

Estates Strategy

To support the Trust's Clinical Strategy
2022-2025

OUTSTANDING CARE

HEALTHY COMMUNITIES

AND A GREAT PLACE TO WORK



Executive Summary

This estates strategy is one of the key enablers to deliver the truly transformational changes that BHT wishes to achieve in order to deliver outstanding care, a great place to work and healthy communities as set out in the Trusts vision and new clinical strategy. Our estates strategy must prepare us for future pandemics and enable us to deliver integrated care with greater guarantees of infection prevention and control. It must enable us to be financially sustainable by reducing the inefficiencies of delivering critical care from old estate across two sites and tackle our £200m backlog maintenance.

The estates strategy is also informed by the 2021 Seven Facet survey, ERIC (Estates Returns Information Collection) operating metrics and PLACE (Patient-led Assessments of the Care Environment) data. It sets out the key metrics and targets that we wish to achieve to deliver better patient, staff and visitor experience and to significantly improve our operating efficiencies.

This estates strategy has multiple priorities of clinical safety, estates compliance, and meeting new national priorities such as the 2021 new cleaning standards and net zero. There are opportunities through new approaches to digital technology, one public estate and the Integrated Care System (ICS) to consider clinical priorities and new pathways through a place based and regional lens and we continue to work with our system partners on these.

However, we have important estates challenges to address:

- Our current acute hospital services are split between Stoke Mandeville and Wycombe, with the emergency department at Stoke Mandeville and cardiac and stroke services at Wycombe. Critical care services are provided across both sites which presents operational and financial challenges managing medical and nursing rotas.
- The COVID-19 crisis has highlighted that there is a stronger case than ever for separating planned and unplanned care services. The current estate has impacted our ability to continue to deliver essential planned care services alongside emergency services.
- Stoke Mandeville Hospital pre-dates the formation of the NHS. It was a Cholera Hospital and is now home to the world re-known National Spinal Injuries Centre. However, when visiting this site, it does not strike one as world class and it could not be described to be a great place to work. There is a patchwork of low-rise poor-quality buildings, a lack of space, in parts poor disability access and significant infrastructure issues. Added to this, in Wycombe, the site carries half (£100m) of the total estate backlog maintenance issues.
- Our community hospitals provide important access to non-emergency care for patients, yet due to their age and condition are some of the most non accessible buildings from a disability and dementia perspective. These have around £11m backlog maintenance to repair, but their design, even with repair, will not meet modern day accessibility standards.
- Not all the estate or the services within the estate are in the ideal locations. Stoke Mandeville Hospital once situated on the edge of Aylesbury is now firmly set in a large-sprawling housing estate, making access by road or indeed helicopter difficult.

We will continue to work with the public, stakeholders and clinical leads to consider the proposed developments set out in in this strategy to identify the best way forwards. We have also applied to the Hospitals Infrastructure Programme to support the redevelopment of our estate as ultimately this strategy is about providing the best healthcare facilities for the population of Buckinghamshire and the Trust's workforce. We want to achieve modern and fit for purpose healthcare facilities, clinically safe environments and an estate that we can all be proud of.

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INTRODUCTION

Buckinghamshire Hospitals NHS Trust has a history that can trace its roots to 1830. It became operational on 1 April 2003, changing its name to Buckinghamshire Healthcare NHS Trust [BHT] on 1 November 2010.

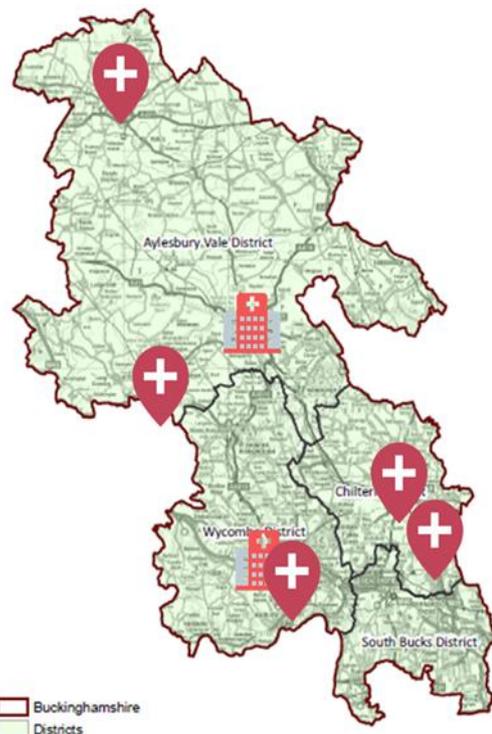


The Trust comprises 12 sites, four of which provide inpatient services and the remainder deliver community services. Parts of the estate also enable other providers to deliver services in Buckinghamshire, such as Oxford Health, Frimley and North West London Dental, and some Charities.

We have some of the oldest estate in the NHS. Stoke Mandeville was built pre-NHS in the 1830s as a Cholera hospital, Wycombe Hospital was built in phases, with Phase 1 being completed in 1966, Phase 2 completed in 1969, Phase 3 completed in 1971 and Phase 4 in the early 1990s.

60% of the Trust owned buildings are more than 30 years old. Consequently, we have challenges with the estate which is not fit in many parts to deliver modern day healthcare.

Much of the estate has a lack of single en-suite rooms and the impact of this has been highlighted during the recent pandemic where bed days were lost due to being unable to provide sufficient isolation facilities.



Added to this the demands on our site due to population growth are significant. For example, A&E attendances are 1500 per month more than four years ago (pre pandemic data), and with 46,000 new homes planned for the county, the pressure on the estate and services will only increase.

Important parts of the Wycombe site, such as the ICU, Theatres and most wards which are situated in the Tower (in the photo right) have reached the end of their structural life.

We estimate that with a good quality estate we would be able to reduce estates operating costs by as much as £30M per annum. However, the current context of this is the estate has £200M of backlog maintenance.

We also have two Private Finance Initiative Contracts which, whilst they provide good quality estate, contribute to higher than average operating costs when benchmarked against similar sized Trusts.



Where we are now (2021)

We are part of the Buckinghamshire Place based Partnership, which is part of the Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System.

Partners include:

- NHS Buckinghamshire Clinical Commissioning Group (CCG).
- Oxford Health NHS Foundation Trust.
- South Central Ambulance Service NHS Foundation Trust.
- Buckinghamshire Council.
- Fed Bucks GP federation.

Current estate profile

We provide acute hospital and community services for people living in Buckinghamshire and surrounding counties in Berkshire, Bedfordshire, Hertfordshire, Oxfordshire and London. Care is provided to 500,000 patients every year by our 6000 highly trained staff, including doctors, nurses, midwives, health visitors, therapists, and healthcare scientists. We are recognised nationally for urology and skin cancer services and are a regional specialist centre for burns care, plastic surgery, stroke and cardiac services and ophthalmology.

At Stoke Mandeville Hospital, the birthplace of the Paralympics, we provide specialist spinal services from our world renowned National Spinal Injuries Centre (NSIC) for patients from across England and internationally.

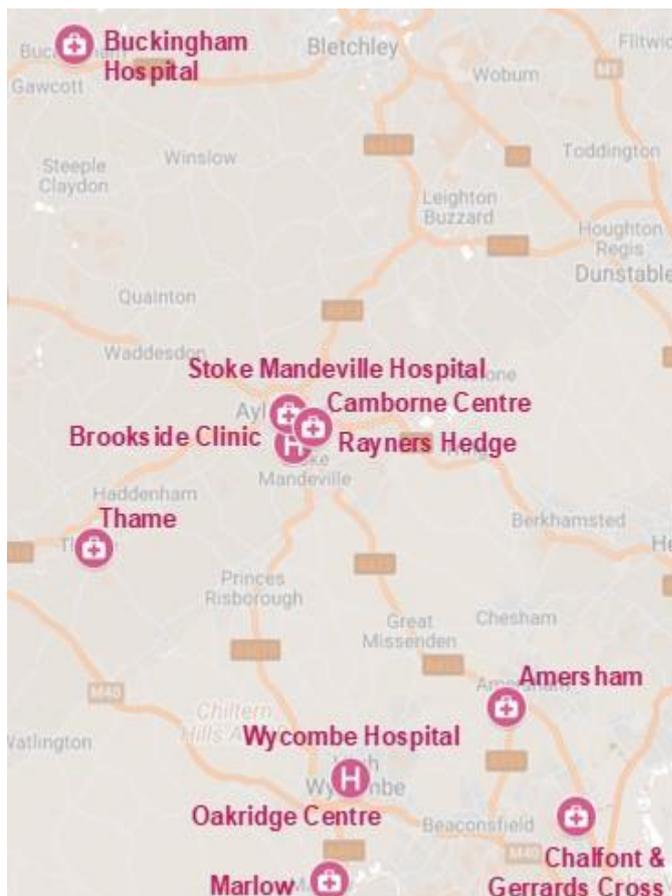
Our range of services include:

Outpatient Care	Outpatients, diagnostics and therapies
Planned and Inpatient Care	Day case surgery, consultant-led women and children’s centre, neonatal intensive care, rehabilitation and chemotherapy
Emergency Care	Accident and emergency, critical care, emergency and trauma surgery, acute medical care, acute obstetrics and gynaecology
Specialist Care	National Spinal injuries Centre, burns and plastic unit and ophthalmology
Clinical Support Services	Radiology, MRI and CT, pharmacy, pathology and infection control
Community Services	Community Head Injury Service, Physio, Occupational Therapy, Children’s Services, Neuro Rehabilitation Service, Dietetics, and many more.

Current Estate appraisal

Our facilities:

- **Stoke Mandeville Hospital**, Mandeville Road, Aylesbury HP21 8AL
- **Wycombe Hospital**, Queen Alexandra Road, High Wycombe, HP11 2TT
- **Amersham Hospital**, Whielden Street, Amersham, HP7 0JD
- **Buckingham Hospital**, High Street, Buckingham, MK18 1NU
- **Chalfonts & Gerrards Cross Hospital**, Hampden Road, Chalfont St Peter, SL9 9SX
- **Marlow Community Hub**, Victoria Road, Marlow, SL8 5SX
- **Thame Community Hub**, East Street, Thame, OX9 3JT
- **Rayners Hedge Rehabilitation Unit**, Croft Road, Aylesbury, Buckinghamshire, HP21 7RD
- **Camborne Centre**, Jansel Square, Bedgrove, Aylesbury, Bucks, HP21 7ET (recently closed)
- **Brookside Clinic**, Station Way, Aylesbury HP20 2SR
- **Oakridge Centre**, 240 Desborough Road, High Wycombe HP11 2QR
- **Chichester House**, Lincoln Road High Wycombe, HP12 3RE



Schedule of Property Assets

The Trust occupies some 150,375 m² of which 149,317 m² are across ten clinical sites:

Property	Use/Function	Size (m ²)	Tenure	Beds	PFI (Y/N)	PFI Size (m ²)
Stoke Mandeville Hospital, including Florence Nightingale Hospice	Acute	75,263	Freehold	431	Y	17,791
Wycombe Hospital	Acute	55,367	Freehold	147	Y	11,992
Amersham Hospital	Community	7,852	Freehold	53	Y	15,124
Buckingham Hospital	Community	1,893	Freehold	12	N	-
Chalfonts & Gerrard's Cross Hospital	Community	2,348	Freehold	0	N	-
Marlow Community Hub	Community	1,424	Freehold	0	N	-
Thame Community Hub	Community	1,519	Freehold	0	N	-
Rayners Hedge Rehabilitation Unit	Community	840	Freehold	0	N	-
Brookside	Community	1536	Freehold	0	N	-
Oakridge	Community	1275	Freehold	0	N	-

Private Finance Initiatives (PFI)

The Trust has two current Private Finance Initiatives [PFI] contracts in place:

- The North Bucks contract occupies a significant part of Stoke Mandeville Hospital. This was completed in 2006 on a 30-year term, expiring in 2036. We have recently re-appointed the soft services provider for this contract on a remaining 15 year basis on the basis of a value for money appraisal. Lifecycle works are up to date and there is a strong partnership in place between the Special Purpose Vehicle (SPV) Enterprise Healthcare, the Trust and Sodexo the service provider (for hard and soft)
- In South Bucks, an extension to Wycombe Hospital and the redevelopment of Amersham Hospital was procured in the late 1990s and completed in 2000. The contract term is 60 years with a first break clause for the project agreement in 2030. Vinci is the hard facilities management (FM) provider and its contract ends in 2025 but the PFI agreement continues to 2030. We are currently working with the SPV to appoint a soft services provider, having completed a market test process on a 9-year contract to 2030. Lifecycle works on this contract are currently being assessed. The hard FM provider for the remaining 5 years of the contract will be reappointed by the SPV (UHSB).

A profile of Stoke Mandeville Hospital

Stoke Mandeville Hospital was originally established in the 1830s in response to the cholera epidemics sweeping across the England and was established on the parish border between Stoke Mandeville and Aylesbury. The hospital joined the National Health Service [NHS] in 1948.

Stoke Mandeville National Spinal Injuries Centre (NSIC) & The Paralympics

The NSIC is the oldest, and one of the largest specialist spinal cord injuries centres in the world. It was founded by neurologist Professor Sir Ludwig Guttmann at Stoke Mandeville Hospital, in 1944 to treat servicemen who had sustained spinal cord injuries in World War II.

In 1948, Professor Guttmann began using sport as a vital ingredient in rehabilitation programmes and on 29 July organised a competition for 16 paralysed men and women to coincide with the opening ceremony of the 1948 Olympic Games in London. The Stoke Mandeville Games for wheelchair athletes began and was widely seen as the moment that the Paralympic movement was born.



Stoke Mandeville Hospital is located to the south edge of Aylesbury in Buckinghamshire. The hospital occupies a site of around 15.8 hectares and houses 431 beds (excluding paediatrics, maternity and critical care).

The hospital is thought to have some of the oldest infrastructure in the NHS estate, limiting its ability to deal with growing demands for capacity and flow.

The buildings forming the estate consist predominantly of a range of buildings from the 1940s, 1970s and 1980s. The gross internal floor area at Stoke Mandeville Hospital is 75,263m².

The maintenance schedule identifies that the site has a £91.8M backlog problem. Our emergency department, theatres, intensive care and maternity do not meet the standards of a 21st century hospital and create a barrier to improving patient care and experience.

The site is highly developed with buildings, car parking and roads. Development across the site, with the exception of the new PFI and Mandeville Wing, is low density with a significant number of single and two storey buildings and many buildings constructed as stand-alone facilities, limiting flexibility. Consequently, there are very few opportunities for new development without the demolition of existing buildings or the removal of car parking.

The buildings constructed more recently i.e. the hospital PFI building, Mandeville Wing, and the new innovation centre provide efficient accommodation. These buildings are higher density and constructed to three storeys. The new innovation centre has taken advantage of modern methods of construction and is made from 98% recyclable materials, demonstrating the opportunities with new technologies that will be available to us.

A profile of Wycombe General Hospital

The original hospital, built on Marlow Hill, was the "High Wycombe War Memorial Hospital" which opened in 1923 and was extended in 1932. The current hospital, Wycombe Hospital, was built in phases on a site adjacent to the old Memorial Hospital with Phase 1 being completed in 1966, Phase 2 being completed in 1969 and Phase 3 being completed in 1971. The Accident and Emergency [A&E] department was closed in 2005.

An element of the estate was constructed in the 1990's and was procured as a PFI project. The site provides a total gross internal area of 55,367m² of which 11,992m² is within PFI buildings.

Significant parts of the Wycombe estate are in poor condition and essentially are reaching the end of their structural life. 77% of the buildings on the site are more than 30 years old. The site as a whole suffers from £99M of backlog maintenance, 60% of this is classified as significant or high risk using the 7 Facet Methodology. We continually mitigate the associated risks of this, and we are currently taking steps to better optimise the limited number of good quality buildings that we do have on the site.

Our Community Hospitals

Our community hospitals provide convenient and important access points for patients undergoing local care. However, much of our community hospital estate is aged and does not conform to standards for accessibility which impacts patient experience. The backlog maintenance on this estate is currently £11m.

Buckingham, Thame, Chalfont and Marlow sites are co-located with GPs which provides good opportunities to work alongside primary care with an integrated service model, providing specialist services such as frailty and diagnostics.

Chalfont's & Gerrards Cross Community Hospital

Buckingham Community Hospital



Marlow Community Hospital

Thame Community Hospital



A significant part of Amersham Hospital is PFI and in good condition, but the site also has underutilised clinical estate. We are putting plans in place to address this subject to the appropriate public and staff engagement, and we also plan to expand our Community Diagnostics Services at this site.

The original part of Amersham Hospital, Hale Acre, has been closed for some years but we are working to refurbish and re-open this space, upgrading theatres for dermatology and plastics and adding agile workspaces for support services.

Amersham Hospital



Physical condition of the estate

Estate profile

Site	2020-2021 Buildings older than 30 years
Wycombe	77%
Stoke Mandeville	56%
Amersham	35%
Communities	74%

Estate backlog maintenance

With some of the oldest infrastructure in the NHS estate, the Trust is limited in being able to deal with increasing demands for capacity and flow. This is not uncommon with an NHS Trust estate dating to the 1800s, but the poor condition of our buildings is a significant challenge. This leads to increased operating costs plus issues of obsolescence, lack of resilience, and environmental failures. The new clinical strategy demands a far better estate than is available at present.

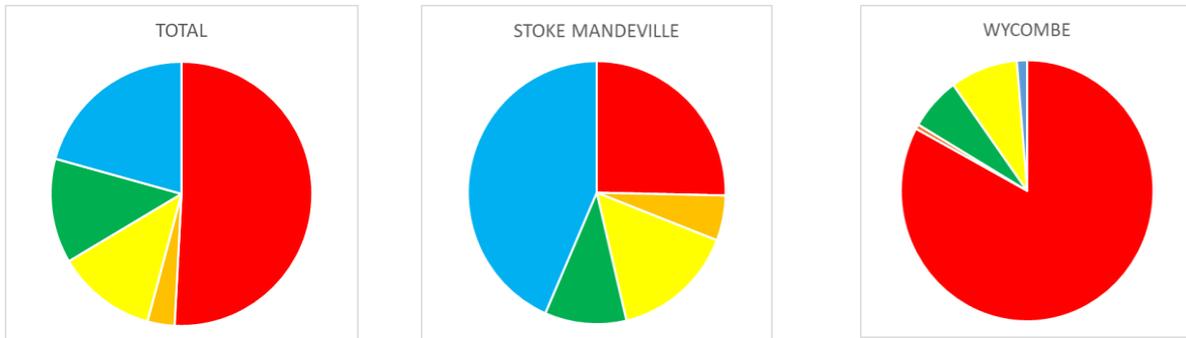
The five-year property appraisal (Seven Facet Survey) was completed in March 2021, which has shown that we have a backlog of £210M. The items on the backlog list are risk assessed (in accordance with the standard risk assessment methodology) see table below.

Site	High	Significant	Moderate	Low	Lifecycle	Totals
Wycombe	£82,365,400	£587,800	£6,549,000	£8,579,300	£1,300,200	£99,381,700
Stoke Mandeville	£23,283,050	£5,105,000	£14,145,750	£9,416,600	£39,935,300	£91,885,700
Amersham	£29,900	£242,200	£2,590,000	£4,511,600	£429,000	£7,802,700
Communities	£1,132,400	£1,088,000	£2,541,000	£4,401,900	£1,840,000	£11,003,300
Total	£106,810,750	£7,023,000	£25,825,750	£26,909,400	£43,504,500	£210,073,400

The risks in the estate are well documented and being actively managed and mitigated. However, importantly the areas most impacted by this are critical areas i.e. emergency department, theatres, intensive care and maternity which are not considered to be fit for purpose in the context of a 21st century hospital that aspires to deliver outstanding care.

- In total, 54% of the backlog in our estate is in the significant and high-risk category.

- Proportionately 83% of the significant and high-risk category is at Wycombe.
- Wycombe Tower is undergoing extensive building condition surveys. It is reaching the end of its structural life and will become unserviceable within the next three to five years.
- Of the £91M backlog in the estate at Stoke Mandeville, 45% of this meets the 7 facet survey classification criteria of significant, high and moderate risk.



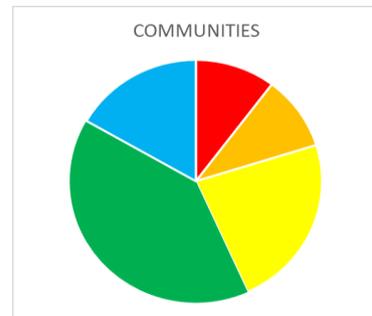
HIGH | requiring investment urgently

SIGNIFICANT | should be planned to be dealt with as a priority

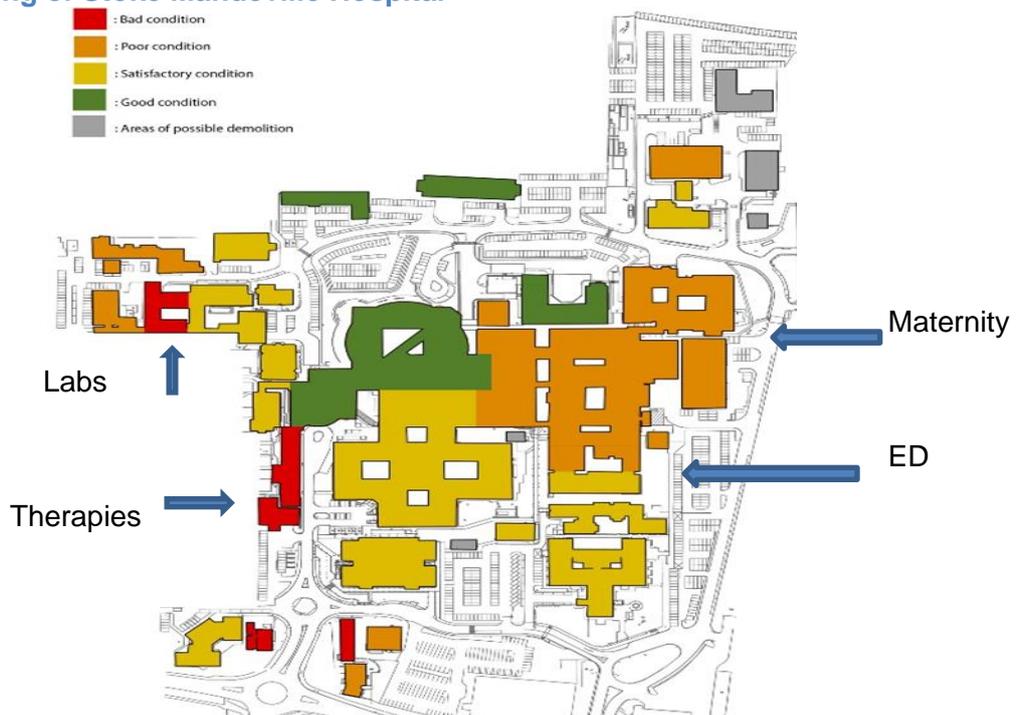
MODERATE | should be dealt with as soon as all greater risks have been removed.

LOW | should be monitored and addressed when funding is available.

LIFECYCLE | should be routinely addressed as part of planned preventative maintenance.



Schematic drawing of Stoke Mandeville Hospital



Schematic drawing of Wycombe Hospital



Statutory Compliance

Six of eleven areas within the estate are fully compliant with statutory legislation. Mitigations are in place to retain a safe estate whilst the other areas are brought into compliance. The non-compliant areas are directly attributable to the poor condition of the estate.

Area	Status	Comment
Asbestos	Compliant	The systematic approach to the Trust’s handling of this hazard is now completed. The Trust has a new asbestos policy and safety plan.
Water	Not Compliant	A new water safety policy and water safety plan are in place. Water testing is also up to date and all records are now cloud based. Systems and processes are now compliant. However, there is an aged water system piping issue in part of the Stoke Mandeville estate. The risks are being mitigated through more frequent water testing and the pipework will be upgraded when emergency capital becomes available.
Medical Gas	Compliant	The systems and processes for this area are compliant. The medical gas committee has an up-to-date policy in place and SOPs are in place for safe operation of the plant and machinery.
Gas utilities (heating boiler plant)	Compliant	The records are now cloud based and all areas have been full tested. The Trust is now compliant in this area.
Control of contractors	Compliant	Contractors used by the Trust must register through the Restart system that ensures that contractors are suitably trained and qualified to carry out works.
Fire	Compliant	The fire alarm systems in both Amersham and Wycombe were replaced in the 2020 -21. This has greatly improved the resilience of the fire detecting system within these hospitals.
Security	Compliant	A security strategy for 2021 – 2024 is in place. The strategy covers a new conflict resolution programme to help address violence and aggression.

Area	Status	Comment
Ventilation	Not Compliant	Ventilation systems have required an over-hall due to the pandemic. The Trust has now appointed an Authorising Engineer (AE) for ventilation who will oversee the upgrades. The risks are being mitigated by portable machinery and testing.
Electrical	Not Compliant	Our main hospital sites are drawing more power than envisaged and cabling is being upgraded. The High Voltage (HV) system is progressing well and the programme will complete in early 2022. The Low Voltage (LV) infrastructure will require a significant programme of updating over the next few years as part of backlog maintenance. Estate PAT testing is up to date and is managed through a specialist company, testing annually. All records are now cloud based.
Disability Discrimination Act (DDA)	Not compliant	DDA is a wide area that enables ease of access for various disabilities. Trust community hospitals, in particular, require updated access facilities. Also, under DDA compliance is signage that requires easy to understand signs that have contrasting colours to enable impaired sighted patients and visitors to find their way. The Trust requires further investment in the estate to achieve compliance.
Pressure systems	Not compliant	This area of compliance is slowly becoming less burdensome due to the sites of Stoke Mandeville and Amersham being served by low pressure hot water systems. Wycombe Hospital is still reliant on a steam plant which is a pressure system and as such requires regulatory compliance and insurance inspection. We are undertaking a Carbon Energy Fund (CEF) programme which will meet regulatory requirements on the site and will improve compliance in this area as well as contributing to decarbonising the site. This will complete in 2022.

Fire Safety

The Trust is required to observe statutory requirements for effective precautions against fire. We have seen some major achievements in 2020-21, new fire alarm systems have been installed across all of Amersham and Wycombe hospitals, such that we are fully compliant with fire safety standards across the Trust. The new systems are an open protocol system which will be easier to maintain and provide the Trust with a modern fit for purpose, cost effective fire alarm system. As and when the estate is upgraded, fire compartmentalisation works will be completed in a number of Trust buildings. A five-year capital programme commenced in November 2019 to address these areas. Detailed fire risk assessments have been completed for all Trust premises and are reviewed annually.

Key Risk Areas (Board Assurance Framework)

Risk Title	Inherent Risk Priority	Residual Risk Priority	Action Required
Failure to consistently provide outstanding quality care that is compassionate, cost effective and safe			
Estates infrastructure not fit for purpose	6	2	Seek routes for capital investment to upgrade or replace estate.
Inadequate infection prevention or control due to issues with estate infrastructure	16	4	Building work in specific parts of the estate to make it compliant – e.g. Dermatology theatres, as identified in the risk register
Inability to lead an organisation with the capacity and capability to deliver our best in everything we do			
Not realising the Trust’s potential as an anchor institution. Adverse contribution to climate change	9	9	Net zero roadmap published in September 2021, Implement net zero plan

We do not recover services adequately, fail to meet public regulator expectations and do not play a leading role in the health, economic and social recovery of Buckinghamshire			
Our workforce not always feeling that the organisation is as safe to work in as it can be	6	4	Implementing the new Computer Aided Facilities Management (CAFM) system will ensure all concerns are logged and appropriately prioritised

Estate performance

Operating Costs

These are now in line with or below the peer median in model hospital. We have reduced our energy costs by £500K per annum through better purchasing and where possible we are upgrading our lighting to LED bulbs.

	2017/2018	2019/2020	Peer Median
Running Costs £	£367m ²	£276m ²	£328 m ²
Energy £	£30.65 m ²	£28 m ²	£28 m ²
Water and sewage £/ m²	No data	£2.88 m ²	£3.17 m ²

Soft Services

Performance of our soft services is outside of the overall peer median. This is due in part to the poor quality of a significant part of our retained estate which impacts cleaning costs, but also our two PFI contracts, notably the Wycombe and Amersham Contract, are outdated. These are being addressed through a retendering process which will complete in early 2022.

	2017/2018	2019/2020	2020/2021	Peer Median
Cleaning Costs £	£43m ²	£49m ²	£44 m ²	£42m ²
Laundry £ per item	No data	£0.41	£0.41	£0.38
Food £/meal	No data	£6.57	£10.94	£4.68
All Waste / Tonnes	No data	No data	582.55	No data

Estate Utilisation

Utilisation of clinical space is a key metric. National best practice is to achieve 70% clinical occupancy and we are well on the way to achieving this, some of this will be accelerated by the new agile working initiative that we have introduced this year.

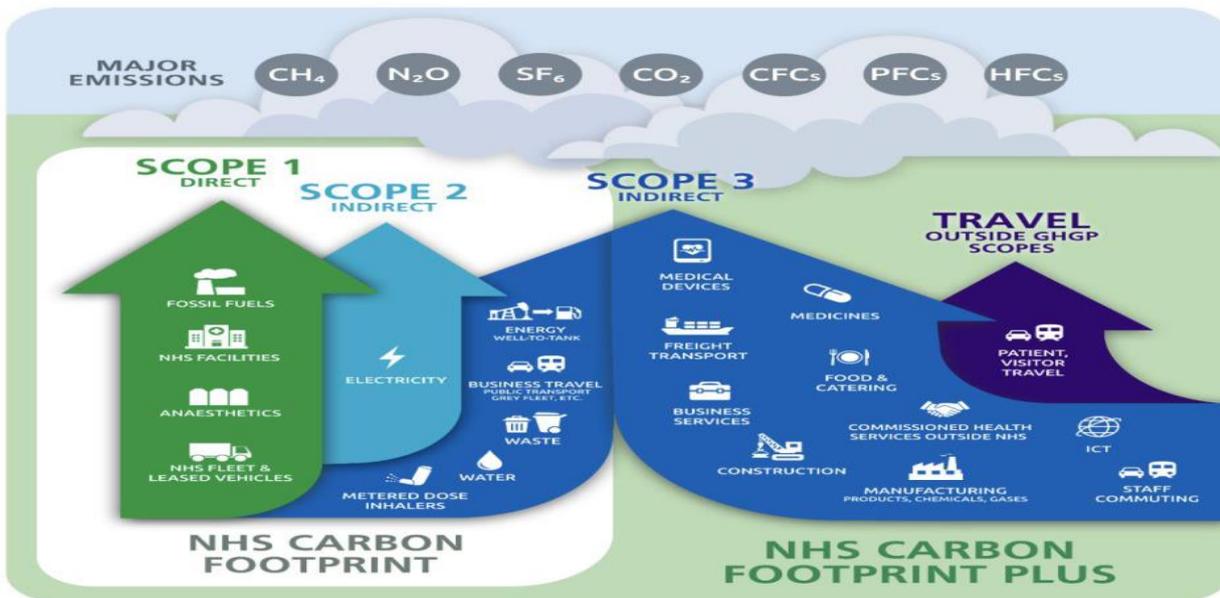
Utilisation of clinical space

	2017-2018	2018-2019	2019-2020	Peer Median
Non-Clinical including Retail	41.30 %	41.16%	36.43%	33.18%
Clinical Areas	58.70 %	58.84%	63.57%	66.82%

Environmental Management and Impact Assessment

The NHS has set out a net zero commitment, based on the scale of the challenge posed by climate change.

- For the emissions we control directly (the NHS Carbon Footprint for the care we deliver), the target is to achieve net zero by 2040, with an ambition to reach an 80% reduction by 2032, from a 1990 baseline.
- For the emissions we can influence (our NHS Carbon Footprint Plus), the target is to achieve net zero by 2045, with an ambition to reach an 80% reduction by 2039, from a 1990 baseline.



Our total carbon output for the whole BHT is 40,986 tonnes of CO₂ per annum, of which 33%, 13,611 tonnes CO₂ is estates. 23% of our total emissions are defined as scope 1 i.e. in our direct control, these relate to medical gas, natural gas and anaesthetics. 14.5% is electricity (scope 2), the remainder is scope 3.

- We are starting to install LED lighting across our estate and have just recently secured a Public Sector Decarbonisation Fund Grant of £6.1M from Salix.
- We have joined the Carbon Energy Fund and have well developed plans to reduce carbon emissions and save around £1M per annum through installing more efficient boilers and energy infrastructure from 2023
- We, and our PFI partners, have signed up to the National initiative to end the use of Single Use Plastics on our sites and we are seeking to de-list plastics from the supply chain where possible.
- We are finalising plans for a waste regeneration plant which will reduce our landfill to zero in the next three years.
- New buildings procured will be energy efficient and made from renewable materials, using modern methods of construction.
- The Trust’s Carbon Zero plan has been published in 2021.

Patient experience of the estate

Patient feedback of our buildings and key patient facing areas is generally positive, particularly given the high numbers of people who use our facilities 365 days 7 days a week. Frequent anecdotal comments are that the estate is clean, staff are professional, courteous, kind, helpful and friendly. However, the diverse nature of our buildings new and old, large to small, and highly complex usage all has an impact when providing a consistent experience of the estate. Of 1200 Friends and Family Test comments about the estate, 58% were positive. Of the negative responses the key issues were:

- Buildings** –90% rated as good to satisfactory, 10% as not satisfactory. Disability access was an area for improvement with feedback from several people who used wheelchairs that they found it difficult to access the estate. Our statistics show that where a site/area is identified as an older building, patient feedback normally solicits a higher level of dissatisfaction of the environment and concern of cleaning standards, which is perhaps to be expected. In older parts of our estate, accessibility is an issue, particularly for wheelchair users who experience difficulties accessing parts of the estate.

PLACE scores ¹ for condition and appearance (hospital sites):	Wycombe	Amersham	SMH	Buckingham
2019	91.61%	87.02%	98.27%	89.47%
2018	94.13%	94.96%	90.00%	91.82%
Change between 2018-2019	-2.52%	-7.94%	8.27%	-2.35%

- Cleanliness** – 90% rated as good to satisfactory, 10% as not satisfactory

PLACE scores for Cleanliness (hospital sites):	Wycombe	Amersham	SMH	Buckingham
Cleanliness 2019	99.35%	97.61%	99.73%	98.56%
Cleanliness 2018	97.63%	99.20%	96.92%	98.04%
Change between 2018-2019	1.72%	-1.59%	2.81%	0.52%

- Car parking** - 96% rated as good to satisfactory, 4% as not satisfactory. Availability of spaces, particularly disabled parking, due to building work and contractors using spaces are issues, and many patients found the new payment system confusing. Prior to the pandemic, the high volumes of patient/visitor and staff car parking requirements were a significant issue, particularly at our Wycombe and Stoke Mandeville sites where it is not easily possible to increase capacity.

We have recently changed car park provider, investing in ANPR technology and improved signage. ANPR negates the need to invest in car park barriers which were frequently breaking and caused visitors a degree of frustration, and with this we have upgraded CCTV systems to provide better security deterrents.

- Access / Way finding** - 72% rated as good to satisfactory, 28% as not satisfactory, due to inadequate signage and difficulty in navigating the hospital estate. This is one of the top priority areas that patients/visitors are asking us to improve upon. With investment, wayfinding could be much improved for dementia sufferers and the visually impaired. During the pandemic with more frequent ward/dept moves around sites, the need for a digital solution has become highlighted. However, this will require significant capital investment and it may not be possible to install in older parts of the estate.

¹ PLACE audits were not completed during the pandemic

Summary of key priorities

To deliver the key principles of the new clinical strategy, significant change to the estate will be required. Our priorities are to provide an estate that;

- Can be relied upon to perform day in day in day out without compromising the clinical offer.
- Enables the improvement of care rather than maintaining an estate in need of serious remediation.
- Delivers care appropriate to patients needs in the best location for clinical outcomes and experience.
- Provides a better environment for healing and general staff and patient wellbeing, supporting staff recruitment and retention.
- Enables use of robotics and automation to provide our clinical colleagues with more time to care.
- Allows for the separation of emergency and planned care in a bio-secure way.
- Improves collaborative working alongside Primary Care Networks.
- Delivers its contribution towards net zero
- Contributes to local strategies for key worker and affordable housing.

Redevelopment of our estate will act as an enabler to transforming health and social care for all patients and service users in line with the new clinical strategy. We will:

1. Make the best clinical use of our owned assets

- Reduce our dependence on leased accommodation where possible.
- Improve empty parts of our retained estate such as Hale Acre in Amersham.
- Make better use of our PFI spaces for clinical use to enable the estate to become more efficient.

2. Improve the quality of our building stock

- Replace our existing buildings that are not fit for purpose and provide quality space such as the BHT agile workspace and Innovation Centre which creates great places to work for our staff and encourages MedTech innovation and research.
- Continue to improve the working conditions of our staff and commit to doing things differently, such as agile working and developing collaborative spaces that will reduce the non-clinical size of the estate and relieve the pressure on staff car parking.
- Demolish our older buildings to clear the sites for new clinical buildings that are multi-storey so that the land footprint is optimised.

3. Improve patient, staff and visitor experience

- Invest in wayfinding and where the estate permits address accessibility issues.
- Invest in meet and greet hosts and site monitoring officers to better support high footfall areas.
- Utilise data analytics from ANPR to seek to provide the optimum number of car parking spaces.
- Improve key worker housing availability, range and quality for our workforce.

WHERE WE WANT TO BE (2025)

Summary of the service strategy: Clinical need and organisational objectives

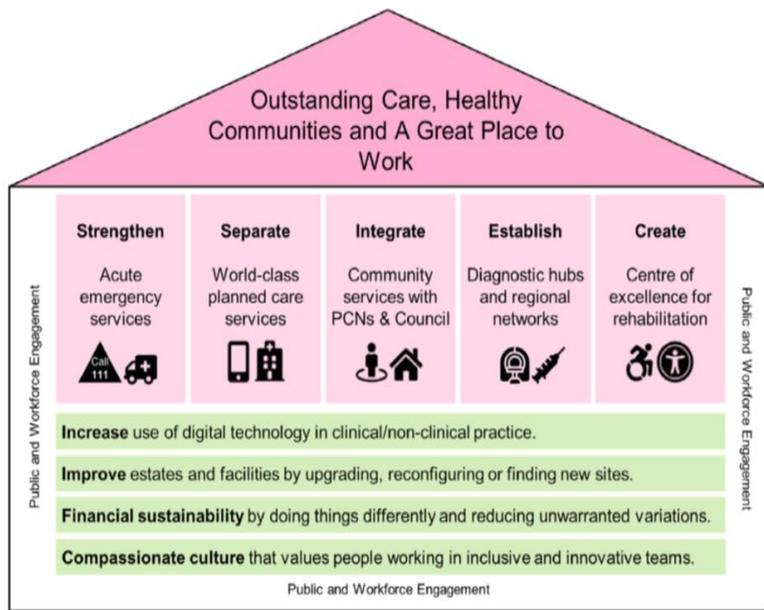
As an integrated organisation, we provide care in the community as well as in our hospitals and we are committed to supporting our populations’ health and wellbeing throughout the course of people’s lives. Enabling families and children to start well, tackling major illnesses like cancer and cardiovascular disease to help people live well and working with our partners in health and social care to support people to age well.

We have recently approved a new vision and clinical strategy that is ambitious and forward looking to 2025. The preceding five-year strategy (approved in 2016) supported the Trust on the journey to achieving a CQC rating of ‘Good’ in 2019 (‘outstanding’ in care) and to be part of the first wave of integrated care systems in England. To meet the changing needs of the population, especially those living in deprived areas, will require significant transformation of how we and our partners provide care. Our new vision is **Outstanding Care, Healthy Communities, and a Great Place to Work.** Delivering this strategy will require radical transformation of our estate.

Key principles of our clinical strategy

Our aspirations are to have a clear focus on people (both our staff and the communities we serve), to reduce health inequalities and deliver outstanding care.

This will drive the continued development of a compassionate culture, one that values diversity and inclusion, involves and enables everyone to be proud of the care we provide.



Our vision will be delivered within the following strategic framework:

Urgent and Emergency Care Transformation: Our vision is to work with our partners to provide highly responsive urgent care services close to home. For more serious or life-threatening emergency care needs we will offer centralised care with the very best expertise, from the best facilities to maximise the chances of survival and a good recovery. Centralising care and expertise on a single site will enable us to deliver better patient care.

Our vision for planned care services is to use technology to deliver outpatient care that is convenient and only ask people to come to hospital when they need to see an expert. We will work with other planned care providers to perform procedures that deliver the best outcomes in a timely way.

Our vision is to achieve better integration of services, simplify the health and social care system and support people to live long, independent and healthy lives at home. When people need support, you will get it from the right person, at the right place and at the right time.

Our vision for diagnostics is to have access to tests that can be performed close to home as well as central capacity for more complex testing. By working in networks and investing in digital technology we will be able to provide rapid test results that improve outcomes by contributing to early diagnosis and treatment

A centre of excellence for rehabilitation: Stoke Mandeville National Spinal Injuries Centre (NSIC) is the birthplace of the Paralympic movement and the largest and most recognised spinal cord injury centre in the UK and beyond. At the heart of Buckinghamshire's Local Industrial Strategy is the contribution we can make to our region's economic growth and development. We will build on our heritage and develop a centre of excellence for rehabilitation with an international reputation for care, research and innovation.

What does this mean for our estate?

To deliver the key principles of the clinical strategy and acknowledging that infection prevention challenges will remain post pandemic, significant change to the estate will be required. The estate must enable:

- Patients to receive care appropriate to their need in the best location for clinical outcomes and patient satisfaction.
- Emergency and Elective flows to be kept separate in the event of a future pandemic or major emergency.
- More care to be delivered closer to home, including integrating care with other providers.
- Our digital strategy which will support us to deliver more care closer to home and aims to reduce face to face outpatient appointments by 40%. This will enable poor quality parts of our estate to be released for redevelopment which will enable more care to be delivered in modern fit for purpose clinical environments.

Hospital Infrastructure Programme

In September 2021 we applied for funding from the National Health Hospitals Infrastructure Programme to redevelop our estate. We have a unique opportunity with our partners to create a flagship integrated health and care campus in Buckinghamshire. One Public Estate partners including the Local Enterprise Partnership (LEP), Buckinghamshire Council, BHT and the CCG have formed a partnership to develop this concept which would include Buckinghamshire's Health and Care Academy, Med-Tech Innovation, social and specialist housing and community leisure facilities. This scheme could be the first in the UK to achieve a truly integrated and flagship health and care campus. We will adopt new technologies, improve access to care and reduce health inequalities. Using modern methods of construction, we aim to deliver financial sustainability in Buckinghamshire.

The proposed scheme would deliver: (subject to appropriate public engagement and involvement).

1. An integrated health and care campus
2. Strengthened Stroke and Cardiac services
3. Biosecurity: Planned care will be separated from emergency care.

4. A centre of excellence for rehabilitation.
5. Social and key worker housing.
6. Best use of the PFI buildings for clinical care.

This will help us meet the needs of our growing population and ensure we can deliver uninterrupted care in the event of future pandemics. It will improve patient care and reduce the operational inefficiencies of delivering care from old estate. Finally, it will deliver annual savings that reduce our underlying deficit and eradicate over £200M backlog maintenance.

Our estate in the context of policy drivers

The Trust operates within a complex and evolving health and care landscape and there are a number of key policy drivers that also shape where we want the estate to be:

Policy Driver	BHT Response
NHS Long Term Plan (January 2019)	<p>Working with the ICS with using digital technology to enable patients to gain easier and faster access to services.</p> <p>Getting the best value for the taxpayer through working within our ICS to combine our purchasing power and reduce spend on duplication and unnecessary administration and space.</p>
Global warming and climate change	<p>We fully support the NHS net zero commitment and have published our net zero roadmap.</p> <ul style="list-style-type: none"> • for the emissions we control directly (the NHS Carbon Footprint), net zero by 2040, with an ambition to reach an 80% reduction by 2028 to 2032, • for the emissions we can influence (our NHS Carbon Footprint Plus), net zero by 2045, with an ambition to reach an 80% reduction by 2036 to 2039,
Naylor Review (March 2017)	<p>Sir Robert Naylor's review <i>NHS Property and Estates: Why the estate matters for patients</i> (published in March 2017) contains ambitious proposals for the future of the entire health estate, including primary care, and recognises the significant investment needed to achieve ICS/STP proposals. It calls for the NHS to develop robust capital plans which:</p> <ul style="list-style-type: none"> ▪ Are aligned with clinical strategies, Maximise value for money, Address backlog maintenance.
The Carter Report (February 2016)	<p>Lord Carter of Coles produced an independent report <i>Operational productivity and performance in English NHS acute hospitals: unwarranted variations</i> for the Department of Health and Social Care [DHSC] with the aim to identify the efficiency opportunity across NHS providers that could save up to £5bn a year by 2019-20.</p> <p>Subsequently the <i>Model Hospital</i> benchmarking tool was set up by NHS England Improvement to support the NHS to identify and realise opportunities to deliver the best patient care in the most efficient way.</p> <p>NHS trusts are able to explore their comparative productivity, quality and responsiveness, to provide a clearer view of improvement opportunities. We will continue to improve performance by participating in and benchmarking ourselves under the <i>Model Hospital</i></p>

Net Zero

Our key areas of focus in our net zero roadmap (published in September 2021) are:

- **Reduction of medical gas emissions & shift to low carbon inhalers**

Medicines account for 11.3% of emissions within the Trust. A small number of medicines account for a large portion of the emissions; anaesthetic gases (1% of emissions), medical gases (7.1% of emissions) and inhalers (0.5% of emissions) – where emissions occur at the ‘point of use’. The remaining emissions are primarily found in manufacturing and freight, which is inherent in the supply chain. Interventions considered include optimising prescribing, substituting high carbon products for low-carbon alternatives, and improvements in production and waste processes.

- **Care pathway redesign**

Implementing more sustainable models of care includes boosting ‘out-of hospital’ care; empowering people to have more control over their health; digitally enabling outpatient care; and increasing the focus on population health. Optimising the location of care ensures that patients interact with the service in the most efficient place, which may be closer to or even in their home.

Digitalisation has a significant opportunity to assist with the drive towards net zero within the Trust. Digitally enabled care models and channels for patients will significantly reduce travel and journeys, whilst the support of front-line digitisation of clinical records, workflow and communications will help to deliver a more efficient healthcare service.

- **Travel for care and business; commuting, patients & visitors**

Approximately 3.5% (9.5 billion miles) of all road travel in England relates to patients, visitors, staff and suppliers to the NHS. Within BHT, travel incorporates ~13% of the Trust's emissions; this includes approximately <1% for business travel and fleet transport, 4% for patient travel, 5.6% for staff commutes and 1% for visitor travel. The action plan for interventions that will enable the transition to net zero carbon includes: switching the fleet to zero-emission vehicles, reducing unnecessary journeys and enabling healthier, active forms of travel such as cycling and walking. The forecasted increase in vehicle use will limit and offset, in part, by rapidly evolving vehicle efficiency standards.

- **Building energy and renewables**

The 3 main hospitals as well as the other community buildings and other supporting facilities services within the BHT estate and its supporting facilities services – comprises 28.8% (34.3% including embodied carbon from Well to Tank) of the total carbon emissions profile. This represents a significant proportion of our emissions and therefore this is a crucial category for us to target. There are a number of opportunities for emissions reductions in the BHT estate, with significant opportunities in the energy efficiency of the buildings, the installation of efficient building services and other medical / non-medical equipment, and utilising new sources of renewable energy.

- **Water, Waste and Food**

Of the 590,000 tonnes of waste produced by the NHS in 2016/17, 15% went directly to landfill, whilst only 23% of waste is recycled. At BHT we fully intend to reach a target of zero landfill and to install and operate our own waste regeneration plant in the next three years.

- **Supply Chain Procurement**

BHT procures products from approximately 2,500 suppliers, each with their own supply chain. Whilst BHT does not control these emissions directly, it can use its considerable purchasing power to influence change. This includes Medicines (2.7%), Business Services (5.4%), Non-medical equipment (4.6%), Medical Devices (10.2%), ICT equipment (5.6%), Commissioned Health Services outside the NHS (12.7%) and Other (3.8%). BHT can reduce emissions from its supply chain in three ways: more efficient use of supplies; low-carbon substitutions and product innovation; and by ensuring our suppliers are decarbonising their own processes.

Estates Performance Strategy

Estate as an enabler

This estates strategy, driven by the clinical strategy, is intended to facilitate the delivery of an estate that supports **Outstanding Care, Healthy Communities, and a Great Place to Work** namely that:

- Clinical services are supported by safe, secure and appropriate environments.
- Capital investment that is made best reflects and supports integrated care business strategies and plans.
- There is a clear and demonstrable evidence that the estate is complying with sustainable development and environmental requirements.
- Risks are controlled and future estates investment is properly targeted to reduce risk.
- There is a clear commitment to identify and manage surplus estates assets over time to reduce costs or adapt them to meet evolving service requirements.

The five clinical workstreams frame the estate aims and drivers. The strategic objectives for the estate are as follows:

The Trust estate must be:

Objective 1: Safe and Secure

It is essential that all of the Trust owned, and operated buildings are compliant with relevant health and safety, statutory and CQC standards and are secure for our patients, staff and visitors insofar as a public access organisation can be.

Objective 2: Flexible

To accommodate changing functions and staff numbers, where possible, buildings need to be future proofed for greater regional system working.

Objective 3: Value for Money

As public spending faces ever tighter constraints, changes to the Trust owned and operated estate must bring about reductions in operating costs and increased value for money. We have already moved out of many leased properties by increasing our use of existing owned assets which has reduced operating costs by £1M per annum.

Objective 4: Sustainable

The Trust's buildings, where practicable, will aim to comply with sustainability goals and relevant environmental legislation. In October 2020, the NHS committed to the plan aiming to be the world's first carbon net zero national health system. This strives to reach an 80% reduction by 2032 and become net zero by 2040. We have published our net zero roadmap in 2021 and now have a clear and measurable implementation plan.

Objective 5: Modern

The Trust estate needs to be safe, modern, efficient and fit to deliver modern day healthcare. This will mean investment in new buildings and redevelopment of the estate where possible.

Objective 6: Functional

All of its owned and operated buildings need to be fit-for-purpose and in the right location to best support the delivery of all clinical services.

Objective 7: Efficient

We require efficient building footprints and more productive floor space (“sweating the asset”), which means removing any surplus space that exists across the entire spectrum of clinical service delivery.

Objective 8: Able to Provide a Platform for the Whole of the Trust’s Operations

We have multiple stakeholder and system relationships and the estate as part of one public estate must also be used as a catalyst to promote wider ICS working and collaboration.

HOW WE WILL GET THERE

As an integrated healthcare system our strategy must be aligned to our regional and local partners. The table below identifies how the five clinical workstreams, that are designed to deliver the new clinical strategy of Outstanding care, Healthy communities and a Great place to work, fit at a strategic level. The table below identifies how changes to the estate will support this.

Workstream	BOB ICS Level	Buckinghamshire ICP Level	BHT Estate
<p>Strengthen acute services- Urgent and Emergency Care Transformation</p>	<p>Continue to develop as one of five major trauma networks in the south of England.</p> <p>Working closely with Oxford University Hospitals NHS FT [OUHFT] as our Major Trauma Centre [MTC]</p>	<p>Transform the current countywide urgent care services with South Central Ambulance Service [SCAS] and PCNs to ensure there is good access to local urgent care 24/7.</p> <p>Promote the range of 24/7 urgent care services accessible via NHS111 which can refer directly to Urgent Treatment Centres [UTC] (at Wycombe), general practice, ED and community services such as pharmacists.</p> <p>Community and primary care services will work together with social care services provided by Buckinghamshire Council to ensure we have an integrated, responsive service that helps people stay well at home for as long as possible.</p> <p>Continue to focus our efforts to reduce the length of time people stay in hospital.</p> <p>Children’s acute care is a strategic priority.</p>	<p>In the short-term we will continue to make adaptations and improvement to our estate to meet the growing needs of our population.</p> <p>We will establish and strengthen our acute paediatric care with a new dedicated Children’s ED unit at Stoke Mandeville, opening in summer 2022.</p> <p>In the longer-term we need to explore reconfiguring services and estate to strengthen our acute emergency services. Feasibility studies and Strategic Outline Cases (SOCs) have independently been prepared for Stoke Mandeville and Wycombe hospitals. Both SOC’s have identified options to take forwards into a single outline business case.</p> <p>We have submitted an expression of interest for the National Hospital Improvement Scheme which if successful will provide the seed capital funding required to complete the Outline Business Case for the preferred option, subject to the appropriate staff and public consultation.</p>

<p>Deliver world class planned care services</p>	<p>Work with other hospitals to deliver services that are robust and responsive, improving outcomes and efficiency for the populations we serve.</p> <p>Work with others in the Thames Valley Cancer Alliance to link early diagnosis with timely planned care that improves the outcomes and experiences for people affected by cancer.</p>	<p>Our Improving Outpatients Programme has three goals:</p> <ul style="list-style-type: none"> ▪ Increase 'Virtual' Outpatient Consultations by 30% by 2023. ▪ Reduce the Demand for Outpatient Services by offering advice and guidance and Referral Assessment Services [RAS] to make sure more people get to the right place first time for specialist care. ▪ Increase Outpatient Efficiency by improving our internal processes. 	<p>Aligned with the NHS Long Term Plan we want to develop a clear separation of planned care services from emergency care services. This will be supported by service reconfiguration and significant changes to our estate.</p> <p>A programme business case will be completed in 2022 to identify the new clinical pathways which will inform the estate changes that will be required to deliver this strategy.</p>
<p>Integrate Community Services with other healthcare providers</p>	<p>Aligned with the NHS long term plan which is reflected in the Buckingham</p>	<ul style="list-style-type: none"> ▪ Getting the Best Start in Life through focusing on: <ul style="list-style-type: none"> ○ Keeping children and young people safe. ○ Supporting to overcome their challenges. 	<p>The NHS forward view identifies that community hubs would serve populations of 120,000 people and encompass integrated health, social care, and mental health services.</p> <p>A number of our community sites also provide dental services and musculoskeletal services.</p>

	<p>ICP level plan.</p>	<ul style="list-style-type: none"> ○ Improving health and wellbeing. ○ Reducing health inequalities and providing opportunities. ▪ Ageing well through a new service model to support frail people in the community: <ul style="list-style-type: none"> ○ Improve NHS care in Care Homes. ○ Identify and provide proactive support to old people living with frailty in the community. ○ Enhance rapid community response at times of crisis. ▪ Identify people and populations that are most vulnerable and work as a system to reduce the risks of poor health. ▪ We are rooted in our community. Through our size and scale, we can make a positive contribution to local areas in many ways beyond just providing healthcare. 	<p>Our existing sites are generally well located to serve this model, apart from the south part of Buckinghamshire which has no regional hub. Work is ongoing with partners through one public estate to identify and develop a suitable site. This is particularly important from a health equalities perspective as it is this region where a high prevalence of health deprivation exists per head of population.</p> <p>From an estates perspective we will continue the establishment of community hubs that offer new community services and community links and seek to explore new models such as health on the high street, and utilise one public estate to deliver these</p>
<p>Establish Diagnostic Hubs and Regional Networks</p>	<p>Aligned with the emerging planned care strategy, develop diagnostic centres at acute sites as well as diagnostic hubs in the community.</p> <p>Establish collaborative pathology</p>	<p>The current strategy of diagnostics on acute sites will be reviewed to comply with the ICS community access model.</p>	<p>The clinical strategy determines that simple diagnostics should be more easily accessible and will therefore be built into designated community hubs.</p> <p>More complex diagnostics will remain co-located with our emergency services, we will increase our endoscopy capacity and expand our community diagnostic hub at Amersham.</p>



	and imaging networks.		
Create a Centre of Excellence for Rehabilitation		Continue the transformation programme in the rehabilitation pathways which include the NSIC, community neuro rehab and community head injury services and stroke, focussed on improvements in areas like patient flow, discharge pathways, early access, outpatients and outreach and access to state of the art equipment for rehabilitation.	The clinical strategy has designated that we create a Centre of Excellence for Rehabilitation at Stoke Mandeville. Plans are underway to develop new state of the art therapies facilities that will be fundamental to delivering a centre of excellence for rehabilitation, building upon the core foundations of the National Centre for Spinal Injuries and the heritage of the Paralympics and partnering with the centre for sports rehabilitation on our neighbouring site.



Implications of local authority development strategies

Buckinghamshire Council became the single unitary council that replaced Buckinghamshire Council and Aylesbury Vale, Chiltern, South Bucks and Wycombe District Councils in April 2020. Consequently, it is currently forming new strategies and planning. Due to the significant redevelopment of our estate, close partnership working is required and from a planning perspective there is a need to ensure that health features in the Council's planning strategies.

The council is particularly concerned with planning for additional estate to support key worker and affordable housing as well as assistive living housing for people with learning difficulties, dementia and rehabilitation. The Trust is keen to support this work.

Strategic estate changes

Capital investment programme

In financial year 2020/21 the Trust delivered over 70 projects resulting in a total capital investment of £29.6M, against the following categories:

Compliance	Infrastructure	New Builds	Refurbishment	Resource	Moves	COVID-19
£1,214,703	£9,289,253	£13,041,564	£3,714,888	£592,061	£331,081	£1,308,377

Over the next five years we need to make a £148M capital investment in the estate to achieve legal compliance, deliver the clinical strategy, start to implement net zero and support recovery post pandemic. This is in addition to the investments requested as part of the Hospitals Infrastructure Programme.

	total £M	2021/22	2022/23	2023/24	2024/25	2025/26
Legislative Compliance	£30,150	£5,850	£9,150	£7,550	£4,550	£3,050
Clinical Compliance	£11,400	£1,750	£4,900	£3,000	£1,500	£250
Clinical Strategy	£49,000	£5,000	£23,000	£18,500	£1,500	£1,000
Net Zero	£6,000	£300	£2,300	£2,000	£900	£500
Backlog	£22,820	£1,230	£7,655	£5,025	£5,055	£3,855
Recovery	£28,700	£13,000	£15,700	£0	£0	£0
total	£148,070	£27,130	£62,705	£36,075	£13,505	£8,655

Legislative and Clinical Compliance

Investments in compliance are to ensure we meet our statutory obligations, specifically in the areas of ventilation, pressure systems, addressing dead legs in water systems, LV electrical programme and bringing clinical areas to the right standards to meet accreditation criteria such as Joint Advisory Group (JAG) accreditation for endoscopy. The risks in not meeting standards are well understood, documented in the risk register and being mitigated. As and when additional emergency capital becomes available it is these areas that are given priority.

Clinical Strategy

Strengthening our acute services

- We are currently completing a new £15M Paediatric ED build at Stoke Mandeville which will open in 2022.
- We need to increase our Endoscopy Provision and our emergency bed provision.

Delivering world class planned care services

- We will be completing a programme business case for the hospitals redevelopment project which will determine next steps. This will require significant investments and we have submitted an Expression of Interest under the Hospitals Improvement Programme to enable us to reach Outline Business Case stage.
- We will also investigate how the performance of our good quality PFI estate could be optimised to support delivery of this programme.

Creating a centre of excellence for rehabilitation

- Quality facilities that will make an excellent therapy centre as the environment can influence healing and recovery. We will use modern methods of construction and a different approach that is people / patient friendly and modern.



Integrating Community Services with other providers

The formation of Primary Care Networks is creating pressure on all estate, they have significant space requirements and where we have building capacity we will look to support. We currently have GPs and a UTC operating from our Wycombe site and are working with all PCNs to determine their needs, looking to co-locate staff and services where possible. The benefits to patients from co-locating services are to create a “one stop shop” e.g. from Consultation to simple diagnostic tests, making it easier for patients to access.

Net Zero

The three main hospitals, community buildings and other supporting facilities generate 27.6% of the Trusts total carbon emissions. There are opportunities for emissions reductions in the BHT estate, specifically in the energy efficiency of the buildings, the installation of energy efficient buildings services and seeking new sources of materials.

Moves

There are a number of strategic changes informed by the clinical strategy that require investment in moving teams to realign service provision subject to the appropriate engagement with staff and the public.

- Realigning community services delivery including expanding the community diagnostics hub at Amersham.
- Supporting the health on the high street initiative in partnership with the Council to make services more accessible to local communities.
- Building more agile workspace hubs at Amersham, Wycombe and Stoke Mandeville
- Moving our therapy services into a centre of excellence for rehabilitation at Stoke Mandeville

Due to the poor condition of the Wycombe Tower we are planning a phased exit strategy over the coming three years. We also plan to improve the clinical and working environment by moving teams that are working in poor-quality buildings. The new agile workspaces will support this.

Refurbishment / backlog

- As part of our people strategy for recruitment and retention, a rolling investment programme for student and key worker housing is required. We intend to upgrade Aston House during 2021/22 and this accommodation will be for Doctors, on-call rooms, and rest rooms. The David Brown building accommodation will be re-purposed into educational space, moving all rooms to Aston House.
- We are ready to build phase 2 of our Stoke Mandeville agile workspace plus refurbish space in Amersham and Wycombe subject to capital availability. This will enable poor quality buildings to be demolished.

Recovery post pandemic

The estate needs to support the clinical recovery plans to reduce waiting times for surgery and improve flow in our emergency department. Due to the level of backlog in the estate, the immediate need will be to bring in temporary vanguard units that can operate alongside estate redevelopments. We will also upgrade our minor operations theatre in Amersham to be able to deliver an integrated Plastics and Dermatology service.

Summary of plans for disposal and proceeds of sale

At present whilst we work through the programme business case and consider a wider hospitals redevelopment programme, there are no major plans for disposal of estates assets, although we recognise that when the plans for reconfiguration are in place, as part of the clinical strategy, we may in future be able to redevelop some land for key worker and affordable housing.

Forecast effect of strategy on estate performance

Impact on Estate Utilisation

Through agile working and moving accommodation to good quality buildings and closing those that are poor quality on our Stoke Mandeville and Wycombe sites we will achieve targets.

	Target	2021	2022	2023	2024	2025
Non-Clinical	25%	35%	32%	30%	25%	20%
Clinical	75%	65%	68%	70%	75%	80%

Operating costs

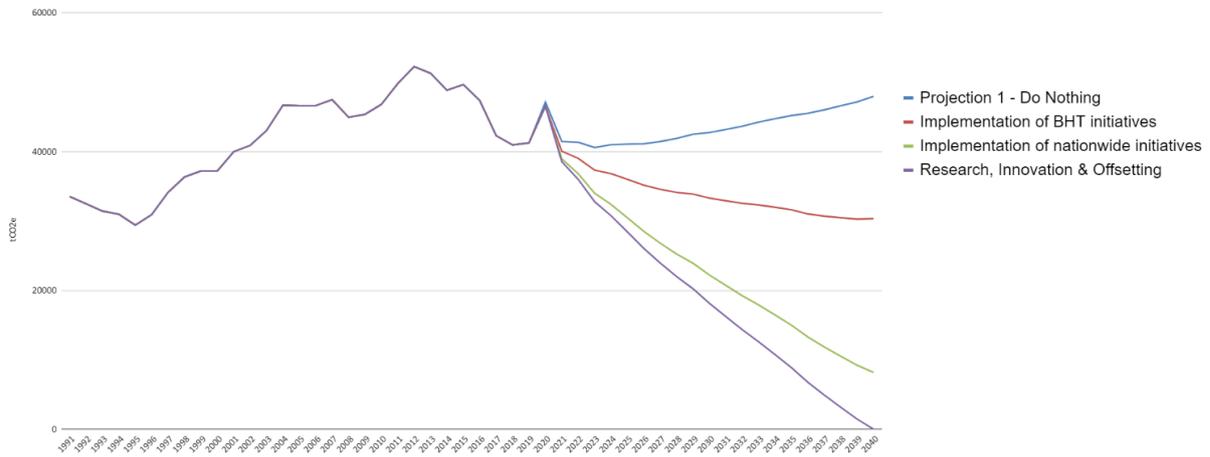
The forecast assumptions for energy and water (table below) are based upon a 2% annual increase. Drivers that enable the forecast to remain relatively stable, despite market fluctuations, are the changes planned to the estate, e.g. conversion to LEDs, reduced and more efficient estate, changes in use of the estate e.g. reducing administrative use and converting more of the estate to clinical use.

The forecast assumptions for cleaning, laundry, and meals include inflation rates linked to the estimated annual RPI uplift in PFI contracts (3%), timing of renegotiating both PFI soft services contracts of which the impact on meal costs can be seen in the first full year of 2022 and building in our new waste plant which will mitigate against increasing waste costs over the next five years.

	2021	2022	2023	2024	2025
Energy kWh	35.4m	34.7m	34m	33.3m	32.7m
Water and Sewage £m2	213k	209k	205k	200k	196k
Cleaning £ m2	£45.47	£46.37	£47.49	£48.77	£50.23
Laundry per piece £	£0.42	£0.37	£0.38	£0.39	£0.40
Meals per patient day £	£11.09	£6.69	£6.85	£7.04	£7.25
Waste tonne	1670	1514	984	637	414

Forecast effect of environmental performance improvements

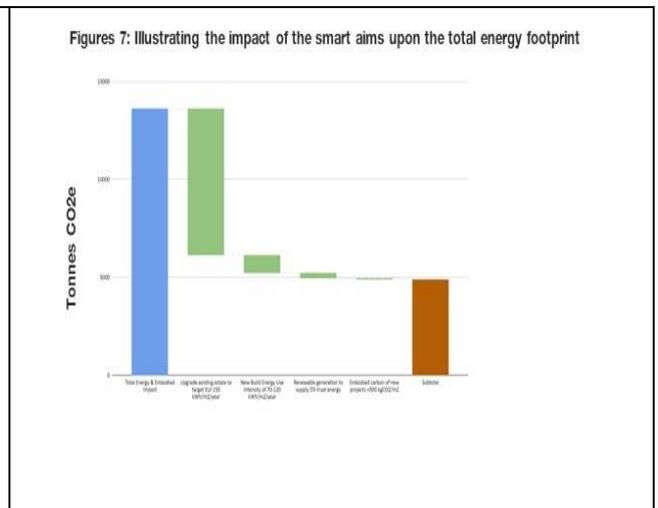
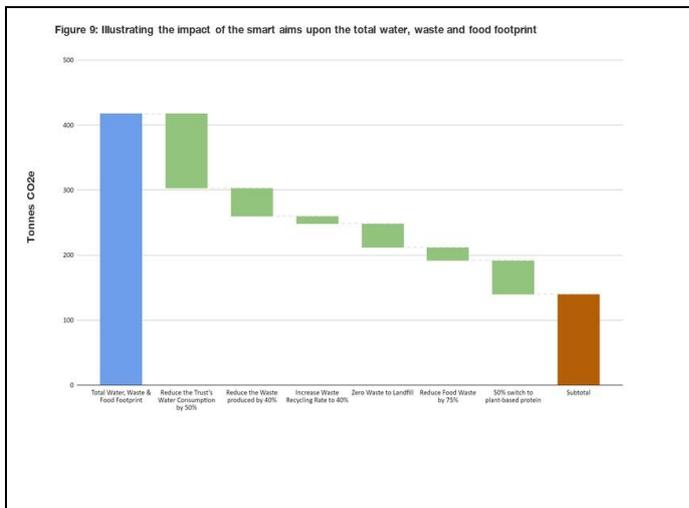
We have initiated a major investment towards our net zero target which will reduce our carbon emissions by approximately 5000 tonnes over the life of the project.



Key targets:

Upgrade existing estate to target EUI 150 kWh/m ² /year	<ul style="list-style-type: none"> Retrofit existing buildings where possible to provide better insulation windows Temporarily replace poor performing building services / fittings etc 	150 kWh/m ² /year
New Build Energy Use Intensity of 70-120 kWh/m ² /year	<ul style="list-style-type: none"> Ensure that a 'fabric first' approach is followed to minimise energy demand Ensure building services are highly efficient and designed for performance 	70-120 kWh/m ² /year
All heating and hot water provided Heat Pumps	<ul style="list-style-type: none"> Identify areas to locate heat pump plant on roofs / around the buildings Enable heat pumps to be installed for space heating and hot water 	100% Heating/DHW by Heat Pumps
Optimising building usage to reduce consumption by 35%	<ul style="list-style-type: none"> Install smart energy management and building instrumentation Implement training programs across FM team to upskill on energy saving 	35% Reduction in consumption
Lighting efficiency of 4.5 W/m ²	<ul style="list-style-type: none"> Install LED light fittings across all buildings Install presence detection and daylight sensors across all buildings 	Lighting efficiency 4.5 W/m ²
Renewable generation to supply 5% trust energy	<ul style="list-style-type: none"> Identify opportunities for Photovoltaic arrays on building roofs and other areas. Install PV with battery storage to maximise the availability of renewable energy 	5% provision of renewable energy
Embodied carbon of new projects <500 kgCO ₂ /m ²	<ul style="list-style-type: none"> Undertake Life Cycle Assessment with a target emissions of reducing embodied carbon. 	<500 kgCO ₂ /m ²

In 2022 we will replace the 1950 steam boilers at Wycombe Hospital with the latest Combined Heat and Power (CHP) technological solution, replacing the energy infrastructure across the site. We were successful in securing Public Sector Decarbonisation Funding (PSDF) from Salix, a treasury funded body aiming to assist public sector bodies achieve the governments carbon neutral targets to help fund this investment. We also have a significant investment plan to replace all lighting with LEDs, starting in our PFI buildings. It will not be possible to achieve this across the entire estate due to the poor condition in some buildings, but we expect that 70% of the estates lighting will be replaced in the next 2 to 3 years.



Water, waste and food

Of the 590,000 tonnes of waste produced by the NHS in 2016/17, 15% went directly to landfill and only 23% of waste is recycled. The carbon footprint of food is also of growing concern. Water, Waste and Food & Catering contribute 0.6%, 0.3% and 0.2% of the Trust's carbon emissions in 2019. We will be building and opening an anaerobic digestion plant at Stoke Mandeville in 2022 which will significantly reduce / eradicate our carbon emissions from waste across the Trust.

Reduce the Trust's Water Consumption by 50%	<ul style="list-style-type: none"> - Install sensors, flow control, valves to reduce water consumption - Training, leadership and initiatives to drive reduced water consumption 	50% reduction in water consumption
Water sub-meters covering 90% of water consuming areas	<ul style="list-style-type: none"> - Install sub-meters across all buildings in the trust - Regular monitoring of water consumption data to ascertain areas of higher consumption 	90% coverage by sub-metering
Reduce the Waste produced by 40%	<ul style="list-style-type: none"> - Waste management strategy for increasing monitoring and tracking. - Reducing single use plastic 	Reduce Waste Produced by 40%
Increase Waste Recycling Rate to 40%	<ul style="list-style-type: none"> - Optimising waste segregation, easing recycling - Raising awareness and training including the recycling of medical waste 	Recycling Rate of 40%
Zero Waste to Landfill	<ul style="list-style-type: none"> - Development of new waste processing plant to handle the trusts waste - Target zero waste to landfill as soon as possible 	Zero waste to Landfill
Reduce Food Waste by 75%	<ul style="list-style-type: none"> - Audit the hospitals to identify areas to target and monitor waste produced - Raising awareness and training of all staff 	75% reduction in food waste
50% switch to plant-based protein	<ul style="list-style-type: none"> - Increased options within hospitals to encourage plant-based options. - Increased awareness of the benefits of a plant-based lifestyle from a holistic perspective 	50% plant-based protein

Success criteria for delivering this strategy

Clinical and Public Engagement

This is an essential and important aspect of delivering this strategy. We will have involved and engaged key stakeholders, including the staff and the public, and agreed the most appropriate way and places to deliver care for the residents of Buckinghamshire.

Capital / planning / success of HIP application

Capital allowances are driven by depreciation on the Trust's balance sheet which we recognise is insufficient to deliver this strategy. With the development of the ICS, capital will be devolved to the region to make best use of it, which creates new opportunities for greater partnership and strategic working to resolve regional and planning issues with our public estate.

Aged Infrastructure creates clinical risks

Whilst we maintain a robust risk register, items will break such as water pipes, boilers etc and whilst much of the estate has controlled asbestos, it means the costs to maintain a safe estate are always significantly increased as a result.

Net zero

Just 23% of the Trust's carbon emissions are under our direct control. Initiatives are underway but some are only affordable and demonstrate value for money with grant funding. Our carbon reduction activities will make a significant reduction in emissions however there will be a remaining level which is outside of the Trust's control. This is where offset schemes will come into use. These are in their infancy and will develop over time and for this reason offset will be used from 2032 to meet Government targets at that time.

Asset sales

At current market rates, the Trust owns £230M in freehold property. The major site redevelopment plans will release some land assets for development, however the land value in Buckinghamshire is not significant compared to, for example, London and therefore it may be better value to optimise their use and income generate from these assets rather than sell.

Resource

The property services team is currently resourced to manage an estate that operates efficiently and has minimal infrastructure risks. To maintain safety, a significant number of specialist contractors e.g. asbestos and water specialists work alongside the team which adds to the overhead costs to running a safe operation. This plan is over and above delivering “business as usual” and will require additional specialist resource; estates planning specialists, move planners, technical architects etc. This resource will need to be funded through the capital budget creating further draw on the already insufficient capital allowances and therefore will need to be balanced against managing the infrastructure risks in the estate, unless the Trust is successful with the HIP application which will provide the required funding.

IMPLEMENTATION PLAN

With the delivery of this strategy the estates approach to implementation will focus on the following;

Safe and Secure

- Prioritising high and significant backlog maintenance and continuing to deliver appropriate health and safety-related investment.

Flexible

- Ensuring that business cases for new builds and refurbishments specifically address flexibility at the building level.
- Making clear to supply chain (e.g. designers, architects and surveyors) that flexible design is important to the Trust.
- Identifying and communicating to all Trust staff the benefits and obligations for them to think flexibly in their use of the Trust owned and operated estate.

Value for money

- Ensuring that all business cases seek to minimise the cost-in-use of our buildings without compromising the Trust business needs.
- Placing more emphasis on commercial and Integrated Care System solutions.
- Encouraging a leaner supply chain for estates and facilities procurement.

Sustainable

- Ensuring that all business cases include a net zero assessment.
- Concentrating efforts to reduce carbon emissions in those areas with the largest carbon footprints.
- Demonstrating visible leadership on reducing carbon.
- Ensuring all new buildings meet BREEAM standards so far as is practicable.

Modern

- Ensuring that all business cases promote modern buildings and ways of working.

- Using modern methods of construction for major new builds from the approved capital programme.

Functional

- Ensuring that all business cases address functionality and location, rigorous space analysis and maximum flexibility in use of the asset.
- Continuing dialogue between Clinical Divisions, other corporate functions, and Integrated Care System partners with Estates and Facilities to ensure that the location of Trust corporate services and clinical functions reflect the core business needs of the Trust.

Efficient

- Ensuring that all business cases seek to minimise the footprint of Trust buildings, while meeting the operational needs of the Trust, including flexibility.
- Identifying value-for-money opportunities to downsize corporate space and relocate clinical functions to more optimal and efficient accommodation.
- Identifying opportunities that can be self-funded from operational cost savings.
- Allocating space to reduce the Trust's overall non-clinical footprint (e.g. open-plan spaces, right-sized cellular offices, flexible meeting spaces).
- Reviewing space standards for all parts of the Trust estate, in a way which takes account of local circumstances and how best to deliver space on a value-for-money basis.

Platform for the whole Trust operationally

- Aiming to accommodate and co-locate partners who significantly complement the Trust's business and business objectives on the Trust estate wherever possible.
- Ensuring that all business cases seek to optimise the attractiveness of our buildings to preferred and prospective partners, particularly those who operate within the Integrated Care System.
- Working with preferred partners to remove barriers to co-location where these exist, including anomalies in the current system for internal charging for space.
- Developing and deepening shared co-location strategies with our key Integrated Care System partners.

PLAN ON A PAGE

*subject to capital	2022	2023	2024	2025
Recovery Priority areas: 1. Theatre upgrades 2. ED flow	Dermatology and Plastics theatre upgrade in Amersham New Paediatric A&E open Endoscopy at Stoke Mandeville	2 Endoscopy units installed * 30-50 additional beds at SMH*	2 Endoscopy units installed * ED front door pathway remodelled*	
Compliance	Water system at SMH htm compliant New VIE installed High voltage electrical programme completed	Heating systems upgraded; pressure systems now compliant*	New signage programme completed to DDA compliance * and accessibility.	LV programme completed, electrical system now fully compliant*
Delivering the clinical strategy	Amersham theatres upgraded Programme Business Case for hospitals redevelopment completed	Community diagnostics hub opens in Amersham* Outline Business Case for hospitals redevelopment completed*	Community diagnostics hub fully operational in Amersham* Full business case for hospitals redevelopment completed*	Centre of excellence for rehabilitation open at Stoke Mandeville site*
Net Zero	CEF programme complete Boiler replacement scheme converting to air source heat pumps underway New waste plant operational -stoke Mandeville Plant based menu options – patient and staff dining	EV charge points installed (all sites)* LED replacement scheme complete in all PFIs All Trust waste processed by new waste plant Single use plastics delisted	Estates vehicle fleet fully transfers to electric LED replacement scheme completed in retained estate*	Wycombe heating system converts to hydrogen* New net zero therapies building completed at SMH*. Boiler replacement scheme converting to air source heat pumps completed*
Performance	Cleaning, laundry and food costs meet national standards	Estate achieves 67% clinical utilisation	Estate achieves 75% clinical utilisation	

CONCLUSION

With 60% of the Trust owned buildings being more than 30 years old, the estate requires significant upgrading to deliver modern day healthcare. Clinical services are currently being impacted by the estate which is not designed to deal with increasing demands for capacity and flow and with a £210m backlog there is a significant underlying pressure to keep the estate safe.

By implementing the new clinical strategy and with a good quality estate and improved digitisation, we estimate that we could reduce operating costs by as much as £30m per annum. The new clinical strategy will require a number of important infrastructure changes such as the new community diagnostics hub, a bio-secure planned care environment, separate to emergency care, and delivery of the new centre of excellence for rehabilitation at Stoke Mandeville subject to the appropriate engagement with staff and the public.

Upgrading our estate will support the Trust to deliver on our vision which is to provide our Buckinghamshire residents with outstanding care, healthy communities and a great place to work. Patients will receive care appropriate to their need in the best location for clinical outcomes, more care will be delivered closer to home, and we will have a bio-secure estate. We will also be able to bring our estates operating metrics in line with other trusts of a similar size, we will achieve a much higher clinical utilisation of the estates and meet net zero targets.

Abbreviations

A&E	Accident and Emergency
ANPR	Automatic Number Plate Recognition
AE	Authorising Engineer
BAU	Business as Usual
BOB ICS	Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System
BHT	Buckinghamshire Healthcare NHS Trust
BMS	Boiler Management System
BREEAM	Building Research Establishment Environmental Assessment Method
CAFM	Computer Aided Facilities Management
CCG	Clinical Commissioning Group
CEF	Carbon Energy Fund
CHP	Combined Heat and Power
CQC	Care Quality Commission
DCP	Development Control Plan
DDA	Disability Discrimination Act
DHSC	Department of Health and Social Care
ED	Emergency Department
ERIC	Estates Returns Information Collection
EV	Electric Vehicle
FM	Facilities Management
HBN	Health Building Note
HCC	Health and Care Centres
HIP	Hospital Infrastructure Programme
HV	High Voltage
ICP	Integrate Care Partnership
ICS	Integrated Care System
JAG	Joint Advisory Group
LED	Light Emitting Diode
LEP	Local Enterprise Partnership
LV	Low Voltage
MTC	Major Trauma Centre
NSIC	National Spinal Injuries Centre
OPE	One Public Estate
OUHFT	Oxford University Hospitals NHS Foundation Trust
PCN	Primary Care Network
PLACE	Patient-led Assessments of the Care Environment
PFI	Private Finance Initiative
PSDF	Public Sector Decarbonisation Funding
RAS	Referral Assessment Services
SCAS	South Central Ambulance Service
SDAT	Sustainable Development Assessment Tool

SDU	Service Development Unit
SMH	Stoke Mandeville Hospital
SOC	Strategic Outline Case
SOP	Standard Operating Procedure
SPV	Special Purpose Vehicle
UHSB	United Healthcare South Buckinghamshire
UTC	Urgent Treatment Centres