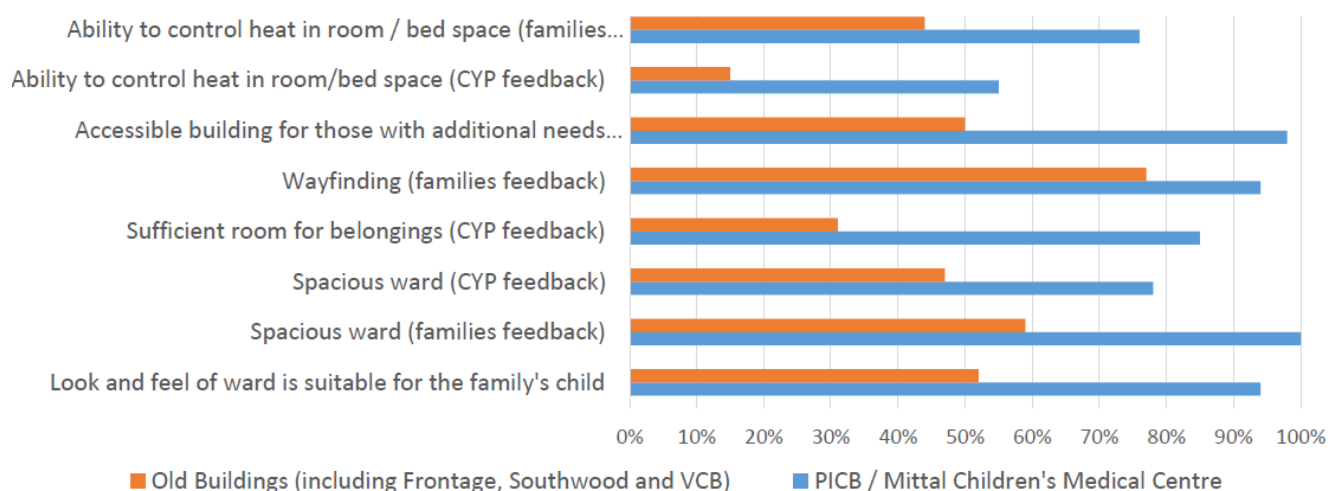
3.12 Lessons Learnt from Previous Phases

GOSH is committed to using the lessons from previous phases of the Redevelopment, for the benefit of current and future phases. As such a review of Major Schemes was undertaken in March 2018, comprising a review of:

- Phase 2A - Morgan Stanley Clinical Building
- Phase 2B - Premier Inn Clinical Building

As an example a review was undertaken in July 2018 of the Mittal Children's Medical Centre, comparing it to other buildings on the GOSH island site, including the old clinical buildings (Frontage building, Southwood building and VCB). A summary of some of the key outputs of this review are shown at Figure 3-CC. This summary shows that against a number of key criteria the new estate performs significantly better than the old estate.

Figure 3-CC: Review of New and Old Estate



As a consequence of this major review, the following lessons learned will be applied to the CCC:

- The benefit of much earlier engagement with the contractor to provide assurance on buildability and cost and enabling designing to cost (the works cost limit);
- The benefit of much earlier and consistent engagement with the planning officers at LB Camden to avoid contentious process; and
- Acknowledgement that the CCC scheme is on the most sensitive site in terms of town planning and heritage impacts and requires a high quality design response.

3.13 Consequences of Not Proceeding with the CCC Development

Masterplan 2015 identified the Frontage site as the prime location for further clinical services because of the connection opportunities to other clinical buildings and the opportunity to significantly increase overall capacity (in m² terms) for the (relatively) simplest and lowest cost decant project. That leaves the northwest corner of the site for a future development opportunity possibly for research, learning and clinical support.

As requested at the Finance and Investment Committee a 'Do Minimum' option has been examined. This will not deliver suitable quality and capacity improvements for GOSH and blights future development of the site. The cost has been estimated at c. £115m. It is described in Appendix 4-2.

The Trust has been driving towards a decommissioning of Southwood since the start of Phase 2 planning (2006) as the accommodation is so unsuitable for modern healthcare delivery. The Trust's commitment has been repeatedly noted by the CQC. Capacity requirements have restrained the ability to empty the building but its occupation by patients, even for day-care cannot continue for

much longer and as previously described cancer services are currently delivered from disparate services across the site, as shown at Figure 3-DD.

Figure 3-DD: Disparate Current Locations for Cancer Services at GOSH

Service	Location	Impact
BMT	VCB	1990's estate which no longer meets modern space standards so bedrooms, en suites and play rooms are all very small. Aging infrastructure. Capacity is also restricted. Any refurbishment would require a complete shutdown of the beds and a major impact on the service delivery for the duration of works.
Cancer	VCB	1990's estate which no longer meets modern space standards so bedrooms, en suites and play rooms are all very small. Addressing this in situ would result in loss of bed numbers. Aging infrastructure. Capacity is also restricted. No access to outside space
Cancer day Care	Southwood	1930's estate which no longer meets modern space standards; engineering infrastructure is poor so the ward is too hot in summer and too cold in winter; no access to outdoor space.
iMRI	Southwood Courtyard	Temporary location under construction; support accommodation not fully achieved. Time limited planning consent.
PET MRI	Provided off site	Suitable location will be difficult to find without new build phase 4 resulting in continued referrals to adult based services
Pharmacy	VCB	Split over two locations; constrained area
Pharmacy	Southwood	Split over two locations; Poor accommodation
PICU	VCB	1990's estate which no longer meets modern space standards; ageing infrastructure
School	Southwood	Exceptionally cramped and lack of age appropriate learning spaces; restricted to mixed age teaching with the open-plan schoolroom informally divided between primary and secondary pupils; no bespoke quiet areas for independent learning, one to one learning support or sitting exams.

FFT data demonstrates where the accommodation is impacting on wellbeing and patient and family experience:

- *'Chemo machine couldn't get to the playroom without being charged. All this led to a rather additionally stressful experience.'*
- *'It'd still be good to see the ward updated as so much resource has been ploughed into modernising other wards and buildings. Having a bathroom with reliable hot water supply is pretty basic and better storage for parents / carers is needed, practically when some families are resident for so long.'*
- *'Waiting room far too small. Feel like it has been shoved in a cupboard. It's just too hot!'*
- *'Only downside is that the ward is extremely hot! No need for this!'*

Not proceeding with the next stage of the redevelopment programme clearly inhibits the Trust's ability to develop technological support, research and innovation, discovery and translational care – all attributes the hospital has successfully delivered generation after generation by investing in people, technology and new buildings.

Although not a driving factor in any decision regarding redevelopment the impact on the Charity must be acknowledged. The Charity fundraising model is supported by the activity to raise funds

for major projects. Changing this model is possible but will take time and the view is that the overall contribution to the hospital will reduce.

There are key risks to the Trust should the decision be made to not address the issues described in the Case for Change within this document. GOSH has assessed the strategic consequences of not proceeding with the CCC development. The status quo does not:

- meet patients' expectations of cancer services;
- improve the clinical quality of services, e.g. co-location of cancer inpatient and outpatient services;
- contribute towards improving clinical safety, e.g. the replacement of PICU facilities next to the cancer floors, therefore reducing the risk of infection to immune-suppressed cancer patients; and an increase in the number of single rooms with appropriate control of air quality;
- address the continuing perceived and real damage to Trust reputation for quality services in quality environments;
- contribute to the ambitions of the Research Hospital;
- enhance GOSH's reputation for clinical excellence;
- protect / build on GOSH's market position versus other Trusts;
- protect / enhance GOSH and GOSHCC brands;
- impact on GOSHCC having to reduce their cost base;
- contribute to staff engagement, recruitment and retention of staff, or the ability to develop new career structures or job opportunities which meet the new clinical pathways;
- futureproof the estate and infrastructure in regard to future demand for clinical services and technological advancements;
- mitigate against current or projected backlog maintenance expenditure on dated buildings;
- improve the visibility of the main entrance, thus supporting wayfinding for patients and visitors;
- contribute towards optimum sized wards that suit modern clinical models of care allowing for an efficient staffing model;
- provide a suitable accommodation in a modern estate environment;
- address the current fragmented and uncoordinated care model, specifically for cancer services;
- address the compliancy issues regarding current Pharmacy provision;
- act as an enabler to future phases of redevelopment of the GOSH site. Without the delivery of CCC, future phases cannot be delivered, significantly impacting on the ability

to vacate Southwood building, one of the poorest quality buildings remaining on the island site.

4.0 ECONOMIC CASE

CHAPTER SYNOPSIS – Economic Case

The Trust has undertaken a two-phase approach to the options appraisal:

- Scheme options appraisal: the aim of this appraisal was to determine the strategic option and location. A Do Nothing option was discounted by Trust Board at this stage and therefore Do Minimum is the benchmark option; and
- Functional content options appraisal: the aim of this appraisal was to determine the preferred functional content of the new facility, based on the outputs of the scheme option appraisal.

The shortlisted functional content options were subjected to an economic appraisal using the Generic Economic Model (GEM). The outputs of this appraisal are that Option 4: Creation of CCC Phase 4A is the preferred option.

The weighed scores from the qualitative appraisal are summarised below and show that Option 4 is qualitatively the preferred option.

Benefit Criterion	Business as usual	Do Minimum	Refurbishment	New Build
Total	14.00	24.30	43.50	83.80

The capital costs associated with this option (on the basis of the commercial deal described in this Commercial Case) are summarised below.

Option 4 - CCC	Cost exc VAT £	VAT	Cost inc VAT £
Works Cost Subtotal inc. location adjustment	98,190,151	19,638,030	117,828,181
Fees	21,972,350	-	21,972,350
Non-Works Cost	8,250,000	1,650,000	9,900,000
Equipment Cost (32.53% of Departmental Costs)	19,500,000	3,900,000	23,400,000
Planning Contingency	13,700,050	2,740,010	16,440,060
Total for approval purposes (exc. Optimism bias)	161,762,551	27,958,040	189,720,591
Residual Optimism Bias (14.03%)	22,696,000	4,539,200	27,235,200
Inflation Adjustments	42,296,181	8,459,236	50,755,417
VAT Recovery	-	35,437,433	35,437,433
Forecast Outturn Business Case Total – Main Building	226,754,733	5,519,043	232,273,776
Trust Enabling / Decant Works			24,994,980
Forecast Outturn Business Case Total			257,268,756

Based on the outputs of the GEM analysis, the value for money comparison of each option is summarised below:

Option	EAC (£m)	Benefits Appraisal	EAC per Benefit Point (£m)	Rank
1	425.61	14.00	30.40	4
2	437.40	24.30	18.00	3
3	436.47	43.50	10.03	2
4c	443.21	83.80	5.29	1

4.1 Options Appraisal Process

The Option Appraisal process explains how all the options to meet the estates and service needs and achieve the investment objectives have been considered and how a preferred option has been determined.

The Trust has undertaken a two-phase approach to the options appraisal:

- Scheme options appraisal: the aim of this appraisal was to determine the strategic option and location. A Do Nothing option was discounted by Trust Board at this stage and therefore Do Minimum is the benchmark option; and
- Functional content options appraisal: the aim of this appraisal was to determine the preferred functional content of the new facility, based on the outputs of the scheme option appraisal.

The work in this chapter builds on the work originally completed during the development of the Strategic Outline Case.

4.2 Scheme Options Development and Appraisal

4.2.1 Scheme Options Long Listing

A long list of options has been prepared by the Project Team. These are described at Figure 4-A, and the advantages and disadvantages of each are shown at Figure 4-B.

Figure 4-A: Long List of Scheme Options

No	Option
1	Do Nothing - essential maintenance only
2	Do Minimum - all facilities brought up to a level that only requires general on-going maintenance investment (NHS Estates Condition B)
3	Redevelop/reconfigure existing facilities with minimal new build to provide more fit for purpose facilities
4	New building on existing site – ambulatory services, new entrance on to Guildford Street, separate research facility
5	New building on existing site – inpatient, research, private patients, outpatients, critical care, theatres and cancer services
6	Complete new build in London replacing all of the current facilities on the GOSH site
7	Complete new build outside London replacing all of the current facilities on the GOSH site
8	Utilise spare capacity on an existing NHS site
9	Single new build in London providing facilities for new developments but retaining the existing site
10	Single new build outside London providing facilities for new developments but retaining the existing site

Figure 4-B: Advantages and Disadvantages of Long List of Scheme Options

No	Advantages	Disadvantages
1	<ul style="list-style-type: none"> Limited capital investment No disruption to operational site 	<ul style="list-style-type: none"> Does not deliver any project objectives Does not improve service delivery
2	<ul style="list-style-type: none"> Limited capital investment Limited disruption to operational site Improves condition of existing estate 	<ul style="list-style-type: none"> Does not deliver additional capacity Does not allow for service development or expansion Does not support recruitment / retention Does not provide additional capacity for education /research Does not address disparate services
3	<ul style="list-style-type: none"> Facilities some service development/ change of use Improves patient environment More sustainable than a new build 	<ul style="list-style-type: none"> Disruption to service delivery May not be possible to comply with HBN standards May lead to loss of capacity Does not provide sufficient additional capacity Does not provide additional research/education facilities Need to continue with rental of some buildings Requires substantial capital commitment
4	<ul style="list-style-type: none"> Build to current standards Delivers appropriate clinical adjacencies Allows for expansion in capacity Increased access to new technology Partially addresses objectives for research 	<ul style="list-style-type: none"> Substantial capital costs Lengthy timescale for delivery Disruption to site No capital receipt from land sale Lack of connectivity with other buildings Does not address education objectives Does not provide additional inpatient facilities
5	<ul style="list-style-type: none"> Build to current standards Delivers appropriate clinical adjacencies Allows for expansion in capacity Increased access to new technology Provides additional research and education facilities Provides additional inpatient facilities 	<ul style="list-style-type: none"> Substantial capital costs Timescale for delivery Disruption to site No capital receipt from land sale
6	<ul style="list-style-type: none"> Fit for purpose facilities Improved access No disruption to existing site Provides future opportunities for expansion Capital receipt from sale of existing site 	<ul style="list-style-type: none"> Availability of suitable site Ability to obtain planning permission Significant capital investment Timescale for delivery Impact on brand/fund raising Redundancy of significant recent new build Does not meet values of Charity Trust's borrowing limit
7	<ul style="list-style-type: none"> World class facilities No disruption to existing site Provides future opportunities for expansion Capital receipt from sale of existing site Improves staff recruitment 	<ul style="list-style-type: none"> Availability of suitable site Ability to obtain planning permission Significant capital investment Timescale for delivery Impact on brand/fund raising Redundancy of recent new builds Does not maintain links with academic/research Loss of clinical activity Trust's borrowing limit
8	<ul style="list-style-type: none"> Uses surplus NHS estate No disruption to existing site Surplus estate on GOSH for sale or alternative development 	<ul style="list-style-type: none"> Becomes two site Trust Duplication of workforce technology Separation of clinical services Availability of sufficient spare capacity
9	<ul style="list-style-type: none"> World class facilities Improved access No disruption to existing site Provides future opportunities for expansion 	<ul style="list-style-type: none"> Becomes two site Trust Duplication of workforce Duplication of technology Separation of clinical services Availability of land Trust's borrowing limit
10	<ul style="list-style-type: none"> World class facilities Improved access No disruption to existing site Provides future expansion opportunities Capital receipt from sale of existing site Less constraints on land availability Improved staff recruitment 	<ul style="list-style-type: none"> Becomes two site Trust Duplication of workforce Duplication of technology Separation of clinical services Trust's borrowing limit Loss of clinical activity

Following an assessment by the Trust, Figure 4-C shows those options which were shortlisted, and a summary of the rationale for the reason for shortlisting or discounting.

Figure 4-C: Shortlisted Options

No		Shortlist?
1	Do Nothing - essential maintenance only	N
2	Do Minimum - all facilities brought up to a level that only requires general on-going maintenance investment (NHS Estates Condition B)	Y
3	Redevelop/reconfigure existing facilities with minimal new build to provide more fit for purpose facilities	N
4	New building on existing site – ambulatory services, new entrance on to Guildford Street, separate research facility	Y
5	New building on existing site – inpatient, research, private patients, outpatients, critical care, theatres and cancer services	Y
6	Complete new build in London replacing all of the current facilities on the GOSH site	N
7	Complete new build outside London replacing all of the current facilities on the GOSH site	N
8	Utilise spare capacity on an existing NHS site	N
9	Single new build in London providing facilities for new developments but retaining the existing site	N
10	Single new build outside London providing facilities for new developments but retaining the existing site	N

4.2.2 Scheme Assessment - Benefit Criteria

Qualitative benefits criteria, which adequately reflect the project objectives, were developed by the Project Team (Figure 4-D) in order to assess the shortlisted schemes. They were ranked and weighted in order of importance.

Figure 4-D: Scheme Options Appraisal - Benefits Criteria

Criteria	Weight
Service Delivery	20
Education and Research	15
Strategic	10
Estate	10
Access	10
Culture and Values	10
Workforce	15
Sustainability	10
Total	100

The shortlisted scheme options (Options 2, 4 and 5) were scored against the agreed benefit criteria. The outputs of the scheme options appraisal are shown at Figure 4-E.

Figure 4-E: Scheme Options Appraisal Outputs

Benefit Criteria	Weighting	Option 2 Do Minimum		Option 4 New build – separate research unit		Option 5 New build inpatients	
		Raw	Weighted	Raw	Weighted	Raw	Weighted
Service Delivery	20	0	0	4	80	8	160
Education and Research	15	0	0	2	30	5	75
Strategic	10	0	0	2	20	8	80
Estate	10	1	10	6	60	8	80
Access	10	1	10	8	80	6	60
Culture and Values	10	1	10	6	60	9	90
Workforce	15	1	15	6	90	8	120
Sustainability	10	2	20	6	60	7	70
TOTAL			65		480		735

The switching analysis test of the shortlisted options shows by what percentage the lower scoring options must increase in order for them to become the highest scoring option (see Figure 4-F).

Figure 4-F: Switching Analysis

	Option 2	Option 4	Option 5
Rank	3	2	1
Weighted scores	65	480	735
Actual increase in score required	670	255	
% increase required	1,031%	53.1%	

The switching analysis test shows that the second ranked option, Option 4, would need to increase its score by 53.1% in order to become the preferred option, whilst Option 2 would need to increase by over 1,000%. Both scenarios would require such a significant increase in raw scores and / or benefit criteria weighting, that this is considered highly unlikely.

The outputs from the qualitative scheme options appraisal are therefore considered to be robust and have been accepted by the Redevelopment Programme Board.

4.2.3 Masterplan Update

The options appraisal process described at Section 4.2.1 and 4.2.2 was based on the DCP 2010. Since that time, the DCP 2010 was reviewed and updated in the form of the Masterplan 2015. As a direct consequence, the Steering Group agreed that Option 4 no longer met the requirements of the updated masterplan. Option 4 has therefore been discounted because it does not meet the fundamental principles of the Masterplan 2015, specifically Option 4 would result in:

- Poor connectivity to the rest of the site. The only possible link would be through wards in MSCB, as Southwood sits between this site and the VCB.
- Poor suitability for the ambulatory care vision. Outpatient services are not well suited to multi-level delivery. The option is inconsistent with the updated vision to have all ambulatory care to take place at ground floor level.
- Minimal opportunity to increase overall m2 over the current estate. The Masterplan 2015 requires the island site to be maximised, which Option 4 would not achieve.

4.3 Functional Content Options Appraisal

The scheme options appraisal carried out in 2015 (the outputs of which are shown at Section 4.2), defined the shortlisted scheme option. The subsequent assessment of the shortlisted options against Masterplan 2015 resulted in Option 4 being omitted. The output from the scheme options appraisal therefore shows that Option 2 (as the benchmark) and Option 5 were taken forward. It is Option 5 that was used as the basis for the EDA scheme.

4.3.1 Update Following Scheme Options Appraisal

The Executive Team has scrutinised the project within the context of the vision, service plans, future emerging developments in terms of clinical care and technology and the current and future external environment. The Executive Team has confirmed that, as an enabler to delivering the vision of GOSH as a leading global centre for paediatric research, GOSH continues to support the redevelopment programme and the delivery of the CCC as essential to this goal. Notwithstanding this confirmation, it is acknowledged that the EDA scheme cannot be supported in its totality by external funding. In response to this the challenge has been to reduce the scheme whilst maintaining the vision, clinical quality and functionality of the CCC.

4.3.2 Qualitative Functional Content Options Appraisal Outputs – June 2019

Based on the original the preferred option identified as part of the scheme options appraisal (Option 5 – New build on existing site), the functional content appraisal has considered three options, as detailed at Figure 4-G. These are appraised against Option 1 – Business As Usual (BAU), which consists of undertaking backlog maintenance works only with no changes to the location of clinical services. It is assumed that the Trust will continue to expand its activities in accordance with its Long Term Financial Model until 2028 when the site reaches saturation.

Figure 4-G: Functional Content Options Appraisal

Option 2 – Do Minimum	This option sees the Pharmacy centralise all of its services in the Frontage Building and expand cancer services in Southwood resulting in an increase of 16 beds. Safari Ward will relocate from level 9 to level 5 with the Outpatients being located on level 6 as the current accommodation is not suitable for them to remain in long term. The school will be given 2 wings of level 7 to relocate their offices from level 2 which creates space for improvements in that area. Magpie, RANU and Neurophysiology will move from level 4 to level 9 so the cancer services can be located together.
Advantages	Disadvantages
<ul style="list-style-type: none"> - Lower capital costs than other options - Less disruption caused to users of site as the main entrance will remain open during works - Some co-location of cancer services achieved - Some improvements are made to the Pharmacy - Improved environment for Sleep Study Unit - New data centre increasing IT resilience - Improves the patient and family experience - Improved working environments leading to recruitment and retention - Apprenticeship opportunities for local community - Lower comparative planning risk 	<ul style="list-style-type: none"> - Option does not deliver the PET MR - Poor model for the school - No possibility of iMRI moving back to site - Jeopardises masterplan for the future - Unattractive for fundraising - Significant capital spent delivering sub-optimal environments - Does not improve flows within pharmacy - Does not create a Cancer Centre - Accommodation that does not meet modern space standards - No improvements to public space / main entrance - No improvement to public realm - Modern bedroom space standards not met - Higher Trust capital funding input required

Option 3 – Creation of the Cancer Centre functional content within existing estate	This option delivers everything described in option 2 but then sees a far greater amount of building works to Southwood and Frontage, including the creation of a PET/MR suite on level 1 of Frontage. The level of intervention in the VCB is more significant with wards on level 5 and 6 being converted to PPVL single bedrooms. This option creates expansion of the Clinical Research Facility as per a recently approved Business Case.
Advantages	Disadvantages
<ul style="list-style-type: none"> - Delivers the PET MR - Co-located school and activity centre - CSP's & Security moved to a more appropriate location with a better environment - CRF expansion to meet expansion request - Less disruption than Option 4 caused to the users of the site as the main entrance will remain open - Creation of additional PPVL bedrooms - Some co-location of cancer services are achieved - Improvements are made to the Pharmacy - Improved environment for Sleep Study Unit - New data centre increasing IT resilience - Improves the patient and family experience - Improved working environments leading to recruitment and retention - Apprenticeship opportunities for local community - Lower planning risk compared to Option 4 	<ul style="list-style-type: none"> - Cancer services split over two buildings and does not create a Cancer Centre - Poor model for the school - No possibility of iMRI moving back to site - Eliminates masterplan for future developments - Unattractive for fundraising - Significant capital spent delivering sub-optimal environments - Does not improve flows within pharmacy - Accommodation that does not meet modern space standards - No improvement to public realm or main entrance - Higher Trust capital funding input required

Option 4 – Creation of the CCC Phase 4A	This option is a new build scheme on the Frontage building site. This option creates expansion of the Clinical Research Facility as per a recently approved Business Case.
Advantages	Disadvantages
<ul style="list-style-type: none"> - Creates a Cancer Centre with clinical facilities up to modern space standards - Improves the patient and family experience - Improved working environments leading to recruitment and retention - Increased space for research and clinical audit activities - Additional external space created - Optimal pharmacy flows - Creation of a bespoke Special Feeds Unit - Sustainability rating of BREEAM Excellent as minimum - Delivers PET MR on the theatres / imaging pathway - Optimum school and activity centre environment - Increased brand and international reputation - Enhanced arrival /improved main entrance - Complies with the Masterplan 2015 - Co-locates imaging with theatres - Improved vertical connectivity - Improved wayfinding - Improved cytotoxic drug delivery system - Improved connectivity with other buildings - Enables Phase 4B and its associated benefits - Develop a Cancer ICU model of care - Greater flexibility and adaptability - Public realm improvements - Creates apprenticeship opportunities for local community 	<ul style="list-style-type: none"> - More disruption caused to hospital users than the other options - The main entrance will need temporary relocation - More disruption caused to the local community - Higher risk of health and safety incident - Finding space for additional cycle parking - Short to medium term risk on other capital funding - Design development limited by the linear development area - Requires complex planning permission - Impact on patient experience in PICB and VCB i.e. limited natural light into VCB

[NB: Option 4 assumes that the proposed land swap between GOSH and GOSHCC will proceed. See Commercial Case for further details. This proposed land swap is subject to NHSI approval. Should the land swap not be approved, this would require a reduction in the overall m² in order for the scheme to remain affordable. Further financial and qualitative assessment would be required, should this be the case.]

In order to inform the functional content of the preferred option, a further options appraisal workshop took place on 3 July 2019 to fully appraise three shortlisted options. In advance of this workshop, the internal Programme Team undertook an initial review.

The outcomes of the workshop are summarised in the following sections. Full details of the appraisal, including details of the full content and implications of the options, are included at Appendix 4-1. The functional content options appraisal workshop was attended by the stakeholders representing Consultants, Matrons, and Service Managers from the Blood, Cancer and Cells Directorate, Imaging, AHP, Pharmacy and School. Attendees are identified at Figure 4-H.

Figure 4-H: Options Appraisal Attendees

Name	Role	Organisation
Alison Robertson	Chief Nurse	GOSH
Matthew Tulley	Director of Built Environment	GOSH
Stephanie Williamson	Deputy Director of Built Environment	GOSH
Tom Burton	Deputy CFO	GOSH
Esther Dontoh	General Manager: BCC	GOSH
Tom Foster	Service Manager: BMT & SCI	GOSH
Sarah Ottaway	Associate Director of HR	GOSH
Crispin Walking-Lea	Head of Healthcare Planning	GOSH
Emma Gilbert	Matron: BCC	GOSH
Andrew Taylor	Acting Chief Operating Officer	GOSH
Peter Hyland	Director of Performance and Information	GOSH
Chris Rockenbach	General Manager: IPP	GOSH
Nick Towndrow	General Manager: O&I	GOSH
Richard Collins	Transformation Director	GOSH
Catie Stewart	Matron	GOSH
Clarissa Pilkington	Chief of Service: BCC	GOSH
Ali Wood	Service Manager	GOSH
Mary Foo-Cabellero	Matron: BCC	GOSH
Ajay Vora	Consultant, Haematology	GOSH
Darren Hargrave	Consultant, Haematology/Oncology	GOSH
Claire Simcock	Head of Radiography	GOSH
Jon Schick	Director of PMO	GOSH
Phillipa Wright	Chief AHP	GOSH
Jayne Franklin	Head Teacher	GOSH
Will McCready	Programme Manager	GOSH

Each of the options was scored against the benefits criteria. The outputs from this appraisal are shown at Figure 4-J. All scores are between 0-10. A summary of the metrics is shown below; detailed descriptions are included at Appendix 4-1.

- Score of 10 Excellent
- Score of 8-9 Very Good
- Score of 6-7 Good
- Score of 3-5 Poor / Sub-optimal
- Score of 1-2 Very Weak / Weak
- Score of 0 Unacceptable

4.3.3 Functional Content Options Appraisal – Benefit Criteria

Figure 4-I shows the benefit criteria used in the functional content options appraisal.

Figure 4-I: Benefits Criteria

Criteria	Key Benefits to be delivered	Weight
Strategic	<ul style="list-style-type: none"> • The option delivers the Trust's vision for the future • This option facilitates the research hospital and increases joint working with the University College London • The option provides capacity for increased demand • We will achieve the best possible outcomes through providing the safest, most effective and efficient care • This option will enable us to deliver excellence in paediatric cancer through innovation in: Buildings, Models of care and Novel treatments • This option makes a positive contribution to GOSH culture • This option will enable us to create space to be leading the UK in practice, safety and innovation 	20
Patient focused	<ul style="list-style-type: none"> • The option provides a welcoming atmosphere • This option will help enable our patients to fulfil their potential • Due to improved flows in services such as Pharmacy patients will spend less unnecessary time in hospital • This option facilitates the adoption of child-centric technology 	15
Staff focused	<ul style="list-style-type: none"> • The option delivers a better staff satisfaction with the environment • We will attract and retain the right people through creating a culture that enables us to learn and thrive • The option will attract higher calibre staff including "world leaders" 	15
Family/Carer focused	<ul style="list-style-type: none"> • The option provides facilities to support families and carers • The option provides clear signposting and guidance • This option provides improved facilities for family members reducing disruption to family life of an admission 	15
Corporate	<ul style="list-style-type: none"> • The option is likely to be supported by the Trust Board • The option delivers a holistic care environment including art, social and spiritual welfare • The option supports an improved training and education environment for staff 	12

	<ul style="list-style-type: none"> The option meets requirements of regulators including MRHA and CQC etc 	
Architectural / Engineering	<ul style="list-style-type: none"> The option presents the face of a world class cancer centre The option provides a sustainable environment in accordance with the GOSH vision The option provides for future flexibility and adaptability in the event of change The option delivers cutting edge technology and IT systems The option minimises interruption to services from poor quality fabric The option meets requirements of DHSC guidance including HBNs and HTMs 	10
Stakeholder support	<ul style="list-style-type: none"> The option is likely to be supported by the Children and Young People's Forum The option is likely to be supported by GOSH Staff The option is likely to be supported by the GOSH Children's Charity 	8
Disruption	<ul style="list-style-type: none"> The option minimises disruption to patient treatments The option minimises disruption to wayfinding around the hospital The option minimises disruption to neighbours 	5
Total		100

4.3.4 Qualitative Assessment – Functional Content Options Appraisal

The outputs from the functional content options appraisal are shown at Figure 4-J.

Figure 4-J: Qualitative Options Appraisal

Benefit Criteria	Weighting	Option 1 BAU		Option 2 Do Minimum		Option 3 - Creation of Cancer Centre functional content in existing estate		Option 4 CCC	
		Raw	Weighted	Raw	Weighted	Raw	Weighted	Raw	Weighted
Strategic	20	1.0	2.0	2	4.0	4	8.0	8	16.0
Patient focused	15	1.0	1.5	3	4.5	4	6.0	8	12.0
Staff focused	15	1.0	1.5	2	3.0	5	7.5	9	13.5
Family/Carer focused	15	1.0	1.5	3	4.5	5	7.5	9	13.5
Corporate	12	1.0	1.2	1	0.8	4	3.2	8	7.2
Architectural / Engineering	10	1.0	1.0	2	2.4	4	4.8	8	9.6
Stakeholder support	8	1.0	0.8	2	2.0	4	4.0	10	10.0
Disruption	5	9.0	4.5	7	3.5	5	3.0	4	2.0
Total Score			14.0		24.7		43.5		83.8

4.3.5 Summary of the Qualitative Options Appraisal

GOSH has undertaken a robust options appraisal process, including representation from a wide group of stakeholders. The outputs of the appraisal support the outcome that the preferred option, in non-financial terms, is Option 4 - New building on existing site.

4.4 Financial Appraisal

4.4.1 Financial Assumptions

All of the financial modelling is in accordance with International Financial Reporting Standards (IFRS) and UK GAAP. In the case of the shortlisted options:

- Option 2: Do Minimum scenario assumes that the majority of funding is provided by the Trust for the capital works.
- In Option 3, the majority of capital funds are assumed to be GOSHCC funded and the works are treated as donated assets (in accordance with existing capital funded projects at the Trust).
- In Option 4, GOSHCC may undertake the majority of capital works on the project following an asset swap between the Trust and charity (assuming approval to the transaction by NHSI). The Trust will then pay a commercial lease for utilising the renewed estate following completion of the works. The Trust will contribute c. £10m of its own capital to help fund the initial design works for the project and this will be treated as Trust-funded capital and is allowed for within the Trust's current modelling.

4.4.2 Capital Costings

The capital costings associated with all options have been developed (Figure 4-K). The works costs have been estimated in accordance with the Healthcare Premises Cost Guides (HPCGs) for health facilities at PUBSEC173 and inflated to Tender Price Index 253 for Q4 2018 and Location Factor of 27%. A Cost Plan has been prepared against a schedule of assumptions, accompanied by an initial cost risk schedule. Optimism bias calculations have been included at the following rates; the calculations are shown at Appendix 4-3.

- Option 2: 36.64%
- Option 3: 36.64%
- Option 4: 14.03%

Inflation allowances have been calculated for all options on the following basis:

- BCIS All-in TPI index used from 1Q19 (assumed base date) to 1Q 20 (start on site for first phase / project)
- BCIS cost index from 1Q20 (start on site for first phase / project) to 1Q22 (mid-point of construction across all phases/projects)

Inflation allowance equates to 9.20%.

The capital costs are summarised at Figure 4-L and the OB capital cost forms are included at Appendix 4-2.

The works cost for Option 1, Business As Usual has been calculated by using the baseline Backlog Maintenance of £ 33,112,808 from the 2018/19 ERIC return and uplifting it for location factor, fees, planning contingency and optimism bias.

The works costs for the other options have been estimated in accordance with the Healthcare Premises Cost Guides (HPCGs) for health facilities at PUBSEC173 and inflated to Tender Price Index 269 for Q1 2020 in accordance with the current requirements of the NHS England Projects Assessment Unit. A BCIS location factor uplift of 27% has been applied.

Option 3 is assumed to be funded by GOSH Charity with no need for any repayment by the Trust.

Option 4 is assumed to be funded in the main by the GOSH Charity and the Trust will instead make a lease payment in return. The capital contribution by the Trust is limited to an element of the enabling work.

The Charity is assumed to be providing all of the equipment for Option 4 and making a 90% contribution under all other options.

It is assumed that the Business As Usual does not include any new equipment, as this would be funded from the locally generated capital.

Figure 4-K: Summary Capital Costs

Option 2 – Do Minimum	Cost exc VAT £	VAT	Cost inc VAT £
Departmental Costs	25,190,000	5,038,000	30,228,000
On-Costs	6,305,000	1,261,000	7,566,000
Works Total Cost (to PUBSEC 253)	31,495,000	6,299,000	37,794,000
Provisional location adjustment (27%)	8,503,650	1,700,730	10,204,380
Sub Total	39,998,650	7,999,730	47,998,380
Fees (15.39%)	6,155,033	-	6,155,033
Non-Works Cost	1,796,385	359,277	2,155,662
Equipment Cost (34.21% of Departmental Costs)	8,616,400	1,723,280	10,339,680
Planning Contingency	7,884,340	1,576,868	9,461,208
Total for approval purposes (exc. Optimism bias)	64,450,807	11,659,155	76,109,962
Residual Optimism Bias (36.34%)	23,422,000	4,684,400	28,106,400
Inflation Adjustments	8,084,341	1,616,868	9,701,209
VAT Recovery	-	640,028	640,028
Forecast Outturn Business Case Total – Main Building	95,957,149	18,600,451	114,557,599
Trust Enabling / Decant Works			-
Forecast Outturn Business Case Total – Do Minimum			114,557,599

Option 3 – Existing Estate	Cost exc VAT £	VAT	Cost inc VAT £
Departmental Costs	43,170,000	8,634,000	51,804,000
On-Costs	10,300,000	2,060,000	12,360,000
Works Total Cost (to PUBSEC 253)	53,470,000	10,694,000	64,164,000
Provisional location adjustment (27%)	14,436,900	2,887,380	17,324,280
Sub Total	67,906,900	13,581,380	81,488,280
Fees (15.39%)	10,452,013	-	10,452,013
Non-Works Cost	2,463,700	492,740	2,956,440
Equipment Cost (37.58% of Departmental Costs)	16,223,538	3,244,708	19,468,246
Planning Contingency	13,386,174	2,677,235	16,063,409
Total for approval purposes (exc. Optimism bias)	110,432,324	19,996,063	130,428,387
Residual Optimism Bias (36.34%)	40,132,000	8,026,400	48,158,400
Inflation Adjustments	13,851,991	2,770,398	16,622,389
VAT Recovery	-	1,086,650	1,086,650
Forecast Outturn Business Case Total – Main Building	164,416,316	31,879,511	196,295,827
Trust Enabling / Decant Works			-
Forecast Outturn Business Case Total – Do Minimum			196,295,827

Option 4 - CCC	Cost exc VAT £	VAT	Cost inc VAT £
Departmental Costs	59,945,000	11,989,000	71,934,000
On-Costs	17,370,079	3,474,016	20,844,095
Works Total Cost (to PUBSEC 253)	77,315,079	15,463,016	92,778,095
Provisional location adjustment (27%)	20,875,072	4,175,014	20,050,086
Sub Total	98,190,151	19,638,030	117,828,181
Fees (20.34%)	21,972,350	-	21,972,350
Non-Works Cost	8,250,000	1,650,000	9,900,000
Equipment Cost (32.53% of Departmental Costs)	19,500,000	3,900,000	23,400,000
Planning Contingency	13,850,050	2,770,010	16,620,060
Total for approval purposes (exc. Optimism bias)	161,762,551	27,958,040	189,720,591
Residual Optimism Bias (14.03%)	22,696,000	4,539,200	27,235,200
Inflation Adjustments	42,296,181	8,459,236	50,755,417
VAT Recovery	-	35,437,433	35,437,433
Forecast Outturn Business Case Total – Main Building	226,754,733	5,519,043	232,273,776
Trust Enabling / Decant Works			24,994,980
Forecast Outturn Business Case Total – CCC Phase 4A Development			257,268,756

4.4.3 Lifecycle Costs

The nature of the existing site, which in line with most NHS facilities, has repairs undertaken on a more reactive basis is not suitable for an analytical theoretical model as would be anticipated for a new greenfield site facility.

The approach adopted for this business case is to treat the planned depreciation amounts with the Long Term Financial Model as a proxy. It is accepted that this approach models the availability of

capital for lifecycle works rather than the demand for capital but in practice it is the availability which will be the determining factor.

In respect of Option 4, the Trust has agreed with the GOSH Charity that it would create a sinking fund from two years after the opening of the building and contribute at a rate of £500,000 per annum. It is assumed for this modelling that this amount will be funded from the Trust's depreciation and is therefore not included as a separate line item in the analysis.

4.4.4 Revenue Costs

The revenue costs for all budget lines except for FM have been calculated by the Trust's Finance Directorate.

The revenue costs for FM headings, principally Hard FM, Soft FM, Energy and Non-Domestic Rates have been calculated by the Director of Estates to give a greater granularity when set against the specific departmental moves.

4.4.5 Opportunity Costs

This business case assumes that any issues associated with the proposed land swap between the Trust and GOSHCC have no impact on the economic modelling and the Value for Money analysis.

Backlog Maintenance is treated as a liability and for the purpose of modelling is equally spread between years 1 and 5 of the discounted cashflow.

The Business As Usual option (Option 1) sees the full current liability used.

Both Options 2 and 3 see some of the estate issues dealt with as different parts of the site are refurbished. The impact has been calculated the overall liability pro-rata to the GIFA of the works area.

Option 4 sees a reduction in the liability as a result of the demolition of the current Frontage Building, which will immediately remove those liabilities.

4.4.6 Sunk Costs

There are no sunk costs which cause a differentiation between any of the options.

4.4.7 Land Sales

It is assumed that the land swap between the Trust and GOSH charity have no impact on the economic analysis.

4.4.8 Other Costs and Payments

In line with NHS appraisal guidance, transfer payments such as VAT and capital charges are excluded from the economic analysis, but are accounted for in the affordability analysis.

4.5 Economic Appraisal

In accordance with advice received from NHSI in 2018, GOSH is using the Generic Economic Model (GEM) as the basis of the economic appraisal.

The Equivalent Annual Cost (EAC) option has been selected as the economic measure of the overall cost of each option as there are differing appraisal periods that reflect the varying expected lives of each option. One of the options involves remaining in the existing buildings which are judged on average to only have 33 years of remaining life, whilst the new-build option has an implicit 60- year life. Using discounted cashflow techniques it takes account of the extent and timing of both the capital and revenue cashflows for each option and reduces them to a single, comparable measure of their impact on the public sector as a whole.

The HM Treasury Green Book guidance suggests that for new build options an appraisal period of 60 years, commencing with the completion of the construction works is used. For refurbishment options, there may be a shorter life expectancy of the buildings. The NHS Organisation can use its professional judgement if this is the case and use a shorter appraisal period. If this is enacted then the EAC outputs should be used as the measure of economic value as the EAC allows for differing appraisal periods.

Because the current campus is a mixture of buildings with different ages, the approach used is to calculate the weighted average of the collective buildings' remaining lives and use this as the appraisal period.

The current asset register has been used as the basis, which gives the Gross Internal Floor Area for each building, together with its anticipated remaining life. These two figures have been multiplied together for each individual building and then summed. This total has then been divided by the total Gross Internal Area of the whole campus to give the weighted average, which is then used as the appraisal period for the Business As Usual Option.

For Option 2, "Do Minimum", it has been assumed that the capital expenditure will increase the life of the Frontage Building by five years.

For Option 3, "Refurbishment", it has been assumed that the capital expenditure will increase the life of the Frontage Building by ten years.

For Option 4, "New Build", it has been assumed that the current Frontage Building will be demolished and be replaced by a larger building with a 60 year life.

The following appraisal periods have been assumed:

- Option 1 36 Years
- Option 2 36 Years
- Option 3 37 Years
- Option 4 45 Years

4.5.1 EAC Findings

The detailed Economic Appraisal for each option is attached at Appendix 4-3 and Figure 4-L summarises the key results of the Economic Appraisals for each option expressed in £ million. Because of the varying appraisal periods between the options the Equivalent Annual Cost (EAC) is used.

Figure 4-L: Equivalent Annual Costs for each option

OPTION	EAC (£m)	Rank
1 – “Business as Usual”	425.61	1
2 – “Do Minimum”	437.40	3
3 – “Refurbishment”	436.47	2
4 – “New Build”	443.21	4

The analysis shows that the EAC for the current arrangements is £425.61. This is the lowest cost when considered in isolation, as is normally the case for the “Business as Usual”, as there is little or no additional expenditure.

4.6 Value for Money Analysis

The EAC was divided by the weighted results of the Benefits Appraisal to produce a cost per benefit point as shown at Figure 4-M.

Figure 4-M: Value for Money

Option	EAC (£m)	Benefits Appraisal	EAC per Benefit Point (£m)	Rank
1	425.61	14.00	30.40	4
2	437.40	24.30	18.00	3
3	436.47	43.50	10.03	2
4	443.21	83.80	5.29	1

The outcome of this cost benefit analysis demonstrates that Option 4 delivers the lowest cost in pounds to deliver one benefit point at £5.29m.

The next lowest cost option is Option 3 which costs £10.03m to deliver one benefit point.

4.7 Sensitivity Analysis

This section details the switching values of the economic appraisal to see how sensitive the preferred option is.

Normally this consists of identifying what percentage change is required in either the non-financial appraisal or to the EAC of an option which will cause a different option to achieve the lowest Cost Benefit ratio.

If the economic appraisal is maintained as set out above then it is possible to calculate the change required to the non-financial appraisal for each other option to give better value for money. This is

undertaken sequentially, option by option, with all other factors unchanged except for that particular option's score. The results are set in Figure 4-N.

Figure 4-N: Sensitivity Analysis – change to non-financial appraisal

Option	EAC (£k) (unchanged)	Initial Benefits Appraisal	EAC per Benefit Point (£m)	Rank	Benefits Score required to achieve Ranking 1	% increase
1	425.61	14.00	30.40	4	80.47	474.80
2	437.40	24.30	18.00	3	82.70	242.33
3	436.47	43.50	10.03	2	82.52	89.71
4	443.21	83.80	5.29	1	-	-

This shows that smallest possible change which would cause a switching point for the best value-for-money option would be for Option 3 to be scored 89.71% higher. This is considered to be outside the margin of error of the scoring exercise and therefore Option 4 remains a robust preferred option under this sensitivity.

An alternative sensitivity analysis is to keep the original non-financial scorings unchanged and calculate what change to the EAC would be required for a different option to become the top ranked. This is undertaken sequentially with all other factors unchanged apart from the EAC of the option being tested.

The results are set out in Figure 4-O.

Figure 4-O: Sensitivity Analysis – change to EAC

Option	EAC (£k) (unchanged)	Initial Benefits Appraisal	EAC per Benefit Point (£m)	Rank	EAC required to achieve Ranking 1	% decrease
1	425.61	14.00	30.40	4	74.05	82.60
2	437.40	24.30	18.00	3	128.52	70.62
3	436.47	43.50	10.03	2	230.07	47.29
4	443.21	83.80	5.29	1	-	-

This shows that smallest possible change which would cause a switching point for the best value-for-money option would be for Option 2 to cost 47.29% less every year. This is considered to be unachievable and therefore Option 4 remains a robust preferred option under this sensitivity.

It is therefore the case that there are no realistic sensitivities which would change the option which gives the best value-for money. Option 4 is therefore a robust preferred option.

4.8 Chapter Appendices

Appendix Number	Appendix Title
4-1	Options appraisal outputs
4-2	OB capital cost forms
4-3	GEM outputs

5.0 COMMERCIAL CASE

CHAPTER SYNOPSIS – Commercial Case

The scope of works to be provided via the CCC Phase 4A is a new build on the site of the existing Frontage building, which is located on the South area of the island campus. The scheme will involve the decant of services from the Frontage building, and its subsequent demolition.

A CCC Clinical Design Brief was produced in August 2019 which describes the functional content, clinical specification and overarching design philosophy and principles. The key elements of the proposed accommodation include:

Service / Area
Cancer ambulatory care including outpatients
Cross sectional imaging and iMRI facility
Inpatient wards
Paediatric intensive care unit
Bone Marrow Transplant Ward
Activity Centre / Hospital school
Pharmacy
Special feeds unit

As part of the Clinical Design Brief, GOSH has adopted a 'Horizontal Platforms of Care Model' that will be developed and built upon with each successive phase of the redevelopment masterplan. The model aims to achieve logical collocation of services to make wayfinding easier for families and establish better clinical adjacencies to improve efficiency and ensure patient safety.

The internal layouts are organised broadly into four zones: Level 01- (restricted access floor relating to pharmacy and production), Levels 02 and 03 patient services including day case, outpatients and complex imaging including iMRI and PET MR; Levels 04-08 (PICU, BMT and generic wards) and Level 09 (hospital school and activity centre and roof garden). CCC Phase 4A will provide 80 beds including 64 cancer services beds and 16 critical care beds and 2 basement levels.

The designs for the development primarily follow the HBN guidance. An Affirmations List has been developed in response to any planned variance from HBNs and HTMs. The Trust is targeting a BREEAM rating of 'Excellent' (based on BREEAM 2018), with a current targeted score of 82.80%.

The Trust agreed a preferred procurement route to appoint a multi-disciplinary design team with a Prime Contractor. This contract was the subject of an OJEU process, and the procurement was managed by the Trust in accordance with the requirements of the Competitive Dialogue procedure as set out with Regulation 30 of PCR 2015. On the basis of the outputs of the tender evaluation, the recommendation to the Trust Board was that Bidder B, John Sisk & Son, partnered with BDP architects, was selected as the preferred partner to enter the Early Design Agreement. At the end of the PCSA, if there is agreement on the contract sum and it remains within the established works cost limit, the Trust or Charity can award the contract to John Sisk & Son (although there is no obligation to). The Trust has selected the NEC3 Engineering and Construction Contract (as amended) Option A for the delivery of the main project. There are five enabling works packages of varying values and proposed procurement routes and contracts.

There has been significant pre-application town planning engagement with London Borough of Camden. Pre-applications meetings and workshops have taken place and a Planning Performance

Agreement (PPA) has been agreed, which brings certainty in terms of resources provided by LBC, officer 'ownership' and agreed target dates for the planning process. The preferred planning strategy is for the submission of a single planning application for Phases 4A and 4B.

The principal commercial / legal issue for the CCC Phase 4A project relates to the freehold on the Frontage building, which is part-owned by the Charity. In discussions between the Trust and the Charity the preferred approach is to consolidate the CCC 4A site as a GOSHCC freehold. The CCC Phase 4A works contract will then be between GOSHCC and the chosen contractor, subject to NHSI approval. This approach is being pursued on the principle of no loss of assets to the NHS.

The principles for CCC Phase 4A workforce planning and redesign were agreed by Senior Management Team in August 2018. In terms of the LTFM modelling, GOSH has assumed incremental increases to staff in all years within the model. This is due to the Trust utilising more beds within its capacity. Current capacity will be exceeded during 2027/28; should the preferred option not be implemented the majority of growth in staff stops at this point. Beyond 2027/28 growth in staff will continue, but there will not be a significant step change at the point of opening the CCC as the majority of increases relate to the provision of soft FM services that are currently outsourced, and hence, whilst there will be an increase in resource, these are not currently part of the Trust's cost base. There are two exceptions to this: the workforce implications of commissioning a PET MR and an increase in hard FM services that will require xx number of staff for the increased space within the building.

The GOSH Digital Strategy (2017) includes the vision for how the collaboration between the built environment and future-proofed technology will benefit the patient, parent, visitor and staff experience. The design brief provided some overarching aims for the digital strategy and over the next two years of design process, the teams will work closely to ensure that the layout and technology considerations of the building work to support current plans and possible future ICT developments.

5.1 Confirmation of Scope of Required Services

5.1.1 Scope of Works

The preferred option is Option 4 - New building on existing site - cancer services both inpatient and outpatient; pharmacy; complex imaging; critical care and the hospital school and activity centre. The projects which form part of the programme are:

- CCC Phase 4A enabling works to Southwood Building, Main Nurses Home, West Link and PICB;
- Decant from the Frontage building;
- Demolition of the Frontage building; and
- Construction of CCC Phase 4A building.

More specifically the scope of works included within the delivery of Option 4 will include:

- development of a new build facility with a gross internal area of 16,000m², an increase from existing 5,800m², achieving an increase of c. 175%;
- consulting rooms for cancer outpatients;

- 80 single inpatient beds across five floors (of which 70 are transferred and 10 relate to new activity);
- 1700m² GIA of diagnostics space including Intraoperative MRI and further complex imaging equipment;
- 1,500m² GIA pharmacy;
- a school, activity centre including teenage area and roof-top garden; and
- Decant works to relocate services from the Frontage building.

5.1.2 Key Benefits

Through the implementation of CCC Phase 4A there will be a significant improvement to the quality of services by providing:

- a state-of-the-art international cancer centre, co-locating inpatients and outpatients' services for the first time in a nurturing environment and siting it next to intensive care. This will improve clinical quality through a reduced need to move patients across buildings within the island site;
- 100% single bedrooms with controlled air quality to reduce the risk of cross-infection;
- consolidated pharmacy services in a Children's Medicine Centre on one site for safer medicines preparation and rectifying major regulatory compliance issues;
- the opportunity to support patients in their fundamental human right to education and play;
- provision of flexible and adaptable space; and
- healing and therapeutic environments designed using best practice in lighting, acoustics and biophilia.

5.1.3 Exclusions

The following elements are excluded from the scope of works covered by this OBC:

- All refurbishment works to the Italian Hospital.
- Works to VCB following the vacation of this space by cancer and PICU services.

5.1.4 Dependencies

The scope of work for Option 5 has various dependencies, those including:

- The move of services to ZCR
- The move of services to the new Sight and Sound Centre

5.1.5 Changes Since SOC Stage

At SOC it was assumed the enabling projects would be de-coupled from the main works contract to enable the works to be undertaken before FBC approval and therefore shorten the programme. The risk with this was managing the construction interfaces and programme dependencies. The programme has subsequently changed to reflect the requirement from GOSH Charity for more time to raise funds and the changes to the OBC statutory approvals allowing the enabling and main contract to become sequential.

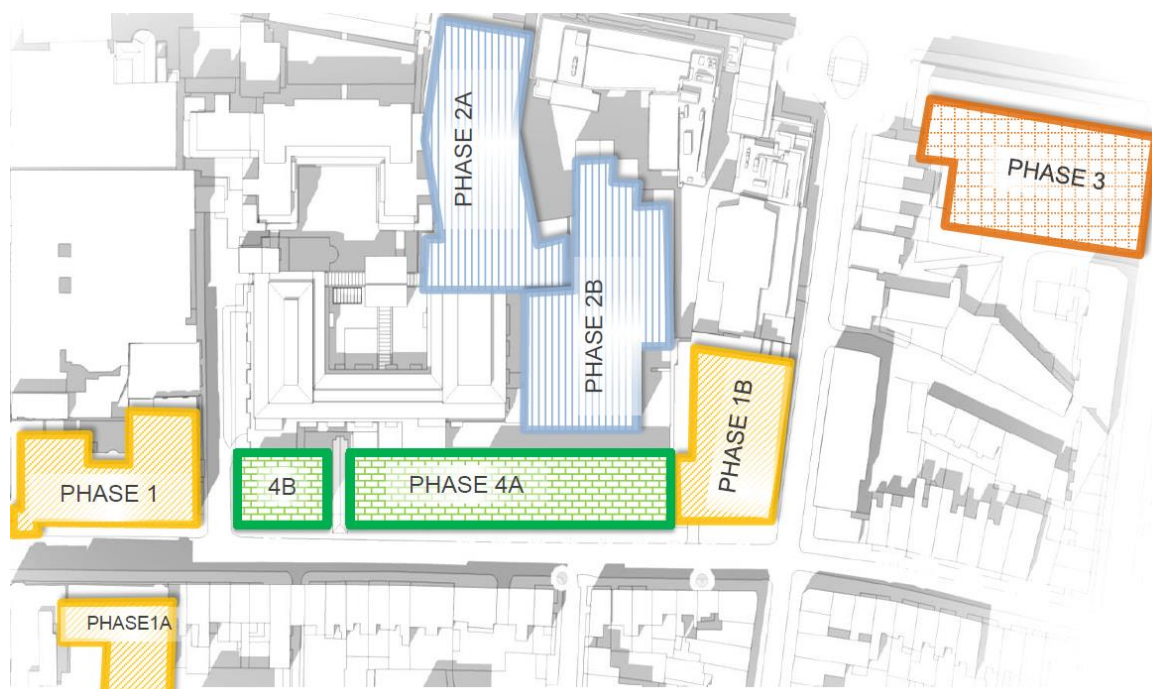
Acknowledging that the EDA scheme cannot currently be supported in its totality by external funding, the challenge has been to reduce the scheme without losing the vision and functionality of the CCC. The decision has been taken to develop the CCC in two phases – Phase 4A and 4B. This OBC is for the approval of the design and planning submission for both Phases, but for the construction of Phase 4A only. Approval to the construction of Phase 4B will be part of a separate business case process.

5.2 Scheme Description

5.2.1 Site Location

The CCC Phase 4A CCC is on the 'island' campus site, within the South area. The site location plan is shown at Figure 5-A, and takes in the Frontage Building which is on Great Ormond Street.

Figure 5-A: Site Location of Phase 4A



5.2.2 Site Surveys

To inform the design of the new building set within the context of the Bloomsbury Conversation Area and the potential demolition of one of the existing buildings on the GOSH site, a number of

site surveys / assessments have been undertaken as part of the EDA works. In addition the Trust have commissioned a number of surveys outside of the EDA works. A number of surveys will be undertaken as part of the PSCA phase. These are all shown at Figure 5-B.

5.2.3 Designs, Design Principles and Design Standards

The position of the CCC Phase 4A site on Great Ormond Street means that this phase of GOSH's redevelopment will be more visible and prominent than any of the major construction projects undertaken on the site in the last 30 years. The proposed building will be GOSH's public face and an expression of the hospital's brand and values. This phase of redevelopment will also incorporate a new main entrance to the hospital, replacing the entrance which for several decades has lacked visibility and provided an unwelcoming arrival experience for children and families.

The intention is for the new building to be more easily visible at street level than the current structure. The aim is that visitors looking into the building from the street will gain an idea of the activities within the building a philosophical approach also taken in the design of ZCR. For visitors or patients looking out of the main entrance onto the street there will be a clearer connection with street life – for example through a new concourse or outside waiting areas. Visitors being able to see the street from inside the building could also help with them finding their way around the hospital by giving external reference points around the precinct.

Figure 5-B: Surveys / Assessments (completed and planned)

Surveys Completed as part of EDA	Surveys to be undertaken as part of PSCA
Site Investigation (desk top)	Arboricultural Assessment, Survey, TPO check
Utilities surveys	Archaeological Survey
Buried services survey of Powis Place	Biodiversity survey and report
3D point cloud of existing buildings & topography	Health impact assessment
	BREEAM pre-code assessment
	Air Quality Assessment
	Demolition and Construction Management Plan
	Daylight / sunlight assessment
	Acoustic and Vibration impact assessment
	Envirocheck desk top survey
	Environment Agency Flood Risk check
	LEA Land Registry, easements, right of way
	Rights of light assessment / survey
	Environmental Impact Statement
	Structural condition survey of existing vaults
	Services load capacity surveys
	Record / survey of Frontage Building services
	Record / survey of Paul O'Gorman Building services
	Condition (dilapidations) survey of adjacent buildings
	Site investigation, boreholes, soil testing, water table
	Hydrology survey
	Vibration survey
	Transport assessment / Travel Plan
	CCTV of existing drainage services
	Asbestos demolition surveys

Surveys Completed as part of EDA	Surveys to be undertaken as part of PCSA
	Groundwater conductivity for heat pumps
	Electromagnetic radiation survey
	Light pollution (environmental impact)
	Ecology and Nature Survey
	Basement impact assessment
	Vertical transportation analysis
	UXO desk top review
	Built Heritage, Townscape and Visual Impact appraisal
	Existing ventilation systems

Accommodating plant at basement level rather than on the roof will provide a significant gain in terms of usable garden space with natural daylight.

This stacking would allow the Trust to deliver the remaining clinical accommodation that GOSH requires urgently. It consolidates the current clinical stacking and adjacencies, delivering better horizontal and vertical transfer routes to support more efficient and effective models of care. It remains consistent with the Trust's horizontal platforms of care model. For example, a Cancer Centre located here offers a distinct identity and bespoke facilities appropriate for immune-compromised patients with easy access in and out of the building for patients and families undergoing difficult treatment.

Locating immune-compromised cancer inpatient wards in the same building and in close proximity to the day care procedures and outpatient clinics they will need to visit will vastly improve the service offered to these patients.

A CCC Clinical Design Brief was produced in August 2019 which describes the functional content, clinical specification and overarching design philosophy and principles. These will be applied to both Phases 4A and 4B.

A schedule of accommodation has been developed in accordance with a number of HBNs, of which the key ones are noted below (the full list is included at Appendix 5-1):

- HBN 00-00 Designing health and community care buildings
- HBN 02-10 Cancer treatment facilities; planning and design
- HBN 04-02 Critical care units: planning and design
- HBN 6 Designing facilities for diagnostic imaging
- HBN 10-02 Designing facilities for Day Surgery Facilities
- HBN 14-01 Designing pharmacy and radiopharmacy facilities
- HBN 23 Designing hospital accommodation for children and young people

Rather than a traditional schedule of derogations, which evidences where a Trust derogates from HBN / HTM standard, the Trust has decided to adopt an Affirmations List, which lists the guidance and provides an evidence base for why the building is being designed in the proposed manner. A Red / Amber / Green approach is taken to the current guidance, whereby a publication is shaded

red if it is clearly not applicable, amber if it might have some applicable elements, and green if it is certain to have some applicable elements. Appendix 5-2 fully details the Affirmations List.

In addition to the HBNs and HTMs, CCC Phase 4A is being developed in accordance with other relevant DH, British Standards and aseptic pharmacy guidance (see Appendix 5-1).

Key areas of the design philosophy for CCC Phase 4A (as extracted from the Clinical Design Brief) include:

- **Building Information Modelling (BIM):** all design data will be managed and co-ordinated using BIM Level 2
- **Flexibility:**
 - Final design solution will need to demonstrate a strategy for dealing with future changes in both clinical practice and technology
 - Design solutions for patient rooms should be able to respond to changing levels of acuity
- **Adaptability:**
 - The strategy should be addressed at different levels: in space planning within the hospital envelope; in the design of the building structure; and in the adaptability of the services infrastructure.
- **Standardised layouts:** generic room layouts and standardised configuration of departments where possible
- **Material quality:** an approach to interior design and selection of internal finishes, materials, lighting and engineering solutions which contribute to a homely feel, and sustainability aims.
- **Daylight and artificial lighting:** lighting solutions which take account of the need for task lighting for staff, adjustability for patients and families within the same room, sustainability requirements and the replication of daylight in areas that may not have natural light
- **Age and gender environments:** gender sensitive areas for secondary school aged children and segregation of children of different ages. Inpatient rooms will achieve optimal gender segregation and, in the critical care environment where only partial partitions between bed spaces may be provided, the arrangement will be developed to ensure privacy for children and families can be provided when required.
- **Facilities for children:** including age appropriate play spaces.
- **Facilities for staff:** sufficient rest facilities; office / meeting environments will allow for collaborative working and networking.
- **Research and development:** sufficient seminar space will be provided (ambition for one room per floor) plus all clinical departments will provide dedicated space for staff to meet, work collaboratively, access digital and physical resources and undertake research activities, in line with the principles of a research hospital.

- **Facilities for parents:** the design principles will ensure parents are able to access facilities for washing / showering, meal preparation and relaxation as well as the ability to sleep next to the child (where clinically appropriate).

GOSH has adopted a 'Horizontal Platforms of Care Model' that will be developed and built upon with each successive phase of the redevelopment masterplan. The model aims to achieve logical collocation of services to make wayfinding easier for families and establish better clinical adjacencies to improve efficiency and ensure patient safety. Figure 5-C summarises the 'Horizontal Platforms of Care Model' (NB Level 2 is the Ground Floor at GOSH).

Figure 5-C: Horizontal Platforms of Care Model

Level	Department
Level 5 and above	Inpatients
Level 4	Critical Care
Level 3	Treatment / Procedures / Imaging
Level 2 (Ground Level)	Ambulatory Care / Outpatients
Level 1	Diagnostics
Level 0	Facilities Management
Level -1	Plant

The functional content of the new build, agreed by the GOSH Executive Management Team in consultation with the Operational Board, responds to the demand and capacity plans.

Figure 5-D: Stacking Diagram

	Phase 4B (PO'G)		Phase 4A (Frontage)
10	Plant		Plant
9	Parent Lounge		Hospital School and Activity Centre Roof Garden
8	Staff Rest		Inpatients: 16 Beds – Cancer Services (PPVL)
7	Offices/Teaching		Inpatients: 16 Beds – Cancer Services (PPVL)
6	Offices/Teaching		Inpatients: 16 Beds – Cancer Services
5	Offices/Teaching		Inpatients: 16 Beds – Cancer Services
4	Offices/Teaching		Inpatients: 16 Beds – Critical Care
3	Imaging: 1no MRI <u>or</u> CT	Main Entrance	Complex Imaging: iMRI Suite; 1no PET MR; 1no CT <u>or</u> MRI (TBC)
2	Café/Retail		OP Dispensary Cancer Day Care/OPD
1	Facilities Management		Pharmacy Special Feeds Unit
0			Plant inc. ICT Data Centre

The internal layouts are organised broadly into four zones: Level 01- (restricted access floor relating to pharmacy and production), Levels 02 and 03 patient services including day case, outpatients and complex imaging including iMRI and PET MR; Levels 04-08 (PICU, BMT and generic wards) and Level 09 (hospital school and activity centre and roof garden). The agreed functional content for the CCC is presented in the stacking diagram shown at Figure 5-D. CCC Phase 4A will provide 80 beds including 64 cancer services beds and 16 critical care beds and 2 basement levels.

The island site on which GOSH is located comprises a series of buildings, acquired over a period of time, which to date have not contributed to easily accessible and / or navigable movement around the site. With each new building constructed in accordance with the masterplan, GOSH aims to improve the visitor experience by making navigation around the hospital more straightforward. The new main entrance in CCC Phase 4A will be connected with the existing main reception area in the adjacent VCB. The intention is that this will then link to public space that will be created in Phase 5 of the masterplan (Southwood and MNH site) in future years (outside the scope of this OBC), providing a south to north primary circulation route from the front to rear of the main GOSH site.

The Clinical Design Brief details patient flows, proposed location, schedule of accommodation and other design considerations. Figure 5-E summarises the key points for each area / clinical service within the new build.

Figure 5-E: Summary of Accommodation Requirements by Service / Area

Service / Area	Summary of Accommodation Requirements
Cancer ambulatory care incl. outpatients	<ul style="list-style-type: none"> GOSH's CCC functional content planning proposes that cancer day care is located on level 2 with outpatient rooms and excellent access to pharmacy below and the cancer wards, PICU and imaging above
Cross sectional imaging and iMRI facility	<ul style="list-style-type: none"> Collocation of combination of relocated existing facilities (CT or MRI scanner from Turtle Imaging Suite in Southwood Building Level 1); planned diagnostic facilities (integrated MRI / theatre suite planned for Southward Courtyard Building Level 3); and PET MRI scanner (new facility). These imaging facilities are located on level 3 of the CCC Phase 4A building. This will achieve collocation with the VCB theatre suite, the post-anaesthetic care unit (PACU) on Nightingale Ward (level 3 PICB), and provide ease of access for children and families attending the department as outpatients
Inpatient wards	<p>CCC Phase 4A of GOSH's redevelopment will provide a total of 80 inpatient beds, configured as five wards of 16 beds each:</p> <ul style="list-style-type: none"> Level 4: Critical Care Level 5: Cancer (16 beds) Level 6: Cancer (16 beds) Level 7: Cancer (PPVL) (16 beds) Level 8: Cancer (PPVL) (16 beds)
Paediatric intensive care unit	PICU is currently located on level 4 VCB. Level 4 of the CCC Phase 4A building will provide 16 critical care beds. It is intended that the existing PICU on level 4 VCB will be refurbished following occupation of Phase 4.
Bone Marrow Transplant Ward	The BMT ward will be located on levels 07 and 08 of the CCC Phase 4A building. This approach is intended to give this long-stay patient group the best views available in order to partly alleviate the stress and discomfort of protracted isolation.
Activity Centre / Hospital school	GOSH is planning to use level 9 as a 'learning and activity house' concept.
Pharmacy	Various functions of pharmacy will be located across two levels of the building. This vertically stacked pharmacy model should provide internal connections for the flow of goods and materials as well as personnel. The pharmacy robot at level 01 will facilitate dispensing from both the inpatient and outpatient dispensary.
Special feeds unit	Currently located on level 1 of the Southwood Building, the service will be relocated to level 1 of CCC Phase 4A building. The collocation of Pharmacy and the SFU has the potential to achieve efficiencies in the space planning through the sharing of some facilities such as staff change, offices, WCs and staff rest room.

With regards to healthcare planning, the work carried out by the health care planners at EDA stage has been focused on validating the brief; testing fit within the overall building envelope and floors;

and validating key flows and adjacencies. Architectural designs have been developed although these reflect the previous iteration of Phase 4 (prior to the scheme being split into 4a and 4b). During the PCSA period RIBA stage 2 will be repeated for the new reduced scheme and subsequently the 1:200 drawings will be further developed and approved.

Technology

The most significant technologies (excluding ICT) are in the fields of imaging, laboratory medicine and robotics. The likely impact of technology over the next 15 years is well understood following extensive engagement with the clinical teams in late 2018.

Phase 4 represents a significant solution for imaging technology advances, cancer services and robotics. Service robots such as Tug and other AGVs are increasingly utilized in hospitals to transfer and deliver supplies, pharmaceuticals, patient food trays, and waste throughout the hospital. Phase 4 is being designed for future implementation. The current Pharmacy robot will be replaced with an updated model and its use extended.

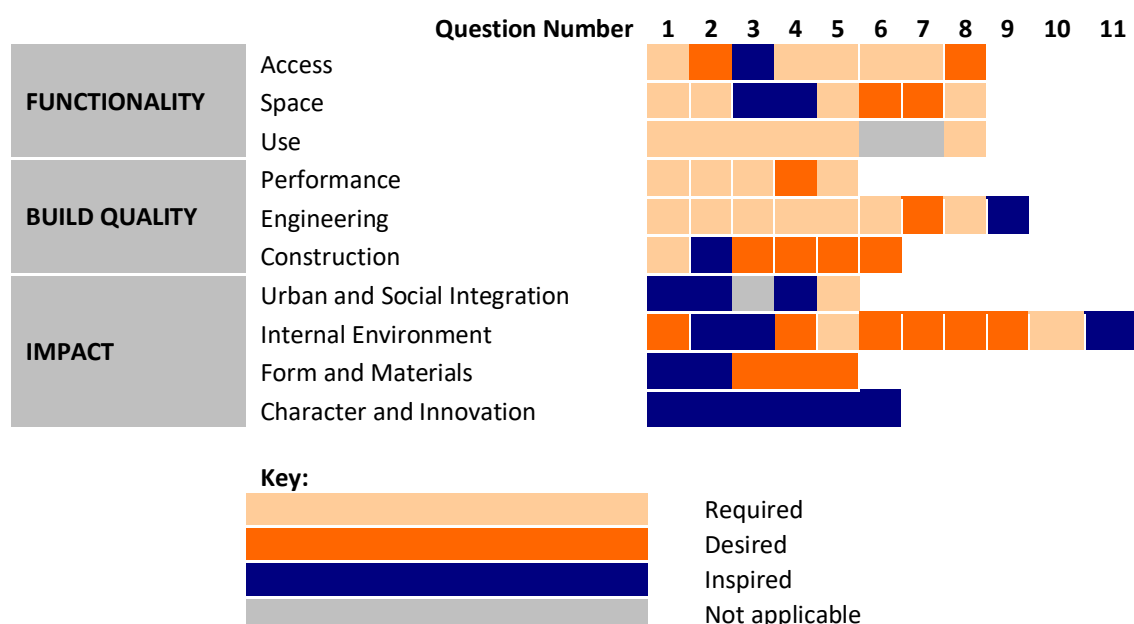
The most significant progress will be made in dual modality imaging. It is universally recognised that PET/MRI is the ideal hybrid imaging modality in paediatrics in oncology, neurology and neurosurgery (epilepsy and brain tumours), infectious diseases (fever of unknown origin, monitoring of response to therapy of some infective conditions), rheumatology (vasculitis, connective tissue diseases), endocrinology (insulin secreting pancreatic tumours).

The equipment allowance within the project budget has allowed for the technology. Each asset is subsequently added to the asset register and its replacement planned into the Trust Wide Equipment Replacement Programme.

5.2.4 Design Review

The Design Quality Indicator (DQI) is a process for evaluating and improving the design and construction of new buildings and the refurbishment of existing buildings. The process involves a wide group of stakeholders, including clinical teams, constructors, designers, service users etc. As part of the project development phase, a formal DQI assessment was undertaken on 2 February 2018, facilitated by the GOSH Client Team Architectural Advisor. This DQI was informed by the Masterplan 2015, the Design Brief for the Phase 4 Redevelopment and the Detailed Design Brief for the Early Design Works. Figure 5-F provides a summary of the existing scoring against each criteria; the detailed existing Stage 1 DQI can be found at Appendix 5-3.

Figure 5-F: Stage 1 DQI Summary



The next DQI workshop will be held during the PCSA process and reflect Phase 4A only.

5.2.5 Sustainable Development

The Trust engaged the services of a BREEAM assessor, and is targeting a BREEAM rating of 'Excellent' (based on BREEAM 2014), with a current targeted score of 82.80%. The BREEAM assessment is based on information obtained at a pre-construction assessment meeting on 28 November 2017. A copy of the summary BREEAM Pre-Construction Assessment can be found at Appendix 5-4.

In March 2018 the Building research Establishment (BRE) issued BREEAM 2018. The CCC Phase 4A development has already been registered under BREEAM 2014, and can continue to proceed on that basis. The new 2018 criteria reflect increased standards to maintain technical robustness of the criteria, evolving practice, new technologies and market drivers. It also reflects upon change within the industry, policy and regulation. Given the programme length it is considered that BREEAM 2018 will be a more relevant representation of sustainability performance in the current day. It is the intention of the Programme Team, given the early stage of design, that the scheme will migrate to the revised standards with the target to achieve the 'Excellent' rating.

In addition to BREEAM, GOSH will also meet the relevant requirements of The London Plan.

The NHS Sustainable Development Unit has produced an NHS Carbon Reduction Strategy for England. This Strategy delivers a framework for all Trusts to work to and provides support in various forms to ensure success. GOSH welcomes this Strategy and will take this opportunity to expand on previous carbon reduction success. GOSH is committed to developing the site in line with best practice that incorporates the EU Brundtland definition including the replacement of all 1930's and 1950's/60's buildings. The Trust has achieved significant reductions in its carbon footprint and is developing plans to reduce CO₂ emissions and meet or exceed the UK target for 2020.

The Trust, in partnership with the Local Action Plan, has developed the Clean Air Hospital framework to assist the NHS to support its impact on air quality and this CCC programme will focus on the construction impact within the framework.

The proposed development aligns with the Trust's emerging Sustainable Development Management Plan (SDMP) which is focused on measures to reduce carbon primarily through improved buildings infrastructure, travel and behavioural change.

The IM&T implications on this project are confirmed as being in line with DH policy.

The CCC Phase 4A development will align with the Government Construction Strategy 2016-20. This Strategy will help public sector departments meet the challenges of inflationary pressure in a rising market by driving increased construction productivity. GOSH's commitment to the aims of the Strategy will be developed further at PCSA stage, but below are some key areas where contribution will be made include:

- Use of BIM Level 2;
- Use of collaborative procurement technique, procuring a design team and prime contractor which enables early contractor and supply chain involvement;
- Establishing a core principle at design, procurement and construction stages the need to account for the building's lifecycle performance to ensure a sustainable development;
- Achievement of BREEAM 'Excellent' (based on 2018 standards) as a minimum;
- Use of Passivhaus principles and standards where possible; and
- Adoption of soft landings approach to construction.

5.3 Cycle Parking Arrangements

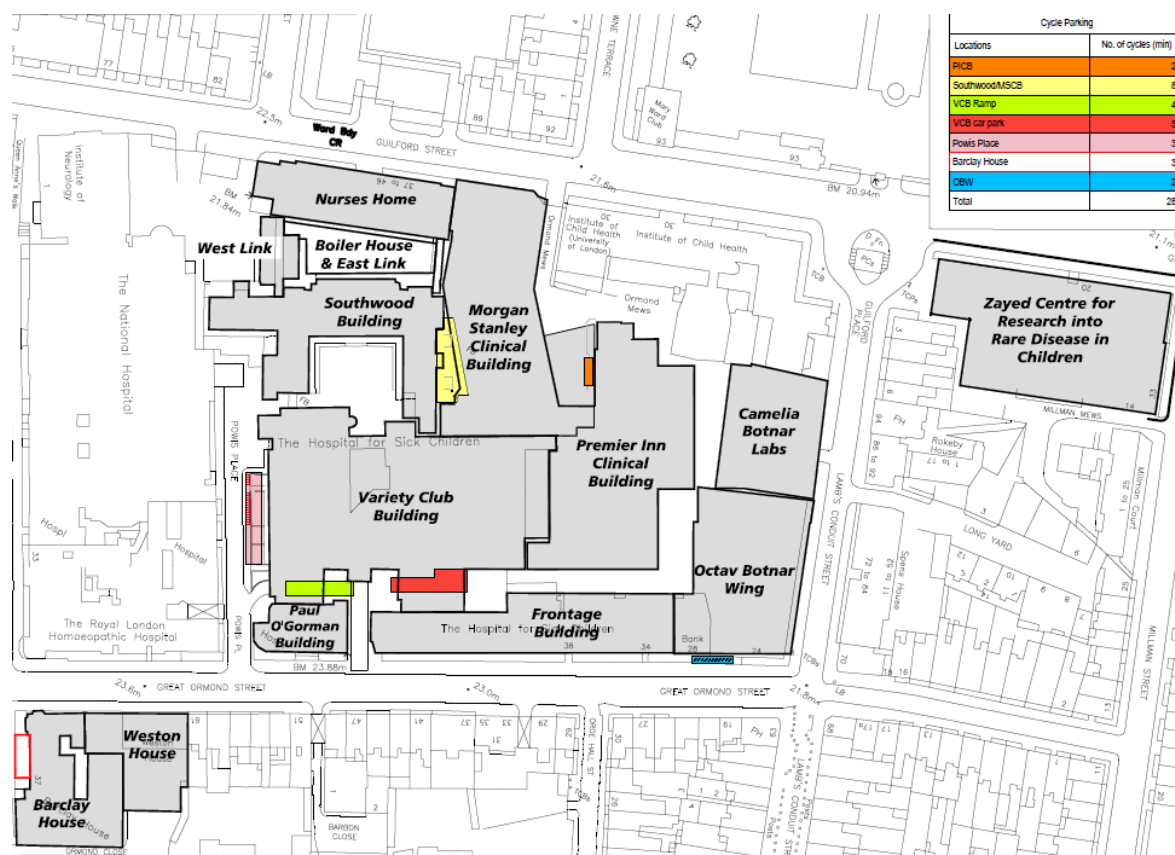
A majority of people say that having the necessary facilities to enable them to cycle to work is a big factor in their choice of employment.

Since 2002 GOSH has been under extensive redevelopment involving demolition and construction of several complete buildings. During this period there has been an ever decreasing availability of space for cycle parking to accommodate these projects.

Prior to the construction of Phase 2 the on-site cycle parking provision stood at 128 spaces across the Trust site. The Trust's Travel Plan Review and Local Authority commitment to provide 289 cycle parking spaces was reached on completion of the Mittal Children's Medical Centre (see Figure 5-G), however the next phase of redevelopment will put further pressure on the existing capacity.

It is expected that there may be a temporary loss of cycle parking during construction. The contractor will have a requirement to meet the commitments required after the new building becomes operational. The Local Authority requires that cycle parking within the boundary of a site is accessible, secure and can accommodate different forms of cycling such as e-bikes, tandems, cargo/trailers etc. (Camden Planning Guidance 7, section 9.8).

Figure 5-G: Current Cycle Parking Arrangements



5.4 Decant / Occupation Arrangements

The current decant plan described in this section delivers vacant possession of the site and is a baseline for planning and budgeting purposes. The Trust is examining a number of potential opportunities to improve on the plan in terms of cost and programme through the more efficient utilisation of existing clinical spaces.

5.4.1 Decant from the Frontage Building

The CCC 4A Enabling Works (EW) will relocate all services from the Frontage Building. It is noted that services will need to remain in POG until the CCC 4A scheme is complete and occupied. The project budget for the CCC 4A scheme is £258m with a target enabling budget of £25m outturn.

The EW consists of 9 projects including smart working offices, engineering services diversions and full clinical services. The works predominately impact Southwood and Main Nurses Home.

A total of 731 staff will be relocated over the course of the enabling works.

The EW projects are summarised at Figure 5-H.

Figure 5-H: Enabling Works Projects

#	Location	Description	Works extent
1	Main Nurses Home Level 5 & 6	Smart Working Office Accommodation	Option 1: Full strip out and refurbishment Option 2: Partial strip out and refurbishment
2	PICB Level 1	Respiratory Sleep Study Unit	Empty shell – full refurbishment
3	Main Nurses Home Level 7 & 8	Smart Working Office Accommodation	Option 1: Full strip out and refurbishment Option 2: Partial strip out and refurbishment
4	Southwood Level 8 B C D E wings	CRF Clinical Treatment + Offices	Partial refurbishment
5	VCB Level 2	Medical Records	Partial refurbishment
6	Southwood Level 6 B C D E wings	Smart Working Office Accommodation DCAMH	Full strip out and refurbishment
7	Southwood Level 5 B C D E wings	Mildred Creek Panda Day Care	Full strip out and refurbishment
8	Southwood Level 9 B C D E Level 7 C D	Safari	<u>Option 1:</u> Level 7 CD Full strip out and refurbishment Level 9 B moves to Level 7 CD (decant) Level 9 B partial refurbishment Partial consolidation Level 9 CDE into B Occupied refresh of Level 9 CDE <u>Option 2:</u> Level 9 B C D partial refurbishment
9	Decommissioning and disconnection of Frontage: <ul style="list-style-type: none"> VCB cut line works Provision of independent services to POG Engineering works (services diversions) 		

A number of scenarios have been examined in detail and developed to determine the best possible outcome for the Trust. The main decisions remaining concern the location of Safari (Project 8) and extent of refurbishment to the MNH (Projects 1 & 3).

Safari provides cancer outpatients services and has been allocated a permanent home in the new CCC. The interim works will only be temporary and due to the bespoke design are unlikely to be able to accommodate another service without further investment. There are two options being actively considered for Safari - Southwood Level 9 partial refurbishment, and Southwood Level 9 partial refurbishment + Level 7 C D full refurbishment. The Level 9 partial refurbishment is an occupied partial refurbishment of the existing space that does not meet the additional space requirements. The Level 9 partial refurbishment + Level 7 C D full refurbishment meets the Safari service requirements, albeit not in full alignment with HTM and HBN space standards.

The MNH is predominately an office accommodation building and the masterplan identifies to remain as such until the Phase 5 development.

Through decant into ZCR and a reshuffle 2 floors could be made available for refurbishment and upon completion another 2 floors for refurbishment. This will result in 4 floors of refurbished office accommodation in MNH. There are two refurbishment options being considered - Option 1: a full refurbishment and Option 2: a partial refurbishment.

Four scenarios have been considered (see Appendix 5-5). The preferred of these is option 2C, comprising:

- Safari - Southwood Level 9 B C D E and Level 7 C D
- Medical Records - VCB Level 2
- MNH has a full refurbishment creating semi-smart working offices, creating 594 desks (an increase of 329) resulting in 711 smart working spaces

Figure 5-I summarises the moves associated with scenario 2C.

Figure 5-I: Preferred Decant Scenario – Safari Ward and Main Nurses Home (2C)

Level	Southwood				MNH	POG	West link	VCB	PICB
	C	D	E	B					
9	Safari				90				
8	CRF				90				
7	Safari	Safari			Cardiac Management/PMO/P&P				
6	(120) Psychosocial Offices /CAMHS /Nuro				90				
5	MCU		Panda		90				
4	Magpie	RANU			24				
3						30	30		
2						30		Med Recs	
1									Sleep

Significant work required. Scope to be determined	Existing Space not touched	No work required	Some refurbishment & redecoration. Scope to be determined	Significant work required with area converted to open plan smart working. Scope to be determined
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The capital costs for scenario 2C are summarised at Figure 5-I. The options to deliver the decant plan for the CCC are within the overall current budget. With additional investment over and above that summarised at Figure 5-J of c. £5.8m (which would require additional Trust capital funds to proceed) it would be possible to repatriate additional staff from leased properties.

Figure 5-J: Scenario 2C – Summary Capital Costs

Outturn Cost		Cost Assumptions
Decant (based on partial scheme)	£24.8m	<ul style="list-style-type: none"> • No VAT recovery is assumed • 10% contingency budget for every project • Art budget is only included in patient facing areas • All figures are VAT inclusive outturn budgets unless otherwise stated • Inflation has not been included
Safari (already identified as a capital plan project and funded separately)	£4.2m	
TOTAL	£29.0m	

5.4.2 Occupation of Phase 4A

Figure 5-K provides a summary of which services are going into Phase 4A, their decant / existing location and their CCC Phase 4A location.

Figure 5-K: Decant / Occupation Locations

Service / Area	Decant Location	CCC Phase 4A Location	Notes
Cancer ambulatory care including outpatients	Southwood Level 9 and Level 7 (assuming Decant Option 2A is selected)	Level 2	
Cross sectional imaging and iMRI facility	iMRI – Southwood Courtyard MR or CT –Southwood Level 1	Level 3	PET MR is a new service
Inpatient wards	PICU: VCB Level 4	PICU: Level 4	16 beds currently; 16 beds planned
	Cancer: VCB Level 6	Cancer: Levels 5 and 6	
	BMT: VCB Level 5	BMT: Levels 7 and 8	
Activity Centre and Hospital school	Southwood Level 2	Level 9	
Pharmacy	VCB Levels 1 & 2 Southwood Levels 2 and 4	Levels 1, 2	
Special feeds unit	Southwood Level 1	Level 1	

5.5 Consequence of CCC Phase 4A on Island Site

Figure 5-D shows the stacking diagram for CCC Phase 4A. As a consequence of implementing this scheme, there will be a direct impact on the accommodation on the rest of the island site, plus opportunities for further development. Figures 5-L – 5-O inclusive show the following:

- Figure 5-L: services that remain in Southwood after all the occupants of CCC Phase 4A have moved in (occupants of Southwood building post CCC Phase 4A go-live is subject to change depending on the final solution for CCC Phase 4A decant and enabling)
- Figure 5-M: vacant spaces and development opportunities in VCB post CCC Phase 4A completion
- Figure 5-N: potential functional content of VCB showing how the space could be used (subject to further development)
- Figure 5-O: the resultant effect on Southwood, should the above schemes go ahead.

Figure 5-L: Southwood Building: Occupants Post CCC Go-Live

Southwood Building				
	B	E	C	D
10	Plant	Offices	Plant	Plant
9	Vacant			
8	Clinical Research Facility			
7	Renal Dialysis Support	Urodynamics	Offices	Vacant
6	Offices: Psychosocial/CAMHS			
5	CAMHS Inpatients; CAMHS Daycare; CAMHS Outpatients			
4	Vacant	Neurophysiology	Magpie Ward	Rapid Assessment Neuro Unit
3	Muslim Prayer Rooms	Hedgehog Ward: IPP		
2	Social Work	Security/CSPs	Med Illustration	Vacant
1	Vacant	Turtle Imaging (1no CT or MRI)	Facilities Management	Shabbat Room Facilities Management

Figure 5-M: VCB Post CCC Go-Live: Vacant Space / Development Opportunities

Variety Club Building				
7	Plant			
6	Elephant Ward: Vacant	Lion Ward: Vacant		Giraffe Ward: Vacant
5	Fox Ward: Vacant	Robin Ward: Vacant		Squirrel Ward: Gastro/Endo/Met
4	Seahorse Ward: ICU: Part Vacant	ICU Support	Dolphin Ward: NICU	
3	Woodpecker (Same Day Admissions)	Angiography		Theatres 1-6
2	Pharmacy: Vacant	Dental OPD	Main Entrance APOA	Cheetah OPD: Vacant Fast Flow Imaging
1	Pharmacy: Vacant	Bed Store	Hydrotherapy	Cath Lab; MRI 3 and 4 Plant

Figure 5-N: VCB Post CCC Go-Live: Potential Functional Content

Variety Club Building						
7	Plant					
6	Elephant Ward: CRF ⁶	Lion Ward: CAMHS ⁵		Giraffe Ward: CAMHS ⁵		
5	Fox Ward: PIU ³	Robin Ward: PIU and Gastro Suite ³		Squirrel Ward: Gastro/Endo/Met		
4	Seahorse Ward: ICU	ICU Support		Dolphin Ward: Respiratory ⁴		
3	Woodpecker (Same Day Admissions)	Angiography		Theatres 1-6		
2	Hospital Control Rm ²	Dental OPD	Main Entrance	APOA	Cheetah OPD: Urodynamics ⁷	Fast Flow Imaging
1	Muslim Prayer Rooms ¹	Bed Store	Hydrotherapy	Cath Lab; MRI 3 and 4		Plant

Areas subject to significant refurbishment/remodelling (unfunded projects)

- Former pharmacy distribution/bulk fluids
- Former outpatient dispensary
- Programmed Investigation Unit (PIU) relocated from OBW Level 3 (Kingfisher Ward)
- Relocated from PICB Level 2 (Kangaroo or Leopard Ward)
- Relocated from Southwood Level 5
- Relocated from Southwood Level 8
- Relocated from Southwood Level 7

Notes:

- Post CCC go-live, occupation of VCB will aim to deliver:
 - Vacation of Southwood Building (Phase 5 enabling);
 - IPP expansion in Octav Botnar Wing (OBW);
 - Collocation of departments aligned with the horizontal platforms of care model.
- Relocation of the PIU and Gastro Suite (Kingfisher Ward OBW Level 3) to Fox and Robin wards would provide an expansion opportunity for IPP on Kingfisher, facilitating the closure of Hedgehog Ward (Southwood level 3)
- Refurbishment projects in VCB (and other buildings) post CCC go-live are not included in the CCC business case and are therefore unfunded.

Figure 5-O: Southwood Building: Occupants Post Possible VCB Projects

Southwood Building				
	B	E	C	D
10	Plant	Offices	Plant	Plant
9	Vacant			
8	Vacant			
7	Renal Dialysis Support	Vacant	Offices	Vacant
6	Offices: Psychosocial/CAMHS			
5	Vacant			
4	Vacant	Neurophysiology	Magpie Ward	Rapid Assessment Neuro Unit
3	Vacant			
2	Social Work	Vacant	Med Illustration	Vacant
1	Vacant	Turtle Imaging (1no CT or MRI)	Facilities Management	Shabbet Room Facilities Management

These figures currently assume that CCC Phase 4B is not implemented and show that with potential developments Southwood would not be fully vacated. Should Phase 4B proceed there is likely to be further opportunity to move some offices, other non-clinical functions and potentially Turtle Imaging as vacant in that scenario. All further developments on site beyond CCC Phase 4A implementation would be subject to separate business case processes.

5.6 Procurement and Contract Strategy

5.6.1 Main Contract - Contractor Procurement

The Trust agreed a preferred procurement route to appoint a multi-disciplinary design team with a Prime Contractor familiar with working on complex projects with complicated institutions and other

key stakeholders. This contract was the subject of OJEU Notice ref: 2016/S 164-294911, and the procurement was managed by the Trust in accordance with the requirements of the Competitive Dialogue procedure as set out with Regulation 30 of PCRs 2015. The use of the Competitive Dialogue procedure was justified by the complex technical nature of the Trust's requirements, the complex legal documents and the desire to consider innovative solutions.

This procurement approach is relatively new in the NHS but it has been successfully adopted on healthcare projects at other Trusts, e.g. Guy's and St Thomas' NHS Foundation Trust, and GOSH has been applying the lessons learnt there to the CCC project.

RIBA Competitions assisted the Trust with the management of the process and advised the Trust Board in late 2017 that the process had been thorough and robust and the Trust was to be commended on its approach.

Following an initial procurement process involving receipt of Expressions of Interest (EOI) and Invitation to Participate in Dialogue (ITPD), three final tenders were received. Figure 5-P provides a summary of the bidders' scores based on the pre-agreed most economically advantageous tender (i.e. quality criteria and cost).

Figure 5-P: Contractor Procurement Appraisal

Criteria	Weighting		Sub-Criteria	BIDDER		
				A	B	C
Understanding of Design Brief and Client expectations including Team collaboration Quality of the design approach Appropriateness of response to site, context and appreciation of planning issues Deliverability of the Phase 4 Redevelopment and its integration into a working hospital Approach to sustainability	80%	12%	Understanding the Design Brief and Client Expectations	6.00	9.60	10.80
		8%	Team collaboration	4.00	5.60	6.40
		25%		12.50	20.00	20.00
		15%		9.00	10.50	9.00
		10%		5.00	6.00	7.00
		10%		8.00	7.00	6.00
Robustness of cost and ability to manage and deliver the proposed design within the stipulated ‘Not to Exceed’ figure	20%	12.5%		8.75	8.75	7.5
4.0%		Preliminaries	3.22	4.00	3.46	
2.75%		Overhead and Profit	2.56	2.75	2.48	
0.75%		Risk Share on PCSA fee	0.00	0.00	0.75	
TOTAL WEIGHTED SCORE				59.03	74.20	73.39

The Evaluation Panel convened on 24th August 2017 with the panel chaired by Dr Peter Steer. In attendance as observers were non-executive Directors David Lomas and Akhter Mateen. Also in attendance were RIBA Competitions, Camden Planning and members of the Trust Technical Advisory team.

On the basis of the outputs of the tender evaluation, the recommendation to the Trust Board was that Bidder B, John Sisk & Son, partnered with BDP, was selected as the preferred partner to enter the Early Design Agreement (EDA). This contract required further work of the winning tender to develop the scheme in more detail and with higher levels of engagement with the Trust team and clinical users to demonstrate the required functional content could be achieved within the required works cost limit. It is the output from this period that informs the Commercial Case of this OBC.

Figure 5-Q: Summary of Legal Documents with Preferred Contractor

Procurement Stage	Description
Early Design Agreement (EDA)	<ul style="list-style-type: none"> The EDA commenced in October 2017. The purpose of the EDA was to allow Trust-briefed functional content to be applied to concept design and tested against works cost limit. Output from EDA stage was GOSH Scheme Validation Period Report (14/2/18) and the Scheme Validation Period Report Supplementary Response (26/3/18), which responded to queries raised by GOSH and advisors following issue of the original Scheme Validation report.
Pre-Construction Services Agreement (PCSA)	<ul style="list-style-type: none"> If the Trust decides to enter into the PCSA with the Contractor, following OBC approval, then the PCSA governs the period up to obtaining planning permission and the Trust obtaining FBC approval. Contractor undertakes detailed design development and applies for planning permission and other statutory consents. During this period the Trust makes staged payments to Contractor based on Contractor completing agreed activities. Cost to be charged formed part of the final tender submission. GOSH is able to terminate the PCSA. There is no obligation in PCSA on GOSH to enter into NEC3 Construction Contract. At the Trust's discretion whether the project progresses and the Main Contract is entered into. If the Trust serves a notice to proceed under the PCSA, the Contractor is required to enter into the Main Contract. If the PCSA is terminated or expires the Trust has the benefit of collateral warranties and rights to step into the appointments of the Design Team. This gives the Trust flexibility in terms of project delivery.
Main Contract	<ul style="list-style-type: none"> The Main Contract governs the delivery of the construction of the CCC Phase 4A buildings. The Trust will have the benefit of collateral warranties from the Contractor or key Sub Contractors and the Design Team.

The project is to be implemented contractually by the Trust entering into the documents outlined in Figure 5-Q with the selected contractor. Legal documents will be entered into as the programme progresses through each stage, and will reflect the risk apportionment in the risk allocation matrix (see Section 5.9). Collateral warranties will be obtained from the selected Design Team and key subcontractors to the contractor.

5.6.2 Main Contract - Contract Type

The Trust has, following professional advice, selected the NEC3 Engineering and Construction Contract (as amended) Option A for the delivery of the main project.

5.6.3 Enabling Works Procurement

The EW projects are identified at Figure 5-H. These projects have been collated into five works packages, and are summarised at Figure 5-R. A detailed description of the packages is included at Appendix 5-6.

Figure 5-R: Enabling Works Packages (including capital plan package)

#	Projects	Title	Preferred Procurement Route
Package 1	1,3	Main Nurses Home	<ul style="list-style-type: none"> Two separate below-OJEU tenders for the two floor tender packages to at least three SMEs. Form of contract: JCT or NEC3 Option C
Package 2	2	PICB Level 1	<ul style="list-style-type: none"> The main contractor to be selected via a below OJEU competitive process among at least three SMEs Form of Contract: NEC3 Option C
Package 3	8	Southwood Safari [Capital Plan]	<ul style="list-style-type: none"> Selection of John Sisk & Son via formal waiver process OR full OJEU
Package 4	4,5,6,7	Southwood	<ul style="list-style-type: none"> Form of Contract: NEC3 Option C
Package 5	9	Decommission Frontage	<p><u>Engineering Package</u></p> <ul style="list-style-type: none"> - Selection of Sisk via a formal waiver process - Form of Contract: NEC 3 Option C <p><u>VCB Cut Line works</u></p> <ul style="list-style-type: none"> - Selection of Sisk via a formal waiver - Form of Contract: NEC 3 Option C <p><u>Miscellaneous works</u></p> <ul style="list-style-type: none"> - Direct appointment due to low value and no technical complexity <p><u>Early works to South side VCB /PICB Elevations</u></p> <ul style="list-style-type: none"> - Selection of Sisk via a formal waiver process - Form of Contract: NEC 3 Option C

5.7 Town Planning – Main Build

5.7.1 Background

Camden Borough Council has frequently reinforced that it values the contribution that GOSH makes to the borough and the national importance of the role played by the hospital. The scale and density of the hospital means that both operational and development activities on the site have the potential for significant impact on local residents, transport, housing and the local infrastructure. Development on the boundaries of the site also has significance for the local townscape and heritage setting.

An important part of the deliverability of Masterplan 2015 was the acceptability in principle of the proposed new development in three areas of the site – North, Central and South - in planning terms

by Camden Borough Council (LBC). To that end, the GOSH Masterplan team met with the local planning authority twice during the duration of the Masterplan project.

The presentations were well received, and the level of engagement was constructive and strong. The Masterplan was developed on the basis of the hospital's clinical needs and its implementation will ensure the continued importance of the site context and the influence development proposals is considered beyond the site boundaries. Upcoming phases of redevelopment present an opportunity to improve the legibility, accessibility and stature of GOSH's campus through careful application of planning principles which consider the site context and surroundings.

It is the development of the South area that is the subject of the next area of development, and of this OBC.

The front of the hospital falls within the Bloomsbury Conservation Area, the London Suburbs Archaeological Priority Area and is located opposite two Grade II listed early eighteenth century buildings. The Frontage Building comprises a part four storey, part five storey building dating from the 1950's and 1970's extension. It is not considered to be of any architectural merit or heritage significance. The POG building is situated on the corner of Great Ormond Street and Powis Place and abuts the Frontage building to the west, comprising a six storey building. Alongside the Grade II* listed St Christopher's Chapel, it is the only building surviving from the GOSH Victorian campus however, it has been substantially altered over time, including the replacement of the original slated roof in the mid-20th Century.

The Frontage Building is not identified as a positive contributor within the Bloomsbury Conservation Area Appraisal and Management Plan 2011, which states that the building is of 'lesser quality' when compared to the later 21st century development of the Octav Botnar Wing (to the east) and the former Royal London Homeopathic Hospital (to the west). The Heritage, Townscape and Visual Impact Appraisal considers the Frontage Building to make, at best, a neutral contribution to the significance of the conservation area.

The POG Building is not designated as a locally listed building by LBC and is not identified within the Bloomsbury Conservation Area Appraisal and Management Plan. However, the Heritage, Townscape and Visual Impact Appraisal, prepared by Turley in February 2018, considers the building to be an attractive element of the local street scene which makes an important positive contribution to the Conservation Area. It is noted that, in a recent listing decision in 2017, Historic England concluded that, whilst the hospital is of historic interest, the POG Building *'is a later fragment of the C19 site and so does not well reflect its significance'*, whilst stating that *'though not without merit, the building is typical of its date, demonstrating little further architectural interest or innovation.'*

As a basic matter of principle LBC is concerned that the development should look beyond the site and acknowledge how the development proposals relate to and affect the local area. The Council considers that the insertion of a large-scale building in the context of central London historic environments is a specialist architectural skill in its own right. It is therefore essential that the design team bringing forward these façades are led by architects who demonstrate expertise and sensitivity to these environments. This requirement supported the case for procurement via a RIBA Design Competition.

5.7.2 Planning Strategy

In developing the planning strategy, the following considerations have been taken into account (further detailed at Appendix 5-7):

- Principle of development. Paragraph 121 of the NPPF local planning authorities should support proposals to make more effective use of sites that provide community services such as schools and hospitals, provided this maintains or improves the quality of service provision. LBC Local Plan Policy C2 states that the Council will support the investment plans of health bodies to expand and enhance their operations. It is therefore considered that LBC would strongly support the principle of providing enhanced medical facilities through the delivery of a new cancer centre
- Principle of demolition. Although the demolition of the Frontage Building is likely to be acceptable in planning terms, any demolition of the POG building and subsequent impact on the surrounding Conservation Area will likely represent a significant challenge. The NPPF states that, in weighing applications that directly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset, whilst LBC Local Plan Policy states that the effect of a proposal on the significance of a non-designated heritage asset will be weighed against the public benefits of the proposal. Should the demolition of the POG building come forward as a standalone scheme, separate to the redevelopment of the Frontage building, it would be challenging to demonstrate that the public benefits to be delivered as part of the redevelopment of the POG Building in isolation would outweigh the associated heritage harm. The public benefits case would be strengthened if the scheme came forward under a single planning application for both the POG Building and the Frontage Building. The benefits will also be strengthened if the façade is retained.
- Heritage and conservation. In addition to the challenges associated with the potential part demolition of the POG building, it is considered that the wider heritage impacts will be integral to the acceptability of the proposals, having regard to the Site's proximity to several designated heritage assets. This will require careful consideration throughout the design and pre-application engagement process.
- Townscape and views. The Site falls within London View Management Framework (LVMF) views 5A.2 (Greenwich Park to St Paul's), 6A.1 (Blackheath Point to St Paul's) and 4A.1 (Primrose Hill to St Paul's). The proposed building should also preserve the character and appearance of the Bloomsbury Conservation Area.
- Transport (car parking, cycle parking and site servicing).
- Energy and sustainability. Planning proposals for major redevelopment schemes are required to achieve zero-carbon development as per draft new London Plan policy.
- Public realm. There are significant aspirations for improvements to the public realm along Great Ormond Street, shared with LBC, local councillors and neighbours.
- Planning obligations. CIL payments will not be applicable, but there may be a requirement for GOSH to deliver contributions via a Section 106 agreement.

Two options were considered as part of the planning strategy: Option 1 – submission of a single planning application for the entire site in two parts; and Option 2 – submission of two separate

planning applications. It is likely that Option 1 will be pursued. The benefit of a single application for both buildings would represent the most straightforward process from a planning perspective. It would allow the proposed development and the associated public benefits to be considered as a whole, thereby strengthening the case for the demolition or significant alteration of the POG Building. The town planning application will be submitted and managed by Sisk and Son Ltd.

5.7.3 CCC Phase 4A Pre-Application Engagement with LBC

Regular and detailed dialogue between LBC and GOSH continued from the earliest stages of the design competition in order to minimise the risks. A member of the Camden Placemaking Team contributed to the drafting of the design brief; attended the mid competition design workshops with the tendering teams and participated in the evaluation of the tender submissions. Pre-applications meetings and workshops have taken place and a Planning Performance Agreement (PPA) was signed in February 2018. The PPA brings certainty in terms of resources provided by LBC, officer 'ownership' and agreed target dates for the planning process.

Progress has been made with LBC with regards to:

- Agreeing the approach to the conservation area;
- Building the case to be made for significant alteration / demolition of the Paul O'Gorman building; and
- Enabling the key shared design / development principles to guide the emergence of the detailed design of the scheme, the principles including:
 - Patient experience
 - Building line, height and profile
 - Materiality and character
 - Public realm

Following the initial engagement with the local planning authority, the following summarises the key points made:

- Any proposal would need to be of exceptional design quality
- The consultation as part of the design competition was encouraging. This momentum needs to continue. The earlier the scheme can be the subject of public consultation and discussion with interested parties, the better
- Detailed consideration and justification must be given to building a compelling case for the loss of the Paul O'Gorman building. This was a key area for LBC and subsequently for the Design Review Panel – see below.
- Details and assessment of other material planning matters (including sustainability, transport, land use, residential amenity, basement impacts etc.) are not yet advanced

The first of a series of Design Review Panels (DRPs) took place in February 2018. There will be two more DRPs as part of the agreed pre-application process as well as two major public consultation events before submission. The main points from the first DRP are that the plans show:

- Well-designed clinical and internal patient environment;
- A disconnect between the townscape character analysis, including historical analysis, and the design development of the frontage elevation;
- The concept of dividing the building into 'houses' works well and could break up its frontage, but will require greater domestic scale and sense of verticality;
- Requires a stronger case for the significant alternation / demolition of POG building;
- The hospital entrance on Great Ormond Street should not to be too large and dominant; and
- Ensure the landscape proposals are deliverable.

Engagement with the local conservation and resident interest (for example, the Bloomsbury Conservation Area Advisory Committee) and resident interests will recommence at the start of RIBA Stage 2 design development. It is also recognised this commenced with the public viewing of the design competition.

The officer from the Placemaking Team continued to provide guidance until the pre-application period commenced.

On approval of the OBC John Sisk & Son will enter the PCSA with the Trust and continue design development including the planning application.

5.7.4 [Section 106 Obligations / Other Tariffs](#)

The Council published in 2015 the Camden Planning Guidance which includes a 'Planning Obligations Document'. The range of contributions required falls into the following categories:

- affordable housing and housing in mixed-use development;
- transport and other infrastructure;
- sustainability;
- works to streets and public spaces;
- community facilities and services, including education, health and open space;
- training, skills and regeneration; and
- community safety.

The obligations document states that the list is not exhaustive. The majority of the above categories set requirements for site specific contributions which are often calculated by reference to the quantum of floor space proposed. Given the special status of the proposed development by GOSH, an exceptional case will be argued to seek to minimise the costs to be incurred and to focus the agreed s106 commitment on public realm improvements on Great Ormond Street.

The proposed hospital use is exempt from both the Mayoral and LBC CIL.

5.8 Legal Implications

5.8.1 Summary of Legal Title

The principal commercial / legal issue for the CCC Phase 4A project relates to the freehold on the Frontage building, which is part-owned by the Charity. In discussions between the Trust and the Charity the preferred approach is to consolidate the CCC 4A site as a GOSHCC freehold. The CCC 4A works contract may then be between GOSHCC and the chosen contractor (the same structure as the ZCR works contract). NHSI approval will be required for any asset transaction. Initial discussions have been held with NHSI on the principles of this approach and GOSH is waiting further feedback on the approvals process. It is confirmed that this approach is being pursued on the principle of no loss of assets to the NHS.

5.8.2 Contractor Procurement

The procurement route selected the Design Competition for Contractor with Design team established a single procurement route. Technically, at the end of the PCSA, if there is agreement on the contract sum and it remains within the established works cost limit the Trust or Charity can award the contract to John Sisk & Son.

However, the PCSA does not oblige the Trust to enter into the NEC contract with John Sisk & Son or any other contractor. The Trust has the right at its sole discretion to decide whether to enter into the NEC contract with John Sisk as the Prime Contractor or not. This is the case even where John Sisk have obtained planning permission and developed an acceptable design within the Works Cost Limit. No compensation is payable to John Sisk under the PCSA if the Trust does not proceed with the NEC contract with John Sisk in those circumstances. If the Trust does not proceed with John Sisk it is entitled, at its sole discretion, to put the construction contract for the works out to competitive tender; utilise one of the construction frameworks for the works, or to proceed or not to proceed with the Project in whole or in part as it sees fit.

The Charity, should they become the developer of the scheme, can also proceed without obligation to John Sisk and Son.

5.9 Risk Allocation Matrix

The Trust has developed a risk register for the project which apportions risk items between the Trust and its Preferred Partner. This risk register was issued as part of the Invitation to Tender documents and the preferred partner was given the opportunity to add additional items provided they were not contractually allocated to the Trust and change the risk profile as prescribed by the Trust.

During the PCSA the Preferred Partner is obligated to:

- Undertake regular risk management workshops and maintain a costed risk register in the format submitted at Final Tender Stage (which links to the Contingency provision within the estimated cost of the works).
- Liaise regularly with the Trust and its advisers to co-ordinate the costed risk register in terms of Trust and Contractor's Risks.

- Meet regularly with Trust and its advisers to review the risk register and to progress and update risk mitigation plans and actions in order to actively manage the risk register as an integral part of the design and cost management process.
- Develop the risk register and integrate the final version at the end of the pre-construction period into the NEC Contract.

The costed risk register will be maintained by the Preferred Partner but will also include items for which the Trust is accepting risk liability. The Works Cost Limit will only be adjusted if the Trust varies its requirements as fixed at the start of the PCSA period or an agreed Trust risk materialises. Any such changes will be recorded in a change tracker and the Trust will 'fund' any agreed changes by writing-down the allowance for Trust retained risks within the risk register or by cross-funding from elsewhere within the overall project budget.

The current risk register provides for the risk allocation as shown at Figure 5-S. This will further be reviewed as part of the FBC development process.

Figure 5-S: Risk Allocation Matrix

Risk Category	Trust Risk	Preferred Partner Risk
Brief	✓	
Design		✓
Existing Services / Enabling Works	✓	
Existing Survey information	✓	
Ground conditions post survey		✓
Art – design interfaces	✓	
Town Planning		✓
Section 106/278 Works	✓	
Main Contractor insolvency	✓	
Tender price inflation – pre-contract	✓	
Tender price inflation – post-contract		✓
Approvals (Trust / External)	✓	
Procurement risks		✓
Construction risks		✓
Concurrent works	✓	
Building commissioning		✓
Clinical commissioning	✓	
Group 2 – 4 Equipment	✓	

5.10 Accountancy Treatment

GOSHCC may undertake the majority of capital works on the project, following an asset swap between the Trust and GOSHCC (assuming approval of the transaction by NHSI). The Trust will then pay a commercial lease for utilising the renewed estate following completion of the works. The

Trust will contribute c. £10m of its own capital to help fund the decant works for the project and this will be treated as Trust funded capital and is allowed for within the Trust's current modelling.

Occupation of the new facility is modelled on the assumption of Trust funded revenue at commercial rates, inclusive of VAT from the year that the building is occupied (currently £.4.5m p.a. inclusive of VAT).

5.11 Value for Money Assessments

As part of the Contractor-led multi-disciplinary RIBA design competition procurement the following specific provisions are contained within the PCSA and associated documentation in order to provide assurance in respect of value for money.

- There is an explicit requirement for the Contractor to develop a fully compliant and acceptable scheme in line with the brief and agreed Works Cost Limit (WCL), provision is included for adjusting the WCL but only in the event that the Employer gives an instruction changing the design brief or if a Trust risk occurs.
- Actively controlling the estimated cost of the works and undertaking regular cost checks / gateway reviews throughout the design development stage including the provision of value engineering to ensure best value is being delivered.
- Provision of whole-life cost assessments to demonstrate that running or lifecycle costs are being considered continuously throughout the design development stage.
- Provision of fully transparent cost information throughout the PCSA period to the Trust's cost adviser.
- Undertaking open-book procurement of sub-contractor packages in accordance with a prescribed process set out within the PCSA documentation.
- Participation in any benchmarking processes defined by the Employer to demonstrate value for money.
- Management of a change control system.
- Undertaking regular risk management workshops, maintaining a costed risk register linked to the contingency provision.
- Maintaining the fixed cost elements submitted at competition stage are carried through to the NEC contract sum.

5.12 Workforce Planning

The principles for CCC Phase 4A workforce planning and redesign were agreed by Senior Management Team in August 2018, and include:

- CCC Phase 4A development presents opportunities for new clinical pathways
- New pathways provide opportunities for innovative new roles including extended scope nursing and allied health professional roles

- Develop new career structures aligned to new roles with complimentary educational and academic pathways to support increasing specialisation in clinical roles
- Exploit opportunities to continue to reduce the widening access gap with the introduction of nursing associates and apprentices
- Staff may be deployed into new working patterns as a result of productivity improvements
- 7 day working models will need to be developed to ensure delivery of scientific, therapeutic and technical services to support patient care

The CCC had planned to include 24-bed wards. This is based on learning from other redevelopment projects at GOSH and evidence around optimal bed base for efficient nursing models. However, recent discussion in planning the CCC has resulted in wards that are likely to have 16 beds. This will impact on the nursing model and establishment.

Figure 5-T shows the nursing establishment for 24-bed wards and 16-bed wards to achieve safe staffing levels based upon ratios of 1 nurse to 2 patients or 1 nurse to 3 patients.

Figure 5-T: Nursing Establishment

Number of beds	Patient Occupancy (%)	Nurse: Patient Ratio	Nursing Establishment	Nurses/Bed
24	100	1:2	85.8	3.6
24	100	1:3	59.4	2.5
16	100	1:2	59.4	3.7
16	100	1:3	42	2.6

This demonstrates that safe nursing levels can be achieved on 16-bed wards with only a small uplift in nursing establishment. Detailed establishments that include grading and costs will be developed in the next stage of business planning. The use of technology will also be examined to mitigate any potential operational inefficiencies.

The impact of the above is minimal; over the 15-year planning horizon, the impact of staffing 16-bed wards in the CCC amounts to c. 10 WTE (369.2 WTE vs 379 WTE). This has been reflected in the LTFM.

In terms of the LTFM modelling, GOSH has assumed incremental increases to staff in all years within the model. This is due to the Trust utilising more beds within its capacity. Current capacity will be exceeded during 2027/28; should the preferred option not be implemented the majority of growth in staff stops at this point. Beyond 2027/28 growth in staff will continue, but there will not be a significant step change at the point of opening the CCC as the majority of increases relate to the provision of soft FM services that are currently outsourced, and hence, whilst there will be an increase in resource, these are not currently part of the Trust's cost base. There are two exceptions to this: the first is the commissioning of a PET MR which will require the following additional staff:

- 1.5 WTE consultants
- 1 WTE anaesthetist

- 3 WTE physics Band 8b staff (possibly eventually increasing to 4)
- 6 WTE ODP nurses

In addition to the PET MR staffing, there will be an increase in hard FM services that will require xx number of staff for the increased space within the building.

5.13 Equipping Strategy

The Trust has an Equipment Management Process that is part of the Operational Commissioning Procedure. As part of the FBC a Master Equipment Schedule (MES) will be prepared and broken down into equipment per room, package and/or group and should not exceed the total equipment budget.

As part of the equipping workstream, the Commissioning team and Working groups will establish a procedure to reinforce the Equipping Strategy and ensure that:

- transfer items within a department are clearly identified and information is incorporated in the briefing;
- a procurement strategy is arranged for replacing those items due for replacement before occupation of the new facility and for purchasing new items;
- a strategy for removal of packaging materials is agreed;
- an asset tagging and recording policy is agreed in conjunction with the Trust's existing policies.
- an equipment contingency sum is retained to allow for purchasing items that may be overlooked or to be ordered urgently.

The ordering of such pieces of equipment will be subject to OJEU rules on competitive tendering (where applicable). The Commissioning Master Plan will make sufficient allowances in the programme for the tendering, appraisal, award, delivery and operating commissioning requirements.

An overall allowance of £19.5m excluding inflation and VAT has been allowed for new equipment. Following production of the ADB room data sheets, a detailed equipping list will be established and compared against an audited review of existing equipment to establish an equipment schedule to be either procured or transferred for Phase 4.

5.14 Facilities Management Provision

There is not intended to be any change from the existing facilities management (FM) arrangements. The Trust FM team will continue to provide services for the CCC Phase 4A buildings, as per other Trust buildings and in partnership with outsource partners (e.g, cleaning/ linen) where this is the case.

The revenue cost implications of ongoing FM costs has been addressed in the Financial Case.

5.15 ICT

ICT's purpose is to support and enable the organisation for success, through the effective use of information and technology. This is underpinned by interactions with the Trust's management and their teams, understanding their objectives and expectations of ICT coupled with ICT's knowledge and expertise of business and clinical applications, technical infrastructure and supplier management.

GOSH has ambitious plans to strengthen and grow its business and I&T is a critical enabler of these plans. Additionally, external bodies, including NHS England, continue to place demands for process change, data and information that depend on good technology being in place; for example: seven day working and compliance with the Clinical Digital Maturity Index.

The GOSH Digital Strategy (2017) includes the vision for how the collaboration between the built environment and future-proofed technology will benefit the patient, parent, visitor and staff experience.

The strategy highlights innovation as the key driver for the next phase of digital development at GOSH. DRIVE has been created as an innovation tool to provide an operational framework. This was constructed with the ICT team partners from IBM plus engagement with the Trust digital champions including a set of workshops to identify improvements and other industry technology.

The team carried out a digital maturity/ baseline exercise using the NHS England Digital Maturity Assessment which measures the extent to which healthcare services are supported by the effective use of digital technology. It is envisaged that following the implementation of this strategy that GOSH will increase from a low stage 3 to stage 7.

The team also assessed the ICT strategy against national policies and guidelines and identified the following themes:

- The NHS needs to exploit the information revolution to address the widening health and wellbeing gap, care and quality gap and funding and efficiency gap;
- There is national level support for providers moving to a paperless environment, supported by electronic health records;
- Systems need to interface with patient applications in a way that is convenient and in line with patient and family expectations, to support management of patients' own care;
- The systems should bring together provider organisations (such as GPs, community care) by having the ability to integrate across organisations;
- Technology provides the opportunity for better collection of data, which in turn enables analysis and better decision-making to support improved patient care.

The ICT teams and Development teams will continue to work closely during design and construction periods, which includes an ICT Project Manager embedded within the Development team. This will help provide Board assurance that the teams have the correct resources to work together during the stages of design, briefing and construction. The vision for suppliers and contractors (both within ICT and in Development) will be shared, to ensure consideration of design and construction.

The design brief provided some overarching aims for the digital strategy and over the next two years of design process, the teams will work closely to ensure that the layout and technology considerations of the building work to support current plans and possible future ICT developments.

Key developments include:

- Bluetooth points: this will enable wayfinding apps, asset tracking, perimeter tracker (of equipment or assets)
- Device management display of information
- Barcode check-in for outpatients (via EPIC)
- Patient entertainment systems on mobile devices (moving from fixed 'arms')
- Blood result tracking via the epicare link with other hospitals
- Interactive whiteboard (either in the main entrance or waiting areas)
- Ward computers and mobile device strategy may be amended to ensure good use of space and keeping corridors clear
- Voice recognition and face recognition will be explored (for security, entertainment options, control of devices or services)
- Monitoring devices could be connected to door controls/ lights – for example enabling a clinical department to have lights rather than alarm systems for example

5.16 Chapter Appendices

Appendix Number	Appendix Title
5-1	Design standards
5-2	Affirmations list
5-3	Design quality indicator assessment
5-4	BREEAM assessment
5-5	Decant scenarios
5-6	Enabling works packages
5-7	Town planning strategy

6.0 FINANCIAL CASE

CHAPTER SYNOPSIS – Financial Case

There are three options considered in the economic case, in addition to the BAU option:

- Do minimum other than bringing the Trust estate up to Category B.
- Do work on existing estate to create a more virtual cancer centre.
- Build the new Children's Cancer Centre (preferred option).

This chapter outlines the following information relating to, and the financial impact of, the preferred option, building a new Children's Cancer Centre:-

- Principles of approach.
- Key financial assumptions.
- Capital and revenue costs.
- Funding.
- Risks.
- Sensitivity analysis, and;
- Overall affordability.

The information in this section also provides a long term financial model (LTFM) for the Trust and the subsequent impact on the Trust's Statement of Comprehensive Income (SOC), Statement of Financial Position (SOF) and Statement of Cash Flows (SCF).

For the purposes of this appraisal, affordability is defined as the Trust maintaining financial surplus every year and a cash balance of a minimum of £40m. The final approval of the case will be subject to overall approval from NHSE/I who will want to evidence Board level approval of the preferred solution, along with any additional approvals where required, if for example the preferred option involves the transfer of assets between the Trust and GOSHCC. The Trust will then need to agree a separate business case with NHSE/I to permit the swap of assets and then will be required to follow the formal FBC process with the approval of the final case being made by DHSC.

6.1 Principles of Approach

Following the selection of the preferred option, the financial case refers only to the costs associated with delivering the CCC Phase 4A case and does not discuss the finances associated with the other options.

Due to IFRS16 (surrounding the inclusion of operating leases within the Balance Sheet) not being adopted in the NHS until 2020/21, the base case from which this modelling is made makes no adjustments for the new Standard. The Full Business Case, if agreed to be developed, will make adjustments for this change and any other known changes to accounting standards.

The key messages of the Financial Case are set out in Figures 6-A and 6-B. The financial amounts are over the 15 years that have been modelled within the LTFM and have not been discounted to present values. (Note that Trust is working on a rounded figure of £8m for its capital contribution.)

Figure 6-A: Capital Costs (Nominal)

Capital	Total
Total Capital costs of CCC	£257.7m
Charity Capital Funding	£250.0m
Trust Capital Required	£7.7m

Figure 6-B: Revenue Costs (Nominal)

These are the assumed revenue costs arising from the model assuming occupation from 2027 and extending to the end of the model in 2034/35.

	Base Case	CCC	Difference
Control Total	£4.4m	£11.0m	£6.6m
Required Better Value savings	£106.5m	£100.0m	(£6.5m)

The key points to consider in the above are as follows:

- The Trust is facing a significant financial challenge in the next 5 years due principally to downward pressure on NHS national tariffs, and a number of service developments that the Trust has begun to implement but will not reach their full payback period for a number of years. As such, the Trust must deliver an ambitious savings programme in order to achieve financial balance in the short to medium term.
- The Trust will manage its capital programme within a reduced envelope for the next 10 years to support cash balances - whilst ensuring all essential maintenance is completed.
- The total capital cost of the preferred option is £257.7m million; this will be funded via £250m of charitable funding and £7.7m of trust funding (from within Trust cash reserves).
- The financial model is based on the Trust transferring the current building and land to the charity so it directly undertakes the building works, with an equivalent value of assets being transferred to the NHS so that there is no reduction in the Trusts long term assets. On completion the trust would then lease the facility from the charity at commercial rates.
- The cost of the proposed lease will add c. £3.8m per annum to the Trust's cost base plus VAT. There will also be additional costs for estates and facilities management and increased costs associated with operating the new PET MR which will lead to an increase in the cost base of c. £10m per annum. The additional costs of CCC will not impact on the Trust until 2026/27; it is forecast that the Trust will have made recurrent savings by this time to meet its medium term financial challenges and will then be able to accommodate the additional costs of CCC through further efficiencies.

- In order for the Trust to be in a more stable financial position, it will have to deliver a significant savings programme in the next 4 years due principally from the significant pressures arising from anticipated changes to national tariffs.
- The Trust will also have to commit to minimal capital funding on other projects during the commissioning and build of CCC to minimise the cash outlay during this time.
- There is no additional growth in services associated directly with the new hospital. However, the new building will be required to ensure that the trust maintains its quality requirements and allows for growth in future years that would not be possible at current occupancy levels.
- The growth in income that is enabled through the commissioning of CCC will lead to further income growth in future years which would lead to an improved control total vs. the base case and a lower level of required Better Value savings.
- The Trust underlying financial position includes a cash balance of £56.5m as at March 2020 and this is forecast to increase over the period to £61.0m at March 2034.

As a result, the preferred option is affordable to the Trust provided that the significant savings programme is delivered in this time.

6.2 Key Financial Assumptions

6.2.1 Trust Underlying Position

Figure 6-C sets out the assumptions used in forecasting the Trust's financial performance up to and including 2034/35, prior to the inclusion of the impacts of the CCC Phase 4A. As such, a number of assumptions are contained within it.

Figure 6-C: Key Assumptions used in Forecasting Changes to the Trust's Business As Usual SOCI

Underlying Trust Position Assumptions	
Baseline position	<ul style="list-style-type: none"> • The baseline figures are taken from the 2019/20 forecast as submitted to NHSI (August 2019) and is modelled over 15 years. • Capital assumptions, including depreciation are also assumed from the 2019/20 plan and are in line with the 5 year plan submitted to NHSI. • Inflation is applied to the future years of the model in line with the assumptions set out above and in line with growth (see below). • Service Developments are included within the base case where they have either already been commissioned (as with EPR) or are committed to and have a known or likely future revenue or capital impact (these are specified in more detail within the next table). • Income is taken from the current plan and is modelled using outline tariff assumptions. The impact of NHS tariffs remains very difficult to model accurately given the changes happening nationally to tariffs. • Non recurrent funding, including that provided by the GOSHCC, is removed at the end of the projects.

Underlying Trust Position Assumptions	
Growth in demand	<ul style="list-style-type: none"> Demographic growth is assumed in line with the best assumptions of the Trust following discussions with operational teams and any indicative service developments anticipated in the future. The growth rate for NHS services is approximately 2% per annum in the period though this is assumed higher in key strategic areas, namely Cardiac, Cancer and Neurological services (with growth of around 3% per annum). IPP assumes higher growth of around 5% per annum for the life of the model.
Expenditure	<ul style="list-style-type: none"> Inflation is assumed in line with the assumptions set out above which aligns with published NHS guidance where possible. Additional cost pressures for drugs are assumed within the position. Recurrent Cost Improvement Programmes (CIPs)/savings that form part of the Trust's Better Value Programme are included within the model based on the outline strategic plan from the Transformation Director. Establishment growth and subsequent pay expenditure is linked to the growth above i.e. an increase in demand and thus beds leads to an increase in staff. In some areas, this is variable as in ward nursing though the overall level of growth by bed type has been modelled with individual workforce groups. For other areas such as medical and scientific and therapeutic staff, growth is linked to stepped increases in demand while others (principally the back office functions) are primarily fixed and do not change within the model.
Revenue	<ul style="list-style-type: none"> Income growth for NHS staff is driven primarily through increased demand linked to the growth arising from the demand and capacity model and anticipated changes to national tariffs. NHS, other clinical income and other income is forecast largely deflate for the next 3 years and then recover with additional income growth forecast after this point. However, future income from tariffs will be affected by the need to deliver system wide control totals within STP areas and hence will be below historic levels. As NHS income represents around 70% of Trust income, the initial lack of price increases affects the financial position significantly in the earlier years of the model. During this period (as above) the Trust will rely on CIPs to maintain its surplus position and offset inflationary cost pressures. From 2022/23 onwards it has been assumed that income inflation will be 2.3% per annum and that increases in tariffs will offset inflationary cost pressures. Private patient income is forecast to increase by 2% price inflation per annum and then by c. 5% per annum for growth in demand. This is in line with historic growth and assumes that additional capacity can be found within the hospital to accommodate this. Education and training income is assumed to reduce year on year for the next 10 years by 5% p.a. This is to mirror the national reductions in funding for education via Health Education England.

Underlying Trust Position Assumptions	
Trust Assets	<ul style="list-style-type: none"> The Trust capital plan is set for 5 years in line with NHSI planning guidelines and for the Trust, defines both Charitable and Trust funded elements separately. Trust assets and charity donated assets have been depreciated principally assuming an average 10 year useful lifecycle across a range of assets though this increases to 15 years for EPR and as high as 50 years for the retained estate. Depreciation is calculated on a straight line basis. After the 5 year capital programme, assumed capital expenditure has been reduced significantly (excluding CCC Phase 4A) to reflect the need to live within a more challenging financial environment and to recognise how intrinsic the delivery of CCC Phase 4A will be in the longer term. Adjustments have not yet been made to the Trust's assets to adequately reflect the new accounting treatments for IFRS16 which require the Trust to recognise additional assets for leases within its balance sheet. The new legislation is applicable from April 2020.
Better Value (savings programme)	<ul style="list-style-type: none"> The size of the Better Value programme is governed by the need to deliver at least break even and £40m+ cash reserves. The deliverability of the overall programme however has been determined by the lead Director and pressure tested on deliverability against risk, historic delivery and opportunities arising from the programme. The convention that has been undertaken to balance the model is that recurrent better value will be required to ensure the Trust achieves break even and that non recurrent schemes will ensure that the trust achieves its cash envelope. It is recognised that in order to deliver the programme, emphasis will be focused on 'cost-out' rather than income development and growth which is already assumed in much of the Trust model. An assessment of risk has been made of the current programme and is reflected in the numbers above.

6.2.2 Income and Expenditure Assumptions

Figure 6-D sets out the key assumptions used to model the incremental impact on GOSH's long term financial performance. These inform the Statement of Comprehensive Income (SOCi).

This section sets out the assumptions within the forecast of the incremental impact as well as the assumptions that are in the Trust's underlying 'business as usual' financial forecast. All assumptions around VAT, PDC, Contingency levels and the savings programme required to deliver the business case have been agreed with the Trust Executive and Finance and Investment Committee. Figure 6-D summarises the key assumptions in the OBC.

Figure 6-D: General Assumptions used in Forecasting Incremental SOCi

Key Income and Expenditure Forecasting Modelling Assumptions	
Income	<ul style="list-style-type: none"> Price inflation has been set at the anticipated levels that will apply to the Trust from the national tariff settlements and any negotiations on existing block and contract volume contracts that are locally priced.

Key Income and Expenditure Forecasting Modelling Assumptions	
	<ul style="list-style-type: none"> The impact of future tariff settlements is a key driver of the model and given the lack of clarity on how changes to national tariffs will impact on the trust in future years, remain difficult to model.
UK Non-Pay Inflation	<ul style="list-style-type: none"> Indexation assumptions have been taken from the Office of National Statistics and are in line with the published guidance for inflation until 2020/21 (the last published inflation assumptions from NHSI). After this date, notional inflation of 2% per year has been assumed in all areas except drugs in line with NHSI guidance. In the case of drugs, the Trust is an outlier in terms of much of the cutting edge services that it provides and has seen higher growth in drugs costs over the last few years. As such, drug costs have been assumed at +50% of the specified inflation figures above and have been rolled forward at 2020/21 levels (5.9%) for the remaining years of the model.
Pay Cost Inflation	<ul style="list-style-type: none"> Salary inflation assumptions have been taken from the most recent guidance update from NHS Improvement up to financial year 2020/21, after which again, notional inflation of 2% has been assumed. No adjustments have been made for proposed pension changes which it is anticipated will receive additional funding via national tariffs. The impact of pay and pension increases not currently formally quantified within our existing guidance is not separately identified within the model as it is anticipated that income will be received via national tariffs that would fund any cost pressures arising.
Depreciation and lease of building	<ul style="list-style-type: none"> Once constructed, the Trust assumes a useful life of 40 years for the asset; however given that the Trust assumes that it will lease the facility in the future, an initial lease period of 10 years is assumed here in the model which takes the lease beyond the years modelled within the LTFM.
Better Value Realisation	<ul style="list-style-type: none"> The size of the Better Value/savings programme is governed by the need to deliver at least break even and maintain cash levels of at least £40m. The Trust has assumed it must meet the following Better Value programme to deliver the conditions set out above: <ul style="list-style-type: none"> £59.3m of total better Value (including delivery of the £20m in the 2019/20 accounts), of which: <ul style="list-style-type: none"> £42.1m will be delivered recurrently. £17.2m will be delivered non-recurrently. <p><i>Note: non recurrent Better Value is assumed when the minimum I&E conditions have been met recurrently but there is a shortfall in cash within the model.</i></p>
Public Dividend Capital	<ul style="list-style-type: none"> Public Dividend Capital has been calculated on the basis of Trust capital and in line with convention has not been applied to Charity donated assets.
VAT Applicability	<ul style="list-style-type: none"> VAT has been assumed within the model where applicable. However, as the majority of the build is being funded and managed by GOSHCC, minimal VAT costs are anticipated arising from the CCC project.

Key Income and Expenditure Forecasting Modelling Assumptions	
Capital Contingency	<ul style="list-style-type: none"> 20% contingency has been assumed for implementation fees and data migration costs. This is considered prudent given the innovative and bespoke nature of the platform being procured. 20% contingency has also been assumed for additional devices. This relates to the uncertainty in procurement price. The impact of IFRS16 on capital via additional leases on the balance sheet has not been included within this financial model as the implementation will not commence until 2020; it will be included in future modelling as required. No assumptions have been made around additional costs relating to Brexit in this time but it can be assumed that this may affect future capital costs.

Figure 6-E sets out the recurrent income and expenditure assumptions for the service developments that have been included within the base case that had not been fully included within the Trust's 2019/20 forecast outturn recurrently. These are principally service developments that the Trust has already commissioned and that affect the Trust's financial position materially in future years.

Figure 6-E: Key Service Developments including with the Trust's 'Base Case'

Assumptions assumed within the Long Term Financial Model	
Sight and Sound Hospital	<ul style="list-style-type: none"> Capital works on the development of the sight and sound hospital began in 2018/19. The renovation is primarily charitably funded and hence the capital works do not impact on the Trust's control total. Additional capital works have been assumed until 2020/21. Following the move to the new building, there will be additional running costs for hard and soft FM services associated with the new building. Minimal additional staffing costs have been included from 2020/21 onwards.
Zayed Centre for Research	<ul style="list-style-type: none"> Part year costs of running the new building (principally for soft and hard FM but including insurance and utilities) are included in the current Trust forecast outturn. However, as the building has only been commissioned part way through the current financial year, additional annualised running costs have been assumed for future years. This includes an element of recharged costs to UCL with whom the Trust will share the new building and additional rental costs to the charity under the terms of the new lease.
EPR	<ul style="list-style-type: none"> The latest revenue and capital costs associated with EPR are assumed from 2019/20 onwards. These include the full delivery of the remainder of the benefits programme associated with the project from 2020/21 and the revised revenue and capital costs prior to the revised optimisation programme which had not been agreed at the point at which this business case was developed.
The Learning Academy	<ul style="list-style-type: none"> As recently agreed by the Charity Grants Committee, initial costs and income associated with the Learning Academy have been assumed from 2019/20 onwards. The model assumes any additional recurrent running costs are funded through commercial funding streams in future years.
Intraoperative MRI	<ul style="list-style-type: none"> The recurrent running costs of utilising the new IMRI (principally for maintenance and consumables) have been included within the model from 2020/21 onwards.
Non recurrent support costs and income	<ul style="list-style-type: none"> There are a series of non-recurrent costs assumed within the LTFM, including non-recurrent charitable funding for a number of projects. The non-recurrent impact of these measures has been removed in future years.

6.3 Summary of Normalised Financial Performance

6.3.1 Summary of Normalised SOCI

The Trust has determined from its Long Term Financial Model, the base case for the future without the implementation of CCC but including all of the service developments referenced in Figure 6-E. With current demand and capacity constraints (at current projections, the Trust would reach bed capacity in 2027/28), the projected normalised SOCI is shown at Figure 6-F.

Figure 6-F: Normalised SOCI

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Total operating income	486.0	495.0	505.5	512.1	517.0	532.3	545.6	560.4	575.0	582.6	590.6	598.9	607.3	616.0	624.9
Total operating expenditure	(463.2)	(478.4)	(483.4)	(492.6)	(496.3)	(510.4)	(522.7)	(538.0)	(551.9)	(558.9)	(567.8)	(576.4)	(585.0)	(593.8)	(602.7)
EBITDA	22.8	16.7	22.1	19.5	20.7	21.9	22.9	22.4	23.1	23.7	22.8	22.5	22.4	22.3	22.2
Other income and expenses (PDC, dep'n e	(18.7)	(16.7)	(22.1)	(19.5)	(20.7)	(21.8)	(22.9)	(22.3)	(23.1)	(23.7)	(22.8)	(22.5)	(22.3)	(22.3)	(22.2)
Control total	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

In order to deliver this position, Better Value schemes are required to ensure the Trust remains in surplus year on year and that there is a minimum of £40m cash in hand. The Better Value savings required to deliver this position are shown in Figure 6-G (note, this does not include any impact of CCC).

Figure 6-G: Better Value required in Base Case

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Total non-recurrent savings	7.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total recurrent savings	13.0	14.3	7.2	6.8	8.5	3.9	4.9	2.7	3.9	6.7	5.8	6.6	7.0	7.3	7.6
Total Savings Programme in year	20.0	14.3	10.9	6.8	8.5	3.9	4.9	2.7	3.9	6.7	5.8	6.6	7.0	7.3	7.6
Total cumulative recurrent savings	13.0	27.3	34.5	41.3	49.8	53.8	58.7	61.3	65.3	72.0	77.8	84.5	91.5	98.8	106.5

6.3.2 Summary Statement of Financial Position

The Trust has a robust balance sheet supported by favourable cash reserves, along with a broad asset base, as shown at Figure 6-H.

Figure 6-H: Normalised SOFP

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Total Non Current Assets	533.8	543.9	534.7	524.4	516.1	509.8	500.0	492.6	482.2	468.5	461.6	455.0	447.9	442.2	435.9
Net Current Assets	73.0	62.1	61.9	61.5	60.6	63.5	67.7	71.6	75.5	80.7	85.0	89.1	93.3	97.1	101.0
Total Assets Less Current Liabilities	606.9	606.0	596.6	585.9	576.7	573.3	567.7	564.3	557.7	549.1	546.5	544.1	541.2	539.3	536.9
Total Non Current Liabilities	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)
Total Assets Employed	602.0	601.1	591.7	581.1	571.8	568.4	562.8	559.4	552.8	544.2	541.7	539.2	536.3	534.4	532.0

6.3.3 Summary Statement of Cash Flow

The summary forecast of Cash flow for the Trust is set out in Figure 6-I. The cash position is maintained in these assumptions by additional non recurrent Better Value in year where required.

Figure 6-I: Normalised Cash Flow

	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Opening cash balance	48.6	56.5	45.3	44.6	43.4	41.3	41.4	43.7	45.0	46.7	51.7	55.6	59.3	63.1	66.3
Net increase / (decrease) in cash and cash equivalent	7.9	(11.1)	(0.7)	(1.3)	(2.1)	0.1	2.3	1.3	1.7	4.9	3.9	3.8	3.8	3.2	3.3
Closing cash balance prior to loan capital (incl. P	56.5	45.3	44.6	43.4	41.3	41.4	43.7	45.0	46.7	51.7	55.6	59.3	63.1	66.3	69.6

6.3.4 Historic and Projected CIP / QIPP Plans

The savings requirement is in line with the levels of savings that the Trust has already managed to achieve in recent years but the on-going pressures arising principally through changes to national tariffs and a number of committed service developments e.g. EPR, ZCR etc. mean that the required level of CIP delivery remains high for the short to medium term. The Trust has been improving its delivery of Better Value requirements year on year (see Figure 6-J).

Figure 6-J: Historic Achievement against CIP

Recurrent (£m)	2016/17	2017/18	2018/19
Actual delivery	£11.2m	£10.7m	£12.3m
Better Value Target	£15.0m	£15.0m	£15.0m
Difference	(£3.8m)	(£4.3m)	(£2.7m)

Though savings delivery has remained strong in this time, the Trust has been able to achieve its financial position year on year through other means, these have included income over delivery in year and non-recurrent measures.

The Trust has also been required to achieve commissioner QIPP targets year on year and with the move to system wide control totals, it is reasonable to assume that the ask for further QIPP schemes will increase and will suppress tariff growth in future years. The Trust has generally been successful in achieving its QIPP targets year on year and has predominantly delivered these through savings on drugs that it was able to pass on to commissioners (Figure 6-K).

Figure 6-K: Historic Achievement against QIPP

Recurrent (£m)	2016/17	2017/18	2018/19
Actual delivery	£1.8m	£6.6m	£6.7m*
QIPP Target	£6.4m	£7.6m	£8.7m
Difference	(£4.6m)	(£1.0m)	(£2.0m)
*Denotes estimate as the final QIPP settlement was included within the final block contract settlement agreed with NHSE.			

6.4 Capital Requirements

The total capital cost for the CCC is £257.7m (see Figure 6-L). £250m of the funding for the project will be provided by GOSHCC who may build the new facility if the preferred option of a land and buildings swap with the Charity is agreed with regulators. The Trust would then lease the property from 1 April 2026 on a commercial rental. The Trust will fund their proportion initial decanting costs/enabling works associated with the project. This is currently estimated at £8m (rounded figure). The Trust will also fund any additional costs caused by overruns.

The capital cost includes a planning contingency of £13.7 million which represents approximately 10% of the total capital build cost of the project. This capital contingency is based on a varying level of contingency for each element of capital expenditure based on the level of risk assumed to be associated with that proportion of expenditure. Optimism bias is included separately from the planning contingency in the capital costs.

Figure 6-L: Total Capital Cost Summary (including cashflow)

Values	2019/20 £m	2020/21 £m	2021/22 £m	2022/23 £m	2023/24 £m	2024/25 £m	2025/26 £m	2026/27 £m	Grand Total
Construction	-	-	-	8.7	41.6	43.2	4.7	1.5	99.8
Fees	2.9	4.4	2.9	2.5	2.2	2.5	1.8	0.2	19.3
Equipment	-	-	-	-	-	5.5	14.0	-	19.5
Non-Works	-	-	1.9	2.3	1.5	0.8	1.7	-	8.3
Planning Contingency / Risk	0.3	0.4	0.4	1.2	4.0	4.6	2.0	0.1	13.1
Optimism Bias	-	0.6	0.8	2.4	7.9	9.1	3.9	0.3	24.9
Inflation	0.7	1.2	1.4	3.9	13.2	15.1	6.4	0.5	42.4
VAT	-	-	0.6	0.7	0.5	1.1	2.7	-	5.5
Enabling	0.4	7.3	14.6	2.4	0.3	-	-	-	25.0
Total	4.3	13.8	22.7	24.1	71.3	81.8	37.2	2.6	257.7

The costs in Figure 6-L are the projected total build costs of the project. Of this, the majority of works would be undertaken by the Charity and hence this Figure is likely to be for reference only. In this case the actual committed capital costs to the Trust relate only to those in Figure 6-M. Note that the Trust has a working assumption of a rounded figure of £8m contribution.

Figure 6-M: Total Trust Capital Cost Expenditure (including cashflow)

	2019/20 £m	2020/21 £m	2021/22 £m	Grand Total
Trust funded enabling works	2.9	2.4	2.3	7.7

6.5 Sources of Funding

The capital works for the project will be funded by the Charity and they will undertake the majority of the works. The Trust is sited in land and buildings which are owned by either the NHS or the charity, with additional space rented in commercial properties and in facilities owned by other NHS providers.

The proposed footprint of the new CCC is currently a mixture of Trust and Charity owned land and buildings. Therefore to enable the charity to build the new centre and equip it accordingly, it is proposed that assets of equal value are exchanged such that the Charity owns the full footprint of the proposed new facility but the NHS retains the same level of assets by receiving a building of equivalent value that it currently utilises from the charity. Outline discussions have been

undertaken with NHSI who appear comfortable with the approach however approval will be required via the agreed gateways to confirm this before any asset transfer could proceed. The Trust will undertake this work alongside the development of the FBC, pending approval of the OBC.

On completion of the new building, the Trust would then lease the property at commercial rates which will be agreed between the Trust and GOSHCC.

The remainder of the costs will be funded by the Trust and will cover the enabling works associated with the project. This is currently estimated at £8m (rounded figure). The Trust will also fund any additional costs caused by overruns.

6.6 Forecast Impact on Statement of Comprehensive Income

This section sets out the forecasts SOCI for the Trust based on the latest assumptions (see Figures 6-D), inclusive of the service developments (both set out above) and prior to the inclusion of the costs for CCC Phase 4A. This position includes a better value/savings programme that would be sufficient to meet the required metrics of never going into deficit (maintaining a control total always equal to or better than breakeven) and always maintain cash reserves of at least £40m. This section then also demonstrates the impact of CCC on the Trust's financial position, including the revised savings programme that would be required to achieve the conditions of breakeven and adequate cash.

Figure 6-N: Forecast SOCI (prior to inclusion of any costs relating to CCC)

	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating revenue															
NHS and non-NHS Activity Revenue	324.8	322.5	327.0	328.0	327.5	333.6	339.2	344.3	349.0	350.7	352.4	354.1	355.9	357.6	359.4
Passthrough income	65.9	68.5	71.1	73.1	75.1	79.1	83.2	87.3	91.5	95.0	98.7	102.4	106.4	110.5	114.8
IPP income	61.1	65.4	69.9	74.5	79.3	84.3	89.4	94.7	100.2	102.2	104.2	106.3	108.4	110.6	112.8
Other Operating income	34.3	38.6	37.6	36.5	35.1	35.3	33.7	34.0	34.4	34.7	35.3	36.0	36.6	37.3	38.0
Total operating income	486.0	495.0	505.5	512.1	517.0	532.3	545.6	560.4	575.0	582.6	590.6	598.9	607.3	616.0	624.9
Operating Expenses															
Employee benefits expense	(283.1)	(294.7)	(304.7)	(310.6)	(316.5)	(326.3)	(335.0)	(344.5)	(354.0)	(361.2)	(368.4)	(375.8)	(383.3)	(391.0)	(398.8)
Drug expense	(11.8)	(12.7)	(13.7)	(14.7)	(15.8)	(16.9)	(18.1)	(19.3)	(20.6)	(21.8)	(23.1)	(24.5)	(25.9)	(27.5)	(29.1)
Blood costs	(2.0)	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)	(2.5)	(2.6)	(2.7)	(2.8)	(2.8)	(2.9)	(2.9)	(3.0)	(3.1)
Clinical supplies	(44.1)	(45.6)	(47.2)	(48.8)	(50.3)	(51.8)	(53.3)	(54.7)	(56.1)	(57.2)	(58.3)	(59.5)	(60.6)	(61.8)	(63.0)
Non Clinical Supplies	(5.4)	(5.5)	(5.7)	(5.9)	(6.1)	(6.2)	(6.4)	(6.6)	(6.7)	(6.9)	(7.0)	(7.1)	(7.3)	(7.4)	(7.6)
Other Operating expenses	(50.3)	(54.8)	(56.2)	(57.5)	(58.9)	(60.3)	(61.7)	(63.0)	(64.3)	(65.6)	(66.9)	(68.2)	(69.6)	(71.0)	(72.4)
Operating lease charge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment of receivables	(0.6)	(1.6)	(0.9)	(1.0)	(1.0)	(1.0)	(1.1)	(1.1)	(1.1)	(0.4)	(0.4)	(0.4)	(0.4)	(0.5)	(0.5)
Pass Through expenditure	(65.9)	(68.5)	(71.1)	(73.1)	(75.1)	(79.1)	(83.2)	(87.3)	(91.5)	(95.0)	(98.7)	(102.4)	(106.4)	(110.5)	(114.8)
Better value	0.0	7.3	18.2	21.3	29.8	33.8	38.7	41.3	45.3	52.0	57.8	64.5	71.5	78.8	86.4
Total operating expenditure	(463.2)	(478.4)	(483.4)	(492.6)	(496.3)	(510.4)	(522.7)	(538.0)	(551.9)	(558.9)	(567.8)	(576.4)	(585.0)	(593.8)	(602.7)
EBITDA	22.8	16.7	22.1	19.5	20.7	21.9	22.9	22.4	23.1	23.7	22.8	22.5	22.4	22.3	22.2
Other income and expenses (PDC, dep'n etc.)	(18.7)	(16.7)	(22.1)	(19.5)	(20.7)	(21.8)	(22.9)	(22.3)	(23.1)	(23.7)	(22.8)	(22.5)	(22.3)	(22.3)	(22.2)
Control total	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

The Better Value programme that would be required to deliver the above would be as shown in Figure 6-O.

Figure 6-O: Better Value Programme Requirements

	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
Total non-recurrent savings	7.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total recurrent savings	13.0	14.3	7.2	6.8	8.5	3.9	4.9	2.7	3.9	6.7	5.8	6.6	7.0	7.3	7.6
Total Savings Programme in year	20.0	14.3	10.9	6.8	8.5	3.9	4.9	2.7	3.9	6.7	5.8	6.6	7.0	7.3	7.6
Total cumulative recurrent savings	13.0	27.3	34.5	41.3	49.8	53.8	58.7	61.3	65.3	72.0	77.8	84.5	91.5	98.8	106.5

Figure 6-P sets out the revised SOCI after the impact of CCC has been modelled within the position. This includes the additional running costs that will be incurred after the opening of the centre but includes the enabled growth and therefore income and margin that will be delivered as a consequence of the increase to the Trust's bed base.

Figure 6-P: Forecast SOCI (including costs relating to CCC)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating revenue															
NHS and non-NHS Activity Revenue	324.8	322.5	327.0	328.0	327.5	333.6	339.2	344.3	349.0	353.3	357.7	361.8	365.6	369.0	372.4
Passthrough income	65.9	68.5	71.1	73.1	75.1	79.1	83.2	87.3	91.5	95.7	100.2	104.7	109.3	114.0	118.9
IPP income	61.1	65.4	69.9	74.5	79.3	84.3	89.4	94.7	100.2	105.8	111.6	117.7	123.9	130.3	137.1
Other Operating income	34.3	38.6	37.6	36.5	35.1	35.3	33.7	34.0	34.4	34.7	35.3	36.0	36.6	37.3	38.0
Total operating income	486.0	495.0	505.5	512.1	517.0	532.3	545.6	560.4	575.0	589.6	604.9	620.2	635.5	650.6	666.3
Operating Expenses															
Employee benefits expense	(283.1)	(294.7)	(304.7)	(310.6)	(316.5)	(326.3)	(335.0)	(345.5)	(355.0)	(365.2)	(376.7)	(385.7)	(397.3)	(406.9)	(416.7)
Drug expense	(11.8)	(12.7)	(13.7)	(14.7)	(15.8)	(16.9)	(18.1)	(19.3)	(20.6)	(21.9)	(23.4)	(24.8)	(26.4)	(28.0)	(29.7)
Blood costs	(2.0)	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)	(2.5)	(2.6)	(2.7)	(2.8)	(2.9)	(3.0)	(3.1)	(3.2)	(3.3)
Clinical supplies	(44.1)	(45.6)	(47.2)	(48.8)	(50.3)	(51.8)	(53.3)	(54.7)	(56.1)	(57.4)	(58.8)	(60.1)	(61.4)	(62.6)	(63.8)
Non Clinical Supplies	(5.4)	(5.5)	(5.7)	(5.9)	(6.1)	(6.2)	(6.4)	(6.6)	(6.7)	(6.9)	(7.0)	(7.2)	(7.3)	(7.4)	(7.6)
Other Operating expenses	(50.3)	(54.8)	(55.7)	(56.7)	(58.1)	(59.4)	(66.7)	(71.0)	(72.5)	(74.6)	(76.1)	(77.7)	(79.2)	(80.7)	(82.3)
Operating lease charge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment of receivables	(0.6)	(1.6)	(0.9)	(1.0)	(1.0)	(1.0)	(1.1)	(1.1)	(1.1)	(1.2)	(1.2)	(1.3)	(1.3)	(1.3)	(1.4)
Pass Through expenditure	(65.9)	(68.5)	(71.1)	(73.1)	(75.1)	(79.1)	(83.2)	(87.3)	(91.5)	(95.7)	(100.2)	(104.7)	(109.3)	(114.0)	(119.0)
Better value	0.0	7.4	15.1	24.6	31.4	33.3	44.1	50.6	54.5	60.0	64.2	66.9	72.3	76.1	80.0
Total operating expenditure	(463.2)	(478.3)	(486.1)	(488.5)	(493.9)	(510.0)	(522.3)	(537.7)	(551.9)	(565.8)	(582.0)	(597.6)	(613.0)	(628.1)	(643.7)
EBITDA	22.8	16.8	19.5	23.6	23.1	22.3	23.3	22.7	23.1	23.7	22.8	22.6	22.5	22.5	22.5
Other income and expenses (PDC, dep'n etc.)	(18.7)	(16.7)	(18.5)	(19.8)	(21.2)	(22.3)	(23.3)	(22.7)	(23.1)	(23.7)	(22.8)	(22.6)	(22.5)	(22.5)	(22.5)
Control total	4.1	0.0	1.0	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

The financial investment and saving requirements to deliver this position then changes as shown in Figure 6-Q.

Figure 6-Q: Financial Investment and Saving Requirements

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Total non-recurrent savings	7.0	0.0	0.5	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total recurrent savings	13.0	14.4	7.2	6.2	8.6	3.8	10.7	6.6	3.8	5.5	4.2	2.6	5.4	3.7	3.9
Total Savings Programme in year	20.0	14.4	7.7	9.9	10.5	3.8	10.7	6.6	3.8	5.5	4.2	2.6	5.4	3.7	3.9
Total cumulative recurrent savings	13.0	27.4	34.6	40.9	49.5	53.3	64.1	70.6	74.5	80.0	84.2	86.9	92.3	96.1	100.0

The impact on the Trust's SOCI base case in comparison to the position with the CCC is shown at Figure 6-R.

Figure 6-R: Impact on Trust's SOCI (CCC vs Base Case)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating revenue															
NHS and non-NHS Activity Revenue	-	-	-	-	-	-	-	-	-	2.6	5.3	7.7	9.7	11.3	13.0
Passthrough income	-	-	-	-	-	-	-	-	-	0.7	1.5	2.3	3.0	3.5	4.1
IPP income	-	-	-	-	-	-	-	-	-	3.6	7.4	11.4	15.5	19.7	24.3
Other Operating income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total operating income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	14.2	21.3	28.2	34.6	41.3
Operating Expenses															
Employee benefits expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(1.0)	(1.0)	(4.0)	(8.3)	(10.0)	(14.0)	(15.9)	(17.9)
Drug expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.1)	(0.2)	(0.4)	(0.5)	(0.5)	(0.6)
Blood costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)
Clinical supplies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.2)	(0.5)	(0.7)	(0.8)	(0.8)	(0.8)
Non Clinical Supplies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Other Operating expenses	0.0	0.0	0.5	0.8	0.8	0.9	(5.0)	(8.0)	(8.2)	(9.0)	(9.2)	(9.4)	(9.6)	(9.8)	(10.0)
Operating lease charge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment of receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.8)	(0.8)	(0.8)	(0.9)	(0.9)	(0.9)
Pass Through expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.7)	(1.5)	(2.3)	(3.0)	(3.5)	(4.2)
Better value	0.0	0.1	(3.1)	3.3	1.6	(0.4)	5.4	9.3	9.2	8.0	6.4	2.4	0.8	(2.7)	(6.4)
Total operating expenditure	0.0	0.1	(2.6)	4.0	2.4	0.4	0.4	0.3	(0.0)	(7.0)	(14.2)	(21.2)	(28.0)	(34.3)	(41.0)
EBITDA	0.0	0.1	(2.6)	4.0	2.4	0.4	0.4	0.3	(0.0)	0.0	0.0	0.1	0.2	0.2	0.3
Other income and expenses (PDC, dep'n etc.)	0.0	(0.1)	3.6	(0.4)	(0.4)	(0.4)	(0.4)	(0.3)	0.0	0.0	(0.0)	(0.1)	(0.2)	(0.3)	(0.3)
Control total	0.0	0.0	1.0	3.7	1.9	(0.0)	(0.0)	(0.0)	0.0	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)

The changes to the better value programme that would be required to deliver the required conditions of breakeven and £40m cash surpluses are set out in Figure 6-S.

Figure 6-S: Changes Required to the Better Value Programme

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Total change to non-recurrent savings	0.0	0.0	(3.2)	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total change to recurrent savings	0.0	0.1	0.0	(0.5)	0.1	(0.1)	5.9	3.9	(0.1)	(1.2)	(1.6)	(4.0)	(1.6)	(3.6)	(3.7)
Total change to EPR programme savings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total changes to Savings Programme in year	0.0	0.1	(3.2)	3.2	2.0	(0.1)	5.9	3.9	(0.1)	(1.2)	(1.6)	(4.0)	(1.6)	(3.6)	(3.7)
Total change to required recurrent savings	0.0	0.1	0.1	(0.4)	(0.3)	(0.4)	5.4	9.3	9.2	8.0	6.4	2.4	0.8	(2.7)	(6.5)

The opening of CCC requires the Trust to meet more savings in the years post opening due to the additional increased costs for running the new building (rent, rates, hard & soft FM etc.). However, without CCC, the Trust would exceed its capacity and with the increased beds that the building provides, the Trust is able to grow its income base in the latter years of the model. This increased growth and margin (including further growth for IPP) offsets the need to deliver savings for inflationary pressures that exist within the base case. However, in order to afford CCC, the Trust will need to deliver higher savings during the first 7 years of the model.

6.7 Forecast Impact on Statement of Financial Position

The current forecast SOFP is as shown in Figure 6-T.

Figure 6-T: Forecast SOFP (prior to inclusion of any costs relating to CCC)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Property, Plant & Equipment - Total	483.6	495.2	488.1	479.9	473.6	464.6	453.0	444.1	432.9	418.3	411.2	405.1	398.7	394.6	390.0
Intangible assets - Total	44.3	42.3	40.2	38.1	36.1	38.5	40.3	41.5	42.2	43.0	43.1	42.6	41.8	40.1	38.3
Trade and other receivables	6.0	6.4	6.4	6.4	6.4	6.7	6.8	7.0	7.1	7.1	7.2	7.3	7.4	7.5	7.7
Total Non Current Assets	533.8	543.9	534.7	524.4	516.1	509.8	500.0	492.6	482.2	468.5	461.6	455.0	447.9	442.2	435.9
Inventories	9.4	9.7	10.1	10.5	11.0	11.4	11.8	12.3	12.7	13.1	13.5	13.9	14.3	14.8	15.2
Trade and other receivables	87.4	85.1	87.3	89.9	92.7	97.3	100.8	105.0	108.8	110.3	112.1	113.9	115.8	117.8	120.0
Cash and cash equivalents (excluding loan capital)	56.5	45.3	44.6	43.4	41.3	41.4	43.7	45.0	46.7	51.7	55.6	59.3	63.1	66.3	69.7
Total Current Assets	153.3	140.1	142.0	143.8	145.0	150.1	156.4	162.3	168.2	175.1	181.2	187.1	193.2	198.9	204.8
Total Current Liabilities	(80.3)	(78.1)	(80.2)	(82.3)	(84.4)	(86.6)	(88.7)	(90.7)	(92.7)	(94.4)	(96.2)	(98.0)	(99.9)	(101.8)	(103.9)
Net Current Assets	73.0	62.1	61.9	61.5	60.6	63.5	67.7	71.6	75.5	80.7	85.0	89.1	93.3	97.1	101.0
Total Assets Less Current Liabilities	606.9	606.0	596.6	585.9	576.7	573.3	567.7	564.3	557.7	549.1	546.5	544.1	541.2	539.3	536.9
Total Non Current Liabilities	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)
Total Assets Employed	602.0	601.1	591.7	581.1	571.8	568.4	562.8	559.4	552.8	544.2	541.7	539.2	536.3	534.4	532.0

The revised forecast SOFP after inclusion of the additional costs of CCC is as shown at Figure 6-U.

Figure 6-U: Forecast SOFP (including additional costs and savings relating to CCC)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Property, Plant & Equipment - Total	483.6	495.6	493.5	487.5	481.0	471.9	460.1	443.9	432.5	417.7	410.5	404.2	397.7	393.4	388.6
Intangible assets - Total	44.3	42.3	40.2	38.1	36.1	38.5	40.3	41.5	42.2	43.0	43.1	42.6	41.8	40.1	38.3
Trade and other receivables	6.0	6.4	6.4	6.4	6.4	6.7	6.8	7.0	7.1	7.2	7.3	7.5	7.6	7.8	7.9
Total Non Current Assets	533.8	544.3	540.1	532.0	523.5	517.1	507.1	492.4	481.8	468.0	461.0	454.3	447.1	441.3	434.8
Inventories	9.4	9.7	10.1	10.5	11.0	11.4	11.8	12.3	12.7	13.1	13.6	14.1	14.5	15.0	15.5
Trade and other receivables	87.4	85.1	87.3	89.9	92.7	97.3	100.8	105.0	108.8	112.7	116.9	121.2	125.7	130.3	135.1
Cash and cash equivalents (excluding loan capital)	56.5	45.0	40.0	40.0	40.0	40.2	46.0	49.2	51.2	54.5	56.3	57.9	59.4	60.2	61.0
Total Current Assets	153.3	139.8	137.4	140.5	143.7	148.9	158.7	166.5	172.6	180.3	186.8	193.2	199.5	205.5	211.6
Total Current Liabilities	(80.3)	(78.1)	(79.9)	(81.8)	(84.0)	(86.1)	(91.5)	(95.3)	(97.3)	(99.7)	(101.8)	(103.9)	(106.0)	(108.1)	(110.3)
Net Current Assets	73.0	61.7	57.5	58.6	59.8	62.8	67.2	71.3	75.3	80.6	85.0	89.2	93.5	97.4	101.4
Total Assets Less Current Liabilities	606.9	606.0	597.6	590.6	583.3	579.9	574.3	563.6	557.1	548.5	545.9	543.5	540.6	538.7	536.2
Total Non Current Liabilities	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)	(4.9)
Total Assets Employed	602.0	601.1	592.7	585.7	578.4	575.0	569.4	558.7	552.2	543.6	541.1	538.6	535.7	533.8	531.3

The difference between Figure 6-T and 6-U is shown at Figure 6-V.

Figure 6-V: Impact of SOFP (CCC vs Base Case)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Property, Plant & Equipment - Total	0.0	0.4	5.4	7.6	7.4	7.3	7.1	(0.2)	(0.4)	(0.6)	(0.7)	(0.9)	(1.0)	(1.2)	(1.3)
Intangible assets - Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trade and other receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3
Total Non Current Assets	0.0	0.4	5.4	7.6	7.4	7.3	7.1	(0.2)	(0.4)	(0.5)	(0.6)	(0.7)	(0.8)	(0.9)	(1.1)
Inventories	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3
Trade and other receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.8	7.3	9.9	12.5	15.2
Cash and cash equivalents (excluding loan capital)	0.0	(0.3)	(4.7)	(3.4)	(1.3)	(1.2)	2.3	4.2	4.4	2.8	0.7	(1.5)	(3.7)	(6.1)	(8.6)
Total Current Assets	0.0	(0.3)	(4.7)	(3.4)	(1.3)	(1.2)	2.3	4.2	4.4	5.2	5.7	6.1	6.4	6.6	6.8
Total Current Liabilities	0.0	0.0	0.3	0.5	0.5	0.5	(2.9)	(4.6)	(4.7)	(5.3)	(5.7)	(6.0)	(6.2)	(6.3)	(6.4)
Net Current Assets	0.0	(0.3)	(4.4)	(2.9)	(0.8)	(0.7)	(0.5)	(0.4)	(0.2)	(0.1)	0.0	0.1	0.2	0.3	0.4
Total Assets Less Current Liabilities	0.0	0.0	1.0	4.7	6.6	6.6	6.6	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.7)
Total Non Current Liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Assets Employed	0.0	0.0	1.0	4.7	6.6	6.6	6.6	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.7)

Due to the proposed procurement method including the GOSHCC exchanging assets of an equivalent value with the Trust and then undertaking the majority of the works, there are minimal balance sheet impacts on the Trust. The majority of assumptions on capital spend by the trust remain consistent between the base case and the preferred solution. No assumptions are made in the above for any cost over-runs on the project that the Trust would have to fund.

Note: no adjustments have been made for the implementation of IFRS 16 within these numbers. Assuming the OBC is approved, the FBC will account for the inclusion of the full value of the lease on the Trust's asset base.

6.8 Forecast Impact on Cash Flow

The current forecast cash flow is as shown at Figure 6-W.

Figure 6-W: Forecast Cash Flow (prior to inclusion of any costs relating to CCC)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating surplus	37.2	7.4	(0.7)	(1.9)	(0.5)	5.4	3.2	5.3	2.1	0.0	5.9	5.9	5.3	6.1	5.5
Net cash generated / (used in) operations	30.5	19.2	21.4	18.4	19.4	18.5	20.7	19.4	20.6	23.3	22.1	21.8	21.7	21.4	21.3
Net cash generated / (used in) investing activities	(14.6)	(21.7)	(13.0)	(10.5)	(12.2)	(9.2)	(9.2)	(8.9)	(9.8)	(9.3)	(9.3)	(9.3)	(9.3)	(9.7)	(9.7)
Net cash inflow / (outflow) before financing	15.9	(2.4)	8.4	7.8	7.1	9.3	11.6	10.5	10.8	14.0	12.8	12.5	12.4	11.7	11.7
Net cash outflow from financing	(8.0)	(8.7)	(9.1)	(9.1)	(9.2)	(9.2)	(9.2)	(9.2)	(9.1)	(9.0)	(8.9)	(8.7)	(8.6)	(8.5)	(8.3)
Net increase / (decrease) in cash and cash equivalent	7.9	(11.1)	(0.7)	(1.3)	(2.1)	0.1	2.3	1.3	1.7	4.9	3.9	3.8	3.8	3.2	3.3
Opening cash balance	48.6	56.5	45.3	44.6	43.4	41.3	41.4	43.7	45.0	46.7	51.7	55.6	59.3	63.1	66.3
Net increase / (decrease) in cash and cash equivalent	7.9	(11.1)	(0.7)	(1.3)	(2.1)	0.1	2.3	1.3	1.7	4.9	3.9	3.8	3.8	3.2	3.3
Closing cash balance prior to loan capital (incl. P	56.5	45.3	44.6	43.4	41.3	41.4	43.7	45.0	46.7	51.7	55.6	59.3	63.1	66.3	69.6

The revised forecast Cash flow after inclusion of the additional costs of CCC is as shown in Figure xx.

Figure 6-X: Forecast Cash Flow (including additional costs and savings relating to CCC)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating surplus	37.2	7.4	0.3	1.9	1.7	5.7	3.5	(1.8)	2.0	(0.1)	5.8	5.9	5.3	6.2	5.7
Net cash generated / (used in) operations	30.5	19.3	18.5	22.2	21.7	18.9	24.2	21.2	20.7	21.4	19.9	19.5	19.4	19.1	19.0
Net cash generated / (used in) investing activities	(14.6)	(22.1)	(14.5)	(12.9)	(12.3)	(9.2)	(8.8)	(8.7)	(9.8)	(9.2)	(9.3)	(9.3)	(9.3)	(9.7)	(9.7)
Net cash inflow / (outflow) before financing	15.9	(2.8)	4.1	9.4	9.5	9.7	15.3	12.5	10.9	12.2	10.6	10.3	10.1	9.4	9.4
Net cash outflow from financing	(8.0)	(8.7)	(9.1)	(9.3)	(9.4)	(9.5)	(9.5)	(9.3)	(8.9)	(8.9)	(8.8)	(8.7)	(8.6)	(8.6)	(8.5)
Net increase / (decrease) in cash and cash equivalent	7.9	(11.5)	(5.0)	0.0	0.0	0.2	5.8	3.2	2.0	3.3	1.8	1.6	1.5	0.8	0.8
Opening cash balance	48.6	56.5	45.0	40.0	40.0	40.0	40.2	46.0	49.2	51.2	54.5	56.3	57.9	59.4	60.2
Net increase / (decrease) in cash and cash equivalent	7.9	(11.5)	(5.0)	0.0	0.0	0.2	5.8	3.2	2.0	3.3	1.8	1.6	1.5	0.8	0.8
Closing cash balance prior to loan capital (incl. P	56.5	45.0	40.0	40.0	40.0	40.2	46.0	49.2	51.2	54.5	56.3	57.9	59.4	60.2	61.0

The revised forecast Cash flow after inclusion of the additional costs of CCC is shown at Figure 6-Y.

Figure 6-Y: Forecast Cash Flow Impact (CCC vs. Base Case)

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating surplus	0.0	0.0	1.0	3.9	2.2	0.3	0.2	(7.1)	(0.2)	(0.1)	(0.1)	(0.1)	0.0	0.1	0.2
Net cash generated / (used in) operations	0.0	0.1	(2.9)	3.9	2.4	0.4	3.4	1.8	0.1	(1.9)	(2.2)	(2.3)	(2.3)	(2.3)	(2.3)
Net cash generated / (used in) investing activities	0.0	(0.4)	(1.5)	(2.4)	(0.0)	(0.0)	0.3	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Net cash inflow / (outflow) before financing	0.0	(0.3)	(4.3)	1.5	2.4	0.4	3.8	2.0	0.1	(1.8)	(2.2)	(2.2)	(2.3)	(2.3)	(2.3)
Net cash outflow from financing	0.0	0.0	(0.0)	(0.2)	(0.3)	(0.3)	(0.3)	(0.1)	0.2	0.2	0.1	0.0	(0.0)	(0.1)	(0.2)
Net increase / (decrease) in cash and cash equivalent	0.0	(0.3)	(4.3)	1.3	2.1	0.1	3.5	1.9	0.2	(1.6)	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)
Opening cash balance	0.0	0.0	(0.3)	(4.7)	(3.4)	(1.3)	(1.2)	2.3	4.2	4.4	2.8	0.7	(1.5)	(3.7)	(6.1)
Net increase / (decrease) in cash and cash equivalent	0.0	(0.3)	(4.3)	1.3	2.1	0.1	3.5	1.9	0.2	(1.6)	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)
Closing cash balance prior to loan capital (incl. P	0.0	(0.3)	(4.7)	(3.4)	(1.3)	(1.2)	2.3	4.2	4.4	2.8	0.7	(1.5)	(3.7)	(6.1)	(8.6)

6.9 Projected CIPs / QIPP Plans

The Trust will be required to deliver the Better Value programme as shown in Figure 6-L in order to achieve the levels off savings required to achieve the CCC Phase 4A business case and adhere to the agreed limits of breakeven and retaining £40m + cash in hand every year.

Figure 6-Z: Projected CIP / QIPP Plans

	Mar -20	Mar -21	Mar -22	Mar -23	Mar -24	Mar -25	Mar -26	Mar -27	Mar -28	Mar -29	Mar -30	Mar -31	Mar -32	Mar -33	Mar -34
Total non-recurrent savings	7.0	0.0	0.5	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total recurrent savings	13.0	14.4	7.2	6.2	8.6	3.8	10.7	6.6	3.8	5.5	4.2	2.6	5.4	3.7	3.9
Total Savings Programme in year	20.0	14.4	7.7	9.9	10.5	3.8	10.7	6.6	3.8	5.5	4.2	2.6	5.4	3.7	3.9
Total cumulative recurrent savings	13.0	27.4	34.6	40.9	49.5	53.3	64.1	70.6	74.5	80.0	84.2	86.9	92.3	96.1	100.0

Delivery of the better Value programme will form part of the Trust's annual planning cycle and will be affected by historic delivery levels and any of the sensitivities that have been explored within this model. It remains a key requirement for the Trust to maintain its financial health for the future.

An indicative savings and efficiency programme is set out at Figure 6-AA noting high level areas that will be used to drive the required efficiencies arising within the Trust and from this Business Case.

Note: as these schemes are developed through planning, the themes will be quantified into a multi-year efficiency programme.

Figure 6-AA: Outline Better Value themes for delivering required recurrent savings for CCC

Assumptions assumed within the Long Term Financial Model

EPR	<p>A number of schemes were identified as part of the EPR Business case which have been assumed to deliver in future years, these include the following:</p> <ul style="list-style-type: none"> • Further reduction in 3rd party license costs as systems are sunset which will have recurrent full year effects in subsequent years. • The closure of one data centre. • Reductions in ICT staff. • Reduced use of paper, printing, postage and stationery. • Additional benefits arising from coding and data capture. <p>EPR remains a key enabler for data optimisation and will be a conduit for identifying further efficiencies arising from the increased data oversight that will then be available to the Trust in future years.</p>
Theatre Efficiency and Flow	<p>Theatre utilisation is linked to and enables other aspects of the Trust's flow programme. There are opportunities to save costs in theatres by improving planning and reducing the number of cancellations or lists which are not full or not making the best use of theatre capacity.</p>
Length of Stay analysis	<p>The development of new care pathway will help us to be able to measure and then address unwarranted clinical variation. Staff will be guided to the appropriate next action in terms of treatment which then facilitates a reduced length of stay or reduction wasted demand for e.g. unnecessary admissions or unwarranted diagnostics.</p>
Optimisation of ICT	<p>Telemedicine / Telehealth will allow for a reduction in admissions to the Trust benefitting patients and allowing for the potential staffing efficiencies. By moving 10% of OP appointments to virtual clinics, the overall costs (e.g. infrastructure, supporting staff such as admin / play etc.) of running existing services would offer more opportunities to make more efficiencies within the existing estate through future technology developments.</p>

Assumptions assumed within the Long Term Financial Model

Commercial Opportunities	The LTFM already assumes a significant degree of commercial growth within the model. However, there are further opportunities to increase income growth including through the optimisation of some of the Trust's commercial activities including through maximising its use of DRIVE and through other commercial opportunities including the development of more of the domestic private patient market.
Other savings	<p>A number of other schemes will be developed to contribute to the delivery of Better Value not connected with the above and include:</p> <ul style="list-style-type: none"> • The reduction in costs within the supply chain due to securing better pricing, reductions in cost due to selecting cheaper alternative products where we currently have variance, standardisation of equipment used (especially making use of the preference cards for theatre procedures) and reducing costs for equipment due to better forward planning. • Reduction in waste – across multiple areas including drugs and consumables. • Catering –following the recent insourcing of the catering function, there is more possibility to minimise wastage. • Education opportunities including for international fellowships and observer-ships is a key strategic objective to the Trust and it is anticipated that GOSH can leverage some of its reputation and teaching capabilities to deliver more opportunities to both domestic and international customers.

6.10 Impairments

The enabling works involve the alteration/upgrade of accommodation in several buildings around the Trust. This is to provide suitable space for departments moving out of the Frontage Building which will be demolished to provide the site of the new Children's Cancer Centre. Previous valuations of the Trust's estate have demonstrated that alterations/upgrades of this nature do not increase the value of the buildings by the equivalent of the cost of the works.

Therefore it is expected that the Trust will incur an impairment when these buildings are next revalued following the enabling works. This has been estimated at c. £7.2m of in the model and it has been assumed that this will not contribute to the Trust's control total in line with NHSI guidance.

6.11 Procurement Costs

The full anticipated procurement costs associated with the development and implementation of the preferred option are included within the costings within this OBC.

6.12 VAT

Implementation of the preferred solution may entail GOSHCC undertaking the majority of the capital works on the project using land and buildings that has been swapped with the Charity and Trust. The Trust will therefore not be responsible for the majority of the capital works on the project

and hence the majority of the VAT liability sits with GOSHCC. The Trust will be unable to recover any VAT on the subsequent rental agreed with the Trust from the opening of the new centre.

For the purposes of presenting the capital costs, VAT recovery on individual elements i.e. equipment, fees and Works Cost is shown in the OB capital cost forms at Appendix 4-2. This reflects the above commercial deal.

6.13 Risks to Delivery

There are a number of risks that will impact on the delivery of CCC within the allotted time scales and budgets. These include those shown at Figure 6-BB.

Figure 6-BB: Risks to Delivery

Assumptions assumed within the Long Term Financial Model	
Brexit	<ul style="list-style-type: none"> The potential impacts of Brexit are multi-faceted and the extent to which it may impact on the Trust and the wider financial model are varied. It is reasonable to assume however that it may impact on the following areas: <ul style="list-style-type: none"> Construction costs may increase due to the additional costs of providing staff from non-EU Countries. In turn, the shortage of labour may affect the delivery timescales accordingly. The current assumed costs for inflation may be impacted upon by the wider economic impact of Brexit. Additional above average costs for drugs inflation are already assumed within the model but the provision of Drugs is already flagged as a concern for the proposed October implementation of the Brexit legislation and it is possible that the proposed inflation assumptions increase accordingly.
Delivery of the project to budget	<ul style="list-style-type: none"> As the Trust is liable for any cost over-runs, there will be additional impacts for the Trust if the project is not delivered within the envelope set as GOSH CC has committed only to fund £250m of the project. The Trust has current significant cash reserves that would allow it to fund some degree of overspends that arose on the project and has set a lower capital forecasts in the medium term plan as part of its prudent financial planning that underpins the LTFM. However, over and above this the Trust is reviewing how it can further improve its cash position to mitigate any potential overspend.
Delivery within required timescales	<ul style="list-style-type: none"> The demand and capacity model that drives much of the model assumes that the Trust would run out of capacity in 2028 which drives much of the need to provide CCC. If the timescales for the build slip significantly, this will impact on future demand and hence income recovery. A delay could also lead to the need to provide temporary accommodation arising from changes to the Trust's proposed decanting plans which would increase costs.
Tariff changes	<ul style="list-style-type: none"> The Trust is trying to model the impact of current tariff legislation on the Trust for the next 4 years in line with development of the Long Term Plan. However, legislation in respect of tariff changes remains fluid and the full impact of changes on the Trust's income is challenging to model accurately. Any further changes may affect the current assumptions. Additionally, any changes to the national funding picture e.g. a move to universal block contracts would affect the assumptions further again. The impact of these tariff changes have been reviewed in part in the sensitivity analysis, below.

The impact of risks will continue to be analysed as part of the modelling for the Full Business Case and will be a key line of enquiry during delivery of the case.

6.14 Sensitivity Analysis

In developing the model that is to be used for the development of the OBC, significant sensitivity analysis has been undertaken with operational teams. This includes those shown at Figure 6-CC.

Figure 6-CC: Sensitivity Analysis

Assumptions assumed within the Long Term Financial Model																																																																															
Income and demand scenarios	<ul style="list-style-type: none">The model is driven principally by demand growth for NHS and IPP services. These demand scenarios have been modelled in a number of ways for the OBC to assess how this will increase income and the impact has been discussed with key operational leads.In addition to the above growth, the effect of national pricing changes arising from the tariff have been debated between the Trust operational teams, led by informatics and finance leads. The impact of future demand and price optionality will continue to be assessed as part of the FBC development.The impact of future reductions in tariffs can be significant. From the current assumptions within the model that mirror NHSE/I guidance and the 4 year planning envelope that is available:																																																																														
<table><tr><td></td><td>2020</td><td>2021</td><td>2022</td><td>2023</td><td>2024</td><td>Total</td></tr><tr><td></td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td></td></tr><tr><td>NHS and non-NHS Activity Revenue (current estimates)</td><td>328.2</td><td>326.4</td><td>331</td><td>332.1</td><td>331.8</td><td>1649</td></tr><tr><td>NHS and non-NHS Activity Revenue (with 1% reduction)</td><td>328.2</td><td>323.4</td><td>325</td><td>323.1</td><td>319.6</td><td>1619</td></tr><tr><td>Impact of sensitivity</td><td>0.0</td><td>(2.9)</td><td>(5.9)</td><td>(9.0)</td><td>(12.2)</td><td>(30.0)</td></tr></table>																	2020	2021	2022	2023	2024	Total		£m	£m	£m	£m	£m		NHS and non-NHS Activity Revenue (current estimates)	328.2	326.4	331	332.1	331.8	1649	NHS and non-NHS Activity Revenue (with 1% reduction)	328.2	323.4	325	323.1	319.6	1619	Impact of sensitivity	0.0	(2.9)	(5.9)	(9.0)	(12.2)	(30.0)																													
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These would lead to additional recurrent Better Value requirements as follows:																																																																															
<table><tr><td></td><td>2020</td><td>2021</td><td>2022</td><td>2023</td><td>2024</td><td>Total</td></tr><tr><td>Additional Recurrent Better Value</td><td></td><td>0</td><td>2.9</td><td>3</td><td>3.1</td><td>12.2</td></tr><tr><td>Increase in recurrent better value in year</td><td></td><td>34%</td><td>57%</td><td>58%</td><td>39%</td><td>44%</td></tr></table>																	2020	2021	2022	2023	2024	Total	Additional Recurrent Better Value		0	2.9	3	3.1	12.2	Increase in recurrent better value in year		34%	57%	58%	39%	44%																																											
	2020	2021	2022	2023	2024	Total																																																																									
Additional Recurrent Better Value		0	2.9	3	3.1	12.2																																																																									
Increase in recurrent better value in year		34%	57%	58%	39%	44%																																																																									
Better Value	<ul style="list-style-type: none">The Better Value programme requires delivery of recurrent and non-recurrent means with non-recurrent schemes assumed to meet any cash shortfalls from the proposed £40m de-minimus limit in year. While any better Value schemes delivered in year are welcome, further reliance on non-recurrent schemes adds pressure to future years of the model.Current estimates assume £7m of better Value delivery in 2019/20 from non-recurrent measures i.e. 35% of the total. If the same estimates were assumed for all future Better Value Delivery, the impact on the SOCI and Cash would be significant:																																																																														
<table><tr><td></td><td>Mar-20</td><td>Mar-21</td><td>Mar-22</td><td>Mar-23</td><td>Mar-24</td><td>Mar-25</td><td>Mar-26</td><td>Mar-27</td><td>Mar-28</td><td>Mar-29</td><td>Mar-30</td><td>Mar-31</td><td>Mar-32</td><td>Mar-33</td><td>Mar-34</td></tr><tr><td></td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td><td>£m</td></tr><tr><td>Control total</td><td>4.1</td><td>0.0</td><td>(2.0)</td><td>(1.0)</td><td>(2.0)</td><td>(5.6)</td><td>(6.9)</td><td>(10.6)</td><td>(12.9)</td><td>(14.3)</td><td>(16.2)</td><td>(17.7)</td><td>(18.6)</td><td>(20.6)</td><td>(22.6)</td></tr><tr><td>Increase / (decrease) in cash</td><td>0.0</td><td>(0.3)</td><td>(7.7)</td><td>(11.0)</td><td>(12.9)</td><td>(18.4)</td><td>(21.8)</td><td>(30.6)</td><td>(43.3)</td><td>(59.3)</td><td>(77.6)</td><td>(97.5)</td><td>(118.4)</td><td>(141.3)</td><td>(171.4)</td></tr></table>																	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34		£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	Control total	4.1	0.0	(2.0)	(1.0)	(2.0)	(5.6)	(6.9)	(10.6)	(12.9)	(14.3)	(16.2)	(17.7)	(18.6)	(20.6)	(22.6)	Increase / (decrease) in cash	0.0	(0.3)	(7.7)	(11.0)	(12.9)	(18.4)	(21.8)	(30.6)	(43.3)	(59.3)	(77.6)	(97.5)	(118.4)	(141.3)	(171.4)
	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34																																																																
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m																																																																
Control total	4.1	0.0	(2.0)	(1.0)	(2.0)	(5.6)	(6.9)	(10.6)	(12.9)	(14.3)	(16.2)	(17.7)	(18.6)	(20.6)	(22.6)																																																																
Increase / (decrease) in cash	0.0	(0.3)	(7.7)	(11.0)	(12.9)	(18.4)	(21.8)	(30.6)	(43.3)	(59.3)	(77.6)	(97.5)	(118.4)	(141.3)	(171.4)																																																																
The impact of non-delivery of Better Value remains a key risk to the project and as such, the Trust will need to mitigate any shortfalls in Better Value delivery by other non-recurrent means. It will also need to ensure there is a stepped increase in better Value delivery in the year of opening.																																																																															

- Workforce**
- Reviews of the assumptions for workforce growth within the future years of the model has been undertaken with key operational leads and as such, models for nursing, medical and scientific staff have been amended following these reviews. The appropriate workforce models to use in the future will continue to be assessed and reviewed in light of national guidance.
 - The biggest current demands for growth within the model are for nurses, junior doctors and junior medical workforce. The workforce assumptions have been looked at across the main staffing groups and the sensitivity of the current assumptions is set out below for nursing that are the most significant pressure within the model:

POD	Ratio	/bed	Cost per WTE	Cost per Bed £000's	Impact per 5% increase in nursing / bed
Daycase	1 to 3	per 3 beds	£ 42.7	£ 56.8	£ 2.84
ICU		6.8 per bed	£ 49.9	£ 339.6	£ 16.98
HDU		3.4 per bed	£ 49.9	£ 169.8	£ 8.49
Inpatient		6.6 per bed	£ 44.2	£ 109.8	£ 5.49
Mental Health		2.2 per bed	£ 42.7	£ 94.0	£ 4.70
Total Cost				£ 770	£ 38.50

The assumed 5% pressure on ward nursing would have the following impact on the Trust's SOCI:

	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Total operating expenditure (original)	(463.2)	(478.3)	(486.1)	(488.5)	(493.9)	(510.0)	(522.3)	(537.7)	(551.9)	(565.8)	(582.0)	(597.6)	(613.0)	(628.1)	(643.8)
Total operating expenditure (revised)	(464.6)	(479.7)	(487.6)	(490.1)	(495.6)	(511.7)	(524.1)	(539.5)	(553.8)	(567.8)	(584.1)	(599.7)	(615.2)	(630.4)	(646.1)
Impact on Control Total	(1.4)	(1.4)	(1.5)	(1.6)	(1.6)	(1.7)	(1.8)	(1.8)	(1.9)	(2.0)	(2.0)	(2.1)	(2.2)	(2.3)	(2.3)
Additional recurrent Better Value required	1.4	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0

- Capital**
- The long term capital programme has been developed through review at the Trust's Capital Investment Group (CIG) and through negotiations with the Charity. The current programme is lower than in prior years in order to ensure the Trust is able to meet the constrained cash requirements of delivering CCC. The issue of cost over-runs on the Trust has been modelled to identify what the impact would be if the Trust had to commit more of its capital reserves to the project.

To this end, the impact on the baseline I&E for the Trust has been modelled as follows and assumes that the Trust is liable for:

- An additional 5% of the £250m capital costs that the charity is currently funding.
- An additional 10% of the £250m capital costs that the charity is currently funding.

The impact on the I&E for each case relative to the position required to deliver CCC is as follows:

Impact of 5% cost overrun being funded by the Trust:

	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Impact on Control total	0.0	0.1	0.0	(0.0)	(0.1)	(0.5)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)
Impact on Cash	7.9	(11.7)	(5.7)	(1.1)	(3.7)	(10.8)	5.3	2.6	1.4	2.8	1.3	1.0	1.0	0.3	0.3
Additional recurrent Better Value required	0.0	0.0	0.0	0.0	0.0	0.5	0.4	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	(0.1)
Additional non-recurrent Better Value required	0.0	0.0	0.9	1.1	3.7	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Impact of 10% cost overrun being funded by the Trust:															
	Mar -20 £m	Mar -21 £m	Mar -22 £m	Mar -23 £m	Mar -24 £m	Mar -25 £m	Mar -26 £m	Mar -27 £m	Mar -28 £m	Mar -29 £m	Mar -30 £m	Mar -31 £m	Mar -32 £m	Mar -33 £m	Mar -34 £m
Impact on Control total	0.0	0.1	(0.0)	(0.1)	(0.4)	(0.9)	(1.5)	(1.5)	(1.5)	(1.5)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Impact on Cash	0.0	(0.6)	(2.0)	(3.3)	(6.1)	(17.9)	(1.0)	(1.0)	(1.0)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(2.6)
Additional recurrent Better Value required	0.0	0.0	0.0	(0.1)	(0.2)	(0.1)	6.1	(6.3)	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Additional non-recurrent Better Value required	0.0	0.0	(1.7)	(2.1)	(2.0)	(6.5)	(6.3)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

6.15 Overall Affordability Assessment

The preferred option is affordable to the Trust provided that the significant saving programme is delivered in this time.

6.16 Chapter Appendices

Appendix Number	Appendix Title
6-1	Board to Board meeting minutes

7.0 MANAGEMENT CASE

CHAPTER SYNOPSIS – Management Case

A clear governance structure has been established which is overseen by the CCC Programme Board, which reports to the Trust Board and Charity Trustees (and also Board sub-committees FIC / PAD). Membership of the CCC Programme Board is drawn from across GOSH and GOSHCC. The CCC Programme Board has overall responsibility for delivery of the CCC Phase 4A programme. The Senior Responsible Owner (SRO) and Programme Sponsor is Mat Shaw, Chief Executive, GOSH.

The programme for the new build will be developed and handed over in a single phase. This will be preceded by the enabling works contract, and a series of decants moves.

The key approvals and construction programme milestones are shown below.

Milestone	Start date	End date
OBC Trust Board Approval	September 2018	September 2019
OBC External Approval	October 2019	February 2020
PSCA	November 2019	April 2022
RIBA Stage 2 Design Phase 4A and 4B	September 2019	January 2020
RIBA Stage 3 Design Phase 4A and 4B	February 2020	January 2021
Planning Consent – Phase 4A	February 2021	May 2021
Planning Consent – Phase 4B	February 2021	August 2021
FBC Trust Board Approval	October 2021	October 2021
Contract Award	May 2022	May 2022
Construction - CCC Phase 4A Works	July 2022	July 2022
Project Completion	June 2025	June 2025

The Trust's approach to risk management, in accordance with its internal assurance framework, is designed to ensure that the risks associated with CCC Phase 4A are systemically identified, appraised and action plans developed for effective reduction, elimination and mitigation. The objective of the risk management process is to establish and maintain a 'risk aware' culture that encourages on-going, proactive identification and assessment of Programme risks. The risk register is a live document and is reviewed and updated on a frequent basis, and reported on a monthly basis to the Programme Board.

The Risk Potential Assessment has been completed and concluded the project is Medium Risk. The Trust have procured an external Assurance Review which will be completed in September 2019. The Trust-retained contingency figure of £13.7m excluding VAT and inflation has been included in the capital cost forms. Optimism bias has been assessed and partially mitigated; the retained optimism bias is 14.03%.

GOSH is committed to a process of meaningful stakeholder engagement and communication. It has established formal and informal channels adapting its communications and engagement as far as possible to the methods and frequency preferred by stakeholders. The intention is to continue to maintain significant engagement with key stakeholders, namely GOSH staff, patients and families,

Members' Council, CYPF, local planning authorities and the local community, throughout the CCC Phase 4A Programme. A range of engagement activities have been undertaken, and more are planned during the FBC development and construction works.

The CCC Phase 4A will be funded by philanthropic donations save for a £10m Trust capital contribution to the design costs. There is a commitment from GOSHCC to provide £250m to deliver CCC Phase 4A project and associated enabling works (cost overruns will be funded by GOSH).

A benefits realisation plan (BRP) has been developed with the aim of providing an evidence base to support the intended health, quality and other identified benefits, where that evidence exists, and to quantify the benefits, wherever possible, to ensure that they can be measured and demonstrated over time. This will be further developed during FBC to ensure all benefits have been identified.

7.1 Programme Governance Structure

The Trust and Charity are moving forward with the CCC scheme in partnership. There is a symbiotic relationship where success is mutually delivered and beneficial. There is agreement that an open, honest and transparent partnership is the approach that provides the best conditions for success.

The governance arrangements need to reflect the spirit of partnership at the same time as respecting the statutory responsibilities and accountabilities of the organisations. The programme management arrangements provide clear lines of accountability and responsibility as well as the provision of information and reporting. The Trust and Charity agree that whilst there are individual governance arrangements that cannot be delegated or superseded that effectively this is a joint endeavour.

The Trust and Charity agree that the programme must demonstrate value for money and there is a shared objective to ensure that resources are managed efficiently and effectively to deliver the desired benefits. The parties equally have a shared incentive to ensure costs are appropriately managed maximizing the overall impact of Charity funding.

A clear governance structure has been agreed for the delivery of the CCC. Figure 7-A shows the CCC governance structure. Some key principles reflecting responsibility and accountability:

- A CCC Programme Board has been established, jointly chaired by CEOs. GOSH CEO will be the Senior Responsible Officer (SRO) for the CCC project.
- Day to day delivery of the CCC is the responsibility of the GOSH Built Environment Director who will act as the Programme Director – reporting to the CCC Programme Board and working within the principles and parameters set by the Programme Board.
- The Programme Board reports to the Trust Board and Charity Trustees (and also board sub-committees – FIC and PAD).
- The programme will be subject to external Assurance Reviews. It is assumed the Charity will commission an independent monitoring team.
- Proposal for four groups reporting into the Programme Board.
 - Business case delivery group – Chaired by Chief Nurse.

- Cancer Vision Group
- CCC Programme Team - Chaired by GOSH Director of Built Environment. There are a number of sub-groups reporting into the CCC Programme Team.
- Fundraising panel – Charity to confirm lead and discuss hospital representation.
- The design development group will be responsible for developing the brief and leading the design development process internally and with the design team. This group will be chaired by the Deputy Director of Built Environment. It will report into the Programme Team.
- There is currently a professional team in place appropriate for the stage of the project. This includes cost consultants (Currie and Brown), legal (Michelmores), architectural (James Chapman) and planning (BDP) advice. As the programme proceeds the requirement and scope for additional programme management support will be agreed. A draft scope for the PM role has been developed and the resource will be in place when the PCSA commences. This scope reflects the procurement structure where many of the traditional PM activities are contained within the scope of the contractor led design team. The PM will be part of the CCC Programme Team and report to the Programme Director.
- The 'CEO' group established to develop the revised CCC scheme has broadly been seen as a successful way of bringing the organisations together. It has acted as an informal group to help identify and resolve issues and agree principles. It is proposed the group continues to meet as a less formal forum to discuss issues.

The purpose of each group in relation to CCC programme is shown below:

Trust Board/Charity Board

The Boards responsible for the statutory oversight of the respective organisations. The Boards set the strategic direction and monitor delivery. The Boards will be responsible for oversight of the CCC. At key decision points (e.g. OBC, FBC) Board approval will be required to proceed with the CCC programme.

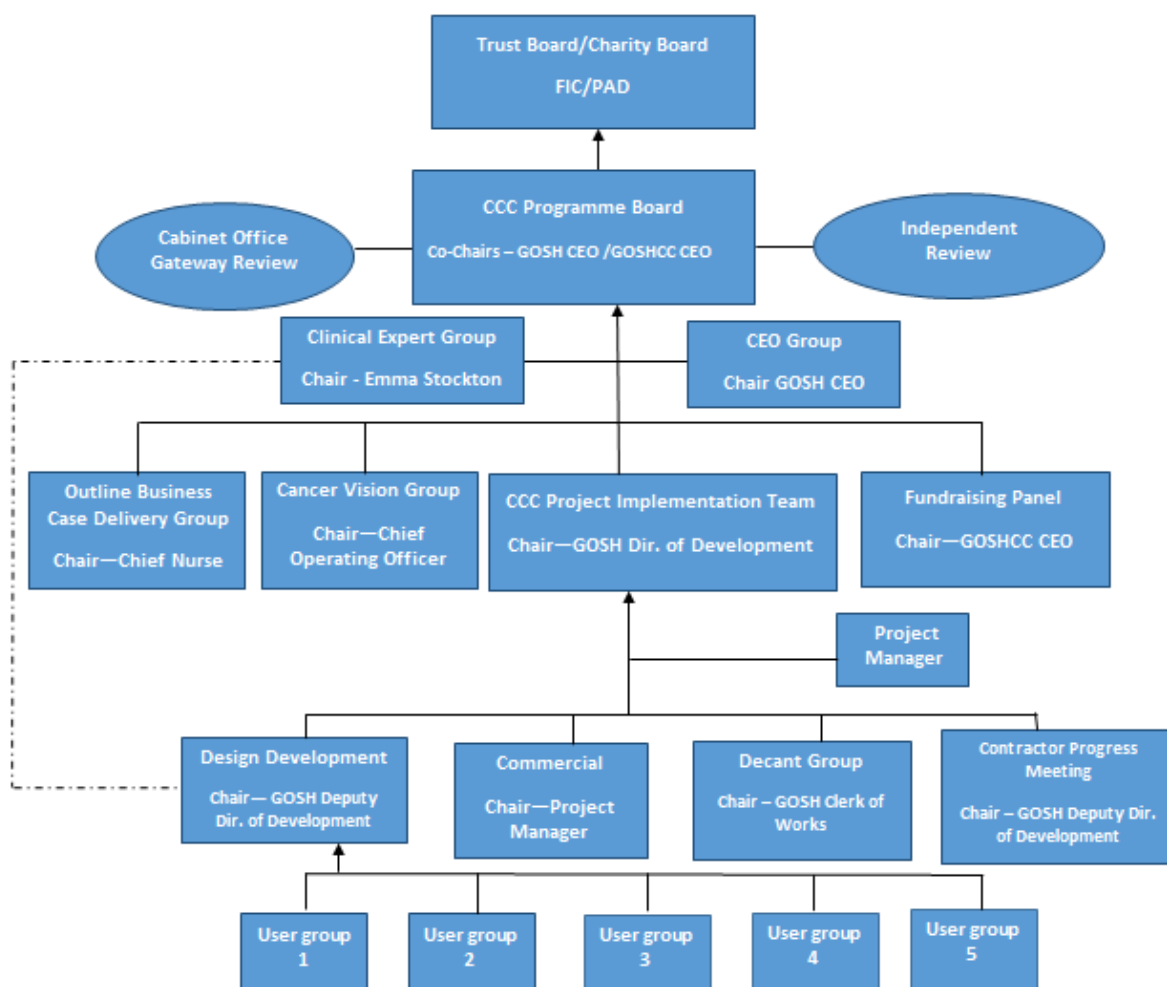
Finance and Investment Committee (FIC) / Property and Development Committee (PAD)

Non-executive and Trustee chaired sub-committees of the Boards. FIC and PAD will provide detailed oversight of the CCC project receiving reports from the CCC Programme Board.

CCC Project Board

- Responsible for the delivery of the CCC vision.
- Oversight of the work streams established to deliver the CCC vision and programme of works.
- Key decision making body ensuring the CCC programme is delivered within agreed parameters.

Figure 7-A: Governance Structure



Cabinet Office Gateway Review

- Independent review of project readiness. External experts appointed by Cabinet Office.
- Reports to the SRO.
- Timing related to key milestones for the project – e.g. OBC, FBC.

Independent Review

- Review team appointed by GOSHCC.
- Will provide technical assurance at key project milestones linked to RIBA design stages.
- On-going attendance at relevant meetings

CCC Project Implementation Team

- Group responsible for delivery of the CCC project from briefing and design through to construction and technical and operational commissioning.

- The group is chaired by the GOSH Development Director.
- Responsibility to deliver the CCC within agreed parameters set by the CCC Programme Board.
- Reports to the CCC Project Board.

Clinical Expert Group

- Purpose is to think about and provide advice on trends in clinical practice and provide guidance and support in ensuring the CCC can respond to potential developments.
- Where there is no clinical consensus on best practice in design issues or where compromises or choices may need to be made the CEG will provide expert advice on how to resolve issues or determine priorities.

CEO Group

- Informal group which includes the CEOs that meets regularly to discuss progress and issues related to the CCC project.
- Not part of the formal decision making process but provides a space for the GOSH and Charity teams to discuss progress and emerging issues.

Fundraising Panel

- GOSHCC group to set the fund raising plan and monitor delivery of the plan.

Outline Business Case Delivery Group

- Chaired by the GOSH Chief Nurse the group oversees the production of the CCC business case.
- Reports to the CCC Programme Board.

Cancer Vision Group

- Sets the strategic vision for cancer services at GOSH
- Identifies and establishes the work streams required to deliver the vision
- Creates the benefits plan and oversees implementation
- Reports to the CCC Programme Board.

Design Development

- Creates the brief for the CCC
- Develops the design of the CCC with the design team
- Co-ordinates and works with users groups and the expert interface with the design team
- Chaired by the GOSH Deputy Development Director

Contractor Progress Meeting

- Reviews progress with the design team/contractor

Decant

- Group responsible for delivering the construction site to the contractor

User Groups

- Numerous user groups set up to ensure user requirements are properly articulated and reflected in the design.
- Managed by the design development group

7.2 Programme Management Arrangements

GOSH has a strong track record of delivering major capital schemes through a number of redevelopment projects from the inception of the current redevelopment programme in 2000. This started with the Phase 1 development which became operational in 2006, and has continued to be demonstrated with the MSCB opening in 2012 and PICB in 2017 both of which were delivered under budget. This evidence demonstrates a culture of cost control. The latest project, the Zayed Centre for Research into Rare Diseases in Children, opens in September 2019, has also demonstrated a strong approach to cost control and change management during the construction phase of the project. It is recognised that the design and procurement phases were challenging, taking place in a rising market, and that the project budget was increased. Lessons have been learnt which are reflected in the CCC procurement approach, described in the Commercial Section, which is set up to provide the conditions most likely to deliver the CCC programme within the agreed financial parameters. The Trust continually evaluates its projects and refines its management approaches accordingly; the 'lessons learned' from Phases 1, 2 and 3 will be applied to the CCC Phase 4A CCC to ensure best practice in delivering major healthcare capital programmes and projects is achieved (see Section 3.12). Formal and independent post project evaluations were conducted on MSCB and PICB.

The Project Initiation Document (PID) for CCC Phase 4A was issued in October 2016 and updated in July 2019 with the purpose of defining CCC Phase 4A of the redevelopment of the GOSH campus, to form the basis for its management and the assessment of overall success. This is summarised below.

The key objectives for managing the project are:

- To create a 'Programme Board' in line with project management processes and governance.
- To create an action log for all work streams to feed into and to ensure that is maintained and regularly updated.
- To undertake regular risk workshops and populate and maintain a working risk register.
- To creating a feasible and robust project plan.
- To undertake a resource gap analysis and procure relevant skills where required.

- To ensure regular work stream (delivery team) meetings set at a frequency that promotes effective delivery.
- To facilitate timely decision making by organising discussions between key individuals, including a stakeholder analysis.
- To ensure every member of the Programme Team is aware of their responsibilities, deliverables and key dates along with how this ties into the overall project delivery.
- To ensure appropriate programme governance arrangements are in place.

7.2.1 Reporting

The CCC project reporting structure aligns with the programme governance structure.

The CCC Programme Board will receive regular progress reports at each meeting as listed at Figure 7-B, together with reports from any other work it initiates to fulfil its purpose.

Figure 7-B: Reports and Responsibilities

	Report	By
1	Design management	Deputy Director of Development
2	Contract matters, Programme, Risk, change control	NEC Project Manager
3	Cost and value	Cost Advisor
4	Outline business case development	Chief Nurse
5	Cancer vision realisation	Chief Operating Officer
6	Communications	Communication Project Manager
7	Enabling Project Schemes	Head of Capital Projects
8	Fundraising Progress	Charity representative

7.2.2 Change Management Process

The purpose of a Change Management Plan is to protect the integrity and deliverability of redevelopment programmes and projects. When the project scope is defined, assumptions and agreements are made as to what the project is going to deliver (benefits, quality) and the parameters (cost, time, resources) within which it will be delivered. If the objectives change during the project, the estimates for cost (revenue and capital) and programme duration may no longer be valid. However, if the Director of Redevelopment agrees to include the requested changes into the project following this approval process, the cost and/or duration will be modified to reflect these changes.

A Change Management Plan, based on the PICB approach, has been developed to identify how change requests are initiated, evaluated, approved and recorded. Approval limits will be those set out in the GOSH Scheme of Delegation and Financial Limits for Redevelopment Project.

A record of all changes will be included in the monthly report provided to the CCC PB, which will include the Change Request Log, a report specifying all uses of the contingency budget and associated change control documentation. A flow chart showing the Change Management Process is attached at Appendix 7-1.

7.3 Key Roles and Programme Team

7.3.1 Key Programme Roles

The following key project roles will be maintained throughout every phase of the programme:

- **Investment Decision-Maker:** The Trust Board will maintain an overview of the programme, receiving regular reports on progress and retaining accountability for the delivery of all aspects of the project. The purpose is to ensure strategically the CCC is a priority within the GOSH future strategy and provide approvals at key investment stages.
- **GOSHCC Charity Trustees** – The Trustees have a key role, taking a lead from the Trust Board that the CCC is a strategic priority, to ensure the viability of the Charity, that the funding commitments can be met and that the investment represents an appropriate use of charitable funds demonstrating impact and value for money.
- **Programme Owner:** The Chief Executive of the Trust, as Accountable Officer, will retain accountability for programme delivery. The Programme Owner chairs the CCC Programme Board jointly with the GOSHCC CEO and receives monthly updates.
- **Programme Director:** the GOSH Director of Built Environment is the key point in the Trust for providing leadership and direction of the scheme for internal and external stakeholders. This role is undertaken by Matthew Tulley, who is an experienced major capital programmes and projects Project Director.

This structure will be reviewed prior to commencement of the building works, to ensure that it provides the appropriate levels of governance and engagement during the development of the design, planning of the commissioning and equipping of the programme. The Programme Team will be supported by professional advisors appointed to support the project.

7.3.2 CCC Programme Board

The CCC Programme Board is responsible for providing assurance to the Trust Board concerning the progress of the programme ensuring that it delivers improvements that support the Trust's aims and strategy within an acceptable timescale and cost.

The purpose of the Programme Board is to:

- Translate the vision for the CCC programme into a tangible outcome.
- Oversee the planning, design and construction to agreed quality and programme within an approved budget (capital and revenue).
- Oversee the post construction commissioning of the facility to bring the facility into use.
- Oversee any operational transformation required to realise programme and project benefits.
- Recommend any post-project reconfiguration plan which enables GOSH to make best use of the space vacated as a result of the project.
- Ensure the programme appropriately balances the objectives of the principal stakeholders so that:

- The CCC is consistent with and supports the vision to be the best children's hospital in the world.
- GOSH's vision for the CCC is delivered with tangible results and clinical benefits.
- The development positively contributes to patient care and compliments the overall GOSH redevelopment programme.
- The expectations of GOSHCC and its supporters can be met.
- Endorse the business cases required by the principal stakeholders which demonstrate the case for investment together with the on-going affordability of the development.
- Ensure the programme is managed in line with appropriate policies and procedures demonstrating best practice and ensuring value for money.
- Maintain awareness of broader policy and strategic developments that may impact on the programme.

The Terms of Reference of the Redevelopment Programme Board can be found at Appendix 7-2. Membership of the Redevelopment Programme Board can be found at Figure 7-C.

Figure 7-C: Project Board Membership

Name	Project Responsibility	Organisation
Mat Shaw	Chief Executive and SRO	GOSH
Louise Parkes	Charity CEO and co-Chair	GOSHCC
Andrew Taylor	Interim COO	GOSH
Matthew Tulley	Director of Built Environment	GOSH
Sanjiv Sharma	Medical Director	GOSH
Alison Roberson	Chief Nurse	GOSH
David Goldblatt	Director of Research	GOSH
Peter Hyland	Director of Performance & Planning	GOSH
Paul Mills	Director of Property & Redevelopment	GOSHCC
Ian Chivers	Director of Finance	GOSHCC
Kiki Syred	Director of Grants & Impact	GOSHCC
Helen Jameson	Chief Finance Officer	GOSH
Stephanie Williamson	Deputy Director of Built Environment	GOSH
Crispin Walkling-Lea	Head of Healthcare Planning	GOSH
Joe McGonagle	Head of Capital Projects	GOSH

Name	Project Responsibility	Organisation
David Keith	Cost Consultant	Currie & Brown
TBC	NEC Project Manager	TBC
Steve Tomlin	Chief Pharmacist	GOSH
TBC	Imaging	GOSH
TBC	Cancer Services	GOSH
TBC	PICU	GOSH
TBC	CCC Communications and Stakeholder lead	GOSH
Will McCready	Redevelopment Programme Manager	GOSH

7.4 Use of External Advisors

The Trust has employed the services of external advisors to assist in the preparation of the OBC and to provide expert advice to the Trust during the planning and development stages of CCC Phase 4A. A summary of providers and services is provided at Figure 7-D.

Figure 7-D: External Advisors

Name	Project Role
Currie & Brown	Cost Advisor
RIBA	Design Competition Advisors
Michelmores	Legal and commercial advisor
James Chapman	GOSH architectural advisor
Currie & Brown	Cost consultants
BDP	Town planning advisor
Docte Consulting	Works information review
Exitech	BIM Support
GVA	Rights of light advisor
Southcott Consultancy	Business case writing
TBC	Contract management

7.4.1 Costs of Project Implementation

The costs associated with fees are included in the OB forms, which are summarised at Section 4.4 and included at Appendix 4-2.

Professional fees have been allowed in respect of consultancy advice to be provided directly to the Trust and Trust internal resources only. These have been included at £10m, following consultation and discussion with the Trust. Together with fees included within the Works Cost Limit, the total

professional fees allowance is reported as those shown in Figure 7-E (assuming charity-procured scheme).

Figure 7-E: Professional Fees

Element	Cost
Fees within Works Cost Limit	£11,380,000
Trust direct professional fees (including internal recharges)	£10,000,000
Total professional fees	£21,380,000
Net construction cost (including preliminaries)	£92,670,000

Composition of the fees budget is £8m for Trust employed fees, and £2m for Trust-side advisors. The Trust's Technical Advisors are shown at Figure 7-D. The Trust's team includes healthcare planning, operational commissioning, capital project managers, clerk of works and engineers, GOSH Arts, PMO and leadership team.

7.5 Project Delivery Programme

The programme for the CCC Phase 4A is driven by, and dependent on, the current expected timescales for the Phase 3 scheme and CCC Phase 4A Enabling Programme, which together will form a key component of the Decanting Strategy (see Section 5.4 for further information on the Decanting Strategy).

Given that Phase 3 is due to complete and be fully occupied by October 2019, the Trust currently anticipates that the CCC Phase 4A development will be fully operational in 2026.

The key milestones for the design and construction of the CCC Phase 4A are shown in Figure 7-F. Note that the delivery programme is predicated on entering into the PSCA following Trust Board and Trustee approval to the OBC, but prior to NHSI / E review. A detailed programme is included at Appendix 7-3.

Figure 7-F: Summary Programme

Milestone	Start date	End date
OBC Trust Board Approval	September 2018	September 2019
OBC External Approval	October 2019	February 2020
PSCA	November 2019	April 2022
RIBA Stage 2 Design Phase 4A and 4B	September 2019	January 2020
RIBA Stage 3 Design Phase 4A and 4B	February 2020	January 2021
Planning Consent – Phase 4A	February 2021	May 2021
Planning Consent – Phase 4B	February 2021	August 2021
FBC Trust Board Approval	October 2021	October 2021
Contract Award	May 2022	May 2022
Construction - CCC Phase 4A Works	July 2022	July 2022
Project Completion	June 2025	June 2025

7.6 Risk Management Strategy

The Trust's approach to risk management, in accordance with its internal assurance framework, is designed to ensure that the risks associated with CCC Phase 4A are systemically identified, appraised and action plans developed for effective reduction, elimination and mitigation. The objective of the risk management process is to establish and maintain a 'risk aware' culture that encourages on-going, proactive identification and assessment of project risks. The risk register is a live document and is reviewed and updated on a frequent basis, and reported on a monthly basis to the Programme Board. The risk management principles are to:

- Identify all possible risks, putting in place mechanisms to minimise the likelihood of risks occurring and their associated adverse effects;
- Have processes in place to ensure up to date, reliable information about risks is available, and establishing an ability to effectively monitor risks;
- Establish the right balance of control is in place to mitigate the adverse consequences of risks, should they materialise;
- Ensure appropriate allocation of risks to the party best able to manage the risk;
- Ensure that the high level Trust risks are integrated within the overall Programme risk register and the Trust's corporate governance arrangements and thus considered regularly by the Redevelopment Programme Board.

7.6.1 Plans for Health External Assurance Review

All significant public sector projects are required to complete an external Assurance Review process of detailed peer review and assessment at key stages or gateways. The requirement to register a project for formal review is based upon an initial Risk Potential Assessment (RPA). The RPA has been completed for the project (see Appendix 7-4). This shows that the project is rated as a Medium risk. An Assurance Review 1 has been assessed as being beneficial to the scheme, to ensure that GOSH remains on track to deliver a successful scheme. The Assurance Review took place in September 2019. A summary of the Assurance Review is shown at Figure xx. This shows that the programme is rated as Amber, meaning *'successful delivery appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and, if addressed promptly, should not present a cost/schedule overrun'*. Due to the timing of the Assurance Review, further work is required to agree an action plan in relation to the recommendations.

Figure 7-G: Summary of Assurance Review Recommendations

Delivery Confidence Assessment:	Amber
<ul style="list-style-type: none"> • The Review Team (RT) finds that the Children's Cancer Centre (CCC) programme is being managed and led by a highly experienced and committed team with an impressive depth of experience and expertise. As the programme moves into the next phase of development, the team will need to be enhanced to meet the needs of that phase. • The RT felt that further resource to manage the Pre-Contract Delivery phase and the eventual construction phase would be required in the areas of communications and engagement, contract administration and management, benefits realisation, risk management and general project support. • The scope of the scheme has been revised since December 2018 and this does need to be finally agreed as the functional content of the scheme. This will allow the design team to apply this to the replanning of the build project and also to start to realise and develop the external appearance of the scheme as both of these are crucial to maintaining cost and time. • Once there is full agreement as to the content, scale and proposed massing of the CCC scheme, the RT felt that the Trust should undertake a relaunch so that all key stakeholders are aware of the importance assigned to the programme. • The draft timescale for delivery appears optimistic in the projected time to develop, submit and secure a Full Planning Consent for the build scheme, but there does appear to be some flexibility in the overall programme which could secure the projected main construction date. • The overall programme capital costs are based on a detailed appraisal of the original Phase 4 scheme and there has been independent assurance of the adequacy of these. The costs have been applied to the descoped scheme and will need to be tested as the design proceeds. • A schedule of projected benefits has been generated which is clearly linked to the project aims and objectives. For the next phase, a more detailed exercise will be required to quantify the impacts of these benefits (financial and non-financial) based on available evidence. The Hospital Trust team should also, when these have been identified, produce a baseline schedule against which the realisation of benefits can be measured. This will also allow the Children's Charity to identify the impact of its investment. • The Hospital Trust and the Charity should also review of the governance of the programme to ensure that it is fit for purpose for the next phase and that accountability and responsibility of the structure is clear. Roles and responsibilities, plus limits of delegated authority should also be produced to ensure that there is clarity to these. • The Hospital Trust will also need to ensure that there is an agreed decant and enabling plan in place to maintain progress, but this will need to be managed tightly. • Work will also need to be undertaken in the next phase, to Full Business Case, to ensure that the necessary thinking has been done with regards to changing models of care, treatment modalities and how staffing will be deployed. • This is an exciting development, the aims of which are clear, and implementation will provide an excellent facility for children, their families and the staff. 	

7.6.2 Risk Register

Risk identification and analysis has been undertaken using an inclusive risk workshop approach, resulting in a comprehensive Risk Register encompassing operational, financial and construction related risks. The risk register has been developed with input from the Trust, cost advisor and other external advisors. The apportionment of risks is in accordance with the agreed risk allocation matrix (see Commercial Case).

A copy of the risk register can be found at Appendix 7-5. At this stage of the programme a flat percentage rate is included as planning contingency in the OB forms.

A summary of the highest rated red risks (score of 20 or over) prior to mitigation is shown at Figure 7-G. This Figure also includes a summary of the mitigation actions, and the anticipated post-mitigation scores. The full risk register can be found at Appendix 7-5.

Figure 7-H: Highest Rated Risks (score 20 and over)

	Description of Risk	Pre Mitigation Impact	Pre-Mitigation Probability	Pre-Mitigation Risk Magnitude	Mitigation Action / Risk Response	Post-Mitigation Impact	Post-Mitigation Probability	Post-Mitigation Risk Magnitude	Department of Risk
Finance, Commercial and Political	Increased estates and facilities operating costs	4	5	20	Early assessment/modelling of cost requirements and future need. More scrutiny of rev bc modelling	4	4	16	Finance
Finance, Commercial and Political	Affordability of operational revenue costs; (New build increases cost)	4	5	20	Early assessment/modelling of revenue costs, operating position. More scrutiny of rev bc modelling	4	4	16	Finance
Finance, Commercial and Political	Increasing workforce costs (nursing staffing costs)	4	5	20	Early assessment/modelling of workforce costs and impact on revenue costs; workforce modelling	4	4	16	Divisions
Finance, Commercial and Political	GOSHCC unable to raise the required capital	5	4	20	Robust fundraising plan that is validated throughout the process	5	3	15	GOSHCC
Estates & Facilities	Not achieving Planning Permission or having significant S106 conditions attached	5	4	20	Early and regular engagement with council (including via stakeholder evaluation of CCC proposals) responding to pre app and DRP feedback. PPA	5	3	15	Built Environment
Finance, Commercial and Political	Commissioners not funding capacity growth requirements	5	4	20	Early and ongoing engagement with Commissioner (s) to ensure support and funding scope. Well documented activity and capacity model (Growth model minimal based on O&S data pop growth +cancer increase)	4	3	12	Finance
Finance, Commercial and Political	Increased contract price change; procurement costs increase	5	4	20	Close collaborative working with the main contractor and an agreed works cost limit	4	3	12	Finance

7.7 Transition Planning

As the Trust moves into the next stage of the project, it has developed a Communication and Engagement Strategy. The core function of the strategy is to involve core stakeholders; GOSH staff, patients and families, the membership, planning authorities and the local community. The document outlines a proactive programme of activities intended to promote stakeholder engagement, manage any concerns that the prospect of another large-scale development will inevitably create and maximise the reputational and commercial benefits of that this procurement route offers.

7.8 Stakeholder Communications and Engagement

7.8.1 Commissioner Support

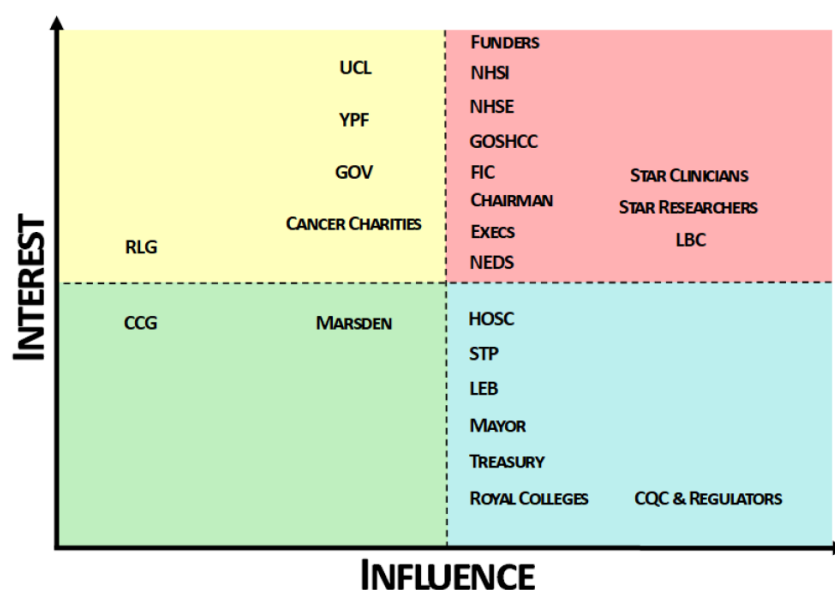
GOSH is carrying out extensive liaison with their commissioners and will formalise this process during the development of the FBC.

7.8.2 Stakeholder Support

GOSH is committed to a process of meaningful stakeholder engagement and communication. It has established formal and informal channels adapting its communications and engagement as far as possible to the methods and frequency preferred by stakeholders. The development of the Masterplan 2015 was underpinned by a strong engagement process.

GOSH regularly reviews its stakeholder mapping to ensure its relevance. Key external stakeholders include neighbouring businesses, the community, local residents and the London Borough of Camden, where GOSH is located. The programme communications lead has identified the stakeholder groups in accordance with its identification process, based on a power versus interest basis. Figure 7-H provides a summary of the current position of each stakeholder (this will be reviewed regularly throughout the duration of development, construction and operation).

Figure 7-I: Stakeholder Mapping



In 2016 GOSH commissioned an independent external survey, publicised through the Residents' Liaison Group, aimed at understanding attitudes towards GOSH, and the impact of GOSH's day-to-day, and redevelopment activities. The outputs from this survey have informed GOSH's ongoing planned stakeholder communications and engagement plans.

The support for the CCC Phase 4A programme by the GOSH clinical body has been evidenced by their active participation in the development of the Masterplan 2015 and subsequent engagement in the early stages of the CCC design proposals. This enabled the Trust to maintain a clinical service focus when developing estates proposals.

7.8.3 CCC Phase 4A Communications and Engagement Strategy

An overview of the approach to stakeholder engagement can be found in CCC Phase 4A Communications and Engagement Strategy at Appendix 7-6.

The intention is to continue to maintain significant engagement with key stakeholders, namely GOSH staff, patients and families, Members' Council, CYPF, local planning authorities and the local community, throughout the CCC Phase 4A Programme.

The communications programme will achieve the following objectives:

- Inspire confidence within the design and construction market that the phase four redevelopment project is viable and deliverable and their involvement represents significant commercial benefit.
- Stimulate healthy competition and stakeholder interest in and critique of the early-stage design submissions to encourage a higher quality design outcome.
- Support key stakeholder groups to engage in the evaluation process and articulate their views constructively to support a more informed judging process.
- Encourage stakeholders to support (if not agree with) the competition outcome and have confidence in the selected design concept and bid team.
- Demonstrate robust procurement and a fair, transparent and legally compliant judging process.
- Clarify the next steps to develop the phase four proposals, to include: business case development, fundraising, design development and town planning application. Manage stakeholder expectations by explaining that the design may evolve significantly through these stages.
- Inform the GOSH community of the wider strategy for the redevelopment programme and provide reassurance that it is addressing the Trust's most significant short, medium and long-term redevelopment needs.
- Provide clear, up-to-date information about the current status of other redevelopment projects as they are likely to impact on staff, patients and families (Phase 2B, Phase 3, the Italian Building). Contextualise the design competition within the wider CCC Phase 4A programme – to include development of the business case, decant and enabling programme and fundraising strategy.
- Protect and enhance the reputation of GOSH and GOSHCC.

The CCC Phase 4A strategy will align with the Trust's overall corporate communications and public relations strategies. The Trust's approach will dovetail with the GOSH Children's Charity's Major Donor Strategy to ensure consistent and seamless marketing of the Redevelopment. It provides a

framework for project-specific Communications Plans for the various elements of the CCC Phase 4A programme.

7.8.4 Early Design Agreement User Consultation

During the Early Design Agreement (EDA) period meetings took place between the design team and GOSH staff, the aim of which was review the concept design submitted by the preferred bidder during the competition stage and to develop those proposals. The clinical design brief that was issued to Sisk at the outset of the EDA period provided information on GOSH's aspirations as well as specific requirements for each department. Follow up meetings with key clinical staff and operational managers have also taken place, providing department teams the opportunity to further input into the design development.

Clinical engagement has been maintained during the development of the SOC through representation on the CCC Phase 4A Programme Board. Clinical Champions were identified during the design competition, and guided the healthcare planning team throughout the development of the concept design.

In addition to the staff consultation process, and in keeping with the Trust's mission 'The Child First and Always', the design team also engaged with children and their families during the Masterplanning process and the design briefing and competition. The Trust used a number of different methods for workshops including a web-based interactive board, the GOSH Children's and Young People's Forum (CYPF), CYP workshops and a Young People's Advisory Group.

7.8.5 RIBA Stage 2 Design Development User Engagement Plans

At commencement of the RIBA Stage 2 phase, a programme of user group meetings will be implemented for each department in CCC Phase 4A, those comprising:

- Main entrance
- Outpatient / ambulatory care
- Cross-sectional imaging and iMRI
- Cancer day care
- Generic inpatient wards
- PICU
- Bone Marrow Transplant ward
- Hospital school, activity centre and roof garden
- Pharmacy, special feeds unit
- ICT and data centre

7.9 Fundraising Strategy

7.9.1 Strategy

As described in the Financial Case, the scope of the CCC Phase 4A will now be funded by philanthropic donations save for a Trust capital contribution to the design costs. There is a commitment from GOSHCC to provide £250m to deliver CCC Phase 4A project and associated enabling works.

Fundraising for CCC Phase 4A will involve the Charity's fundraising teams specifically promoting the CCC Phase 4A project, except for legacy fundraising, due to the long lead-in time. The Charity's contribution to the project will rely on a significant element of funding from the Charity's reserves or unrestricted income (monies raised more generally in the name of GOSH, as opposed to being clearly restricted to a given project).

There are anticipated to be two main sources of fundraising for the CCC Phase 4A scheme:

- Major Gift Fundraising and Corporate Partnerships: fundraising is approached by breaking the cost of the building down into naming/recognition units (building name, centres, function areas and rooms) and allocating achievable fundraising targets against each. These funding opportunities form the basis of the Major Gift and Corporate Partnership funding proposition, linked to a clear and engaging 'case for support', which outlines the vision for the new facility and the clear impact it will have on patients, families and staff, and any additional benefits, such as research and education/dissemination of knowledge.
- 'Public' fundraising: Funding for the redevelopment will also be secured through Direct Marketing, Community Fundraising and Special Events teams. These teams generally raise a very large number of comparatively smaller gifts for redevelopment phases, but with flexibility for Trustees to determine where and how they are used.

7.9.2 Funding Contribution Scenarios

The Charity has some minimum requirements:

- Full joint approval from the hospital and Charity Boards to proceed with CCC Phase 4A by end September 2019 to enable fundraising to start
- The building would then open at end 2025/26.
- The charity would not be required to fundraise for or contribute to other projects outside of the recurrent charity funding streams. If 'new priority' projects go ahead with charity funding, in the short term they would impact the amount of charity funding available, including the minimum contribution to Phase 4. Over time reserves could potentially be replenished but the potential impact would need to be remodelled.
- The Trust underwrites project cost overruns.

7.10 Benefits Realisation Planning

A Benefits Realisation Plan (BRP) has been created and sets out the objectives and benefits associated with the project and how these benefits will be delivered. It has been reconciled with the benefits set out in the Economic Case. It ensures that the project is designed and managed in the right way to deliver quality and value benefits to patients, staff and wider stakeholders. The BRP will also define how and when outcomes and benefits are measured. Benefits include:

- Improved quality and suitability of facilities;
- Enhanced sustainability of the Trust;
- Improved working environment for staff;
- Improved facilities for patients;
- Enhanced education and training facilities; and
- Enhanced research capability and activity.

Figure 7-I summarises the key benefits; these are further expanded at Appendix 7-7.

Figure 7-J: Summary Benefits

Category	Benefit Title	Benefit Description
Clinical Benefit	Co-localisation of Oncology services	<ul style="list-style-type: none"> • The Oncology service being solely housed in the CCC will be of benefit to the staff within this specialty • Improved patient pathway reducing the clinical risk and discomfort through the care pathway • Provides enhanced departmental relationships and clinical adjacencies that support clinical effectiveness and improved patient outcomes • Rapid access between departments reduces potential risk to patients in transit and saves staff time • Reputational enhancement due to creation of world class cancer facility
Clinical Benefit	Facilitating transition to ambulatory model of care	<ul style="list-style-type: none"> • Provision of purpose built day case areas for the delivery ambulatory models of care • At present some patients cannot be sent from and return to Safari for ambulatory care treatment • Enabling new, more complex therapies being able to be delivered in an ambulatory care setting
Clinical Benefit	Improvement in mortality and morbidity rates and increased quality of life	<ul style="list-style-type: none"> • Improved infrastructure will support the development of models of care that provide a safer environment • Increased volume produces better clinical outcomes and improves mortality and morbidity rates • With additional capacity we increase timely access to care for patients
Clinical Benefit	Creating Clinical Flexibility	<ul style="list-style-type: none"> • To ensure that the changing needs and expectations of a growing and increasingly diverse population are met in line with Trust clinical strategy and National standards • The ability to be responsive to changes in national practice specified by NHSI/NHSE that impact environment (i.e. CICU increase within PICB) • Providing future proofing to enable service to meet increase in demand

Category	Benefit Title	Benefit Description
Clinical Benefit	Enabling all ICU beds to become compliant with modern technology and space standards	<ul style="list-style-type: none"> The CCC would create a fully HTM compliant 16 bed PICU ward as well as enabling the refurbishment of NICU to ensure this ward is compliant Improved staff experience and patient satisfaction Increase quality of environment including isolation rooms will reduce transmission risk
Clinical Benefit	Improved patient flows due to new models of care	<ul style="list-style-type: none"> More efficient building layout which is more fit-for-purpose Results in better workflow and improved use of clinical staff time Pharmacy and IMRI relocation will result in revenue saving due to these facilities no longer being isolated
Quality and Safety	Reduction in infection rates	<ul style="list-style-type: none"> Provide environment that is in line with best practice infection prevention standards; designed and built to enable cleaning of a high standard Design of the CCC includes single en-suite bedrooms, improved materials that are easier to clean, better ventilation systems Co-location of oncology services and improved patient flows will result in patients spending less time in transit between clinical departments thus less exposure to areas with a lower standard of cleaning required Creating ability to close smaller sections of wards by having more AHU's Creation of a facility that is better equipped to tackle sepsis and new potential superbugs Increase in ICU isolation rooms will help reduce outbreaks
Quality and Safety	Reduction in patient moves	<ul style="list-style-type: none"> Due to the co-localisation of the oncology services the number of patient moves/transfers is expected to decrease Evidence states that reducing patient transfers improves patient safety; reducing clinical and medication errors
Quality and Safety	Improved Pharmacy Estate	<ul style="list-style-type: none"> Creation of a Pharmacy estate that is compliant, co-localised and has capacity to increase production and better delivery of cytotoxic drugs Reduction in medication errors Commercialisation of drug production Improved service for Outpatients due to separation of flows from Inpatient dispensing Staff recruitment and retention due to improved and co-localised environment CIVAS capacity & safety > Cost savings > dose banding opportunities
Training and Research	Increased research activity and income	<ul style="list-style-type: none"> A purpose built, world class oncology facility will attract new research opportunities into the Trust Facilitate the delivery of the GOSH Strategic goal to become a leading global children's research hospital Additional IP capacity will enable more research/clinical trials to be completed that currently not possible due to wards being close to capacity Research income has shown impressive growth in the last few years; additional capacity and state of the art facilities would enable this to continue to grow. In 2017/18, GOSH's non-commercial research income was £20.3m, an increase of £2.6m on the previous financial year. Commercial research income has increased from £1.2m in 2015/16 to £5.2m in 2017/18 Potential to explore Intellectual Property aspects of new treatments and drug development
Training and Research	Increased CRF capacity	<ul style="list-style-type: none"> Increased overnight CRF capacity will give greater flexibility in the type of trials that can be undertaken Study durations are such that the cumulative workload is increasing; studies opened in 2016/17 have an average expected duration of 2.2 years (range 5 months to 15 years). In 2017/18, the CRF had 60 studies in set-up and a total active portfolio of 200 studies

Category	Benefit Title	Benefit Description
Building Design	Parent Satisfaction	<ul style="list-style-type: none"> Improved facilities on the ward External gardens creating space away from the ward Better lighting and acoustics have been proven to reduce stress and assist with sleep
Building Design	Digital Strategy Enabler	<ul style="list-style-type: none"> Building design enables compatibility & capability with future ICT projects Allows robotic developments Enables smart imaging
Building Design	Recruitment and retention benefits: The CCC makes GOSH a more attractive place to work for staff	<ul style="list-style-type: none"> Each member of staff that leaves GOSH and needs replacing costs ~ £15k Better lighting and acoustics have been proven to reduce stress in staff which could reduce sickness rates and improves retention Improved work environment for staff Reduction in temporary staffing expenditure The state of the art facility will help with recruitment Improved staff breakout and support areas
Building Design	Children and Young People Satisfaction	<ul style="list-style-type: none"> Improved facilities ensure patient privacy and dignity – with more single en suite rooms (benefits for improved toilet and bathroom facilities, improved facilities for overnight stay for parents/ carers) Play / breakout areas designed according to age range allows patients and young people to recuperate in an area suitable for their age Outdoor space or gardens – having access to outdoor space can reduce length of stay for patients Potential to reduce LOS due to the provision of purpose built facilities Patient involvement in design Improved patient satisfaction (therapeutic design; access to green space) Improved wayfinding Purpose built School will enable educational entitlement Specific provision for adolescent space
Building Design	Technology Advancements	<ul style="list-style-type: none"> Creation of PET MR Permanent location for the IMRI service Protecting IR and CT capacity Continuation & expansion of the Pharmacy robotics and digital dispensing Extended use of pneumatic tube for cytotoxic drugs
Estates & Facilities	Improved Facilities Flow	<ul style="list-style-type: none"> Links between CCC, PICB and OBW will speed up the flows to Pathology in CBL for services such as Haematology, Oncology, BMT and Immunology CCC will improve patient & family experience & safety by separating facilities and patient flows, improving vertical circulation & site logistics routes reducing risk of injury & making the hospital safer Portering will become more efficient due to dedicated less traffic within flows Reduction in damage to environment by deliveries on the main corridor Enable robotics
Estates & Facilities	Reduced backlog maintenance	<ul style="list-style-type: none"> New estate will reduce the backlog maintenance expenditure Reduce backlog maintenance costs across GOSH estates due to replacement of old buildings
Estates & Facilities	Estate becoming more CO2 efficient	<ul style="list-style-type: none"> The new building will be more CO2 efficient than present estate
Estates & Facilities	Increase Estates Compliance	<ul style="list-style-type: none"> Improved BREEAM rating Increased DDA compliance Increased compliance with HTM and HBN regulations
Societal Benefits	Construction of the CCC	<ul style="list-style-type: none"> There will be a societal benefit with the job creation created from the new build project which would be significantly higher than a refurb

Category	Benefit Title	Benefit Description
		<ul style="list-style-type: none"> High profile requirement for apprentices during construction is additionally a societal benefit and increase the connection within the local community
Societal Benefits	Local economy	<ul style="list-style-type: none"> Increase in economic contribution to local businesses in London (hotels, restaurants, shops) due to increased number of patients and families
Societal Benefits	Local Involvement in Design	<ul style="list-style-type: none"> Improvements in patients, staff and local resident satisfaction due to patient involvement Improved links with local community Improved trust reputation within the local community and wider sector
Reputational Benefits	Increased profile world wide	<ul style="list-style-type: none"> To develop a centre of excellence, enhancing the Trust's reputation for training, service delivery and treatment, through the provision of a centralised service in modern accommodation

As part of the FBC, the Benefits Realisation Plan will be further developed to incorporate the financial benefits to the organisation.

7.11 Post Project Evaluation Planning

The Trust is committed to ensuring that a thorough and robust post project evaluation is undertaken at key stages in the project, to ensure that positive lessons can be learnt. The lessons learned will be of benefit when undertaking future capital schemes. This has been a consistent practice through the GOSH Phases of work.

Post Project Evaluation (PPE) sets in place a framework within which the Benefits Realisation Plan can be tested to identify which benefits have been achieved and which have not – with the reasons for these understood in a clear way.

The proposed approach will follow NHS guidance on PPE.

7.11.1 Evaluation of the project in use – shortly after commencement of service

It is proposed that the evaluation be undertaken between six and twelve months after the completion of the facilities in order that many of the lessons learned are still fresh in the minds of the stakeholders. The evaluation will also encompass the evaluation of the scheme whilst in construction.

The objective is to prepare a report which assesses how well and effectively the projects were managed during the initial operation of the new facility. The objective is to use a 360° view of the process using internal and external stakeholders.

The evaluation will examine:

- The effectiveness of the project management of the scheme – viewed internally and externally.
- Communications and involvement during initial service.
- Overall success factors for the project in terms of cost, time and quality.

- The extent to which it is felt the new facilities meet users' needs – from the point of view of service users/carers and staff.
- The effectiveness of the new cohesive working practices.

The process will be over seen by the Project Management Team. The results of the report will be made available to all participants and issued to key stakeholders.

The costs of the final post project evaluation, once the service is fully established, are not included in the costs set out in this OBC as it is assumed that this work will be undertaken in-house as part of the Project Management role.

7.12 Chapter Appendices

Appendix Number	Appendix Title
7-1	Change management process
7-2	Terms of reference
7-3	Programme
7-4	Risk potential assessment
7-5	Risk register
7-6	Communications and engagement strategy
7-7	Benefits realisation plan

8.0 CONCLUSION AND RECOMMENDATIONS

8.1 Conclusion

This Outline Business Case document provides a compelling case for the investment in the development of the CCC Phase 4A. This business case demonstrates:

- The strategic need for change in line with national, local and organisational drivers;
- The proposed model of care for Children's Cancer services at GOSH, together with projected demand and capacity analysis;
- The preferred commercial strategy, comprising procurement and contract;
- The capital and revenue consequences of the options set in the context of an affordability analysis (based on a capital value of the scheme of £257.7m); and
- Plans for the governance and management of the implementation of the project.

8.2 Recommendations

The Outline Business Case is being presented to Trust Board with a request to:

- APPROVE the strategic fit within the context of the organisation;
 - APPROVE the identification of the preferred option;
 - APPROVE the commercial viability and feasibility of the project (based on £257.7m capital cost), on the basis that GOSHCC will be funding the scheme up to £250m;
 - APPROVE the commencement of the PCSA;
 - NOTE the anticipated financial impact assessment on the Trust's financial standing;
 - APPROVE the planned capital investment by GOSH of £8m including VAT; and
- APPROVE the Outline Business Case and progression to Full Business Case development.

9.0 GLOSSARY OF TERMS AND ABBREVIATIONS

Abbreviation	Full term
BIM	Building Information Modelling
BMT	Bone Marrow Transplant
BREEAM	Building Research Establishment Environment Assessment Model
BRP	Benefits Realisation Plan
CCC	Children's Cancer Centre
CCG	Clinical Commissioning Group
CHD	Congenital Heart Disease
CQC	Care Quality Commission
CRF	Clinical Research Facility
CSF	Critical Success Factor
CYP	Children and Young People
DCF	Discounted Cash Flow
DCP	Development Control Plan
DGH	District General Hospital
DHSC	Department of Health and Social Care
DQI	Design Quality Indicator
DRIVE	Digital Research, Information and Virtual Environment
DRP	Design Review Panel
EAC	Equivalent Annual Cost
EDA	Early Development Agreement
EOI	Expression of Interest
EW	Enabling Works
FBC	Full Business Case
FFT	Friends and Family Test
FM	Facilities Management
GEM	Generic Economic Model
GIA	Gross Internal Area

Abbreviation	Full term
GLH	Genome Laboratory Hubs
GMP	Guaranteed Maximum Price
GOSH	Great Ormond Street Hospital (NHS Foundation Trust)
GOSHCC	Great Ormond Street Hospital Children's Charity
HBN	Health Building Note
HPCG	Healthcare Premises Cost Guides
HTM	Health Technical Memorandum
ICH	UCL Institute of Child Health
ICT	Information and Communications Technology
I&E	Income and Expenditure
IM&T	Information Management and Technology
IPP	International and Private Patients
ITPD	Invitation to Participate in Dialogue
LBC	London Borough of Camden
LDC	Louis Dundas Centre
LTFM	Long Term Financial Model
MDT	Multi Disciplinary Team
MNH	Main Nurses Home
MOC	Model of Care
MOI	Memorandum of Information
MRI	Magnetic Resonance Imaging
NIA	Net Internal Area
NICU	Neonatal Intensive Care Unit
NIHR	National Institute for Health Research
NCL STP	North Central London Sustainability and Transformation Plan
NPV	Net Present Value
NHSE	NHS England
NHSI	NHS Improvement
OBC	Outline Business Case

Abbreviation	Full term
OFSTED	Office for Standards in Education
OGC	Office of Government Commerce
ONS	Office for National Statistics
ORCHID	Centre for Outcomes and Experience Research in Children's Health, Illness and Disability
PCR15	Public Contracts Regulations 2015
PCSA	Pre-Construction Services Agreement
PICU	Paediatric Intensive Care Unit
PID	Project Initiation Document
PMO	Project Management Office
POG	Paul O'Gorman Building
PPE	Post Project Evaluation
PBT	Proton Beam Therapy
PSCP	Principal Supply Chain Partner
RIBA	Royal Institute of British Architects
RTT	Referral to Treatment Time
SDMP	Sustainability Development Management Plan
SOC	Strategic Outline Case
SRO	Senior Responsible Officer
UCL	University College London
UCLH	University College London Hospitals
VAT	Value Added Tax
VCB	Variety Club Building
WCL	Works Cost Limit
YPF	Young Peoples Forum
ZCR	Zayed Centre for Research



OGC Gateway™ Review 2: Delivery Strategy
**Programme Title: Great Ormond Street Hospital Children's
Cancer Centre**

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OGC Gateway™ Review 2: Delivery Strategy

Version number:	0.4
Senior Responsible Owner (SRO):	Matthew Shaw, Chief Executive, Great Ormond Street Hospital for Children NHS Foundation Trust
Date of issue to SRO:	5 September 2019
Project Title:	Children's Cancer Centre
Department/Organisation of the Programme	Department of Health and Social Care
Agency or NDPB (if applicable):	Great Ormond Street Hospital for Children NHS Foundation Trust
Review dates:	02/09/2109 – 05/09/2019
Review Team Leader:	Duane Passman - Brighton & Sussex University Hospitals NHS Trust
Review Team Members:	Michael Pears – Standards and Testing Agency Andy Withington – Highways England
Previous Review:	No previous reviews undertaken
IPA ID number:	N/A
GMPP ID number (For IPA use only):	N/A

[Insert Security Classification once completed]

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This report is an evidence-based snapshot of the project's status at the time of the review. It reflects the views of the independent review team, based on information evaluated over the review period, and is delivered to the SRO immediately at the conclusion of the review.



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This assurance review was arranged and managed by:

Infrastructure and Projects Authority
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More information about the Infrastructure and Projects Authority and guidance for central government bodies on the requirements for integrated assurance and approvals is available from:
<https://www.gov.uk/government/organisations/infrastructure-and-projects-authority>

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Delivery Confidence Assessment

Delivery Confidence Assessment:	Amber
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The Review Team (RT) finds that the Children's Cancer Centre (CCC) programme is being managed and led by a highly experienced and committed team with an impressive depth of experience and expertise. As the programme moves into the next phase of development, the team will need to be enhanced to meet the needs of that phase.

The RT felt that further resource to manage the Pre-Contract Delivery phase and the eventual construction phase would be required in the areas of communications and engagement, contract administration and management, benefits realisation, risk management and general project support.

The scope of the scheme has been revised since December 2018 and this does need to be finally agreed as the functional content of the scheme. This will allow the design team to apply this to the replanning of the build project and also to start to realise and develop the external appearance of the scheme as both of these are crucial to maintaining cost and time.

Once there is full agreement as to the content, scale and proposed massing of the CCC scheme, the RT felt that the Trust should undertake a relaunch so that all key stakeholders are aware of the importance assigned to the programme.

The draft timescale for delivery appears optimistic in the projected time to develop, submit and secure a Full Planning Consent for the build scheme, but there does appear to be some flexibility in the overall programme which could secure the projected main construction date.

The overall programme capital costs are based on a detailed appraisal of the original Phase 4 scheme and there has been independent assurance of the adequacy of these. The costs have been applied to the descoped scheme and will need to be tested as the design proceeds.

A schedule of projected benefits has been generated which is clearly linked to the project aims and objectives. For the next phase, a more detailed exercise will be required to quantify the impacts of these benefits (financial and non-financial) based on available evidence. The Hospital Trust team should also, when these have been identified, produce a baseline schedule against which the realisation of benefits can be measured. This will also allow the Children's Charity to identify the impact of its investment.

[Insert Security Classification once completed]



The Hospital Trust and the Charity should also review the governance of the programme to ensure that it is fit for purpose for the next phase and that accountability and responsibility of the structure is clear. Roles and responsibilities, plus limits of delegated authority should also be produced to ensure that there is clarity to these.

The Hospital Trust will also need to ensure that there is an agreed decant and enabling plan in place to maintain progress, but this will need to be managed tightly.

Work will also need to be undertaken in the next phase, to Full Business Case, to ensure that the necessary thinking has been done with regards to changing models of care, treatment modalities and how staffing will be deployed.

This is an exciting development, the aims of which are clear, and implementation will provide an excellent facility for children, their families and the staff.



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The Delivery Confidence assessment RAG status should use the definitions below:

RAG	<u>Criteria Description</u>
Green	Successful delivery of the project to time, cost and quality appears highly likely and there are no major outstanding issues that at this stage appear to threaten delivery.
Amber/Green	Successful delivery appears probable. However, constant attention will be needed to ensure risks do not materialise into major issues threatening delivery.
Amber	Successful delivery appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and, if addressed promptly, should not present a cost/schedule overrun.
Amber/Red	Successful delivery of the project is in doubt with major risks or issues apparent in a number of key areas. Urgent action is needed to ensure these are addressed, and establish whether resolution is feasible.
Red	Successful delivery of the project appears to be unachievable. There are major issues which, at this stage, do not appear to be manageable or resolvable. The project may need re-base lining and/or overall viability re-assessed.

[Insert Security Classification once completed]

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Summary of Report Recommendations

The Review Team makes the following recommendations which are prioritised using the definitions below:

Ref. No.	Recommendation	Critical/ Essential/ Recommended	Target date for completion	Classification
1.	The Trust and the Charity should review the governance arrangements to ensure that there are clear terms of reference for the groups in the structure and clear roles, responsibilities and delegated authority for all individuals involved in implementation.	Critical	End September 2019	1. Governance
2.	The Trust team will need to develop in greater detail and maturity the expected benefits of the development and to identify and assign values to these.	Essential	September 2020	6. Benefits Management & Realisation
3.	The Trust should commit additional resource to communication and engagement with internal and external stakeholders to support the development of the scheme.	Critical	December 2019	2. Stakeholder Management
4.	The Programme Team, working with key delivery partners, undertakes a full review of the programme's current risk assessment to ensure that it covers all relevant risk areas.	Essential	March 2020	9. Risk, Issues & Dependency Management
5.	That the programme recruits additional capacity and capability in the form of an experienced and certified programme management specialist (someone with proven experience of such as M_o_R which has been developed for use by public-sector programme and projects).	Essential	February 2020	10. Resource & Skills Management
6.	The Hospital Trust team should put in place an experienced NEC qualified Project Manager to administer the contracts.	Essential	December 2019	3. Programme and Project Management
7.	The scope of the programme needs to be clearly defined and agreed by the	Critical	Immediate	8. Context, Aim & Scope

[Insert Security Classification once completed]



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	key stakeholders to allow design work to restart meaningfully.			
8.	The programme considers benefits and disbenefits that may arise during and as a result of the delivery of the programme, again suitable measure/metrics will be required to ensure that such can be properly assessed for impact/realisation and ownership assigned.	Essential	September 2020	6. Benefits Management & Realisation

Critical (Do Now) – To increase the likelihood of a successful outcome it is of the greatest importance that the project should take action immediately

Essential (Do By) – To increase the likelihood of a successful outcome the project should take action in the near future.

Recommended – The programme/project should benefit from the uptake of this recommendation.

[Insert Security Classification once completed]



Comments from the SRO

[Insert comments here]

[Insert Security Classification once completed]

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Background

Strategic context and background to the programme

Great Ormond Street Hospital (informally 'GOSH' or 'Great Ormond Street', formerly the Hospital for Sick Children) is a children's hospital located in the Bloomsbury area of the London Borough of Camden ('Camden'), and a part of Great Ormond Street Hospital for Children NHS Foundation Trust.

GOSH is the only exclusively specialist children's hospital in the UK delivering the country's widest range of specialist health services for children on one site. Most of the children cared for by GOSH are referred from other UK and overseas hospitals; with more than half of the patients coming from outside London.

GOSH hosts 17 highly specialised national services. Many children need the help of different specialist teams, and this is very much the case for cancer patients because of their increasing medical complexity and needs. This makes GOSH one of a few, if not the only, place in the UK that has the full range of paediatric specialties under-one-roof, including intensive care and Bone Marrow Transplant needed to treat children with cancer.

GOSH is closely associated with University College London (UCL) and in partnership with the UCL Great Ormond Street Institute of Child Health, which is adjacent to the GOSH site, is the largest centre for research and postgraduate teaching in children's health in Europe.

GOSH (Clinical and Research Estates) Masterplan Delivery Programme

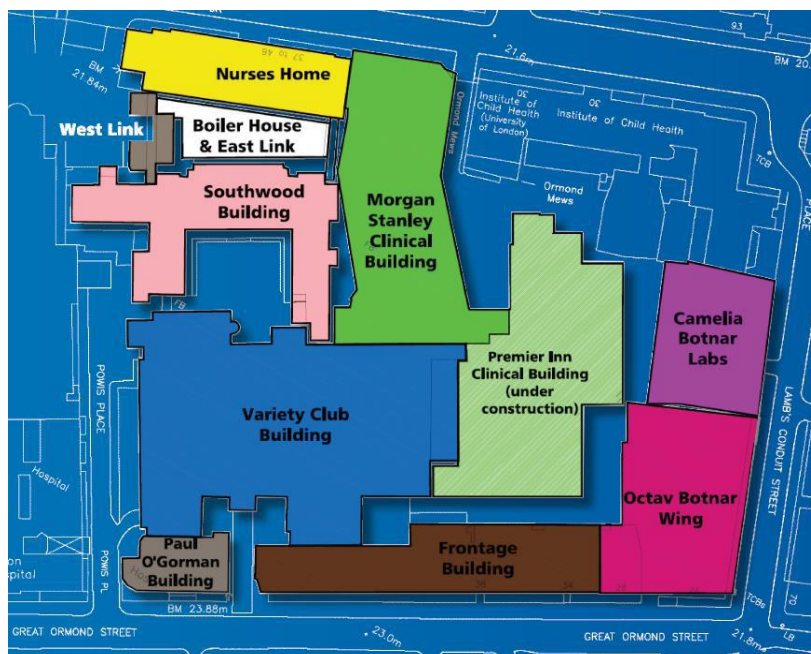
In period 2015-16 GOSH Hospital Trust developed a Strategic Business Case (SBC) which sets out the Trust's plans for the (re)development of clinical services and research delivered at GOSH.

The SBC has been baselined in the context of an agreed (in 2015) multi-phase GOSH (Clinical and Research) Masterplan for the redevelopment/ improvement of the GOSH Island Site Properties (see Figure 1).



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Figure 1: GOSH Island Site Properties



Phases 1 (including 1A and 1B) and 2 (A and B) as defined by the plan have been developed, and Phase 3 (The Zayed Centre for Research into Rare Disease in Children) will be operational from autumn 2019.

The GOSH Children's Cancer Centre Project

The proposed Children's Cancer Centre (CCC), as originally envisaged in 2016 constituted 'Phase 4' within the GOSH 2015 Masterplan framework developed by the Trust in conjunction with a team led by BDP. The Masterplan then proposed the redevelopment of the Great Ormond Street side of the GOSH Hospital site via the demolition on the Frontage Building and the re-use of the Paul O'Gorman Building ('POG') (see Figure 1).

In early 2019, following a review of programme funding with the programme's main financial sponsor, The Great Ormond Street Hospital Children's Charity ('GOSH Children's Charity'), the Hospital Trust revised the scope of the programme to fit an indicative "out-turn cost" of £258m.

The above exercise has resulted in the need for the redesign of the CCC scheme, now re-designated as Phase 4A; and, the revised and resized CCC to be located (solely) on the site currently occupied by the Frontage Building¹.

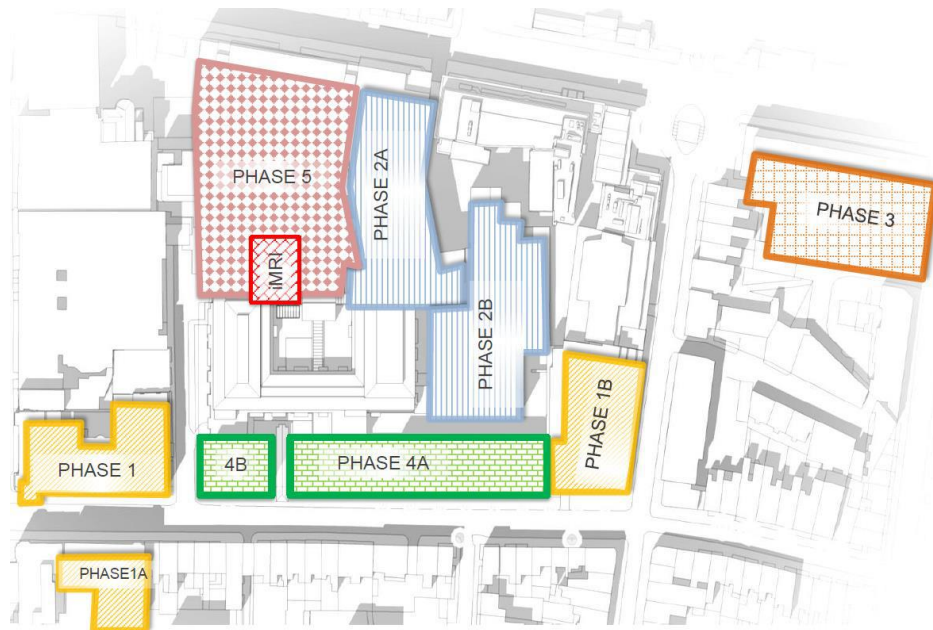
¹ Phase 4B comprises the re-use of the current neighbouring PO'G building.



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Figure 2 below locates Phase 4A, plus earlier Masterplan delivery phases and potential future developments (all of which fall outside the scope of the CCC Project).

Figure 2: GOSH Masterplan delivery phasing



Currently the aim is to have completed Phase 4A on a turn-key basis by summer 2025. Work on the programme commenced in 2017.

The aims of the programme:

The CCC programme's principle aim is the design, development and turn-key delivery of a new build paediatric Cancer Centre (including hospital pharmacy and hospital school functions) at GOSH. The programme will also be responsible for facilitating the delivery of co-located and sustainable children's cancer services, delivering modern models of care in the most appropriate setting.

The programme's vision statement sets out its principle aims:

The Children's Cancer Centre at Great Ormond Street Hospital will be a national resource for children with rare and difficult-to-treat cancers.

The vision of the Centre will be to improve outcomes for children through holistic, personalised and coordinated care, across the child's entire cancer journey.

The Centre will be the physical embodiment of this aspiration and will provide inspiring and flexible spaces that can respond to the rapidly changing nature of cancer care and the research landscape. Facilitating accelerated adoption of new innovations and models of care.

[Insert Security Classification once completed]



The driving force for the programme:

The GOSH CCC programme fully aligns with the GOSH Hospital Trust's Clinical Strategy, to strengthen specialist and highly-specialist paediatric services, and to lead in future fields, and is also fully aligned with the Trust's Research Strategy, a key aim of which is to be one of the global leading children's research hospitals. Great care has been taken to ensure that GOSH's vision for the CCC and the wider context Clinical and Research strategies are well-aligned with local, regional and national strategic direction (*Section 3 - Strategic Case: sub-sections 3.1 – 3.2 (inclusive) of the CCC Project Outline Business Case (OBC) version 3.1 dated 30 August 2019 refers*).

As set out in the programme's OBC, its key drivers are summarised as:

- a) Limitations of the existing GOSH estate
- b) Increasing demand for clinical services
- c) Need to improve clinical quality
- d) Drive to implement principles of research hospital

In response to these drivers the OBC states that the following programme objectives have been agreed:

- a) Achieve the best possible outcomes and, safest and most effective care
- b) Attract and retain the right people to the hospital's workforce
- c) Improve children's lives through research and innovation
- d) Transform paediatric cancer care and the way the hospital provides it through harnessing the latest technology
- e) Use of patient and parent/carer voice as a trusted provider to improve care
- f) Create inspiring treatment, care and educational spaces
- g) Secure and diversify funding

The CCC programme represents Phase 4A of the revised multi-phase GOSH Masterplan.



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The procurement/delivery status:

For the development and delivery of the original Phase 4 CCC programme, the Hospital Trust agreed a preferred procurement route to appoint a multi-disciplinary design team with a Prime Contractor. This contract was the subject of an OJEU process, and the procurement, which was completed in September 2017, was managed by the Trust in accordance with the requirements of the OJEU Competitive Dialogue procedure as set out with Regulation 30 of PCR 2015.

On the basis of the tender evaluation outputs, the recommendation to the Hospital Trust Board was that John Sisk & Son ('Sisk'), partnered with BDP architects, were selected as the preferred delivery partner.

To facilitate the work up of the 23,600m² scheme design (tested against a then provisional works cost limit (WCL) of £190 million (this figure was revised upwards to £201 million) to develop an Early Design Valuation (EDV) to inform the development of the OBC, the Trust entered into a capped Early Design Agreement (EDA) which commenced in October 2017. Sisk delivered the EDV, in the form of a (subsequently supplemented) Scheme Validation Report (SVR), in spring 2018.

Following receipt of the SVR, the Hospital Trust (aided by Sisk) and the Children's Charity worked closely to provide greater confidence re: programme affordability. This has also included significant work by the Hospital Trust on its operational activity modelling and the expected long-term revenue impact of the programme. This work resulted in some marginal changes to the scope of the CCC, with an adjusted Clinical Design Brief (CDB) of c.21,000m², equating to a WCL of £203m.

In early 2019, following a joint Hospital Trust / Children's Charity review of project funding, the scope of the scheme was revised to fit an indicative "out-turn cost" of £258m (which the Charity has provisionally agreed to underwrite £250 million, with the Hospital Trust contributing £8 million), with an adjusted down CDB of c.16,000m². It is the revised (Phase 4A) 16,000m² scheme that the Hospital Trust (aided by Sisk, working under an extended EDA) is now looking to secure Trust and Children's Charity board approval later in September 2019.

Subject to approval of the OBC by the Trust and Charity boards, the Hospital Trust intends to enter into a Pre-Construction Services Agreement (PCSA) with Sisk as prime contractor. The PCSA will govern the period up to and including obtaining planning permission and the Trust obtaining Full Business Case (FBC) approval in autumn 2021.



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At the end of the PCSA period, if there is agreement on the contract sum and it remains within the revised WCL, the Trust or Charity can award the contract to Sisk (although there is no contractual obligation to). The Trust has selected the NEC3 Engineering and Construction Contract (as amended) Option A for the delivery of the main CCC scheme. To facilitate the delivery of the CCC, there are 5 enabling works packages of varying values and proposed procurement routes and contracts.

The programme is currently:

- Set to seek the Hospital and Charitable trusts' approval of its OBC in September and October 2019 respectively; and, following the comprehensive review of the scheme for affordability also planning risk;
- Preparing for the (RIBA) Phase 2 Design Assessment of the Phase 4A scheme; and,
- Shortly to enter (detailed) pre-planning discussions with the local planning authority, The London Borough of Camden ('Camden').

Current position regarding previous assurance reviews:

No previous Gateway / IPA assurance reviews have been undertaken on the GOSH CCC programme.

However, early in 2019, given the scale of the investment, the complexity of the scheme; the long-term delivery programme timescale and current (volatile) market conditions the GOSH Children's Charity commissioned Rider Levett Bucknall ('RLB')² to undertake an independent review of the following aspects of the CCC scheme:

- Clinical Brief / Capacity Model
- Architecture
- MEP Engineering
- Structural Engineering
- Cost and Commercial Management
- Project Management
- (Construction) Programme

The RLB findings and recommendations report dated 16 May 2019, which has been shared with the Hospital Trust Programme Team, was made available to the RT. Following review, the RT endorses the findings and recommendations of the RLB

² RBL is a global construction and quantity surveying practice



report.

With regard to SRO's Osmotherley letter (of appointment) this instrument is not relevant to NHS programmes/projects.

As no previous Gateway assurance reviews have been undertaken, for the purposes of this report, **Annex C** is not used.

Purposes and conduct of the OGC Gateway Review

The primary purpose of a Gateway Review 2: Delivery strategy, is to confirm the Outline Business Case now that the programme is fully defined and ensure that the procurement and delivery strategy is robust and appropriate.

Annex A gives the full purposes statement for a Gateway Review 2.

Annex B lists the people who were interviewed during the review.

Acknowledgement

The Review Team (RT) would like to thank Mat Shaw, SRO, and the Trust's Built Environment Team for their support and openness, which contributed to the Review Team's understanding of the Programme and the outcome of this Review. The RT would particularly like to thank William McCready and Debaleena Bose for organising the logistics of the Review.

Scope of the Review

The scope of the Review is as set out in the Terms of Reference discussed at the Planning Day, as amended. The programme is at the stage of seeking OBC approval.



Review Team findings and recommendations

1: Assessment of the delivery approach

The experienced programme team within GOSH, partly based on lessons learnt from previous projects undertaken within the GOSH site (i.e. Phase 3), but also by other NHS trust hospitals in London (Guy's and St Thomas'), have procured the services of a Prime Contractor (Sisk) and a multi-disciplinary design team, with input from GOSH specialist teams, following on from a successful design competition exercise run by RIBA and in line with the necessary procurement procedures.

As mentioned previously, the design and contractor team, led by the GOSH programme team, were tasked to review options and develop the design brief proposals for the Children's Cancer Centre (CCC) under a EDA to a RIBA Stage 2 design. This brief was originally for Phase 4 of the development which included the existing frontage and the Paul O'Gorman Building (comprising phases 4A and B).

The RIBA competition approach is seldom used in the NHS. The RT consider that the delivery approach is appropriate and is likely to on balance deliver the likelihood of cost certainty, speed of delivery and a quality design and construction approach.

There are however some challenges due to the review of the scope of the CCC development since December 2018. This has led to the modified preferred option of Phase 4A of the scheme (only the existing Frontage Building redevelopment), on which the OBC is based.

It remains to be determined whether the Phase 4A scheme can deliver the requirements of the original design brief, which means it is critical that the Charity and the Trust confirm the development proposals and retain the services of Sisk and BDP through a new PCSA in order to maintain programme dates. This is required to overcome the challenges ahead, and in particular, to progress through the planning cycle for an acceptable architectural design which also meets the requirements of the original brief.

The RT found that there is a strong commitment from all those interviewed, who have the necessary experience to deliver this programme, to address the challenges ahead. Approval of the OBC will provide the necessary 'kick start' required to demonstrate to stakeholders and staff that the CCC will be delivered.



2: Business Case and stakeholders

The current draft of the OBC sets out a clear vision for the provision of Children's Cancer services through the co-location of outpatient, day case and inpatient services for this patient cohort. These services are currently located in disparate locations on the hospital site in facilities which are no longer fit for purpose. The development will also provide some capacity for planned demographic growth in activity and for potential growth in international private patient activity. The new building will also contain hospital-wide facilities for medicines management and hospital school provision.

The scale of the proposed development has changed over the last year and the project has been descoped from circa £377m to £258m by dividing the planned Phase 4 development into two separate, but linked phases. The OBC is therefore for Phase 4A.

The capital costs in the OBC have been derived from the costs of the £377m project applied to the revised scope and building footprint. The previous design had been developed to RIBA Stage 2 and the capital cost had been well-developed through the Trust's construction partner, Sisk, its cost adviser, McBains and the Trust's cost advisers Currie and Brown. The larger project had also been reviewed by the Charitable Trust's advisers, RLB so a high degree of confidence can be assigned to those. Additionally, Sisk has confirmed that the revised construction cost for the descoped project is robust.

The planning contingency contained within the £258m budget is £16.4m (including VAT). This will ultimately be divided between the contractor and the Hospital Trust so that each party can manage its own risks. The Trust, through its cost advisers, will need to ensure that the Hospital Trust's contingency will address the assessed risks the Hospital Trust will retain to a P80 confidence level at FBC stage.

The residual optimism bias currently stands at £27.2m, which is circa 14%. The upper bound assessment and the mitigations appear reasonable in arriving at this level.

The cost advisers for the Hospital Trust and the Children's Charity appear confident that the contingency and optimism bias figures in the OBC are sufficient.

The governance structure of the programme is being revised to reflect the nature and scale of the construction project and the interests of the Trust's principal funder – the Children's Charity. The RT recognise the close working relationship between the Trust and the Charity and the shared objective of delivering a high-quality building and service for the children it will treat.



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The governance arrangements for the programme will need to be fit for purpose and to ensure that the Charity can deliver on its aims and the Trust can deliver the programme overall.

Recommendation 1: The Trust and the Charity should review the governance arrangements to ensure that there are clear terms of reference for the groups in the structure and clear roles, responsibilities and delegated authority for all individuals involved in implementation.

The OBC shows that the programme is affordable in the context of the Hospital Trust's Long-Term Financial Model the wider Strategic Transformation Partnership (STP) Medium-Term financial plan and is consistent with the planning assumptions currently promulgated by NHS commissioners for these services. The overall affordability to the Trust appears to be based on sound principles. The RT heard that there have been a number of opportunities for Board members to explore the robustness of the financial projections.

The RT noted that the OBC also involves a land swap between the Hospital Trust and the Children's Charity. The details of this are yet to be finalised, but it will involve a land swap of equal value: both parties will need to ensure that they take the appropriate advice to satisfy their audit requirement in this regard.

Work has been undertaken in the OBC to identify the key benefits which are expected to be delivered by the programme. As set out below, further work to identify benchmarks and key metrics and the evidential base for these will need to be developed early in the next phase to support the Full Business Case (FBC) and to inform the Charity's assessment of investment impact.

Recommendation 2: The Trust team will need to develop in greater detail and maturity the expected benefits of the development and to identify and assign values to these.

A key milestone for the programme will be to secure a Full Planning Consent for the revised scheme. The GOSH site is in a conservation area and has a high degree of sensitivity, with listed residential accommodation on Great Ormond Street. Camden, as local planning authority, are keen to engage in the development of the scheme. A residents' liaison group has been established.

For the next phase of the programme, the Hospital Trust and Sisk will need to deepen the engagement with Camden and undertake significant work to assuage the concerns of local residents if the Planning Application is to be successful and delivery timescales are to be maintained. These activities will require additional programme team resource.



The engagement with internal stakeholders will also need to be deepened to underline the importance of the programme to the Hospital Trust as a whole. The programme team should consider a formal and high-profile internal relaunch of the CCC programme once the OBC has been approved.

Recommendation 3: The Trust should commit additional resource to communication and engagement with internal and external stakeholders to support the development of the scheme.

3: Risk management

At this stage of the programme the RT are of the opinion that the majority of major issues and risks traditionally associated with this type of complex turn-key infrastructure and organisational change initiative, have been identified. This includes the assessment of key strategic, political, commercial and legislation risks. It would appear that the programme team have identified and put plans in place to manage (where known) the CCC programmes (inter) dependencies with those initiatives within and without the GOSH Masterplan strategic programme.

As the programme works up the FBC it needs to review the current risk register with Sisk and other partners to identify those risks relating to the successful delivery of the next phase, environmental concerns, site clearance/redevelopment, enabling works, new build construction, fit out and delivery as a turn-key facility.

One area for especial focus are the risks and challenges relating to the human change programme that will need to be implemented in preparation for and then during various building decants (for some user teams double-decants) and new build handover, occupation and then live operation are identified. Suitable risk management plans and controls will need to put in place to ensure that the risks are actively managed.

This work will be invaluable not only in ensuring that people are ready to maximise of the benefits associated with the new built environment, but also to help ensure that the strategic benefits identified in the OBC are realised.

Linked to this the programme will also need to consider suitable operational business continuity and programme contingency plans to ensure that critical clinical and other services are not unduly impact on/disrupted – for example should the decants and/or delivery of the new build are delayed.

Another area for further risk and issue work is securing planning permission, especially those relating to public relations with local residents. The team also needs to keep a close eye on the effectiveness of its management of end-user and other key stakeholder engagement risks. This should help ensure that stakeholders remain bought into the scheme and aid benefits realisation.

[Insert Security Classification once completed]



Recommendation 4: The Programme Team, working with key delivery partners, undertakes a full review of the programme's current risk assessment to ensure that it covers all relevant risk areas.

This should also include those relating to the construction phase, operational change and business continuity risks and the likely risks in the operational phase. This must be an ongoing review with the risk register treated as a live document and reviewed regularly.

With regard to risk management approach, from what the RT has heard and seen, it would appear that the programme has not adopted a recognised risk management approach. To aid programme planning, the development of the FBC and also (again) benefits realisation it is recommended that it adopts a formal risk management approach, such as the (OGC) Management of Risk (M_o_R) methodology.

Use of such an approach will help the team promote (more) effective and better coordinated risk management, through active horizon-scanning, focusing on doing the right things, more efficient and responsive/flexible use of risk management and programme/project resource; and, ensure that risk management activities are properly assigned and owned.

Its use should also help tighten risk reporting and programme / risk governance including regulatory compliance; and (if done properly) help the programme avoid legal challenge(s) during planning and procurement. The use of a more formally structured risk management approach will also help ensure that the learning garnered from previous and current sister projects and other initiatives are learnt and some of the issues they have faced avoided.

However, this is not just about the team reading up on a risk management approach, it is making sure that the team are formally and well trained/coached on the use of the approach to be adopted.

Recommendation 5: That the programme recruits additional capacity and capability in the form of an experienced and certified programme management specialist (someone with proven experience of such as M_o_R which has been developed for use by public-sector programme and projects).

This resource, if appointed, should be used to train up the wider programme team.

A final area for improvement is risk progress monitoring and review. The introduction of a risk status commentary section in the current risk register will ensure that risk managers can communicate what they have done or are doing regarding their risks.



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If adopted, the absence of any regular or detailed risk updates, will help the programme team identify those business and delivery areas who may be struggling, and/or those who require a bit more formal 'support'.

4: Review of current phase

The programme team has clearly undertaken significant work to reach this stage. The RT would like to compliment the programme team for the exemplary engagement with the key patient group – the Young Persons Forum which has been deeply involved in the development of the design brief. The RT found a high degree of enthusiasm and commitment to the project from all those interviewed.

The previous scheme had been developed to RIBA Stage 2, but the current rescope project is only at RIBA Stage 1.

The Hospital Trust has selected, through a RIBA Design Competition, a contractor-led Design Team. The RT consider that early involvement of a contractor is good practice.

The Trust will undertake the next stage of work under a PCSA to develop the design, secure planning consent and prepare for construction.

Following the completion of the PCSA period, the Charity will enter into a NEC Contract for the construction and delegate its responsibilities under the contract to the Hospital Trust programme team for delivery.

The management of the PCSA and NEC Contracts will be time consuming and complex.

Recommendation 6: The Hospital Trust team should put in place an experienced NEC qualified Project Manager to administer the contracts.

The Hospital Trust is also undertaking a series of decanting and enabling works to vacate the Frontage Building and there appears to be enough time to implement these. The Hospital Trust will need to ensure that the scope of these works is tightly managed and controlled to avoid scope creep and the consequent risk to timely vacation of the Frontage Building.

The RT acknowledges the skills and expertise of the Hospital Trust programme team which includes highly experienced, committed and talented individuals. The RT finds that the team will need to be expanded for the next phase of work.



5: Readiness for next phase – Investment decision

Scope

The Programme Team will need to review the scope of the CCC project to ensure that there is stakeholder alignment to the functional content and the proposed approach to discussions with Camden with regards to town planning. This is essential in maintaining cost and programme.

Recommendation 7: The scope of the programme needs to be clearly defined and agreed by the key stakeholders to allow design work to restart meaningfully.

Benefits

Benefits management is one of the few elements of delivery which truly spans the whole lifecycle of a programme/project, from conception to evaluation post-delivery. As benefits form a common thread throughout all stages of project delivery, good benefits management starts early and evolves as the programme/project matures. Planning for the effective quantitative and qualitative measurement of programme outcomes in the form of benefit, for initiatives such as the CCC programme, is often one of the most challenging for delivery teams as benefits will in the main only be realised after programme completion. Furthermore, the circumstances in which benefits are delivered tend to evolve with time, and the responsibilities for (benefits) delivery and measurement invariably sits outside the programme team.

From a review of the set of documentation and plans made available to the RT, the CCC programme has identified and articulated an expansive range of mainly non-financial benefits overarching clinical, quality & safety, training & research, estates and facilities, building design, societal and reputational benefits. (The key benefits are well-summarised in section 7.10 (and the table at Figure 7-1) of the OBC version 3.1 dated 30 August 2019, pages 144 -147 refers.)

The RT's main observation re: benefits is that the Hospital Trust needs to further the develop these to ensure that a full and suitable set of qualitative and quantitative measures and (key) performance indicators are identified and included in the required planned Benefits Realisation Plan (BRP) and FBC. The programme team also need to consider any potential disbenefits associated with the programme.

This will enable both the Hospital Trust and the Charity to measure both success and performance/achievement of proposed programme outcomes.

Recommendation 8: The programme considers benefits and disbenefits that may arise during and as a result of the delivery of the programme, again suitable measure/metrics will be required to ensure that such can be properly assessed for impact/realisation and ownership assigned.

[Insert Security Classification once completed]



Preparing for the Investment Decision.

The Hospital Trust, Charity and delivery partners are all committed to deliver the CCC to the vision and design standards required.

There is still some work to complete the OBC before it can be submitted for final approval, inter alia, the economic analysis, and the updated outputs of the Long Term Financial Model.

The RT is of the opinion that as long as the above work is addressed in a timely manner, there is no reason why the OBC should not progress, and the programme team can then concentrate on producing the FBC.

The time and cost/delay impacts to the programme of further changes needs to be recognised, as well as the ability to retain a motivated staff and supply chain.

The next stage is critical to ensuring that the scheme can progress to start of works in 2022, and in giving confidence to both stakeholders, staff and suppliers, that the CCC will finally be delivered.

The RT believe that the following actions are required in order to successfully progress through the next stage:

- a. As mentioned previously, the current programme team needs to be augmented in terms of its risk, benefits and communications and engagement capacity if they are to successfully deliver the next phase.
- b. The programme team will need to continually assess resource needs due to potential for staff attrition.
- c. The programme team should review and act on issues and concerns raised in the Children's Charity commissioned report by RLB dated 16th May 2019.
- d. The team should continue to liaise and engage with the wider GOSH clinical and operational staff (including education, pharmacy etc) to ensure the new building also meets their requirements and they are suitably engaged in the project through the governance structure.
- e. The team should continue to engage with all staff and stakeholders on programme progress.
- f. As part of developing the FBC, consideration of how the 'change' to GOSH operations and staff will be managed.



Next Assurance Review

The RT propose that the next Gateway Review should be a Gate 3: Investment Decision, which should be undertaken once the Full Business Case is being considered for approval, and prior to signing the final construction contract, in 2022.



ANNEX A

Purposes of the OGC Gateway Review 2: Delivery strategy:

- Confirm the Outline Business Case now the project is fully defined.
- Confirm, that the objectives and desired outputs of the project are still aligned with the programme to which it contributes.
- Ensure that the delivery strategy is robust and appropriate.
- Ensure that the project's plan through to completion is appropriately detailed and realistic, including any contract management strategy.
- Ensure that the project controls and organisation are defined, financial controls are in place and the resources are available.
- Confirm funding availability for the whole project.
- Confirm that the development and delivery approach and mechanisms are still appropriate and manageable.
- If appropriate, check that the supplier market capability and track record are fully understood (or existing supplier's capability and performance), and that there will be an adequate competitive response from the market to the requirement.
- Confirm that the project will facilitate good client/supplier relationships in accordance with government initiatives such as Achieving Excellence in Construction.
- For a procurement project, confirm that there is an appropriate procurement plan in place that will ensure compliance with legal requirements and all applicable EU rules, while meeting the project's objectives and keeping procurement timescales to a minimum.
- Confirm that appropriate project performance measures and tools are being used.
- Confirm that there are plans for risk management, issue management (business and technical) and that these plans will be shared with suppliers and/or delivery partners.
- Confirm that quality procedures have been applied consistently since the previous Review.
- For IT-enabled projects, confirm compliance with IT and information security requirements, and IT standards.
- For construction projects, confirm compliance with health and safety and sustainability requirements.
- Confirm that internal organisational resources and capabilities will be available as required for future phases of the project.
- Confirm that the stakeholders support the project and are committed to its success.

The specific areas of assurance for the SRO which are project specific were discussed at the Planning meeting. It was noted that the project has been surrounded by issues and has been difficult to progress to OBC. There is an overarching need to manage the expectations key stakeholders and in particular the Trust Board and the Charity Trustees.

[Insert Security Classification once completed]

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This report is an evidence-based snapshot of the project's status at the time of the review. It reflects the views of the independent review team, based on information evaluated over the review period, and is delivered to the SRO immediately at the conclusion of the review.



OGC Gateway™ Review 2: Delivery Strategy
**Programme Title: Great Ormond Street Hospital Children's
Cancer Centre**

These key areas comprise:

- The building overall represents value for money (a key point for the Charity Trustees);
- The programme for delivery is reasonable and deliverable;
- The capital cost of £258m is robust and will deliver the design brief;
- The programme plan through implementation is robust;
- Assurance with regards to deliverability given the time pressures – whether there appear to be any showstoppers before the final contract is agreed with the contractor;
- Timescales for approval: proceeding at risk versus delay later;
- Assurance on the PCSA contract.



ANNEX B

List of Interviewees

The following stakeholders were interviewed during the review:

Name	Organisation and role
Jim Chapman	Architectural adviser, RIBA
Ian Chivers	Chief Financial Officer, GOSH Children's Charity
Jayne Franklin	Head Teacher, GOSH School
Darren Hargrave	Paediatric Oncology Consultant, GOSH
Helen Jameson	Chief Financial Officer, GOSH
David Keith	GOSH Cost Consultant, Currie + Brown
Carol McCormack	Legal Adviser, Michelmores LLP
William McCready	Programme Manager, GOSH
Jonathon McClue	Principal Planning Officer, London Borough of Camden
Paul Mills	Director of Property, GOSH Children's Charity
Alison Roberston	Chief Nurse, GOSH
Matthew Shaw	Chief Executive, GOSH (Project SRO)
Duncan Sissons	Project Director, Sisk
Steve Tomlin	Chief Pharmacist, GOSH
Matt Tulley	Director of Built Environment, GOSHFT (Project Director)
Steph Williamson	Deputy Director of Built Environment, GOSH

[Insert Security Classification once completed]



ANNEX C

Progress against previous assurance review recommendations: No previous Gateway review has been undertaken.