

**SOUTH WEST LONDON AND
ST GEORGE'S MENTAL
HEALTH NHS TRUST**

**LAND AT BARNES HOSPITAL, SOUTH
WORPLE WAY, BARNES, RICHMOND,
LONDON, SW14 8SU**

HEALTH IMPACT ASSESSMENT

OUTLINE PLANNING APPLICATION

January 2019

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1.0 INTRODUCTION

1.1 This Health Impact Assessment (HIA) has been prepared by Montagu Evans LLP on behalf of South West London and St George's Mental Health NHS Trust (the Applicant) in support of an outline planning application for the redevelopment of Barnes Hospital. The application is for all matters to be reserved other than vehicle access into the site.

1.2 The Proposal (or Proposed Development) is for:

“Outline planning permission for the demolition and comprehensive redevelopment (phased development) of land at Barnes Hospital to provide a mixed use development comprising a health centre (Use Class D1), a Special Educational Needs (SEN) School (Use Class D1), up to 80 new build residential units (Use class C3), the conversion of two of the retained BTMs for use for up to 3no. residential units (Use Class C3), the conversion of one BTM for medical use (Use Class D1), car parking, landscaping and associated works. All matters reserved save for the full details submitted in relation to access points at the site boundaries”.

1.3 This report outlines the HIA for the Proposal in line with the requirements set out by the London Plan and Richmond Local Plan. The Mayor of London has committed to promote the health of Londoners and for developers to take into account the effect of the GLA's policies on the health of London's population. London Plan Policy 3.2 states that impacts of major development proposals on the health and wellbeing of communities should be considered, for example through the use of Health Impact Assessments (HIA).

1.4 The purpose of this assessment is to understand how the Proposed Development could directly and indirectly impact on the key determinants of health; to identify those people most likely to be affected by the proposed development with regard to health inequality issues; and to identify measures to enhance the positive impacts and mitigate the negative effects of the proposed development on public health, and establish responsibilities for delivering and monitoring these.

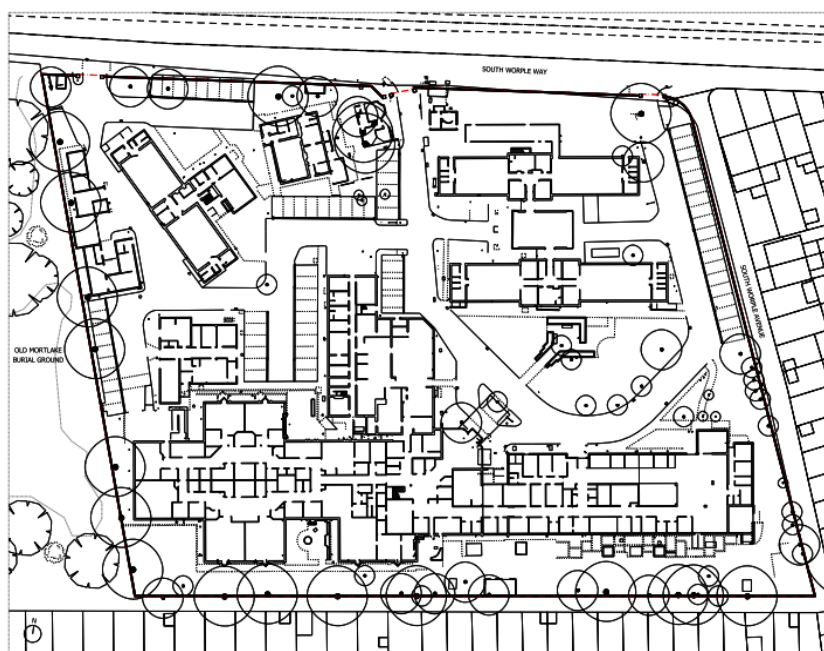
1.5 The remainder of this Report is structured as follows:

- Section 1: Introduction;
- Section 2: Site and proposed development;
- Section 3: Planning policy;
- Section 4: Methodology;
- Section 5: Socioeconomic baseline;
- Section 6: Health Impact Assessment; and
- Section 7: Conclusions.

2.0 SITE AND PROPOSED DEVELOPMENT

- 2.1 The Site is located within the administrative authority of the London Borough of Richmond and comprises an area of approximately 1.4 hectares. The site is bound to the north by South Worple Way with rail tracks beyond that. To the east South Worple Avenue bounds the Site with terraced residential dwellings beyond. Residential dwellings fronting Grosvenor Avenue bounds the Site to the South and Mortlake Cemetery forms the boundary to the west.
- 2.2 The existing Site accommodates a number of buildings, which historically provided mental health facilities (Use Class C2). The remainder of the Site is occupied by hardstanding providing car parking and some soft landscaping located outside a number of the buildings. There are a total of 3 existing entrances into the site from South Worple Way which provides access to the various parking bays and buildings.
- 2.3 While there are no statutory listed buildings on the Site, 8 of the existing buildings on the Site are identified as BTM by LB Richmond. The Site is not situated within a conservation area, however Queens Road, Mortlake Conservation Area abuts the Site to the west.
- 2.4 The planning application seeks outline planning permission for a mixed use development to create a Special Educational Needs (SEN) school, health hub and high quality residential accommodation. The Proposal includes the provision of public realm and open space as well as improved pedestrian routes allowing easier wayfinding and greater connectivity.
- 2.5 The location and boundary of the application site is shown in Figure 1 below.

Figure 1: Barnes Hospital



3.0 PLANNING POLICY

3.1 This Assessment has been informed by both adopted and emerging development plan policies and other relevant guidance. This Section of the Statement provides a summary of the planning context from which such policy is drawn.

The Development Plan

3.2 The statutory Development Plan relevant to the site and this assessment comprises:

- The London Plan (2016); and
- London Borough of Richmond Local Plan (2018).

Emerging Planning Policy

3.3 The Mayor of London is in the process of preparing a new London Plan to replace the adopted Plan. Informal consultation on the first iteration of the document was undertaken between October and December 2017. A public draft of the new London Plan was published on 29 November 2017 and a six week consultation took place from 1 December 2017 until 2 March 2018.

3.4 An Examination in Public (EiP) on the document is expected to take place in Autumn 2018. The final version of the new London Plan is anticipated to be adopted in Autumn 2019. The policies contained within the consultation draft are still to undergo revisions following the consultation and EiP and therefore are of limited weight. It does however provide a clear indication as to the direction of travel towards optimising development of previously developed land.

3.5 The Draft New London Plan advocates improving health and reducing inequality. It requires development to ensure that the wider determinants of health are addressed in an integrated and coordinated way, taking a systematic approach to improving the mental and physical health of all Londoners and reducing health inequalities. Policy CG3 requires proposals to assess potential impacts on the health and wellbeing of communities through the use of Health Impact Assessments.

National Guidance

3.6 The revised National Planning Policy Framework (NPPF) came into force on 24 July 2018. The NPPF sets out the Government's planning policies for England and how these are expected to be applied. It is a material consideration in the determination of all planning applications.

3.7 At the heart of the NPPF is a presumption in favour of sustainable development, (paragraphs 10 and 11). The presumption in favour of sustainable development which is set out in the Framework indicates that where this test is met, applications should be approved without delay. Paragraph 11 goes on to state that:

“For decision-taking this means:

c) approving development proposals that accord with an up-to-date development plan without delay; or d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:

i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole”.

- 3.8 In chapter 8, the NPPF outlines how planning policy should help promote healthy communities. “The planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities. Local planning authorities should create a shared vision with communities of the residential environment and facilities they wish to see”.
- 3.9 The NPPF provides guidance for local authorities about healthcare in their Local Plans. In paragraph 156, it suggests that local authorities should set out their strategic goals and policy relevant to “the provision of health, security, community and cultural infrastructure and other local facilities”.
- 3.10 Paragraph 171 explains the requirement for local authorities to work with other bodies on health matters. “Local planning authorities should work with public health leads and health organisations to understand and take account of the health status and needs of the local population (such as for sports, recreation and places of worship), including expected future changes, and any information about relevant barriers to improving health and well-being”.
- 3.11 In March 2014, the Government published the National Planning Practice Guidance (NPPG) which is a material consideration relating to planning applications and should be read in conjunction with the NPPF. The NPPG replaces a number of previous circulars and guidance to provide a simplified single source of guidance at the national level.

The London Plan

- 3.12 The London Plan is the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20–25 years. The overarching policy setting out the principles of health infrastructure and healthy communities are as listed below.

- 3.13 Policy 3.1 seeks to protect and enhance facilities and services that meet the needs of particularly groups and communities. Proposals involving the loss of these facilities without adequate justification or provision for replacement should be resisted.
- 3.14 Policy 3.2 promotes improving health and addressing health inequalities, by seeking new development to be designed, constructed and managed in ways that improve health and promote healthy lifestyles to help to reduce health inequalities.
- 3.15 Policy 3.17 relates to health and social care facilities, which supports development proposals which provide high quality health and social care facilities, particularly in places easily accessible by public transport, cycling and walking. Where local health services are being changed, the Mayor will expect to see replacement services operational before the facilities they replace are closed, unless there is adequate justification for the change.
- 3.16 Policy 7.1, lifetime neighbourhoods, states that Development should be designed so that the layout, tenure and mix of uses interface with surrounding land and improve people's access to social and community infrastructure (including green spaces), the Blue Ribbon Network, local shops, employment and training opportunities, commercial services and public transport. Development should enable people to live healthy, active lives; should maximize the opportunity for community diversity, inclusion and cohesion; and should contribute to people's sense of place, safety and security. Places of work and leisure, streets neighbourhoods, parks and open spaces should be designed to meet the needs of the community at all stages of people's lives, and should meet the principles of lifetime neighbourhoods. The design of new buildings and the spaces they create should help reinforce or enhance the character, legibility, permeability, and accessibility of the neighbourhood.

The Richmond Local Plan

- 3.17 Policy LP30 states that planning plays a crucial role in promoting health and wellbeing. The Council promotes and supported development that results in a pattern of land uses and facilities that encourage:
- 1) Sustainable modes of travel such as safe cycling routes, attractive walking routes and easy access to public transport to reduce car dependency.
 - 2) Access to green infrastructure, including river corridors, local open spaces as well as leisure, recreation and play facilities to encourage physical activity.
 - 3) Access to local community facilities, services and shops which encourage opportunities for social interaction and active living, as well as contributing to dementia-friendly environments.
 - 4) Access to local healthy food, for example, allotments and food growing spaces.
 - 5) Access to toilet facilities which are open to all in major developments where appropriate (linked to the Council's Community Toilet Scheme).

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- 6) An inclusive development layout and public realm that considers the needs of all, including the older population and disabled people.
- 7) Active Design which encourages wellbeing and greater physical movement as part of everyday routines.

4.0 METHODOLOGY

Introduction

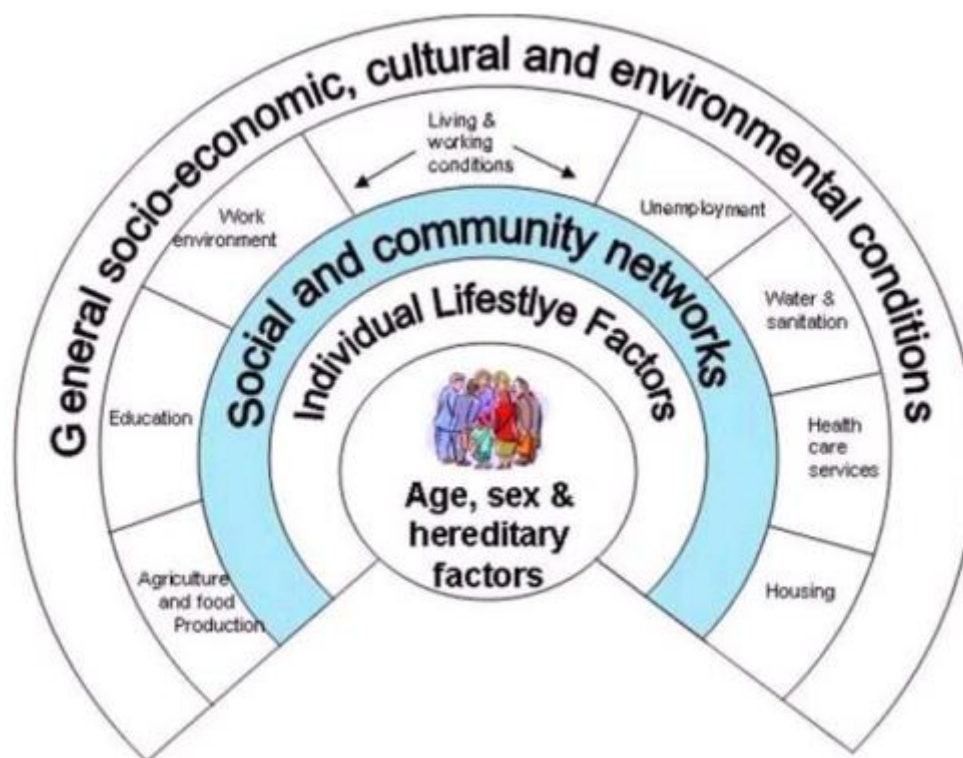
- 4.1 The HIA has been carried out in line with the London Healthy Urban Development Unit (HUDU) Healthy Urban Planning Checklist which has been used to screen the health impacts of the Proposed Development. The HUDU Rapid HIA Tool has then been used to undertake the main assessment of health effects.
- 4.2 The Rapid HIA has been completed using professional judgement. A preliminary assessment was undertaken during preparation of the outline planning application documents. Initial conclusions and recommendations for enhancing positive health outcomes and minimising adverse health effects were communicated to the client and design team. The assessment was then finalised upon receipt of the final Design and Access Statement and other technical documents submitted in support of the planning application. The Rapid HIA draws on such documents in providing the detailed information in terms of the method of assessing impacts for each of the specialist areas.

Assessing Outcomes for Public Health and Wellbeing

- 4.3 The World Health Organisation (WHO) Europe defines health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity¹. Consequently public health encompasses general wellbeing, not just the absence of illness. Some effects are direct and obvious, others are indirect and some may be synergistic, with different types of impact acting in combination.
- 4.4 Factors that have the most significant influence on the health of a population are called 'determinants of health'; these include an individual's genetics and their lifestyle, the surrounding environment, as well as policy, cultural and societal issues. The interrelationship between these factors is shown in Figure 2.
- 4.5 Within a population there can also be health 'inequalities'. The WHO defines these as differences in health status or in the distribution of health determinants between different population groups. For example, differences in mobility between elderly people and younger populations or differences in mortality rates between people from different social classes. This health assessment has taken account of these factors and considered how the Proposed Development may influence the physical and mental health and wellbeing of local residents and inhabitants of the Proposed Development.

¹ World Health Organisation, (2006), Constitution of the World Health Organisation

Figure 2: The wider Determinants of Health²



HUDU Healthy Urban Planning Checklist

- 4.6 The HUDU Healthy Urban Planning Checklist aims to promote healthy urban planning by ensuring that the health and wellbeing implications of local plans and major planning applications are consistently taken into account. The checklist has been created with input from the six east London Growth Boroughs (Barking and Dagenham, Greenwich, Hackney, Newham, Tower Hamlets and Waltham Forest). It is however, relevant for use elsewhere including Richmond. In this assessment, the checklist has been used as a desktop assessment to screen the health impacts of the proposed development.
- 4.7 The HUDU checklist is divided into four main themes:
- 1) Healthy housing;
 - 2) Active travel;
 - 3) Healthy environment; and
 - 4) Vibrant neighbourhoods.
- 4.8 Each theme contains a number of questions focused on a planning issue and a number of related health and wellbeing issues as set out in the table below. The checklist has been used as a screening exercise to inform the more detailed Rapid HIA and is included at Appendix 4. To avoid repetition, full details on how the

² Dahlgren and Whitehead (1991)

development responds to the themes in the checklist is provided in Chapter 6 as part of the Rapid HIA.

Table 1: Themes within the HUDU Healthy Urban Planning Checklist

Theme	Planning Issue	Health and Wellbeing Issue
Healthy Housing	<ul style="list-style-type: none"> • Housing design • Accessible housing • Healthy living • Housing mix & affordability 	<ul style="list-style-type: none"> • Lack of living space – overcrowding • Unhealthy living environment – daylight, ventilation, noise • Excess deaths due to cold / overheating • Injuries in the home • Mental illness from social isolation and fear of crime
Active Travel	<ul style="list-style-type: none"> • Promoting walking and cycling • Safety • Connectivity • Minimising car use 	<ul style="list-style-type: none"> • Physical inactivity, cardiovascular disease and obesity • Road and traffic injuries • Mental illness from social isolation • Noise and air pollution from traffic
Healthy Environment	<ul style="list-style-type: none"> • Construction • Air quality • Noise • Contaminated land • Open space • Play space • Biodiversity • Local food growing • Flood risk • Overheating 	<ul style="list-style-type: none"> • Disturbance and stress caused by construction activity • Poor air quality - lung and heart disease • Disturbance from noisy activities and uses • Health risks from toxicity of contaminated land • Physical inactivity, cardiovascular disease and obesity • Mental health benefits from access to nature and green space and water • Opportunities for food growing – active lifestyles, healthy diet and tackling food poverty • Excess summer deaths due to overheating

Vibrant Neighbourhoods	<ul style="list-style-type: none"> • Healthcare services • Education • Access to social infrastructure • Local employment and healthy workplaces • Access to local food shops • Public buildings and spaces 	<ul style="list-style-type: none"> • Access to services and health inequalities • Mental illness and poor self-esteem associated with unemployment and poverty • Limited access to healthy food linked to obesity and related diseases • Poor environment leading to physical activity • Ill health exacerbated through isolation, lack of social contact and fear of crime
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The HUDU Rapid HIA Tool

4.9 The rapid assessment tool is designed to assess the likely health impacts of development plans and proposals. The assessment matrix (see Chapter 6) identifies eleven topics of broad determinants:

- Housing quality and design;
- Access to healthcare services and other social infrastructure;
- Access to open space and nature;
- Air quality, noise and neighbourhood amenity;
- Accessibility and active travel;
- Crime reduction and community safety;
- Access to healthy food;
- Access to work and training;
- Social cohesion and lifetime neighbourhoods;
- Minimising the use of resources; and
- Climate change.

4.10 Under each topic, planning issues which are likely to influence health and wellbeing are identified. The Rapid Assessment Tool provides assessment criteria and these have been tailored where possible to the proposed development. Where an impact has been identified recommendations to mitigate an adverse impact or enhance a beneficial impact are included where possible. Chapter 6 includes a high-level summary of effects and identified mitigation and enhancement measures.

5.0 HEALTH AND SOCIO-ECONOMIC BASELINE

5.1 This Section presents the community profile to identify public health statistics and social infrastructure locally as well as the assessment of the effects of the proposed development upon health and wellbeing, structured around the HUDU Rapid HIA Matrix.

Access to Healthcare

5.2 This Section only considers healthcare available through the NHS, although private practices are also available within the Borough

Primary Healthcare

5.3 The Borough is served by the Richmond Clinical Commissioning Group, which has 28 GP Practices caring for the 210,167 residents that live in the Borough³. There are a total of 104 full-time equivalent (FTE) GPs based upon the latest available data, which indicates an average patient list size of 1,780 which is higher than the target patient list size of 1,800 per GP as recommended by the Department of Health⁴.

5.4 There are 5 GP Practices within 2km of the proposed development, including:

- Sheen Lane Health Centre;
- Essex House Surgery;
- Glebe Road Surgery;
- Barnes Surgery; and
- Kew Medical Practice.

5.5 There are a total of 10 dental practices within 2km of the proposed development. Of these 10 practices, only one was found to accept NHS patients while one would also accommodate urgent NHS dental appointments⁵. This suggests that the availability of NHS dentists may be limited in the vicinity of the site.

Secondary Healthcare

5.6 Secondary health care providers are accessible from the Richmond CCG area and are situated within 5km of the proposed development, including Kingston Hospital, Charing Cross Hospital and West Middlesex University Hospital. This indicates that there is a reasonable level of secondary healthcare provision in the area, with access to both urgent and non-urgent out of hours healthcare.

³ Richmond Clinical Commissioning Group (2016)

⁴ NHS London Healthy Urban Development Unit (2007)

⁵ NHS Choices (2018)

Access to Open Space and Green Space

5.7 Richmond has over 2,200 hectares of publically available parks and open spaces⁶, as shown in Table 5.1 below. This includes several sites provided by non-Council authorities which contribute over 1,700 hectares of multifunctional open space, which is also used by individuals within the Borough but for other Boroughs and nationally. These sites are:

- Bushy Park (Royal Park, 417 ha);
- Richmond Park (Royal Park, 973 ha);
- Hampton Court (Historic Royal Palace, 175 ha);
- Home Park (Historic Royal Palace, 174 ha); and
- Marble Hill (English Heritage, 27ha).

5.8 There are 15 parks across the Borough, with 26 natural and semi-natural green spaces across Hampton, Teddington, Richmond and Twickenham. Of the 26 sites, two are identified as having restricted access (Kilmorey Mausoleum and Pensford Field) but are included in the audit as both still have public access.

5.9 Over half of the total provision of natural and semi-natural greenspace in the Borough can be attributed to three large sites which are all located in the analysis area; Ham Lands (71 hectares), Ham Common Woods (38 hectares) and Barnes Common (45 hectares). There are also over 100 hectares of amenity greenspace in the Borough, comprising recreation grounds, informal recreation or open spaces within built development or along highways.

Table 5.1: Open Space in Richmond

Type of park and open space	Count	Area (ha)
Park and Garden	15	79.97
Non-Council open space	5	1,766
Natural and semi natural greenspace	26	278.36
Amenity greenspace	60	100.20
Playspace and provision for children	44	6.26
Allotments	24	28.22
Cemeteries	10	32.53
Green corridors	8	4.18
TOTAL (ha)		2,289.72

5.10 There are several areas of open space close to the site including Mortlake Burial Ground adjacently west of the site, but also Barnes Common which is located 650m to the east of the site. Both resources are easily accessible on foot and could provide areas of green space for use by future users of the proposed scheme and site. This would supplement the on-site provision being proposed as part of this application.

⁶ London Borough of Richmond Open Space Assessment (2015)

The Council's Open Space Assessment considers that the site is not located within an area that is deficient of open space.

Community Demographics

- 5.11 In order to establish the assessment baseline, it is important to understand the existing community so that the potential for health impacts can be evaluated. This section presents a number of health determinants in the area surrounding the site.
- 5.12 The site is located entirely within the within the Mortlake and Barnes Common Ward and Lower Super Output Area (LSOA) (E01003858). A number of health indicators for the LSOA, Richmond Borough and Greater London are presented in Table 5.2 below.
- 5.13 The following observations could be made:
- Unemployment rate within the LSOA is nil, which is lower than the Borough and London-wide rates. The proposed development is anticipated to provide a positive influence on this element as it would offer additional work opportunities within the LSOA.
 - The rate of self-employment in the LSOA, both in terms of part time and full time roles, is 20.7%. This is somewhat higher than the Borough average of 14.9% but almost double the London-wide average.
 - Health within the LSOA is comparatively high when compared to the Borough and Greater London. 92% of residents demonstrate very good or good health, which compares to 88% of Richmond residents and only 83% for London as a whole. Only 2% of the LSOA's residents are affected by bad or very bad health.
 - The population of the LSOA is overwhelmingly classified by white ethnicity, with census data showing that 94.5% of residents are white. This is higher than the Richmond average of 85.9%, and significantly higher than the London average of 59.8%. This makes the LSOA unusual within Richmond and London for its ethnic make-up, with the proportion of Asian and BAME residents also well below wider averages.
 - The LSOA which the site is located in has an Index of Multiple Deprivation score of 4.4, whereby a higher score represents a higher level of deprivation. The score in the LSOA is significantly below the Borough average and Greater London figure, which suggests that relative deprivation is low. The LSOA is ranked 30,894 out of 32,844 LSOAs in England, which is amongst the 10% least deprived neighbourhoods in the country.
- 5.14 Overall, the data indicates that the health and wellbeing levels within the LSOA are strong. The nature of the proposed development is likely to also provide additional positive effects to the LSOA by virtue of the provision of healthcare and school uses together with open space.

Table 5.2: Comparisons of Health indicators in Barnes, Richmond and Greater London⁷

Health Indicator	Mortlake and Barnes Common LSOA (003G)	Richmond upon Thames	Greater London
Unemployment rate (%)	0%	3%	5.2%
Self-employed (with and without employees)	20.7%	14.9%	11.7%
Retirement	10%	10%	8.4%
Very good or good health (%)	92%	88%	83%
Fair health (%)	6%	9%	11%
Bad or very bad health (%)	2%	3%	5%
Ethnicity: White	94.5%	85.9%	59.8%
Ethnicity: Asian / Asian British	2.1%	7.5%	18.4%
Ethnicity: BAME	0.3%	1.5%	13.3%
Index of Multiple Deprivation Score	4.4	10	23.4

⁷ ONS (2011); Office of National Statistics Census 2011; Indices of Multiple Deprivation (20115)

6.0 HEALTH IMPACT ASSESSMENT

6.1 This Section presents the qualitative analysis and discussed for the Proposal in relation to each of the 11 health indicators. Recommendations are made where appropriate to mitigate of enhance potential health outcomes. As set out in the Assessment Methodology section in Chapter 3, the tables have been adapted from the HUDU Rapid Health Impact Assessment Tool.

Housing Quality and Design

6.2 Table 6.1 below discusses the potential health impacts of the Proposed Development in relation to Housing Quality and Design.

Table 6.1: Housing Quality and Design				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal seek to meet all 16 design criteria of the Lifetime Homes Standard or meet Building Regulation requirement M4 (2)?	Yes	The Design and Access Statement prepared by Squires confirms that all residential units proposed have been designed to meet Building Regulation requirements, as outlined in the submitted Design and Access Statement.	Positive	Future reserved matters application to confirm the proposed standards for the accommodation.
Does the proposal address the housing needs of older people, i.e. extra care housing, sheltered housing, lifetime homes and wheelchair accessible homes?	N/A.	<p>The housing element of the proposal is for C3 housing. The Design and Access Statement confirms that apartments will comply with Building Regulation requirements. The Design Code also outlines that a minimum of 90% of the proposed units will meet Building Regulation Requirement M4 (2) 'Accessible and adaptable dwellings'. A minimum of 10% of the proposed units will meet Building Regulation Requirement M4 (3) 'Wheelchair user dwellings'. The proposal is therefore expected to meet the requirements of Building Regulations and Code of Practice in respect of the needs of disabled people.</p> <p>The Design and Access Station also confirms that the lifetime accommodation needs of an ageing population, young families, children, minorities and the disabled have been addressed through the design of the Proposed Development. This is demonstrated by virtue of its scale and community provisions, and in particular its access and connectivity.</p>	Positive	Future reserved matters application to confirm the proposed standards for the accommodation.
Does the proposal include homes that can be adapted to support independent living for older and disabled people?	Yes	The housing has been designed to meet all appropriate standards, including wheelchair accessible and adaptable dwellings. Providing flexible accommodation has been a core priority through design development of the outline proposals, including meeting the needs of older and disabled people in living independently. As noted above, the DAS confirms that all of the apartments will be adaptable for wheelchair accessible occupiers.	Positive	Future reserved matters application to confirm the proposed standards for the accommodation
Does the proposal promote good design through layout and orientation, meeting internal space standards?	Yes	All of the apartments have been developed in line with the relevant building regulations and exceed the national minimum standards.	Positive	Future reserved matters application to confirm the proposed standards for the accommodation

Table 6.1: Housing Quality and Design				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal include a range of housing types and sizes, including affordable housing responding to local housing needs?	Yes	The Planning Statement outlines that the development provides up to 83 residential units in a mix of 1, 2 and 3 bed units. Of the 83 units proposed, 63% of the homes are 2 or 3 beds, which responds to the Council's planning policy requirement for family sized housing. A proportion of the units will also be affordable, subject to viability, to respond to local needs for additional affordable units.	Positive	Future reserved matters application to confirm the proposed standards for the accommodation. Affordable housing provision is subject to viability.
Does the proposal contain homes that are highly energy efficient?	Yes	The Sustainability Statement confirms that the homes are targeting BREEAM 'Excellent' rating. Overall the proposal is anticipated to achieve a 35% reduction in regulated CO2 emissions beyond the requirements of the Building Regulations Part L (2013) baseline.	Positive	No further mitigation measures required at this stage.

Access to Healthcare Services and Other Social Infrastructure

6.3 Table 6.2 below evaluates the health impacts in relation to healthcare services and other social infrastructure.

Table 6.2: Healthcare and Social Infrastructure				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal retain or re-provide existing social infrastructure?	Yes	The site does not currently host any social infrastructure facilities. The proposal will enhance social infrastructure on the site by providing extensive amenity space for residents. This includes 1,293 sqm of open space including the central open space and areas between the residential blocks. It is envisaged that the central open space is accessible to the general public.	Positive	No additional mitigation measures are required.
Does the proposal assess the demand for healthcare services?	Yes	Baseline conditions and proximity of hospitals has been included in the previous chapter of the report, which shows that there may be pressures on GP and dentist surgeries in the vicinity. The proposal therefore is likely to increase pressure on local health services. The proposal does include a state of the art health hub facility measuring up to 2,500 sqm. As outlined in the Planning Statement, the health hub is to provide an element of mental health floorspace. Whilst the exact brief is still being established with the CCG's, the Trust are to retain 1,000 sqm. It is therefore expected that the proposal will help alleviate pressure on local services.	Positive	CIL generated by the development may be used to fund co-location of community facilities in Whitton, Kew and Ham as set out in the Council's adopted Regulation 123 List (July 2014).
Does the proposal include the provision, or replacement of a health facility and does the facility meet NHS requirements and plans?	Yes	The Design and Access Statement outlines that the proposal includes a health hub up to 2,500 sqm in size, which will include up to 1,000 sqm for the Trust. As set out in detail within the Planning Statement which accompanies this application, the disposal of this site by the Trust will feed into the Estate Modernisation Programme. Barnes Hospital was declared surplus by the Trust Board in November 2015, and was identified for redevelopment to create best value to support the EMP. This strategy is supported by the CCGs and so clearly the proposals are in accordance with the NHS strategy.	Positive	No additional mitigation measures are required. Detailed design of the health facility is subject to reserved matters.

Table 6.2: Healthcare and Social Infrastructure				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal assess the capacity, location and accessibility of other social infrastructure, eg schools, social care and community facilities?	No	The proposal does not consider the capacity, location or accessibility of other social infrastructure in the vicinity of the site. The Planning Statement identifies that roughly 33 children could occupy the residential development once constructed, across early, primary and secondary years. There will therefore be a small child yield from the development and so education demands are expected to be met by existing resources. The adverse impacts of the proposal are also offset by the range of social infrastructure proposed, including open space, SEN school and health hub generated by the scheme.	Positive	Negotiations will be required with the Council to understand if the capacity of schools is under pressure.
Does the proposal explore opportunities for shared community use and colocation of services?	Yes	The proposal includes community uses in the form of a health hub and SEN school that benefit the new and existing communities. It is envisaged that the health hub will incorporate the co-location of health services, which will include an element of mental health service.	Positive	No additional mitigation measures required.
Does the proposal contribute to meeting primary, secondary and post 19 education needs?	Yes	As outlined in the Planning Statement, an SEN school is being proposed as part of the outline planning application. This measures up to 2,402 sqm and can accommodate up to 90 pupils. The SEN school is expected to accommodate primary, secondary and post 19 students and so would contribute positively to meeting educational needs locally.	Positive	Future reserved matters application to secure the detailed design of the SEN school.

Access to Open Space and Nature

6.4 Access to open space and nature can have a notable health impact on the development's future users. The site is located in an area which is not considered deficient in terms of accessibility to open space. Open space is also provided by the proposal. Table 6.3 below evaluates the health impacts in relation to open space and nature.

Table 6.3: Open Space and Nature				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal retain and enhance existing open and natural spaces?	Yes	As described in the submitted Planning Statement, the site currently has no publicly accessible open space or natural space. The only existing provision are isolated patches of grass and landscaping between buildings. The outline application provides a comprehensive outline landscaping strategy to enhance open and natural spaces. It would provide a total of 1,293 sqm of publicly accessible open space located within the residential part of the site. In addition, dedicated amenity space is provided for residents which will meet Richmond planning guidance. The development also includes further perimeter landscaping around the blocks of residential development, with additional areas of dedicated open space for the SEN school and health hub that will only be accessible for students, staff and patients.	Positive	No additional mitigation measures required.

Table 6.3: Open Space and Nature				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
In areas of deficiency, does the proposal provide new open or natural space, or improve access to existing spaces?	N/A	The site is not within an area of open space deficiency. Nonetheless, comprehensive open space is provided as outlined above.	Neutral	N/A
Does the proposal provide links between open and natural spaces and the public realm?	Yes	The Design and Access Statement identifies how the proposal provides links between open spaces and the public realm. The strategy has been to provide meadow-like landscaping linked with permeable surface treatments as part of a coherent green infrastructure strategy. The pedestrian links will culminate at garden square element of the proposed open space, which has been designed to connect the surrounding buildings and provide a central and valuable resource for residents and visitors. This is also conveniently located adjacent to the pedestrian site entrance to optimise its function and use. Through provision of a network of green open spaces and tree planting across the site, the illustrative masterplan contributes to the green infrastructure of the local area and creates new linkages and extensions of tree planting and open space facilities within the area.	Positive	No additional mitigation measures required.
Does the proposal provide a range of play spaces for children and young people?	Yes	The proposed development includes residential accommodation which would result in play space demands. A minimum of 340 sqm is necessary based on the expected child yield of the development in order to provide sufficient provision against planning policy. It is noted that the open space proposed as part of this application accommodates the play space requirements generation by this application. The type and location of play space is subject to reserved matters.	Positive	No additional mitigation measures required. Type and location of play space subject to reserved matters.
Are the open and natural spaces welcoming and safe and accessible for all?	Yes	Private and communal gardens will be overlooked by dwellings and/or community uses to promote natural surveillance and safety, and the open spaces will be accessible by all. It is also proposed that all pedestrian routes connecting to the open space will comply with the relevant standards including layout, lighting and signage.	Positive	No additional mitigation measures required. The type and locations of signage and lighting are subject to agreement with Richmond Council.
Does the proposal set out how new open space will be managed and maintained?	Yes	Details of how the open space will be maintained and managed are presented in the DAS, but a detailed strategy will be secured by planning condition.	Positive	Detailed management plan to be secured by planning condition.

Air Quality, Noise and Neighbourhood Amenity

6.5 A range of measures have been developed and will be incorporated in order to minimise potential health impacts arising from air quality, noise and neighbourhood amenity issues. This is summarised below in Table 6.4.

Table 6.4: Air Quality, Noise and Neighbourhood Amenity

Table 6.4: Air Quality, Noise and Neighbourhood Amenity				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal minimise construction impacts such as dust, noise, vibration and odours?	Yes	<p>It is intended that contractors across the site will comply with the Control of Dust and Emissions during Construction and Demolition SPG, and will also be required to identify potential sources of dust and other air pollution and ensure appropriate dust control measures are implemented which is to be approved with the Council.</p> <p>The Sustainability Statement also confirms that the Proposal will implement reduction strategies for dust from construction, in order to achieve the associated BREEAM credits. The Framework Construction Traffic Management Plan confirms a number of measures will be taken during construction programme to reduce dust, noise, vibration and odours, including:</p> <ul style="list-style-type: none"> • Hoardings surrounding the property during construction; • Scaffolding and sheeting to be provided if necessary, together with water dampening measures; • Waste to be stored on site within the hoarding and controlled and disposed of. Any suitable materials will be recycled; • Works to be limited to specified hours; • Deliveries to be limited to specific hours outside the peak hours, with no deliveries on Sundays. <p>The outline proposals also seek to position plant in discrete locations, which will be controlled by appropriate plant noise emission limits. A detailed CTMP will provide a series of measures to mitigate such impacts, which is to be reserved by planning condition.</p>	Positive	Implementation of mitigation measures identified within the Framework CTMP.
Does the proposal minimise air pollution caused by traffic and energy facilities?	Yes	<p>The Energy Report confirms that the proposed development will, subject to reserved matters, be powered by a combination of CHP, air source heat pump and solar PV panels. Richmond has declared an AQMA across the entire Borough for exceedances of standards for nitrogen dioxide and particulate matter. An Air Quality Assessment has been undertaken and is submitted as part of this application.</p> <p>The Air Quality Assessment assesses the impact on the development on air quality during construction and operation but also emissions from the proposed energy strategy. The results show that pollutant concentrations are predicted to be within the relevant health-based air quality objectives at the facades of the proposed receptors. This means that the proposal is acceptable on air quality grounds. Also the proposal introduces measures to benefit local air quality e.g electric vehicle charging points, pedestrian walkways and cycle routes.</p>	Positive	Implementation of mitigation measures identified within the Air Quality Assessment. .

Table 6.4: Air Quality, Noise and Neighbourhood Amenity				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal minimise noise pollution caused by traffic and commercial uses?	Yes	A Noise Impact Assessment has been carried out in support of this application. Dominant noise sources affecting the site are considered to be the railway line that is perpendicular to South Worple Way and airplanes crossing over the site. Through application of design measures outlined in the assessment at reserved matters stage, the development would provide satisfactory internal acoustic environments with respect to the relevant British Standard, Noise Policy Statement for England, NPPF and the Development Plan.	Positive	Implementation of mitigation measures identified within the Noise Assessment.

Accessibility and Active Travel

6.6 The proposed development provides a total of 90 parking spaces across SEN school, health hub and residential land uses. A core objective of the outline proposal is to encourage cycling and use of public transport and so the potential health impacts of this are anticipated to be broadly positive as outlined below in Table 6.5.

Table 6.5: Accessibility and Travel

Table 6.5: Accessibility and Travel				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal prioritise and encourage walking (such as through shared spaces)?	Yes	<p>The outline application is supported by a Transport Assessment prepared by Motion, which outlines the access strategy for the site. This has been formulated by giving priority to pedestrian movements across the wider site which is achieved by limiting vehicular access. For the residential element, a single vehicular access is proposed from South Worple Way. This links with the basement car park and does not provide access for cars between the blocks of housing, which is reserved for emergency access only.</p> <p>For the health hub and SEN school, parking is contained between the building locations and can only be accessed from the eastern access on South Worple Way. The remainder of the site is set aside for pedestrians, with dedicated pathway provided, to enable safe movement through the remainder of the site. This is also fostered by the careful management of the movement of staff, visitor and student car movements. Further details of this strategy are set out within the Design and Access Statement.</p>	Positive	Commitment to Residential and Workplace Travel Plan monitoring and future assessment against effectiveness.
Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes)?	Yes	The proposal has been developed to encourage cycle parking as a core priority. The volume of cycle parking will at least meet the minimum standards required by the GLA and design will be in accordance with the principles set out in the London Cycling Design Standards, which has been tested in the Transport Assessment. Dedicated cycle parking is provided for the health hub, SEN school and residential land uses to meet the requirements of London Plan Policy 6.13. The locations for cycle parking are shown indicatively on the submitted Parameter Plans, which is subject to detailed design.	Positive	Commitment to Residential and Workplace Travel Plan monitoring and future assessment against effectiveness.

Table 6.5: Accessibility and Travel				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal connect public realm and internal routes to local and strategic cycle and walking networks?	Yes	Access routes will be created throughout the Site, which will link with existing site entrances. Key features of the public realm strategy include the creation of the central garden square which connects the residential blocks, via a series of internal paths, to South Worple Way and beyond. The Transport Assessment and Design and Access Statement demonstrate how the proposals link into the wider networks serving the area.	Positive	Commitment to Residential and Workplace Travel Plan monitoring and future assessment against effectiveness.
Does the proposal include traffic management and calming measures to help reduce and minimise road injuries?	No	The Transport Assessment prepared for the development has identified that traffic generated by the proposal is not expected to significantly impact on the local highway network. Therefore calming measures are not required to support the proposal. Vehicle traffic for the community and residential uses are separated by split access points.	Neutral	N/A.
Is the proposal well connected to public transport, local services and facilities?	Yes	<p>The Transport Assessment notes the Site currently has an overall PTAL rating of 4, indicating a good level of accessibility to transport services. The Transport Assessment also demonstrates the wide variety of locations that can be easily accessed from the Site and the interchange facilities available which provide easy access to the wider strategic network serving London and the wider South East Region. This includes services from Mortlake and Barnes Bridge stations to London Waterloo, Wimbledon, Chiswick, Weybridge and Hounslow. Both stations are within 750m of the site, which is easily walkable within 10 minutes.</p> <p>The various bus services that serve the area provide links to a very extensive area of London and again provide access to a number of important strategic interchanges, including Hammersmith. The closest bus stops to the site can be found on Upper Richmond Way to the south of the site (180m). Mortlake town centre is also within 500 metres of the site, which provides a range of services and facilities for site users. Therefore it is considered that the proposal is well connected to public transport, local services and facilities.</p>	Positive	Commitment to Residential and Workplace Travel Plan monitoring and future assessment against effectiveness.

Table 6.5: Accessibility and Travel				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal seek to reduce car use by reducing car parking provision, supported by the controlled parking zones, car clubs and travel plan measures?	Yes	<p>The Transport Assessment and Travel Plans consider that the amount of car parking should reflect an appropriate balance between providing adequate parking in this location and encouraging more sustainable modes of travel (cycling and public transport). This approach has been highlighted in discussions with LBRuT officers.</p> <p>Car parking is provided within the development in the form of segregated grade parking for the community uses and underground parking for the residential element of the scheme. A total of 90 spaces are proposed across the site. As a minimum, the requirements of the London Plan will be met in terms of the provision of electric charging points. The Travel Plans recommend a series of hard and soft measures to encourage the use of sustainable modes of transport.</p> <p>The residential development would also be subject to a permit free agreement, such that future residents of the development are not eligible to apply for a parking permit within the local controlled parking zone. Notice boards will be located in communal corridors of the residential areas to encourage car sharing, car club membership and journey planning tools. In combination these measures will support a modal shift away from car use, which will be monitored by a Travel Plan Coordinator.</p>	Positive	Commitment to Residential and Workplace Travel Plan monitoring and future assessment against effectiveness.
Does the proposal allow people with mobility problems or a disability to access buildings and places?	Yes	<p>The Design and Access Statement outlines how the proposal has been developed to ensure appropriate standards are to be met for accessibility, to meet obligations for inclusive design. As stipulated in the Design Code, level thresholds are to be provided for each of the buildings and a minimum of 1 lift per block provided for the residential accommodation, which will be detailed at reserved matters stage.</p> <p>The pedestrian access to the SEN school along the eastern boundary of the site is at least 1.75m to allow an accompanied wheelchair user to use it in accordance with Inclusive Mobility guidance. The SEN school and health hub are provided with parking and drop off point to enable safe and inclusive access to the buildings. Pedestrian pathways will also be sufficiently wide to enable dual access for scooters and buggies to cross safely. All other routes, stairways and lifts will meet Building Regulations requirements, which will be secured at reserved matters stage.</p>	Positive	Implementation of Residential and Workplace Travel Plan, monitoring and future assessment against effectiveness. Detailed design subject to reserved matters.

Crime Reduction and Community Safety

6.7 The assessment identified positive potential health impacts in relation to crime reduction and community safety (Table 6.6). For all assessment criteria which are relevant to the proposed development. For all assessment criteria which are relevant to the proposed development, considerable measures and steps have been taken to ensure positive outcomes.

Table 6.6: Crime and Safety

Table 6.6: Crime and Safety				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal incorporate elements to help design out crime?	Yes	<p>The development has been designed to reduce the opportunities for criminal behaviour and contribute to a sense of security without being overbearing or intimidating. The Design and Access Statement outlines how the layout has been derived to promote natural surveillance and overlooking. The following measures are proposed:</p> <ul style="list-style-type: none"> • The publically accessible landscape areas will be designed to avoid areas that are hidden from view; • Routes leading directly from entrances to the main communal spaces will be well lit; • Access to the basement car parking for the residential accommodation will be limited to residents only with CCTV monitoring; • Activities and resting spots are incorporated into the circulation routes; • Private external amenity space will be provided around the perimeter of the blocks. <p>Further works will be subject to negotiation with the Council and reserved matters permission.</p>	Positive	Details to be agreed at reserved matters stage.
Does the proposal incorporate design techniques to help people feel secure and avoid creating 'gated' communities?	Yes	<p>The proposal will result in the redevelopment of a large site, which is currently mostly vacant. This will result in a new residential population and visitors to the residential units, but also staff, patients, students and visitors to the SEN and health hub facilities. In combination this will activate the site and promote natural surveillance, which will in turn reduce the potential for crime and anti-social behaviour. The site layout has also been established to provide activity at ground floor level and encourages activity at all times of the day. This is by being orientated around the central open space and private external amenity spaces.</p> <p>The aforementioned design measures will help site users, staff and residents feel secure, but it is envisaged that this will be supplemented by CCTV and external lighting measures as part of a detailed hard landscape strategy. This would be dealt with by planning condition.</p>	Positive	Obtaining reserved matters permission for the detailed layout of the site, plus a hard landscape strategy which is to be reserved by planning condition.
Does the proposal include attractive, multi-use public spaces and buildings?	Yes	<p>As outlined in the Design and Access Statement, a series of open spaces, public amenity and recreation measures are proposed under this application. The central square has been designed to be multi-use and will be publically accessible for the community to promote interaction and space for leisure.</p>	Positive	Development of detailed landscape design at reserved matters stage.

Table 6.6: Crime and Safety				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Has engagement and consultation been carried out with the local community?	Yes	Extensive public engagement has been carried out throughout the development of the proposals, as set out within the accompanying Statement of Community Involvement. The SCI confirms that consultation has been carried out with the local community throughout the outline proposals evolution. The engagement strategy reflects the Applicant's commitment to transparency and providing an inclusive platform for discussion and debate in order to address feedback where possible.	Positive	N/A

Access to Healthy Food

6.8 The proposals do not provide a foodstore or provision for allotments or community farms, but is in a location served by foodstores within short walking distance. The health effects of the proposal regarding access to healthy food are presented below.

Table 6.7: Healthy Food

Table 6.7: Healthy Food				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal facilitate the supply of local food i.e allotments, community farms and farmers' markets?	Yes	The proposal does not provide areas for food growth per se, however ground floor residential dwellings may be provided with external amenity space that could allow the growth of food related plants if desired by the occupier. Communal gardening is encouraged to be incorporated where feasible, subject to reserved matters, which could take the form of allotments or growth of food related plants. Further details are presented in the submitted Design and Access Statement.	Positive	Further consideration at reserved matters stage.
Is there a range of retail uses, including food stores and smaller affordable shops for social enterprises?	No	There will be no commercial elements within the development and so the proposed scheme cannot influence this.	Neutral	No further mitigation measures required.
Does the proposal avoid contributing towards an over-concentration of hot food takeaways in the local area?	Yes	The proposal does not incorporate hot food takeaways as part of the development. Therefore the proposals do not contribute to an over-concentration of hot/cold food takeaways in the local area, which is a positive in that the proposals do not encourage such uses.	Positive	No further mitigation measures required.

Access to Work and Training

6.9 The proposed development is anticipated to provide a range of work opportunities during construction and operation, as outlined by Table 6.8 below.

Table 6.8: Access to Work and Training

Table 6.8: Access to Work and Training				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal provide access to local employment and training opportunities, including temporary construction and permanent 'end-use' jobs?	Yes	During the construction phase of the project, a number of temporary jobs will be available for the residential element of the proposal. The proposal will also provide operational job opportunities such as site manager, cleaners, and site maintenance employees. A Local Employment Agreement is proposed to ensure local residents have access to job opportunities resulting from the proposal, as sought by the Local Plan (Policy LP29). This will be secured via Section 106 agreement. The proposal could also provide opportunities for teaching and healthcare professionals for the health hub and SEN school.	Positive	Measures to target local employment during site preparation and construction to be secured through a Section 106 Agreement.
Does the proposal provide childcare facilities?	No	The proposal does not include provision of built in childcare facilities, owing to the scale of the development proposed. Nonetheless, child play space measuring at least 340 sqm will be provided. The location and nature of this is to be agreed at reserved matters stage.	Neutral	N/A
Does the proposal include managed and affordable workspace for local businesses?	No	No commercial floorspace is proposed as part of this application.	Neutral	N/A
Does the proposal include opportunities for work for local people via local procurement arrangements?	Yes	A Local Employment Agreement is proposed to ensure local residents have access to job opportunities resulting from the proposal, as sought by the Local Plan (Policy LP29). This will be secured via Section 106 agreement.	Positive	Measures to target local employment during site preparation and construction to be secured through a Section 106 Agreement.

Social Cohesion and Lifetime Neighbourhoods

6.10 The proposal is likely to positively influence social cohesion and lifetime neighbourhoods. The health benefits of the proposal in this regard are summarised in Table 6.9 below.

Table 6.9: Social Cohesion

Table 6.9: Social Cohesion				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal connect with existing communities, i.e. layout and movement which avoids physical barriers and severance and land uses and spaces which encourage social interaction?	Yes	The site is currently physically enclosed from the community. The proposal will open up the site, provide community uses and allow the local community access to the central open space. This is complemented by the proposed access points and network of walking and cycling routes which will link the community with the communal areas within the site. This will encourage social interaction.	Positive	No mitigation measures required.

Table 6.9: Social Cohesion				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal include a mix of uses and a range of community facilities?	Yes	The proposal comprises a range of land uses including a health hub (D1), a SEN school (D1) and residential accommodation (C3) as well as comprehensive landscaping and open space proposals. The development includes up to 4,902 sqm of community floorspace across the health hub and SEN school use. The layout of said uses is subject to a future reserved matters permission. Overall this proposal clearly demonstrates that the proposal is a community orientated and inclusive development.	Positive	Detailed design of community uses to be subject to reserved matters permission.
Does the proposal provide opportunities for the voluntary and community sectors?	Yes	The proposal includes 1,293 sqm of open space including the central open space and areas between the residential blocks. These areas will be accessible by the community and could be used by local community groups with interests in nature or exercise. The management of these areas of open space is subject to a management strategy that will be reserved by condition.	Neutral	Preparation of a detailed management strategy for the publicly accessible open space.

Table 6.9: Social Cohesion				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal address the six key components of Lifetime Neighbourhoods?	Yes	<p>The development has been designed to incorporate the principles of Lifetime Neighbourhoods as follows:</p> <ul style="list-style-type: none"> • Access: pedestrian and cycle routes are to be provided throughout the site which will enable residents to connect with services and people in the vicinity and beyond. Pedestrian access is underpinned by ensuring a walkable environment that is consistent with the Mayor's Walkable City Strategy. Pedestrian access within the site has been designed to be inclusive, by meeting the needs of the elderly and disabled people by creating a barrier free environment. • Services and amenities: whilst the development does not propose retail or commercial uses, the development does provide sociable spaces within the site by virtue of the publically accessible open spaces which will provide local amenity. The site is also in close proximity to Mortlake town centre which provides a range of services. • Built and natural environments: the proposals aspire to meet Secured By Design standards by providing safe and welcoming environments (although not yet certified). The proposals provide good access to a range of different types of open space which will promote social interaction and active lifestyles. • Social networks and well-being: the proposals do not directly outline how opportunities for how social interaction and volunteering will be encouraged. However (as described above) the range of different uses and types of open space will provide an environment for these types of activities to take place. Learning and training will be fostered by the Applicant's commitment to a Local Employment Agreement to ensure local residents have access to job opportunities resulting from the proposal. This will be secured via Section 106 agreement. • Housing: the Development includes a mix of different house types and sizes, a proportion of which will be affordable housing (subject to viability), and so the proposal meets a diverse range of needs. 	Positive	Future reserved matters application to outline how the principles of lifetime neighbourhoods will be addressed during detailed design.

Minimising the Use of Resources

6.11 The assessment indicated that the potential health impacts with regards to minimising the use of resources are going to be relatively neutral. Some minimal impacts are anticipated due to the presence of existing buildings on site and the requirement to use resources to demolish these and construct the new development; however, the impacts associated with these are going to be minimised, where possible, with the use of sustainable design and construction techniques.

Table 6.10: Social Cohesion				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal make best use of existing land?	Yes	The site comprises an existing hospital site, with most buildings now vacant. The proposals seek to redevelop the site comprehensively, providing a modern healthcare facility, SEN school and residential accommodation. The Illustrative Masterplan has been developed in the context of the site and the DAS outlines how the masterplan responds to site and environmental constraints which have been assessed as part of this outline application. The proposal will be accommodated on previously developed land and the proposal optimises the use of the land by making effective use of the site. The proposal therefore forms appropriate and best use of the existing land. The proposal is also promoting the land uses that are sought by the site allocation in the Local Plan (SA28).	Positive	No mitigation measures required.
Does the proposal encourage recycling (including building materials)?	Yes	The Design and Access Statement states that the materials to be used in the development are to be durable and functional, as well as attractive in appearance. Where feasible the Applicant will commit to using materials that are from renewable sources and are recycled and to minimise energy and resource use throughout their lifecycle. Their use would be carefully considered from a sustainability perspective and, where possible, they will be incorporated into the proposed development at detailed design stage.	Positive	No mitigation measures required.
Does the proposal incorporate sustainable design and construction techniques?	Yes	The Sustainability statement notes a number of sustainable design features that will be implemented during construction. Buildings elements will be selected that have a low environmental impact (Green Guide Rating A or above) and are from sustainable sources. It is envisaged that the specification of insulation products will be those with zero ozone depletion potential or global warming potential. Measures to include renewable energy and low carbon technologies are outlined in the Sustainability Strategy, which is subject to detailed design and reserved matters approval.	Neutral	No mitigation measures required.

Climate Change

6.12 The assessment indicated the potential health impacts associated with climate will be positive as measures will be incorporated to mitigate potential health impacts linked to climate change. Table 6.11 provides further details below.

Table 6.11: Climate Change				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal incorporate renewable energy?	Yes	<p>The planning application is supported by an Energy Strategy which sets out the proposed strategy for accommodating renewable energy into the development. In respect of the outline application, it is anticipated that PV arrays can be provided on the roof areas of the SEN school, health hub and residential buildings, with a total surface area of 580 sqm.</p> <p>This, combined with energy conservation and measures and the use of CHP for the health hub, results in a reduction in CO2 emissions by 79.47 tonnes per annum across the site. This is equivalent to a reduction in regulated emissions of 3.7% beyond the Building Regulations Part L baseline for the anticipated emissions of the proposed development. Further opportunities to increase the area of the PV arrays will be provided at reserved matters stage.</p>	Positive	Reserved matters application to identify detailed design measures.
Does the proposal ensure that buildings and public spaces are designed to respond to winter and summer temperatures, i.e. ventilation, shading and landscaping?	Yes	<p>The Sustainability Statement confirms the building will contribute to the adaption and mitigation of the effects of climate change, is designed to enable sunlight access, and will minimise overshadowing and adverse wind conditions.</p> <p>The submitted Design and Access Statement illustrates that the proposal, in terms of buildings and public spaces, will provide a quality environment for occupants. The Design Code outlines that building heights will be no more than three storeys and that building planes shall not exceed 8 metres of single contiguous surface. Separation distances between the blocks of development are also maintained to maximise sunlight and daylight, which is reinforced by the sensitive orientation of the proposed buildings.</p> <p>Also, the proposals have been designed in accordance with the cooling hierarchy set out in the London Plan to limit the likelihood of high internal temperatures and to minimise cooling demand. Mitigation measures such as suitable glazing ratio and g-value, appropriate ventilation levels and minimisation of internal heat gains will be implemented. Through application of these measures to be secured at reserved matters stage, the Proposed Development will achieve compliance with the Development Plan, but also Criterion 3 of the Building Regulations Part L (2013).</p>	Positive	Reserved matters application to identify detailed design measures.

Table 6.11: Climate Change				
Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal maintain or enhance biodiversity?	Yes	<p>The outline proposals seek to improve the biodiversity of the area through provision of extensive open space as well as the landscaping proposals, as shown on the Illustrative Masterplan. In combination this comprises a comprehensive, connected network of green spaces that will provide a valuable resource for biodiversity.</p> <p>The DAS also states that it is proposed to implement green and brown roofs on the roofs of each of the buildings, although such measure are subject to reserved matters. This will serve to provide short term attenuation storage but also clear benefits in terms of providing biodiversity habitat.</p>	Positive	Reserved matters application to identify detailed design measures.
Does the proposal incorporate sustainable urban drainage techniques?	Yes	<p>The proposal incorporates a Sustainable Urban Drainage System to attenuate surface water in underground tanks. The proposed strategy, as outlined in the submitted Flood Risk Assessment, is to collect run off from roads and buildings within a new surface water network. This will utilise a permeable paving strategy to collect run off and transfer it to the on-site attenuation tanks for storage and infiltration, before discharging by a restricted outflow to a Thames Water manhole within South Worple Way.</p>	Positive	Reserved matters application to identify detailed design measures.

7.0 CONCLUSIONS

A rapid Health Impact Assessment has been undertaken for the proposed redevelopment of Barnes Hospital, to comply with the relevant policies stipulated by the London Plan and the Richmond Local Plan. The performance of the proposed development has been assessed against 11 key health themes:

- Housing quality and design;
- Access to healthcare services and other social infrastructure;
- Access to open space and nature;
- Air quality, noise and neighbourhood amenity;
- Accessibility and active travel;
- Crime reduction and community safety;
- Access to healthy food;
- Access to work and training;
- Social cohesion and lifetime neighbourhoods;
- Minimising the use of resources; and
- Climate change.

7.1 In summary, the proposed development is expected to have a positive health effect in relation to many HIA aspects, for future residents and the local community:

- **Provision of health hub and SEN school** – the Proposed Development includes community facilities, including the provision of a health hub and SEN school which can provide vital resources for local needs. Space for community uses can also foster social interaction and improve physical and mental health. The provision of these uses within the proposal will benefit both future residents and the community.
- **Provision of high quality new homes** – the Proposed Development promotes healthy design and will provide for functional and comfortable living. The mix and tenure of units will ensure a variety of household types, encouraging a vibrant resident community.
- **Improved neighbourhood environment** – the existing site is mostly vacant and no longer adds to the general character and appearance of the area. It will be replaced by a high quality new development which responds well to the public realm and provides an attractive open space with opportunities for social interaction by residents.

7.2 The primary potential health impacts are associated with construction phase air quality and noise through levels of construction traffic. A number of mitigation measures will be implemented as set out in the Draft Delivery and Servicing Management Plan and Construction Method Statement to reduce these temporary impacts.

- 7.3 Once the Proposed Development is operational, and subject to reserved matters permission, appropriate design measures such as appropriate glazing, ventilation, passive cooling and heating recovery systems will ensure any potential adverse health impacts are reduced.
- 7.4 The following recommendations relevant to health and wellbeing associated with the Proposed Development, to be considered by the Applicant, are as follows:
- The Applicant will ensure that the maximum feasible number of affordable dwellings are delivered, subject to viability;
 - The Applicant will ensure that measures to encourage cycling are implemented, and consider information regarding sustainable travel be made available, ideally within a residents' welcome pack;
 - A Construction Environmental Management Plan (CEMP) will be secured, and agreed with the local planning authority, in conjunction with planning conditions for the Proposed Development.
 - The Applicant should continue to engage with the Designing out Crime Officer throughout the planning process;
 - The Applicant will ensure that standards relating to accessibility and sustainability set out in the relevant strategies accompanying in this application are implemented in full and exceeded wherever possible;
 - Increased levels of physical activity for children can be maximised through the implementation and maintenance of attractive playable space; and
 - In order to provide opportunities to local residents, the Applicant should seek a contractor who will implement requirements or company policies to offer training and local employment opportunities within the local community.
- 7.5 It is considered that the nature of the proposal and the list of measures set out in this HIA will be effective in promoting health and wellbeing. A range of health indicators have been provided in this report that could be used to compare future health statistics. The monitoring of key health and wellbeing issues could be facilitated by health and educational bodies. Residents will also be well-placed to identify and report local issues to key relevant authorities, for example, through neighbourhood safety partnerships.