

STANDARD BUSINESS CASE TEMPLATE FOR EXPENDITURE GREATER THAN £100K

BUSINESS CASE TITLE: Radiotherapy Centre: Full Business Case.

Reference Number:	[REQUEST FROM FINANCE]		
Date:	20220905	Version:	V0.4
Value:	£14,807k (with VAT), £12,920k (with reclaimed VAT)		
Approved Value in Capital Plan/ Revenue Budget:	Not in current year capital plan – affects future years.		
Division/CSU/Dept:	Corporate		
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Approvals Sign-off (if steps missed below please state why)			
EDs Meeting:			
MDG:	N/A		
CCG:	Support received.		
CBIG:			
TEG:			
QIA Sign off:			

NHS Capital definition: "expenditure of at least £5k on the acquisition of land, buildings and equipment with a life expectancy in excess of 1 year". (This £5k value includes VAT where it is irrecoverable.) Any expenditure which does not directly result in an asset, or the enhancement (eg refurbishment, upgrades and **NOT** repairs) of an asset, must not be capitalised but must be charged to a revenue budget. Assets of a value lower than £5k should be capitalised if they form part of a group, with a group value more than £5k. This £5k should include VAT where it is irrecoverable. These grouped assets are a collection of assets which individually may be valued at less than £5k but which together form a single collective asset because the items satisfy all of the following criteria. · They are functionally interdependent. · They are acquired and planned for disposal at about the same date. · They are under single managerial control, and · Each individual asset within the group has a value of over £250.

1. Executive Summary

i) Purpose

This Full Business Case seeks approval for the capital investment of up to £14.8M for the construction of a new build Radiotherapy Centre. This centre will provide Radiotherapy treatment locally for patients in the Milton Keynes catchment who must currently travel to Oxford or Northampton for treatment. The service will be provided by Oxford University Hospitals, who will also provide the necessary LINAC and a planning CT, on the MK site and has the support of NHSE and the local ICS.

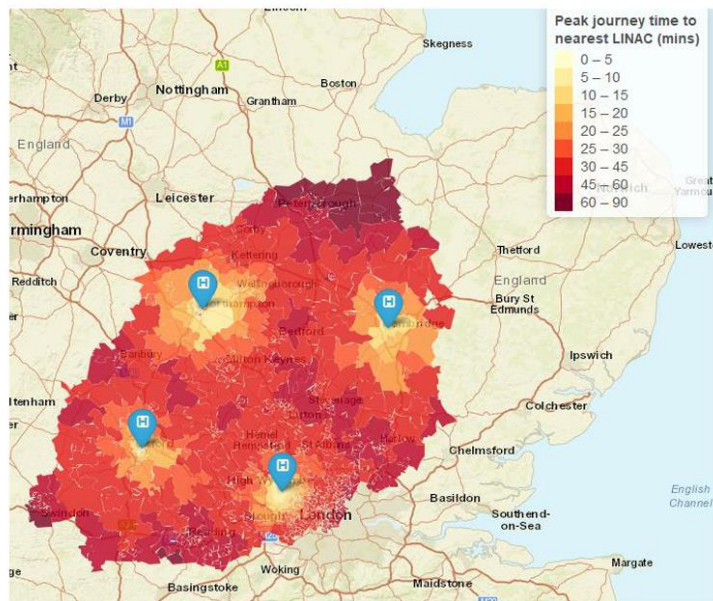
If the case is supported then it is also proposed that the Trust commissions ADMK for the delivery of the project which has been developed in detail by ADMK appointed design team and has been priced by Morgan Sindall using the Pagabo procurement framework. The use of ADMK Ltd would enable the Trust to reclaim the VAT incurred which could reduce the cost by up to £1.9m.

2. Brief Scheme Overview

Background

- Historically MK patients typically accessed cancer services (chemotherapy and radiotherapy) through Northampton General Hospital.
- In 2014, MKUH's primary cancer link switched from Northampton to Oxford (OUH) and this change was accompanied by an emphasis on care 'close to home' (where appropriate) and growth of a local service through collaborative recruitment: in the case of chemotherapy this has culminated in the opening of the Cancer Centre in 2020 (constructed and managed on behalf of the Trust by ADMK Ltd) and in the case of radiotherapy, an arrangement was developed with a third party (Genesis Care) for radiotherapy to be provided at a private facility in MK (Linford Wood) under contract to OUH.
- The arrangement between OUH and Genesis Care resulted in around 60% of radiotherapy for MK patients taking place in MK, with 30% taking place in Oxford and the remainder in Northampton. This contractual arrangement ended abruptly in late 2019, and most MK patients have been receiving radiotherapy in Oxford since this time.
- Radiotherapy is often very intensive for patients, requiring daily attendance for many weeks. It is acknowledged by all that travel times between MK and Oxford are excessive and contribute to poor patient experience. Local patient groups are vocal in their concern about 2019 developments and their wish to have radiotherapy provided in MK once again.

Transport Heat Map 2018/19



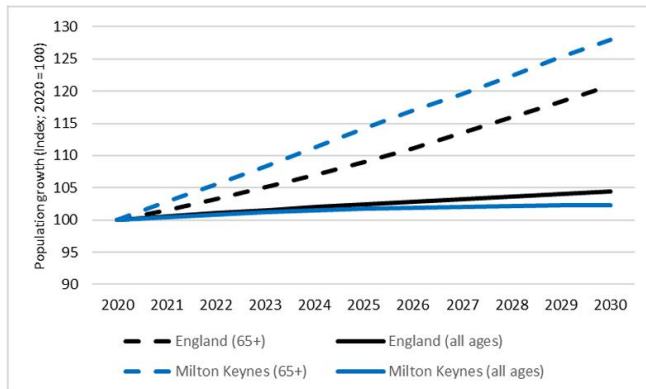
Note that some drivetimes around the edge of the shaded areas are exaggerated because we have not modelled travel to neighbouring geographies (e.g. Peterborough)

- Radiotherapy is commissioned from large established NHS providers (often tertiary centres) and it is unlikely that commissioners would wish to commission directly from a new entrant. Operational Delivery Networks (ODNs) for radiotherapy, aligned to cancer alliances, reinforce this barrier to entry.
- Regular Radiotherapy Project Boards have been held with Region and ICS in attendance, both parties are supportive of the capital investment for the development in MK.
- OUH and MKUH have been in discussion about the provision of a radiotherapy facility at MKUH. OUH have developed a satellite radiotherapy unit at the Great Western Hospital (Swindon) which recently opened. This was funded through a ring-fenced DH capital allocation along with large charitable donations.
- Following the termination of the OUH / Genesis contract there has been renewed impetus on moving forward with the case for a radiotherapy facility on the MKUH site. This work has been complicated by the impact of COVID-19 locally and on partners (both the clinical challenges and uncertainty about contractual form), the formation / maturation of the NHS regions and integrated care systems, and the recent introduction of capital spending limits by ICS (CDEL).
- MKUH Board commissioned ADMK Ltd to develop the Full Business Case in respect of a radiotherapy facility at MKUH.

Demand and Activity

- Edge Health were commissioned by the national and regional NHSE teams to assess scenarios for the demand for LINAC fractions. This organisation has also been commissioned to undertake the review on the reprovision of the Mount Vernon services. Their assumptions based on most likely scenarios assume population growth in the 65+ age bracket aligned to ONS and assumes that patients will travel to their nearest LINAC facility. The projections are also mitigated by incorporating changes in fractionate, for example the assumption that 60% of patients on 15 fraction breast pathways will have only 5 fractions and 75% of patients on the 19-20 fraction prostate pathways will have just 5 fractions.

Population Growth 2020-2030 Milton Keynes and England



Source: ONS 2018-based sub-national population projections
 Note: Milton Keynes data refers to the Local Authority area

Annual Growth Rates (2020-2030)

	All ages	65+
England	0.5%	2.0%
Milton Keynes	0.3%	2.8%

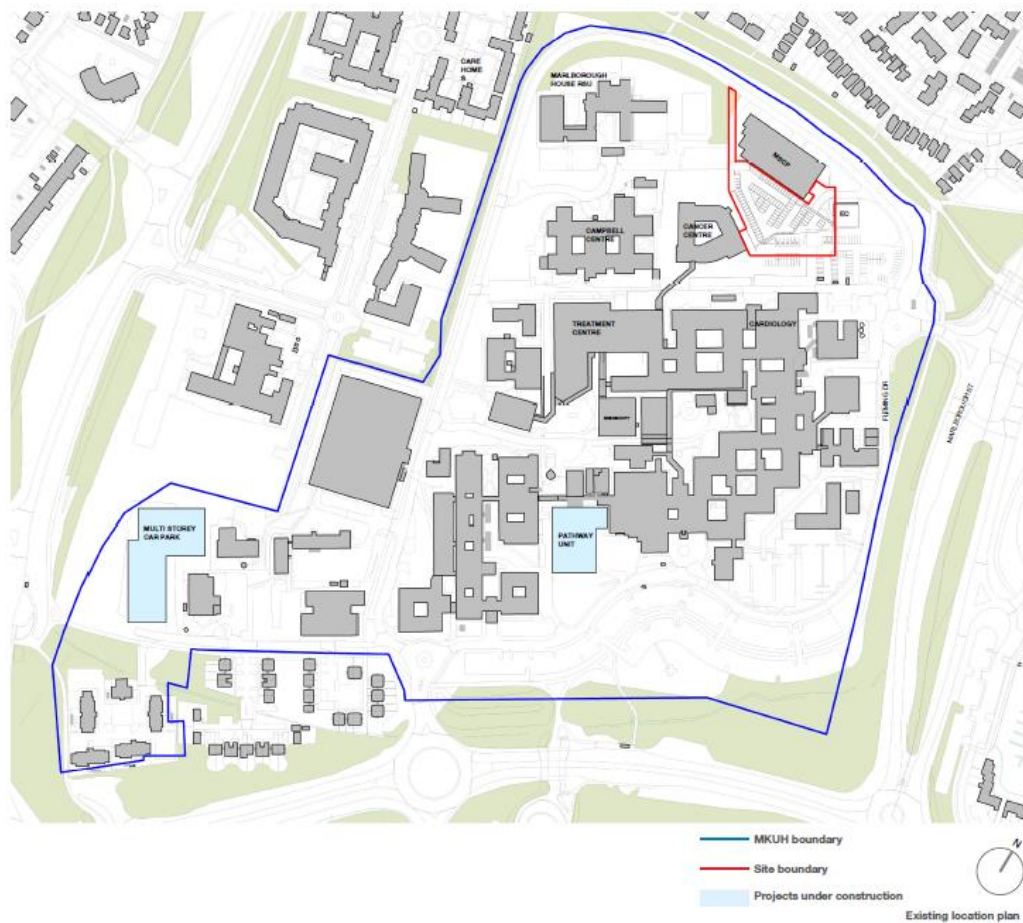
- When modelling how population growth translates into demand, we assume 1% or 2% underlying growth in fractions

Mitigated Fraction Growth to 2025

Scenario	2019	2020	2021	2022	2023	2024	2025
1% Growth per year	25,571	25,827	24,489	24,734	22,452	22,676	22,903
2% Growth per year	25,571	26,083	24,976	25,476	23,354	23,821	24,298

- Based on the activity figures identified it has been agreed between MKUH, OUH, ICS and NHSIE that a 2 LINAC Bunker Radiotherapy Centre be developed on the MKUH site. This will consist of a building to accommodate 2 LINACs. Whilst demand may grow rapidly leading to the acquisition / installation of a second LINAC, the case does not suppose/require a second LINAC and does not actively plan for any pathway change (i.e., it is anticipated that Bedford patients will continue to travel to Cambridge as at present). National radiotherapy leads are supportive of a one LINAC / two bunker approach even if the second bunker functioned solely to facilitate LINAC renewal some years down the line without significant interruption to service. The review of the options has been included in 4. Economic Case.

Milton Keynes University Hospital Site Plan & Site Red Line Boundary

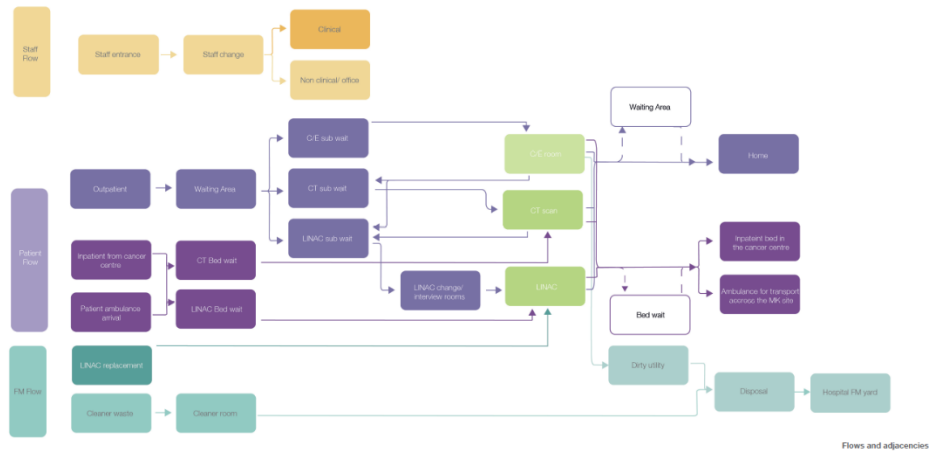


- OUH will be the tenant of the building to run the Radiotherapy service in MK as a satellite of their existing service in Oxford. OUH are currently progressing a business case for the revenue requirement to run this additional satellite, which has been supported by their Investment committee. The additional revenue funding has been approved in principle by NHSIE and the ICS.

Stakeholder Engagement

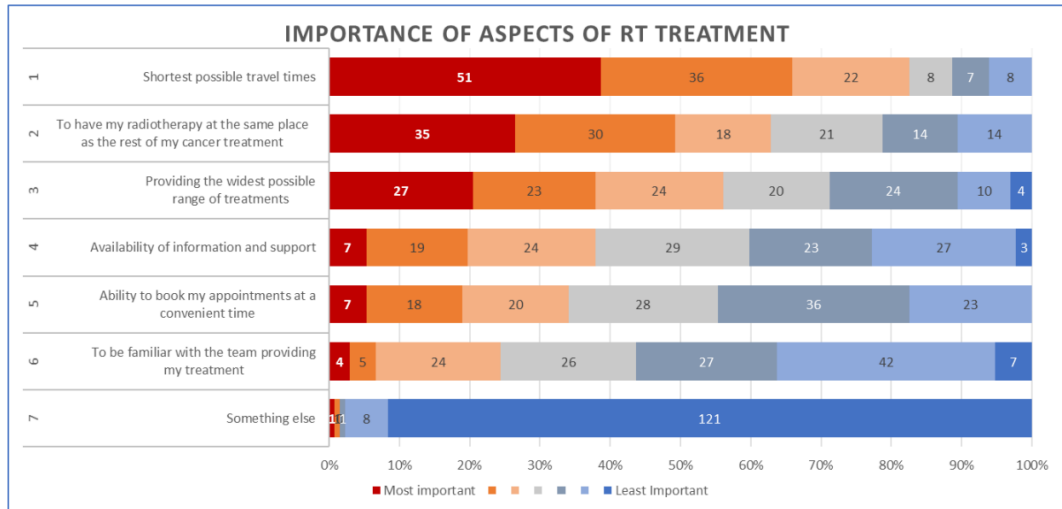
- OUH have been fully involved in the design process and programme. The diagram below shows the key staff, patient, and FM flows within the building to support the service. These have been incorporated into the design. MKUH requirements for the build and integration with the build have been represented by Sally Burnie (MKUH Cancer Lead).

Key Patient, Staff & FM Flows



- Workshops have been held with all key support services within the trust including:
 - Portering and Waste
 - IT (OUH and MKUH Combined)
 - Fire Officer
 - Infection Control
 - Estates Maintenance
- Patient Experience Surveys have been carried out by NHSE to understand the patient voice in Radiotherapy Services. The survey participants were asked to rank the importance of aspects of the radiotherapy treatment. Shortest possible travel times ranked highest, with having radiotherapy treatment at the same place as the rest of my cancer treatment ranking second. The survey outcomes can be found at Appendix 2.

Importance of aspects of Radiotherapy treatment ranked by patient survey



- Recommendations Based on the feedback from patients completing the survey, led to 10 recommendations documented in 'Milton Keynes Radiotherapy Engagement Report July 2022'. Many of these related to the operational function of the building however the first recommendation relates to the location of the service as below:

1. *The feedback around travel and journey times strongly supports a radiotherapy service based in Milton Keynes, and this should be reflected in the business case.*

"The hospital and staff at the Churchill were amazing but it would have been great to have been able to have the radiotherapy in Milton Keynes. It just seems mad - mindboggling in fact that you have a brand-new cancer building that has just been built and no foresight that a little square of the building was not put aside for a couple of radiotherapy machines".

Age 45 – 54, Completed radiotherapy at Oxford University Hospital after Covid-19 pandemic

Proposals

Design proposals have been developed with the design team as indicated:

Architects	Ryders Architects,
Mechanical & Electrical Designers	BDP
Structural Engineers	BDP
CDM Advisor	Ryders Architects
Cost Consultant	WT Partnership
Pre-Construction Supply Chain	Morgan Sindall
Medical Physics Advisor	Aurora
Radiation Protection Advisor	Northampton NHS Trust
Fire Engineers	WSP

Ground Floor Plan

The ground floor of the unit provides a new dedicated entrance for Radiotherapy patients. The entrance area and waiting areas are in the fully glazed central area of the building. This will have an outlook onto a new landscaped area to the North and will be fully accessible for all levels of mobility.

To the left-hand site of the entrance is the outpatient consulting spaces, consisting of four consult exam rooms, two interview rooms and support ancillary spaces. To the front of the building there is a dedicated planning CT area, which includes CT Scanner room, control room and simulation suite.

There is also a link to the existing cancer centre in order the outpatients' rooms can be used flexibly between the buildings and that patients and staff can access the facilities within both buildings.

To the right-hand side of the entrance is the LINAC area. This includes sub wait, changing area, two bunkers to house Varian True beam LINACs, (in this initial phase OUH will provide one LINAC and evaluate when it is appropriate to provide a second. The space allocated for this build will also accommodate a third bunker if that becomes necessary), interview space and bed wait to support the patient journey through the area. Additionally, all the required local support and storage spaces required to support the efficient operation of the building.

Each room has been developed to 1:50 scale with detailed review workshops to develop locations in plan and elevation for all building elements.

Ground Floor Plan



First Floor Plan

At the first-floor level the building provides office facilities to support both Radiotherapy and Cancer Centre staff, male and female changing facilities and a staff room and meeting space which can be combined to form a large MDT area. Access to the maintainable plant supporting the building is from this first-floor level, and management of the access to this space will be owned by the Radiotherapy clinical team as there are radiation controls in place for this area to protect both staff and patients.

First Floor Plan

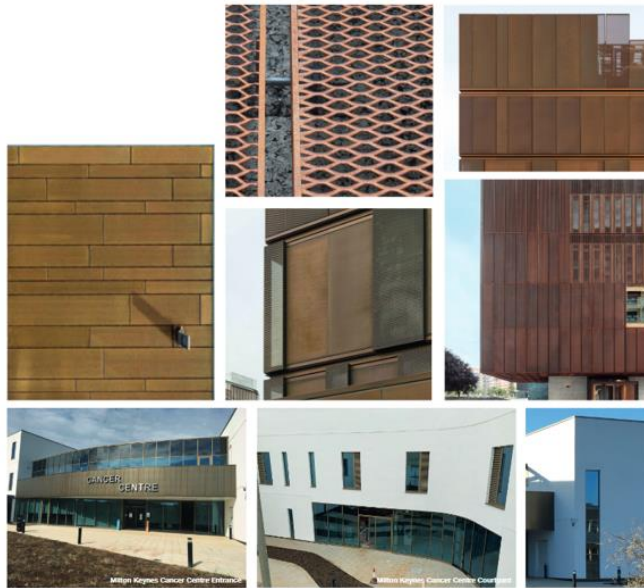


Aesthetic

The aspiration of OUH and MKUH is that this new Radiotherapy Build should look and feel like a continuation of the existing cancer centre. Whilst the service provision be from two different service providers the patient experience of the environment should be a unified cancer centre for whatever treatment is being provided to them on the day. The use of render and cladding panels to match the cancer centre finish, in addition to the massing off the building will allow the Radiotherapy Centre to be a continuation of the Cancer services on site appearing as one service. Internally the look and feel will mimic that of the cancer centre, using shifts in accent colours to ensure that staff and patients can easily way find and orientate themselves within the building.



Internal



External

Landscaping

The courtyard and gardens that surround the cancer centre create a sense of calm and connection to the outdoors within the cancer centre building. It was core to the OUH teams brief that this be continued into the Radiotherapy environment. This will take the form of a localised courtyard garden adjacent to the glazed waiting area, and more informal trees and earth mounds to the rear of the site creating a visual barrier to the multistorey car park.

Landscape Plan



Architects Impression



3. The Strategic Case

Revisiting the case for Change

This investment is being sought to support an opportunity to facilitate the provision of a Radiotherapy Service for the population of Milton Keynes adjacent to our existing Cancer Centre. The building would be developed by ADMK for MKUH, and the services would be operated by Oxford University Hospitals NHS Foundation Trust (OUH).

There are significant benefits to patients that would accrue from this scheme:

- There is currently no NHS radiotherapy service in Milton Keynes following the termination of the contract with Genesis Health which previously provided 6,400 fractions within Milton Keynes and therefore most MK patients have to travel to the Churchill Hospital in Oxford.
- The national standards for radiotherapy recommend a travel time to a radiotherapy centre of less than 45 minutes. Travel times for MK patients the Churchill Hospital are approximately 1hr 15 mins but can be substantially longer at certain times of the day. Sadly, this has been shown to lead to a reduction in uptake for radiotherapy treatment impacting patient outcomes.
- An analysis of demand and capacity for radiotherapy in MK was carried out by Edge Health in September 2020 on behalf of NHS Specialised Commissioning. They estimate that with future growth, demand at Milton Keynes could reach 14,800 fractions by 2025 if only patients treated at OUH or MK in 2018-19 were to travel to the new site.

Subsequent to the development of the OBC work has been undertaken by NHSIE to understand the national picture for radiotherapy developments to ensure that the demand for Radiotherapy at MK will continue.

Spending Objectives

Within the OBC the spending objectives were aligned to the MKUH Trust objectives. These have been reviewed and updated against the newly defined trust objective and further defined at FBC with project specific SMART Objectives.

Objective	Description
1) Improving patient safety	To provide Radiotherapy Services for (70% of patients) Cancer Patient in the Milton Keynes University Hospital with the recommended 45-minute travel radius within 1 year of operational commissioning.
2) Improving patient experience	To improve patient experiences through provision of high-quality environment to meet patient care needs for those using the MKUH Radiotherapy service within 45min travel radius and co-located with other cancer services.
3) Improving clinical effectiveness	To increase uptake in radiotherapy service for patients within the MK catchment by (10 %) over (the first three years) reducing health inequalities.
4) Delivering key performance targets	To create additional capacity to support delivery of cancer treatment targets.
5) Developing MK at pace	To provide futureproof estate for the anticipated growth in demand for Radiotherapy fractions which is anticipated to reach 14,800 fractions by 2025.
6) Developing teaching and research	To use the partnership with OUH to provide additional opportunities for learning for MKUH students.
7) Being well governed and financially viable	To deliver a capital scheme that within the affordability envelope for the Trust of £15M.
8) Investing in our people	To create co-located cancer services to reduce travel time for staff between sites improving staff efficiency
9) Developing our estate	To make effective use of the MKUH site by developing the project in line with the site masterplan
10) Being innovative and sustainable	To ensure the development of the Estate aligns with the 2030 NCZ aspiration of the Trust.

4. Economic Case

The table below demonstrates the options analysis against the spending objectives at FBC. The outcome aligns to the OBC findings, and the preferred option has been confirmed as a 2 bunker 1 LINAC Radiotherapy Centre on the MKUH site. A review by NHSE in June 2021 also favoured Option 4 (Appendix 1).

Project	Business as Usual	Do minimum	Intermediate	Intermediate Preferred Option	Do Maximum
Service Scope	Option 1 Patients continue to travel to Oxford/NGH	Option 2 Develop a 1 bunker, 1 LINAC Radiotherapy Centre on MKUH site.	Option 3 Offsite radiotherapy service developed by other parties.	Option 4 Develop a 2 Bunker, 1 LINAC Radiotherapy Centre on MKUH site.	Option 5 Develop a 2 Bunker, 1 LINAC and PET Scanner Radiotherapy Centre on MKUH site.
1) Improving patient safety	Alternate service provides a safe clinical environment but less shared clinical services	Holistic approach to oncology on site. Removal of requirement to transfer inpatients.	Not known	Holistic approach to oncology on site. Removal of requirement to transfer inpatients.	Holistic approach to oncology on site. Removal of requirement to transfer inpatients.
2) Improving patient experience	No reduction in travel time, no increased capacity, no improvement to patient experience.	Improved for patients who can have treatment. More challenging expansion plans when capacity of 1 LINAC met.	Alternate sites not known. Cancer service split across sites.	Good patient experience and expansion options when capacity met.	Good patient experience and expansion options when capacity met. Improved PET facility (currently mobile)
3) Improving clinical effectiveness	Reduction in uptake of service reduces effectiveness. Cancer treatment across different sites may impact effectiveness.	Reduction in travel time anticipated to improve clinical uptake. Poor expansion options would limit anticipated patient numbers.	Service not yet defined	Reduction in travel time anticipated to improve clinical uptake. Close working relationship between MKUH and OUH facilitated.	Reduction in travel time anticipated to improve clinical uptake. Close working relationship between MKUH and OUH facilitated.
4) Delivering key performance targets	Current pressure on OUH site means cancer targets are under pressure.	On completion (June 2024) would support cancer treatment targets.	No current programme for development.	On completion (June 2024) would support cancer treatment targets.	On completion (June 2024) would support cancer treatment targets.
5) Developing MK at pace	No development of the MK service delivery.	Development of the MK service delivery, however likely that the activity will be capped by the estate capacity.	Little impact to service developments at MK.	Provision of consolidated cancer care on site is likely to increase demand for cancer related surgery.	Provision of consolidated cancer care on site is likely to increase demand for cancer related surgery.
6) Developing teaching and research	Existing innovation, teaching & research in place at OUH	Opportunity to develop onsite innovation, teaching & research in place at OUH	Not known	Opportunity to develop onsite innovation, teaching & research in place at OUH	Opportunity to develop onsite innovation, teaching & research in place at OUH
7) Being well governed and financially viable	n/a	Yes	n/a	Yes	Financial affordability not yet developed, subject to external contracts for PET
8) Investing in our people	Limited scanner expansion limits opportunities for workforce.	Opportunity for co-location of cancer centre and radiotherapy consultants removes travel time between sites	Not known	Opportunity for co-location of cancer centre and radiotherapy consultants removes travel time between sites	Opportunity for co-location of cancer centre and radiotherapy consultants removes travel time between sites. Initial demand

					for PET may not be require full workforce.
9) Developing our estate	n/a	No – underdeveloped strategic site.	n/a	Strategic site developed to a good density. Location preferred for cancer services.	Strategic site developed to a very good density. Location preferred for cancer services.
10) Being innovative and sustainable	Further development of OUH site challenging. Long travel distances increase carbon emissions. No control over sustainability of development.	Challenging expansion plans for service. Reduced travel times improve carbon emissions. Control over operational & embodied energy targets.	No current plans for development. Sustainability cannot be rated.	Anticipated service capacity met. Reduced travel times improve carbon emissions. Control over operational & embodied energy targets.	Anticipated service capacity met. Reduced travel times improve carbon emissions. Control over operational & embodied energy targets.

Scheme Benefits (Financial)

The lease agreement with OUH is likely to be a 10 year agreement (either ‘10 year’ or ‘20 year with 10 year break’). Scenarios differ based on the level of benefit to be shared regarding the donation and Local Authority Grant.

Note that the full costs of the build will not be recovered over the 10 year period. Build costs are assumed to be recovered over the lifetime of the asset and ongoing revenue costs will be on a mostly recharged basis with the expectation that MKUH will receive a small financial benefit. It is anticipated that the agreement with OUH will be extended after the initial lease. Scenario 4 shows the implications of full cost recovery over the initial 10 year lease period but this is thought to be an unaffordable scenario.

The facility would only become surplus to requirements in the event of:

- a) Change in treatment model - I.e. radiotherapy is no longer the default cancer treatment. There is currently no indication of this and other facilities have recently been approved and become operational (e.g. Swindon).
- b) A change in OUH strategy for provision (e.g. uneconomic to provide at MKUH) - we would expect to recognise this risk within any lease agreement with OUH, including the requirement for them to return the facility to its original state
- c) MKUH desire alternative use for facility

A 10 year lease is less likely to invoke the need to apply a ‘Right to Use’ asset amendment and so this is not recognised in the figures at present. Consequently it is assumed that the asset will remain on the books of MKUH for the duration.

Oxford are currently progressing their case through their governance routes and have received support from NHSE regarding the funding of the service provision. See Appendix 3.

		2024/25					FYE	
	Delivered By:	Q1	Q2	Q3	Q4	Total	Total	
		£'000	£'000	£'000	£'000	£'000	£'000	
Scenario 1	VAT NOT, donation benefit NOT passed on, Grant benefit NOT passed on	126.7	380.0	380.0	380.0	1,266.6	1,519.9	
Scenario 2	VAT NOT reclaimed, donation benefit passed on, Grant benefit NOT passed on	116.2	348.7	348.7	348.7	1,162.4	1,394.9	
Scenario 3	VAT NOT reclaimed, donation benefit passed on, Grant benefit passed on	104.4	313.1	313.1	313.1	1,043.7	1,252.4	
Scenario 4	Full cost recovery within first 10 year lease period	262.5	787.4	787.4	787.4	2,624.6	3,149.5	

Scheme Benefits (Non-Financial)

Milton Keynes patients are currently travelling to OUH for radiotherapy treatment. Given the intensity of the treatment and required regularity of attendances, the 1hr 15min average travel time is a significant commitment for poorly patients and has been highlighted by the patient responses.

Benefit	Metric
Care closer to home – given the reduced travel time it is anticipated that an MK Radiotherapy service can provide treatment to 70% of MK residents needing radiotherapy.	% of patients using radiotherapy service with OUH @ MKUH (Target 70%)
Reduction in missed treatment(s) – accessible location increases compliance with treatment regularity	% of patients missing treatments (target reduce by half)
Patient satisfaction – improved scores recognising that currently distance to treatment and co-location with other cancer services are highly regarded by patients	Improved cancer patient satisfaction survey results
Reduced mortality – improved outcomes as a result of improved treatment compliance	% reduction in mortality within 5 years (target reduce by 30%)
Improved chemotherapy compliance – following successful radiotherapy treatment, patients are more likely to attend chemotherapy appointments given patient experience and adjacency	% reduction in missed chemotherapy appointments (reduce by 20%)
Speed to pathway – additional capacity enabling patients to receive treatment faster	Improved compliance in radiotherapy / cancer pathway metrics
Clinical collaboration – staff survey results recognise the benefits of working together with other specialists.	Improved staff survey results, particularly within Medical directorate

5. Financial Case

a) Capital Investment (DRAFT- Based on Stage 3 Cost Plan)

	Budget (£)	Current position (£)	Variance (£)
Works cost total		9,316,551	
Fees		713,431	
Non work costs		52,063	
Equipment		178,981	
Planning		246,993	
Optimism bias ¹		0	
Inflation adjustment ²		1,975,508	
VAT ³		2,323,115	
TOTAL	15,000,000	14,806,642	193,358

¹Optimism bias – at FBC stage HM Treasury guidance suggests should be minimal and no more than 2%

²Recent (Jul 22) NHSE guidance in relation to inflationary pressures highlights the benefit of early commitment regarding costs

³VAT treatment and confirmation of any reclaim available as result of using ADMK Ltd will be verified by external VAT consultants. The costs above are inclusive of VAT.

Note: Client Costs

- PAGABO Framework Fee 0.5%: £57,000 (+VAT?)
 - Medical Physicist
 - Construction RPA support £10-20k (+VAT?)
 - Shielding Integrity Testing £50-60k (+VAT?)
 - Critical Examination £5-10k (+VAT?)
 - CAD Platform
 - Annual License Costs £10,530 (+VAT?)
 - NEC Project Manager £82500 (+VAT?)
 - Client-side cost consultant £49,500 (+VAT)
 - Client-side MEP advisor £82500 (+VAT?)
 - MKUH Project Manager £78000
 - Client Commissioning (Not yet required)
- Subtotal (Draft) £450k (+VAT where applicable)

Considerations: NEC 4 Contract Training.

Cash flows: Cash Flow Forecast

Cash flows - with VAT

		2022/23					2023/24	2024/25	2025/26	Total
Lifespan		Q1	Q2	Q3	Q4	Total	Total	Total	Total	Cashflow
Capital Expenditure		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
	Works			0.0	0.0	0.0	9,316.6	0.0		9,316.6
	Fees			40.0	60.0	100.0	613.4	0.0		713.4
	Non Works			0.0	0.0	0.0	52.1	0.0		52.1
	Equipment			0.0	0.0	0.0	179.0	0.0		179.0
	Contingency			1.0	1.4	2.4	244.6	0.0		247.0
	Inflation adjustment			7.7	11.6	19.3	1,956.3	0.0		1,975.5
	VAT @ 20%			0.0	0.0	0.0	2,323.1	0.0		2,323.1
	Total Capital Expenditure (CAPEX)	0.0	0.0	48.7	73.0	121.7	14,685.0	0.0	0.0	14,806.6
Capital Funding										
	Capital funding - Donation					0.0	5,000.0			5,000.0
	Capital funding - Grant					0.0	5,700.0			5,700.0
	Capital funding - internal by depreciation			48.7	73.0	121.7	3,985.0			4,106.6
	Total Capital Funding (CAPINC)	0.0	0.0	48.7	73.0	121.7	14,685.0	0.0	0.0	14,806.6
	Net Capital impact	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Q1	Q2	Q3	Q4	Total	Total	Total	Total	Total
Revenue expenditure		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
9	Staffing					0				0.0
10	Depreciation					0		-	-	-
11	Maintenance					0		112.5	135.00	247.5
12	Operating licences					0				0.0
13	Consumables					0				0.0
14	Training					0				0.0
15	End of Life disposal					0				0.0
16	Other Operating costs					0		613.7	694.8	1,308.5

17	Total Operating costs (OPEX)	0.0	0.0	0.0	0.0	0.0	0.0	726.2	829.8	1,556.0
Revenue funding										
18	Revenue funding (OPINC)					0		1,043.7	1,252.4	2,296.1
19	Net Revenue Impact	0.0	0.0	0.0	0.0	0.0	0.0	317.4	422.6	740.1
20	Net Impact	0.0	0.0	0.0	0.0	0.0	0.0	317.4	422.6	740.1

Sources and Applications of Capital Funds

	2022/23 £000's	2023/24 £000's	2024/25 £000's	TOTAL £000's
Capital Expenditure				
Internally generated (from	121.6	3,985.0	0	4,106.6
Local Authority grant		5,700.0		5,700.0
Donation		5,000.0		5,000.0
Total Funding	121.6	14,685.0	0	14,806.6

Asset Life Assumptions - Expected Useful Economic Lives

Category	Years
Buildings	40
Plant engineering	30
Equipment	10

These assumptions together with those in the section on the source and application of funds underpin the figures shown below.

Capital Charges Estimate:

Category	Radiotherapy £000
Depreciation	171.4
PDC	126.7
Total	298.1

Summary of Impact of Option on the Balance Sheet Assets

Category	Radiotherapy Centre £000
New Capital Spend	14,806
Less initial write-down	(8,629)
Net Change in Asset Value	6,537

The initial write-down value will be established by the District Valuer and recognise the Radiotherapy build contribution to the wider overall site valuation on an 'alternative site basis'. The percentage write-down that occurred on the recent cancer centre build has been used as a guide at this stage.

Note: the accounting treatment of the write-down is an increased deficit (as there is no revaluation reserve for a new asset), however the deficit created by this transaction does not affect the Trust's control total.

Cost and Funding for the Recommended Option

		2022/23					2023/24	2024/25	2025/26
Lifespan		Q1	Q2	Q3	Q4	Total	Total	Total	Total
Capital Expenditure		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
1	Fixed assets: Building works			47.7	71.6	119.3	12,117.3	-	12,236.5
2	Software					-			-
3	Other capital items (leases)					-			-
4	Contingency			1.0	1.4	2.4	244.6	-	247.0
5	VAT @ 20%			-	-	-	2,323.1	-	2,323.1
6	Total Capital Expenditure (CAPEX)	-	-	48.7	73.0	121.7	14,685.0	-	14,806.6
Capital Funding									
7	Capital funding (CAPINC)			48.7	73.0	121.7	14,685.0	-	14,806.6
8	Net Capital impact	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Q1	Q2	Q3	Q4	Total	Total	Total	Total
Revenue expenditure		£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000

9	Staffing					0			
10	Depreciation					0		142.9	171.4
11	Maintenance					0		112.5	135.0
12	Operating licences					0			
13	Consumables					0			
14	Training					0			
15	End of Life disposal / write-down					0		8,629.0	
16	Other Operating costs					0		579.9	695.9
17	Total Operating costs (OPEX)	0.0	0.0	0.0	0.0	0.0	0.0	9,464.3	1,002.4
Revenue funding - Scenario 1, VAT NOT reclaimed, no benefit passed on for Donation, no benefit passed on for Grant									
18	Revenue funding (OPINC)					0		1,267.7	1,521.2
19	Net Revenue Impact	0.0	0.0	0.0	0.0	0.0	0.0	(8,196.6)	518.8
20	Net Impact								
Revenue funding - Scenario 2, VAT NOT reclaimed, benefit passed on for Donation, no benefit passed on for Grant									
18	Revenue funding (OPINC)					0		1,163.5	1,396.2
19	Net Revenue Impact	0.0	0.0	0.0	0.0	0.0	0.0	(8,300.8)	393.8
20	Net Impact								
Revenue funding - Scenario 3, VAT NOT reclaimed, benefit passed on for both Donation and Grant									
18	Revenue funding (OPINC)					0		1,044.7	1,253.7
19	Net Revenue Impact	0.0	0.0	0.0	0.0	0.0	0.0	(8,419.5)	251.3
20	Net Impact								

A breakdown of revenue costs can be found at Appendix 4.

A breakdown of additional funding scenarios can be found at Appendix 5.

b) Confirm the recurrent revenue costs of the scheme. Where these are anything other than revenue neutral or revenue saving, confirm the availability and source of additional revenue.

Appendix 1 includes both income and revenue costs of the scheme. Note that revenue costs will be offset by income received from OUH.

c) Confirm and where necessary explain any non-recurrent (e.g. transitional costs) of the scheme.

Capital costs detailed above.

d) Is this a lease, outright purchase or both? If lease/ both, please complete the template below;



IFRS 16 - Leases
Template.xlsx

There are no lease obligations on this capital build.

It should be noted that a Right-to-use asset may be created depending on the structure and lease term of the final contract with Oxford. This has not been assumed at this stage and will not change the cash flows of the programme.

The procurement will be conducted under an existing PAGABO framework as a direct award using a NEC4 Contract Option A. A review of the PAGABO framework has been carried out by Procurement to confirm the validity of the framework for the procurement of this scheme.

6. Commercial Case

Commercial Arrangements for Delivery (Procurement)

Total contract value is £12,920,451 (assuming reclaimed VAT)

(Total contract value is the annual value of goods/services x contract period i.e., number of years for initial contract period PLUS any extension options).

Proposed procurement arrangements (*delete as appropriate*): -

The procurement will be conducted under an existing PAGABO framework as a direct award using a NEC4 Contract Option A. A review of the PAGABO framework has been carried out by Procurement to confirm the validity of the framework for the procurement of this scheme.

Contractual Consequences (*delete as appropriate*):-

The consequences on an existing contract of the scheme are

- a) New tenancy agreement to be agreed with OUH (Draft Heads of Terms to be agreed)
- b) The Trust to instruct its subsidiary (ADMK Ltd) to manage the construction of the project. ADMK Ltd has successfully managed the construction and now continues to manage the operations of the Cancer Centre building at MKUH.

The Procurement team has confirmed that these arrangements are deliverable within the required timeframe. YES / NO

Additional info.....

7. Premises Assurance

Material Change in Use

This means a change in the purpose for which, or the circumstances in which, premises are used, such that after that change the premises are used (where previously they were not so used),

Either

A: The proposed investment does not cause a material change in use and there is no replacement of equipment or alteration to infrastructure, layout or other services.

OR

B: The proposed investment does cause a material change in use because it involves modifications to infrastructure, services or layout because of a change of use or capacity; new, additional or replacement equipment or infrastructure; change of layout or new build

Statutory Check

There are five facets to the Statutory Check. This list is not exhaustive and other regulatory standards may apply.

This proposal has reviewed and can confirm the following:

- **Data Protection (GDPR 2018)** - Privacy and confidentiality of PID is assured by this proposal and will be maintained throughout the procurement and installation; No PID will be managed for this scheme by MKUH – IT infrastructure has been discussed with OUH and agreed to facilitate secure transmission of data between sites.

Infection Prevention & Control - Review IPC measures including bed-spacing & handwashing requirements. All finishes are designed, installed and maintained according to hospital acquired infection risks.

HTM 09.01 has been followed throughout this process and IPC have been engaged in the project. Issue Stage 4 A drawings for sign off.

Means of Escape in case of Fire – The Fire Adviser has been advised and or a Fire Risk Assessment undertaken. The change in requirements for Fire Detection and alarm are identified. Emergency lighting and fire/smoke detection is to current NHS/Trust standards.

Fire assessment by WSP has been undertaken and has been sent to the fire officer for approval who has made no further comment on the scheme. Issue Stage 4 A drawings for sign off.

- **Planning & Building Control.** All alterations defined by the Building Regulations 2010 have been identified by this proposal and Planning/Building Control is/is not required. A planning application has been made for this project and we are anticipating hearing back from the with an outcome in July 2022 so the outcome can be documented prior to finalisation of FBC.

- **Workplace (Health Safety & Welfare) Regulations 1992** – This proposal takes into account the regulatory duties on the Trust as an employer on issues such as ventilation, temperature, lighting, cleanliness, room dimensions, workstations and seating, floor conditions, windows, sanitary conveniences and washing facilities.

Not been reviewed by Trust H&S Manager – to be picked up.

Access to Services

Access routes and obstacles for Staff, visitors or patients locally & within hospital perimeter are not compromised by this proposal and measures are included to remove obstacles to access. Directions, information and other aids to wayfinding have been reviewed, and will be removed and replaced in alignment with trust strategy; Transport and internal transfer arrangements have been reviewed. Feedback from Patient Experience Board or local stakeholder organisations is incorporated into this Business Case. Post-completion feedback is/is not arranged;

Equipment

The Clinical Engineering Department and Equipment Library/Estates have been consulted. Additional infrastructure requirements (to include physical support - patresses or brackets), data, nurse call, power & back up (UPS) systems) are/are not required. Technical commissioning costs are/are not included. Revenue costs for servicing and maintenance and consumables is included in this Business Case.

Estates Information

The MICAD database has been reviewed and will be updated/does not require updating. Room numbers are referenced on all information. Changes to maintenance requirements have been confirmed and all associated revenue costs have been agreed. Maintenance viability is assured. Test and Commissioning certificates will be retained. A review of the presence of Asbestos has been undertaken and R&D survey is/is not required.

Scope of Works

The scope of works has/has not been agreed and signed off by Estates. The current condition has been reviewed and defects are/are not included in the scope of works or to be done prior to/during/post completion of contracted works.

Impact on other areas

(i) Other clinical divisions

Are there any 'disturbance' factors for other Clinical Divisions (decanting/relocations, noise, utility suspensions etc.) and how are these being 'brokered'?

(ii) Support services

What is the impact on Support Services capacity (Imaging, Pathology, Pharmacy, Hotel Services, Estates, IT, HR) resulting from the change?

Is the capacity currently available?

How will extra capacity be created?

Environmental Impact/ Net Carbon Zero Sustainability

- i) **Environment:** is your case eco-friendly, conserve natural resources, ensure good air and water quality, reduce pollutants, and reduce waste. Is the design, materials used, and mechanical systems used sustainable.

- ii) **Equity:** Have you considered stakeholders, the community, staff, and patients, educated, empowered and encouraged them to participate in the process to improve their health and surrounding environment?
Economics: How cost effective is your case? Will it cost more to implement and is this likely to succeed. Have you considered incentives available eg reduced tax on carbon emissions.

8. Compliance

- i) Has the case been to MDG for a discussion? YES/NO (If no, please attend the next meeting) N/A
- ii) Has the PAQ (pre acquisition questionnaire) been approved for the selected medical device? If not selected a suitable product yet, please make sure this process is in place prior to purchase. N/A
- iii) eCare Compliance: Can the new system or device integrate with eCARE, who has been involved from IT to confirm, what was the guidance provided? Please quote IT Ticket ref? N/A
- iv) Decommissioning: If moving from one system to another, how is the data handled? How are the devices handled? N/A
- v) IT Infrastructure & resources: What is the guidance provided by IT? Who from IT was involved?

9. Management of the Case

Management & Delivery

Confirm the arrangements for management and delivery of the scheme (outline who the scheme will reporting to and project team structure)

Outline Project Roles & Responsibilities

Key Project delivery roles are described below:

Senior Responsible Owner (SRO)

Senior Responsible Officer (SRO) has overall responsibility for the project at Programme Board Level. This role is being performed by John Blakesley Deputy Chief Executive MKUHFT, with accountability to the Trust Board for delivery of the project. He will also undertake the SRO role for ADMK Ltd.

Senior User

This senior clinical team who have informed the design to Stage 4 B are:

Carol Scott Radiotherapy Services Manager – Lead Therapeutic Radiographer and Deputy Clinical Director; Oncology, Haematology and Palliative Care Oxford University Hospitals NHS Foundation Trust

Jonathan Lane Head of Radiotherapy Physics Oxford University Hospitals NHS Foundation Trust
Sally Burnie

Head of Cancer Services and Lead Cancer Nurse

This team will continue to be involved in the construction detail, co-ordination, and commissioning of the unit.

Estates Lead

This role is being performed by Phil Eagles, MKUHFT, with overall responsibility for delivery of the project in accordance with the project brief. The Estates Lead has responsibility for overseeing the project and reporting to the Redevelopment Board. To manage the Trust’s interests in the project, providing decisions and direction on their behalf. This will be achieved through a comprehensive management control plan and programme.

Project Manager

It is proposed there should be one project manager reporting to the Programme Director. This role is being performed by Malcolm Ormond, who will ensure project administration function is undertaken, ensuring adequate documentation of all aspects of the project and coordination and liaison with clinical teams.

Regular Progress Reports are submitted to the Capital Planning Group, Executive Team and Trust Board for onward reporting and management within the established Trust management structure.

Timeline

Provide a simple timeline from assumed start date with key milestones for the procurement and delivery of the scheme.



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Radiotherapy Draft I

10. Key Risks (Of Preferred Option)

- i) Please provide adequate information to enable reviewers to understand the level and likelihood of risk and how it is to be mitigated.
- ii) Please list any risks to delivery, for example if the spend is dependent on other approvals

Risk	Mitigation

[22.08.23 MKUH Radiotherapy Risk Register.xlsx](#)

11. Due Regard for Screening

DUE REGARD FOR SCREENING Impact: (please indicate Yes or No for each question) Note that if any box contains a 'Yes' then a full DUE REGARD assessment is required to be undertaken.	Race/ Ethnicity	Sex	Religion or Belief	Gender Reassignment	Sexual Orientation	Age	Marriage & Civil Partnership	Pregnancy & Maternity	Disability
	Do different groups have different needs, experiences, issues and priorities in relation to the proposed change?	N	N	N	N	N	N	N	N
Is there potential for or evidence that the proposed change will not promote equality of opportunity for all and promote good relations between different groups?	N	N	N	N	N	N	N	N	N
Is there potential for or evidence that the proposed change will affect different population groups differently (including possibly discriminating against certain groups)?	N	N	N	N	N	N	N	N	N
Is there public concern (including media, academic, voluntary or sector specific interest) in potential discrimination against a particular group or groups?	N	N	N	N	N	N	N	N	N

Appendix 1

Re-provision of Radiotherapy Services in Milton Keynes
Options and recommendation report

NHSE

[Item 2 Recommendation report for MK RT v5.2.docx](#)

Appendix 2

Engagement Survey report
Milton Keynes Radiotherapy Service re-provision
NHSE/I

[Item 2 Engagement Survey Report v0.1.pdf](#)

Appendix 3

Service provision funding - NHSE

[AR Radiotherapy 06052022.pdf](#)

Appendix 4

Revenue costs

REVENUE COSTS

			Capex with VAT	Capex (reclaim ed VAT)	
Hard FM	Estimate based on ERIC data	inflation applied	Estimate for 2022/23*	Estimate for 2022/23 *	Basis
Estates Maintenance	£70,674	5%	74,207	74,207	Based on site wide pro rata costs against the 2020/21 ERIC data
Grounds & Gardens Maintenance	£2,081	4%	2,165	2,165	Based on site wide pro rata costs against the 2020/21 ERIC data
EBME Maintenance excluding Radiotherapy Equipment	£45,991	4%	47,831	47,831	Based on site wide pro rata costs against the 2020/21 ERIC data
Oil (Gas Oil) linked to back up generation	£268	40%	376	376	Linked to site wide power back up systems, Based on site wide pro rata costs against the 2020/21 ERIC data

Other Energy Costs	£1,247	40%	1,746	1,746	Based on site wide pro rata costs against the 2020/21 ERIC data
Total Waste Disposal	£8,659	4%	9,006	9,006	Based on site wide pro rata costs against the 2020/21 ERIC data
Car Parking/Security Costs	£7,377	4%	7,672	7,672	Based on site wide pro rata costs against the 2020/21 ERIC data
Electricity	£73,434	40%	102,807	102,807	Based on site wide pro rata costs against the 2020/21 ERIC data
Gas	£0	40%	-	-	Assume this not needed for this building design
Water & Sewage Services	£6,424	4%	6,681	6,681	Based on site wide pro rata costs against the 2020/21 ERIC data
Total Hard FM			252,491	252,491	
Soft FM					
Security	£7,377	4%	7,672	7,672	Based on site wide pro rata costs against the 2020/21 ERIC data
Sterile Supply Services			-	-	Assumed not required
Telecoms	£6,470	4%	6,729	6,729	Based on site wide pro rata costs against the 2020/21 ERIC data
Pest Control	£131	4%	136	136	Based on site wide pro rata costs against the 2020/21 ERIC data
Post & Courier Services	£8,416	4%	8,752	8,752	Based on site wide pro rata costs against the 2020/21 ERIC data
Staff Residencies			-	-	Assumed not required
Cleaning Services	£82,811	4%	86,124	86,124	Based on site wide pro rata costs against the 2020/21 ERIC data , Cleaning

					Specification to be understood and established
In Patient Service Cost (Catering) £5.91 per meal			-	-	Assumed not required
Laundry/Linen Services	£17,848	4%	18,562	18,562	Based on site wide pro rata costs against the 2020/21 ERIC data
Portering Services	£27,591	4%	28,695	28,695	Based on site wide pro rata costs against the 2020/21 ERIC data
Total Soft FM			156,670	156,670	
Management		5%	27,208	27,208	assume MKUH would also charge
Finance costs					
PDC Public Dividend Capital Charges			160,733	118,863	Treatment of initial write down to be confirmed
Depreciation			274,719	240,595	DV to confirm write-down value
Rates	£135,292	4%	140,703	140,703	DV to confirm value
Interest on Capital			-	-	NIL
Total Finance costs			612,473	531,905	
Lifecycle costs					
Renewal			135,000	135,000	<i>Schedule to be received from 3rd party</i>
Maintenance			-	-	<i>Schedule to be received from 3rd party</i>
Total Lifecycle costs			135,000	135,000	
Total Revenue costs			1,147,524	1,071,530	

* costs will need updating for inflation at contract stage

Appendix 5

OUH lease options

10 year lease period	Land	VAT included	Donation benefit	Grant benefit	Building	Revenue costs	Life Cycle	Financing (PDC)	Total
Option 1	17,301	Y	N	N	494,953	577,072	135,000	296,859	1,521,185
Option 2	17,301	Y	Y	N	369,953	577,072	135,000	296,859	1,396,185
Option 3	17,301	Y	Y	Y	227,453	577,072	135,000	296,859	1,253,685
Option 4	17,301	N	N	N	437,495	577,072	135,000	221,558	1,388,426
Option 5	17,301	N	Y	N	312,495	577,072	135,000	221,558	1,263,426
Option 6	17,301	N	Y	Y	169,995	577,072	135,000	221,558	1,120,926
Option 7 - Full recovery	69,204	Y	N	N	1,897,339	577,072	135,000	475,451	3,154,065

20 year lease period	Land	VAT included	Donation benefit	Grant benefit	Building	Revenue costs	Life Cycle	Financing (PDC)	Total
Option 1	17,301	Y	N	N	494,953	577,072	135,000	241,947	1,466,273
Option 2	17,301	Y	Y	N	369,953	577,072	135,000	241,947	1,341,273
Option 3	17,301	Y	Y	Y	227,453	577,072	135,000	241,947	1,198,773

Option 4	17,30 1	N	N	N	437,49 5	577,0 72	135,0 00	179,0 10	1,345, 878
Option 5	17,30 1	N	Y	N	312,49 5	577,0 72	135,0 00	179,0 10	1,220, 878
Option 6	17,30 1	N	Y	Y	169,99 5	577,0 72	135,0 00	179,0 10	1,078, 378