

75-81 George Street, Richmond



Health Impact assessment


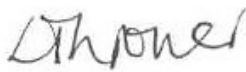


Greengage Environmental Limited

7/10/2019



QA

75-81 George Street, Richmond – Health Impact Assessment

Issue/Revision	Draft	Final
Date:	May 2019	July 2019
Comments:		
Prepared by:	Laura Thrower	Laura Thrower
Signature:		
Authorised by:	Mitch Cooke	Mitch Cooke
Signature:		
File Reference:	551268LT07May19DV02_HIA	551268LT07May19FV01_HIA

CONTENTS

EXECUTIVE SUMMARY	5
1.0 INTRODUCTION	6
2.0 PROPOSED DEVELOPMENT	7
3.0 METHODOLOGY	9
4.0 POLICY BACKGROUND	10
5.0 HEALTH PROFILE BASELINE	13
6.0 POTENTIAL IMPACTS OF THE PROPOSED DEVELOPMENT	20
7.0 CONCLUSIONS	28
9.0 REFERENCES	29
APPENDIX 1.0 – HUDU RAPID HIA TOOL	31

EXECUTIVE SUMMARY

In support of the planning application for the redevelopment of 75-81 George Street within the London Borough of Richmond upon Thames, a Health Impact Assessment has been produced. This provides information on the existing health profile of the local area that the proposed development is located in and the potential health risks and benefits that the development would result in.

The findings of the baseline study of the existing health of the local population revealed that the local area is in very good health, with lower mortality rates in comparison to regional and national health statistics. Life expectancy is greater for both males and females within the borough compared to London and England averages. Additionally, the baseline assessment showed that the site is located in an area with low levels of deprivation.

The design of the development incorporates measures to promote active travel through the development being 'car-free' and the provision of 60 cycle storage spaces which will help to improve occupant health. The site's connectivity to a range of public transport modes further encourages the use of sustainable transport methods to reach the site.

To ensure the environment is healthy during construction, best practice management measures will be implemented on site including ways to limit the number of construction vehicles to reduce congestion and pollution, and the re-use of materials on site. Specific mitigation measures to minimise impacts on air quality and noise will be implemented during construction and operation too, to ensure the health of occupants and local people is not negatively affected.

The workers will benefit from the site's proximity to open spaces, such as Richmond Riverside, which provides a place to relax, subsequently improving wellbeing and amenity value for workers. The design of the development incorporates an external courtyard and external terraces for workers which helps to create healthier workplaces and spaces to socialise. The design also improves accessibility to the site that will be created through public realm improvements throughout the site and the extension of existing streetscape at Golden Court to ensure the site remains connected to the existing public realm.

The Health Impact Assessment determined that the proposed development will result in an overall positive impact on health throughout both the construction and operational phases through the incorporation of a number of design measures to ensure healthier lifestyles and healthier neighbourhoods.

1.0 INTRODUCTION

- 1.1 Greengage Environmental Ltd have been commissioned by Colliers International, on behalf of Canadian & Arcadia Ltd (the 'Applicant') to undertake a Health Impact Assessment (HIA) in relation to a full planning application for the redevelopment of 75-81 George Street, Richmond, within the administrative boundary of the London Borough of Richmond upon Thames (LB Richmond).
- 1.2 The scheme includes the retention of the majority of the existing building and the construction of a single-storey extension to the rear at the second floor. The proposals are seeking flexibility within the planning application and there are two potential configurations. These are as follows:
- Retail at basement and ground floors with office from the first to fourth floor; or
 - Leisure at basement level, retail at ground and first floor, and office from second to fourth floor.
- 1.3 Further details of these potential configurations are within Section 2.0 of this report.
- 1.4 The report will consider the potential health risks and benefits that would result from the proposed development.

2.0 PROPOSED DEVELOPMENT

- 2.1 The application site covers a total area of 7,641 sqm (GIA) and is centred on National Grid Reference TQ177748, OS Coordinates 517757, 174830.
- 2.2 The site is currently comprised of a four-storey retail unit, occupied by a House of Fraser store. It is situated on the corner of King Street and George Street on a predominantly commercial road in Richmond, Surrey. The site also comprises a number of addresses including 75-81 George Street, 2, 4, 6, 8, 10, 11 & 14 Paved Court and 20/26 King Street.
- 2.3 The development proposals are a change of use of 80 George Street from Use Class A1 (retail) to mixed use, thus the proposals seek flexibility within the planning application. Therefore, the existing floors will be comprised of:
- Existing basement – flexible Use Class A1 and D2;
 - Existing ground – Use Class A1;
 - Existing floor 1 - flexible Use Class A1 and B1; and
 - Existing floors 2,3 and new fourth floor – Use Class B1.
- 2.4 16 Paved Court/20 King Street will have a change of use to Use Class B1 (existing floors 1, 2).
- 2.5 The external alterations to the development are the following:
- Erection of an additional storey at fourth floor (with associated roof terrace) and plant room above;
 - Second floor rear extension;
 - Replacement of roof to the adjacent existing single storey extension at rear to include roof light;
 - Enclosed staircase to rear;
 - Terraces to rear; and
 - Associated plant.
- 2.6 Other elevational alterations include the following:
- Removal of canopy to 80 George Street;
 - New shopfronts to 4 Paved Court, Golden Court entrance, and King Street and George Street frontages;
 - New fenestration throughout; and

-
- New canopies.
- 2.7 Other works include the following:
- 4-8 Paved Court –
 - Infill of the rear window;
 - Replacement of the roof to the adjacent existing single storey extension at the rear;
 - Internal alterations, including new staircase to No. 8, and other repair and refurbishment works;
 - 10 Paved Court – replacement of the roof to the adjacent existing single storey extension; and
 - 16 Paved Court/20 King Street – refurbishment and repair works.

3.0 METHODOLOGY

- 3.1 The report will first conduct a review of the relevant local policy in relation to health and wellbeing. Following this, a desktop study of relevant data sources will form a health profile of the local area which considers the health of the local population.
- 3.2 In assessing the potential impacts of the development, the HIA will follow the assessment criteria and procedure contained within the following two key documents:
- The NHS Healthy Urban Development Unit's 'HUDU Planning for Health – Healthy Urban Planning Checklist'¹; and
 - The NHS Healthy Urban Development Unit's 'HUDU Planning for Health – rapid Health Impact Assessment Tool'².
- 3.3 The proposed development's health impacts will be assessed against the Healthy Urban Planning Checklist, considering impacts directly related to the particular proposals, as well as indirect influences on the wider community. The outcomes of this analysis will form the evidential base for the second stage of the assessment framework using the Rapid Health Impact Assessment Tool to determine the results of the proposed development's impact on health.

4.0 POLICY BACKGROUND

National Planning Policy Framework (NPPF)

- 4.1 The revised NPPF was published in February 2019, replacing the previous NPPF³, adopted in March 2012. The revised NPPF sets out the Government's planning policies for England and how they are expected to be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. Within this framework, the chapter that is most relevant to this HIA is Chapter 8 'Promoting healthy and safe communities'. This states that:

'Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;

b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas; and

c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.'

The London Plan

- 4.2 The London Plan⁴ suggests in Policy 3.2 'Improving health and addressing health inequalities' that a HIA is used to consider the impacts of major development proposals on the health and wellbeing of communities. It also states that new developments should be 'designed, constructed and managed in ways that improve health and promote healthy lifestyles to reduce health inequalities'.
- 4.3 Policy 7.14 'Improving air quality' states that development proposals should help to address local air quality problems as well as promote sustainable design and construction techniques to reduce emissions.

New London Plan

- 4.4 The draft new London Plan⁵ was published in November 2017. It is currently being considered by a formal Examination in Public (EiP). Once it has been adopted, it will replace the current London Plan. Although it has not yet been adopted, it is important to consider its policies as these will eventually have implications on future developments.
- 4.5 Policy GG3 'Creating a healthy city' outlines requirements that proposals must follow to improve health and reduce health inequalities. These requirements include promoting more active lives, seeking to improve London's air quality and improving access to and quality of green spaces.

London Borough of Richmond upon Thames Local Plan (2018)

- 4.6 The LB Richmond Local Plan⁶ was adopted in July 2018 and sets out policies and guidance for the development of the Borough over the next 15 years. The Local Plan forms part of the overall development plan for the Borough and it identifies where the main developments will take place, and how places within the Borough will change, or be protected from change, over that period.
- 4.7 Policy LP 10 Local Environmental Impacts, Pollution and Land Contamination: This policy states that the Council will seek to ensure that environmental impacts of all development proposals do not result in detrimental effects on health, safety and the amenity of existing and new users or occupiers of the development site. These environmental impacts include pollution, noise and vibration and land contamination.
- 4.8 Policy LP 30 Health and Wellbeing: This policy states that the council will support development that encourages a number of health initiatives, such as:
- Sustainable modes of travel;
 - Access to green infrastructure;
 - Access to local healthy food; and
 - An inclusive development layout and public realm.
- 4.9 Policy LP 44 Sustainable Travel Choices: The Council will work collaboratively to promote safe and sustainable transport solutions that minimise its environmental impacts and maximise opportunities including for health benefits. In order to implement this, the Council will undertake a number of initiatives, such as:
- Ensure that new developments are designed to maximise permeability through the provision of safe and convenient cycle and walking routes;

- Ensure that major new developments maximise opportunities to provide safe and convenient access to public transport services; and
- Encourage use of the River Thames for transportation.

5.0 HEALTH PROFILE BASELINE

5.1 It is important when undertaking an assessment of the health impacts of a proposed development that the geographical scope of the assessment is clearly understood.

5.2 The full geographical scope of the proposed development is as follows:

- Ward: South Richmond;
- Local Authority: London Borough of Richmond upon Thames;
- Regional: Greater London; and
- National: England.

Health Profile Baseline

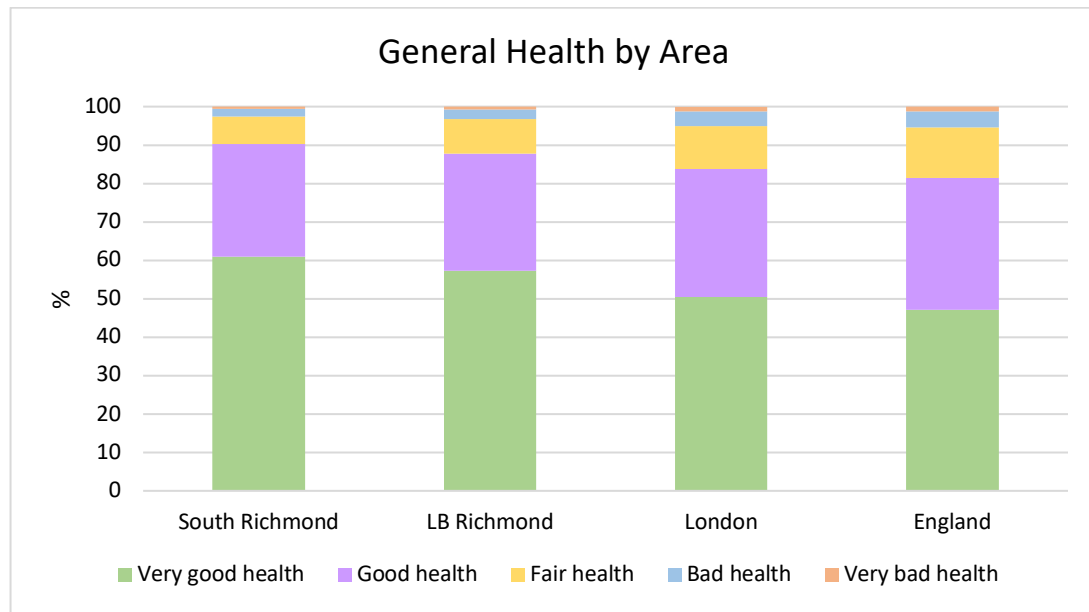
5.3 A review of the relevant data sets has been conducted to establish a health profile baseline of the local area. Levels of general health have been considered, along with determinants of health. The World Health Organisation (WHO)⁷ describes the determinants of health as the factors that combine together to affect the health of individuals and communities. They identify the social and economic environment, the physical environment and the person's individual characteristics and behaviours as determinants of health. The health profile baseline has therefore considered data sets on determinants of health that have the potential to be affected by the proposed development, such as levels of deprivation and level of health. The health profile baseline has also considered the provision of primary healthcare services within the local area and their capacity.

5.4 Wherever possible, the health profile baseline of the local area has been compared to the wider local authority, regional, and national levels.

Health Profile: Population

5.5 According to the 2011 Census, 61.0% of South Richmond ward are classified as in 'Very Good Health' and 29.2% classified in 'Good health'⁸. These are similar to figures at borough level, within which 57.3% of residents are in 'Very Good Health' and 30.5% are in 'Good Health'. Only 0.6% of the population in South Richmond ward are in 'Very bad health' and 0.8% in LB Richmond fall under this category. This is slightly less than in London and England in which 1.2% of residents are in 'Very bad health'. Figure 5.1 demonstrates that the general health of the study area is 'Very Good' and fairly representative of the country as a whole.

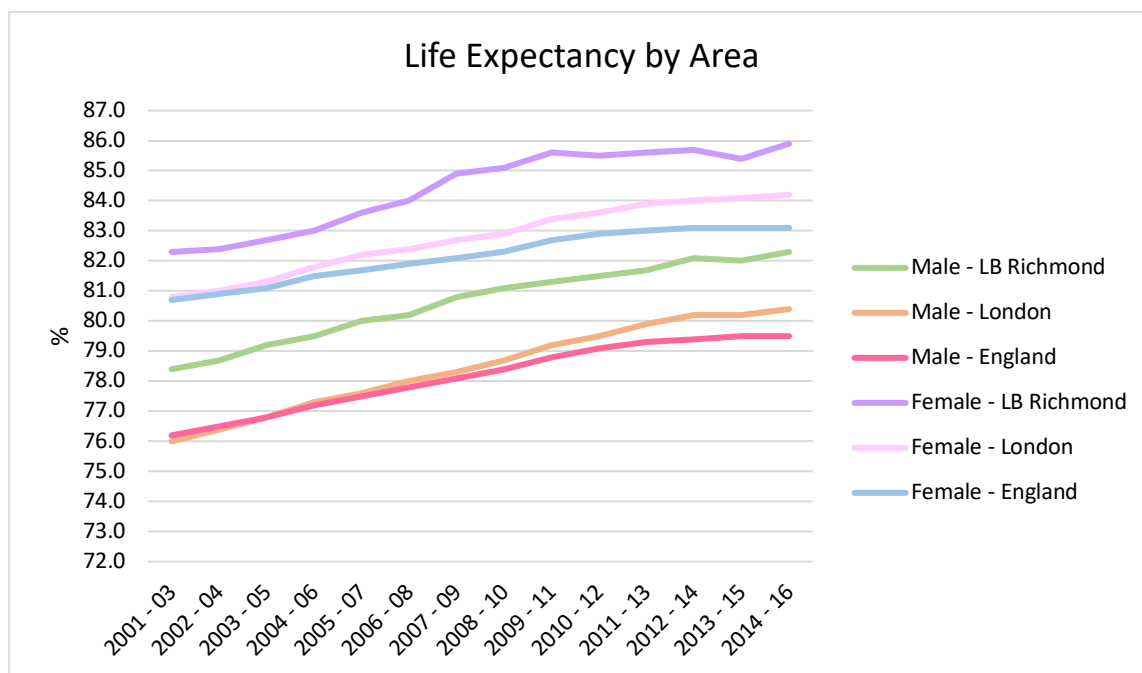
Figure 5.1 General Health by Area



Source: 2011 Census

5.6 Information from the Office for National Statistics⁹ shows that life expectancy within the study area has increased since 2001. Between 2015 and 2017, males in LB Richmond had a life expectancy of 82.3 years, whilst female life expectancy was 85.7 years. Life expectancy for both males and females in LB Richmond is higher than in London and England. Since 2001, female life expectancy has been higher than male in LB Richmond. However, male life expectancy has increased by 3.9 years between the 2001-2003 period and the 2015-2017 period. This is slightly more than for female life expectancy which has increased by 3.4 years over the same period. Figure 5.2 illustrates life expectancy in LB Richmond, London and England.

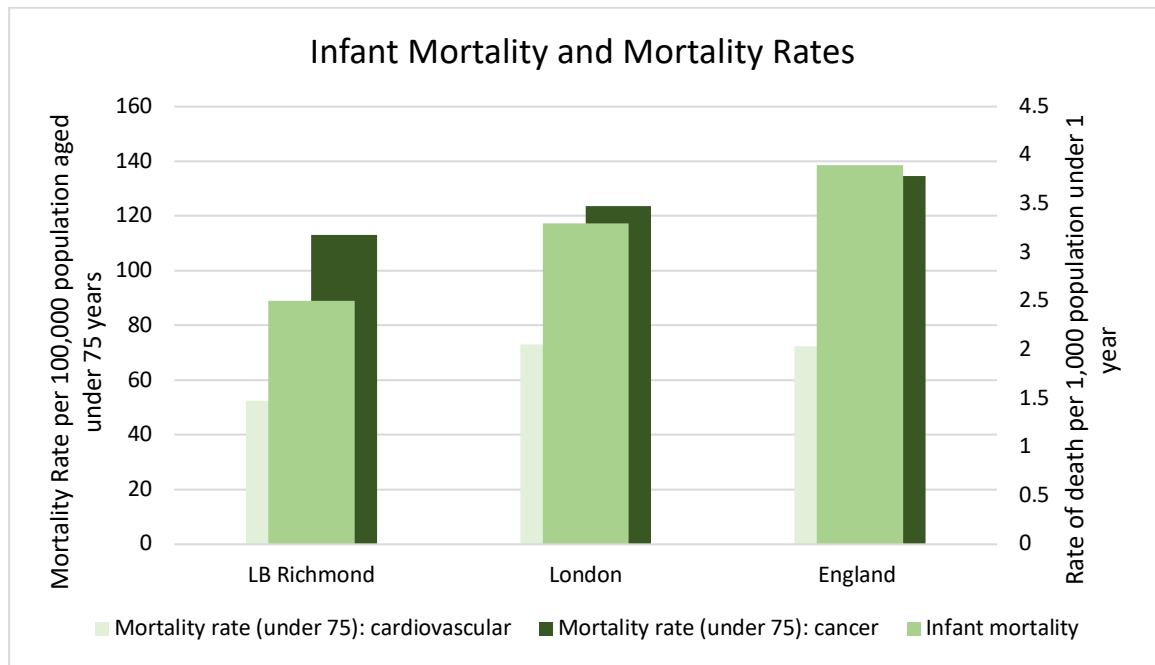
Figure 5.2 Life Expectancy by Area



Source: 2011 Census

- 5.7 The Public Health Profile for LB Richmond¹⁰ identified that the local authority had an infant mortality count of 19 in 2015-2017, which equates to a value (rate of deaths of infants aged under 1 year per 1,000 live births) of 2.5. This is lower than both London and England, which had infant mortality rates of 3.3 and 3.9, respectively.
- 5.8 In LB Richmond, between 2015 and 2017, the under 75 mortality rate from cardiovascular linked causes has a recorded count of 235, which equates to a value (age-sex standardised rate per 100,000 population aged under 75) of 52.2. This is quite significantly lower than for London (73.2) and England (72.5). Additionally, the under 75 mortality rate from cancer has a recorded count of 510, which equates to a value (age-sex standardised rate per 100,000 population aged under 75) of 113.1. This is lower than for London (123.6) and England (134.6). Figure 5.3 demonstrates these values and the infant mortality rate across LB Richmond, London and England, highlighting the difference between the local and national status.

Figure 5.3 Infant Mortality and Mortality Rates



Source: 2011 Census

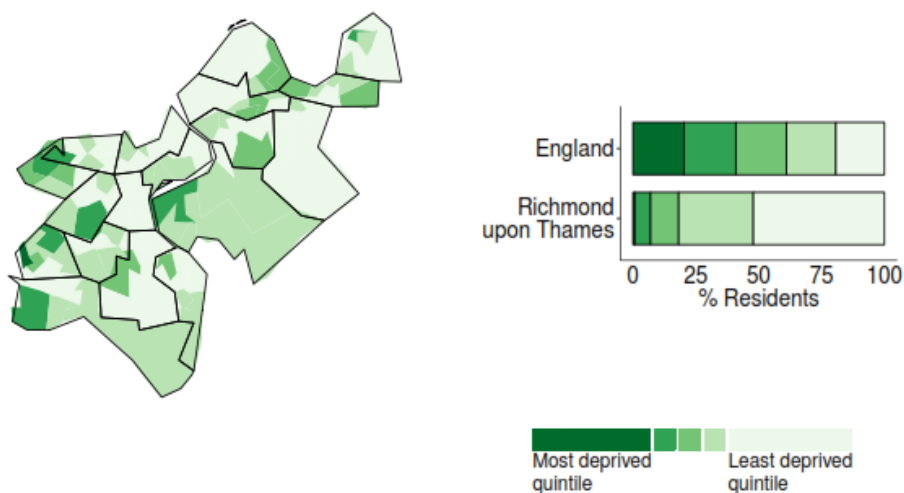
- 5.9 LB Richmond’s Health Profile¹⁰ recorded that 9.8% of its residents aged 18+ smoke. This is lower than in London and England, within which 14.6% and 14.9% of adults smoke, respectively. Furthermore, the number of alcohol-specific hospital stays for under 18s over the period of 2015/16-2017/18 had a count of 42 which equates to a value (crude rate per 100,000 population) of 31.1. This is greater than the regional value of 18, but slightly lower than the national value of 32.9.
- 5.10 The Department for Digital, Culture, Media & Sport (DCMS) publishes data to show satisfaction with life¹¹ under different factors. The scale for answers ranged from 1 (very unhappy) to 10 (extremely happy). The happiness score for LB Richmond for 2016/17 was 7.58. This is slightly higher than for London (7.46) and for England (7.51). In addition, LB Richmond had a life satisfaction score of 7.71 and a worthwhile score of 7.87 in 2016/17. These values are again greater than regionally and nationally. The final factor is anxiety where LB Richmond scored 3.25, which is lower than both London (3.12) and England (2.91), suggesting slightly higher anxiety levels in LB Richmond.

Health Profile: Area Context

Deprivation

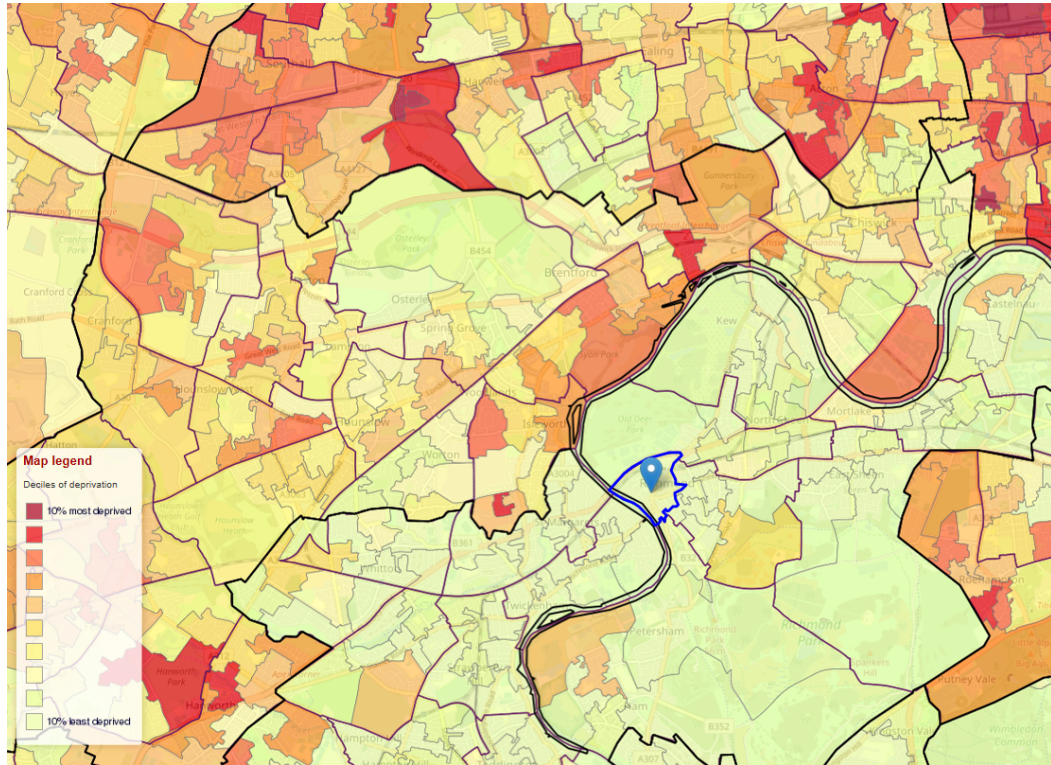
- 5.11 The context of people’s lives directly influences their health. Public Health England produce health profiles by local authority. The 2018 profile for LB Richmond¹⁰ shows that the local authority has a deprivation score of 10.0, which is quite significantly lower than the England average of 21.8.
- 5.12 Figure 5.4 shows the deprivation for LB Richmond compared to the national average, using quintiles of Index of Multiple Deprivation (IMD). The IMD measures the relative deprivation of small areas of England called Lower Layer Super Output Areas (LSOAs) according to a range of variables including wealth, health and quality of life.

Figure 5.4 Deprivation Levels in LB Richmond



- 5.13 The above figure demonstrates that LB Richmond has significantly lower levels of deprivation compared to the national picture with approximately 50% of LB Richmond’s population classified within the least deprived quintile.
- 5.14 Furthermore, the LSOA that the site falls within is within the 10% least deprived neighbourhoods in the country under the Health Deprivation and Disability Domain¹². These indicators are Years of Potential Life Lost (YPLL); Comparative Illness and Disability Ratio; Measures of acute morbidity, derived from Hospital Episode Statistics; and the proportion of adults under 60 suffering from mood or anxiety disorders based on prescribing suicide mortality rate and health benefits data. The figure below illustrates this.

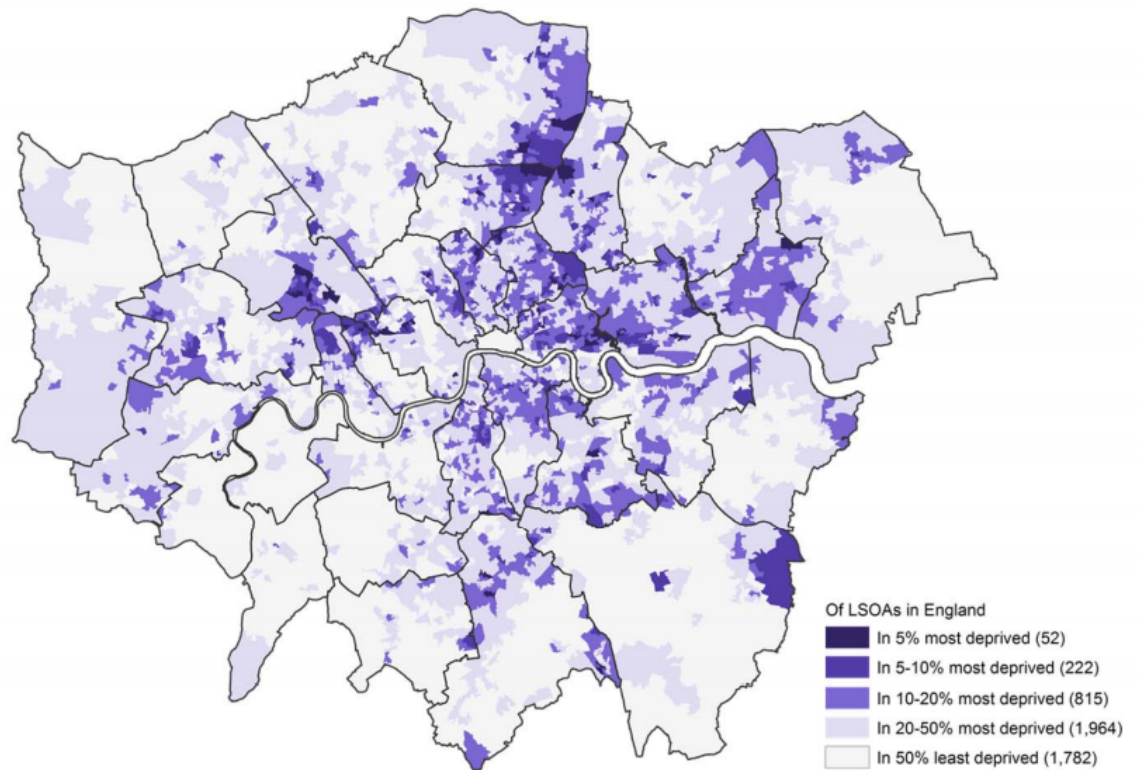
Figure 5.5 Health Deprivation and Disability Domain, Index of Multiple Deprivation, Richmond upon Thames 008B LSOA



Source: Indices of Multiple Deprivation 2015

- 5.15 Figure 5.6 indicates that the majority of London is in the 50% least deprived LSOAs in England. In the northern part of LB Richmond, the majority of its LSOAs are within the 10-20% most deprived in England whilst in the southern part, the majority of its LSOAs are within the 20-50% most deprived in England.

Figure 5.6 Index of Multiple Deprivation 2015, London¹³



Source: Indices of Deprivation, 2015, DCLG
Map is © Crown Copyright and database right 2015 Ordnance Survey 100032216 GLA

5.16 LB Richmond’s Public Health Profile¹⁰ states that the number of children in low income families (under 16s) in 2016 was recorded to be 2,795 children, which equates to 8.5% of children in the borough. This is significantly less than in London (18.8%) and England (17.0%).

6.0 POTENTIAL IMPACTS OF THE PROPOSED DEVELOPMENT

6.1 The potential health impacts have been assessed against the Healthy Urban Planning Checklist¹, considering impacts directly related to the particular proposals as well indirect influences on the wider community. This assessment is set out in the below paragraphs. The outcomes of this analysis have formed the evidential base for the second stage of the assessment framework that uses the Rapid Health Impact Assessment Tool². This second stage of the assessment can be seen in Appendix 1.0.

Healthy Housing

- 6.2 Access to suitable housing is exceedingly important for the health and wellbeing of a resident population. A range of tenures with a high level of design are needed to meet the varying needs of the population. Consideration should be given to orientation, energy efficiency, use of recycled and renewable resources, adaptability and accessibility.
- 6.3 As the scheme does not propose any residential development, this theme is not relevant for the assessment.

Active Travel

Promoting walking and cycling

- 6.4 The proposed development will include cycle storage facilities within the basement floor level. The minimum provision for the development would be 60 cycle spaces, comprising 39 long-stay and 20 short-stay spaces. Furthermore, a dedicated cycle lift to the basement level will be included for easy access to cyclist facilities.
- 6.5 There will also be male and female cycle changing rooms with showers as well as a disabled changing shower room. These facilities will encourage the retail and office workers to cycle, which will minimise car use.
- 6.6 In addition, within six months of occupation, a full office and retail travel survey will be undertaken. This information would be used as a baseline against which the remaining targets will be measured. These targets include a 3% increase in foot and travel cycle, and to reduce the expected levels of public transport by 5%. Monitoring these targets will help to ensure that walking and cycling to and from the development is encouraged.

Safety

- 6.7 It is important to consider the proposed development's ability to create a safe environment in which building users feel secure, so as to avoid accidents and promote mental wellbeing.
- 6.8 It will be necessary for the proposed development to meet 'Secure by Design' requirements.
- 6.9 The office reception will be manned on a 24/7/365 basis. CCTV will also be provided to monitor all building entrances, the ground floor facades, loading bay, cycle stores and the reception area.
- 6.10 Access control systems will be installed to control access to office accommodation as well as the cycle stores, shower areas, loading bay and service corridors. In addition, a video intercom system will be installed that links all building entrances to the security desk.
- 6.11 All security systems will be centrally controlled from a manned location using a PC and monitors.

Connectivity

- 6.12 The site has a Public Transport Accessibility Level (PTAL) rating of 6a which demonstrates it is highly accessible to public transport.
- 6.13 Along George Street, there are two bus stops. These provide services to a range of places including Barnes, Ealing Broadway, Fulham and Clapham Junction. Richmond Station is also located approximately 500m north of the site. This provides National Rail services to a number of destinations including London Waterloo, Putney and Reading. It is also on the District line of the London Underground. These services would encourage use of sustainable transport to reach the site.

Minimising car use

- 6.14 As part of the Construction Logistics Plan (CLP), construction workers will be encouraged to travel sustainably to the site and will be provided with sustainable travel information.
- 6.15 The development will be car-free, thus no car parking is currently proposed, which is in accordance with the London Plan standards. Those who will be travelling by car to the site can utilise the existing parking within nearby car parks and staff traveling to and from the office will be encouraged to travel by sustainable transport modes via a Framework Workplace Travel Plan that will be produced.

Healthy environment

Construction

- 6.16 Best practice environmental management measures will be used during construction to ensure that environmental pollution as a result of construction work is kept to a minimum. This includes dust, noise, vibration and odours.
- 6.17 The principal contractor will be required to implement best practice pollution prevention policies and procedures on-site in accordance with Pollution Prevention Guidelines, Working in construction and demolition sites: PPG6.
- 6.18 The CLP produced for the site includes a number of measures that will be implemented to reduce the impact of construction works associated with the proposed development. There will be designated routes for journeys to and from the site and a copy of the route plan will be distributed to all suppliers when orders are placed to ensure all drivers understand the required route to take. Additionally, a web-based delivery management system will be used to control the volume of deliveries to site.
- 6.19 Construction methods, as outlined in the CLP, will also include material procurement measures. This includes implementing measures to re-use materials on site. This will be decided upon in agreement with the contractor. In addition, the principal contractor will explore sourcing local suppliers for materials to contribute to the local economy and transport distances with associated pollution.

Air quality

- 6.20 An Air Quality Assessment has been undertaken for the proposed development. It examined the potential impacts during both construction and operation. It concluded that the magnitude of dust emissions during construction would be small and it was determined that with the Institute of Air Quality Management (IAQM) guidance, the residual effect would be 'not significant' with appropriate mitigation in place. In addition, the operational air quality effects without mitigation are judged to be 'not significant' as the proposed development will not generate sufficient traffic to have a significant impact on air quality.
- 6.21 The proposed development incorporates good design and best practice measures to reduce air quality impact, such as no car parking provision and the provision of pedestrian and cycle access to the development. Additionally, measures to mitigate dust emissions during construction will be implemented including no idling vehicles, putting solid screens or barriers up around dusty activities and avoid the burning of waste materials.

-
- 6.22 In addition, an indoor air quality plan has been produced and implemented, which will help to facilitate a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution.

Noise

- 6.23 The mitigation strategies within the CLP outlined above will help to minimise noise pollution during construction. The implementation of designated routes for delivery vehicles and the web-based delivery management system will both control the volume of deliveries to the site and subsequently minimise volumes of construction traffic.
- 6.24 A Noise Impact Assessment has been undertaken for the proposed development to establish the background noise climate in the locality of 75-81 George Street. The assessment has set out recommendations for plant selection to ensure that it is compliant with the requirements of LB Richmond. It is considered that it is achievable to install building services plant with noise levels 5dB below the background noise level. This will ensure that the proposed development does not have a negative impact on building occupants as well as occupants of neighbouring buildings and pedestrians using the street.

Open space

- 6.25 The proposals include the provision of an external courtyard at ground floor level and external terraces for office workers on the second, third and fourth floors. It is anticipated that the external courtyard will include some outdoor seating which will provide space for workers to relax and interact.
- 6.26 The proposed development is also located less than 100m south of Richmond Green. This provides an accessible, large open space for workers to take a break and will therefore be of benefit to their wellbeing. Richmond Riverside is located approximately 180m southwest of the development, which is another area of open space for workers to enjoy too.

Play space

- 6.27 The proposed development will not provide any play space on site as it is a commercial development with no residential elements and thus, the GLA benchmark standard of play space provision per child does not apply.

Biodiversity

- 6.28 The design of the proposed development will include a green roof of 536 sqm in size, which will contribute to enhancing floral and faunal biodiversity on site as well as add an amenity value to the development. The green roof will not be accessible for workers.
- 6.29 The design of the development will also include bird and bat boxes in order to enhance the site's ecological value.
- 6.30 A living wall will be incorporated into design and located adjacent to 2 Paved Court. This will contribute to biodiversity enhancements within the development. Additionally, it is anticipated that there will be some planting in pots within the external courtyard and on the second floor central terrace to further contribute to biodiversity enhancements. The other terraces will be left for their respective tenants to furnish.

Local food growing

- 6.31 The proposed development does not provide any local food growing facilities for the building occupants.
- 6.32 However, Richmond Duck Pond food market is held every Saturday approximately 170m south of the proposed development. Independent food producers and small businesses are present at the market. Its close proximity to the site may encourage the retail workers to purchase local food on a Saturday.

Flood risk

- 6.33 Flooding can result in risks to physical and mental health. The stress of being flooded and cleaning up can have a significant impact on mental health and wellbeing. Therefore, it is important to ensure that any risk of flooding to the proposed development is being sufficiently managed and mitigation measures will be implemented to reduce any impact on the health of future building occupants.
- 6.34 The site of the proposed development is located within Flood Zone 1 which means that the site is in an area with a low risk of surface water flooding. It is defined as an area that has a less than 1 in 1,000 annual probability of river or sea flooding (less than a 0.1% chance).
- 6.35 Sustainable Urban Drainage Systems (SuDS) are to be incorporated into the design of the development in order to reduce the amount of surface run-off occurring. A green roof will be implemented as a SuDS technique as it can retain more water and help to reduce the effect of urban flooding downstream. It is predicted that this will result in a 60.15% reduction of existing flow rates.

-
- 6.36 It is important to note that as the site is mainly a refurbishment, the impermeable area is not being increased so it is anticipated that there should be no increase in runoff as a result of the development.

Overheating

- 6.37 Overheating is an increasing risk to developments as a result of a projected warming climate due to climate change. The proposed development has incorporated design measures to minimise these risks. The servicing infrastructure will be designed to minimise heat gains within the occupied floor. Additionally, all glazing for the proposed development will have highly efficient shading coefficients and internal blinds will be installed throughout the development to minimise the solar heat gains of the building. Mechanical cooling of the fresh air will be provided by air-source heat pumps located on the roof too.
- 6.38 In addition, a thermal comfort analysis of the design will be undertaken. This will inform the temperature control strategy for the building and its users.

Vibrant neighbourhoods

Access to social infrastructure

- 6.39 The site does not provide any specific social infrastructure as it is not within the scope of the development.
- 6.40 However, the site is located within close proximity of a number of parks. This includes Old Deer Park (500m north-west) and Richmond Park (1.3km south-east). Old Deer Park is 360 acres in size and includes a number of facilities, such as tennis courts and an outdoor gym. Richmond Park is one of London's eight Royal Parks, covering an area of 2,500 acres. Richmond Green is also located behind the site. These parks are very accessible as they are in such close proximity and provide amenity spaces for the office and retail workers in the proposed development which can benefit their health.
- 6.41 In addition, there are a number of gyms and leisure facilities that workers may want to utilise. Richmond Hill Health Club is located approximately 130m south-east of the development. Pools on the Park is located about 500m north of the development; this is a leisure centre with a gym as well as both indoor and outdoor pools. There are also a few gyms located towards Twickenham, approximately 2-3km south-west of the site, which includes Anytime Fitness Twickenham and Virgin Active.

Local employment and healthy workplaces

- 6.42 Access to employment and training opportunities, as well as job security, can greatly contribute to mental wellbeing.
- 6.43 All office occupants will have access to terraces on the second, third and fourth floors of the development. This which will create accessible, external spaces for workers to socialise and help to create healthier workplaces.
- 6.44 The design of the development has large windows around its periphery. This will enhance the amount of natural light entering the development and thus create brighter workplaces which can improve office workers' wellbeing.

Access to local food shops

- 6.45 The proposed development does not include any facilities that offer or sell food, such as supermarkets and cafes.
- 6.46 Adjacent to the proposed development along Paved Court and along Golden Court, there are a number of cafes and restaurants, such as Alianti, Chango and Mooca Café. This provides easy access to local food shops for workers.
- 6.47 In addition, there are a number of supermarkets within close proximity of the proposed development. This includes a Marks & Spencer (40m east) and a Tesco Metro (160m north-east) along George Street, as well as a Waitrose (300m north-east) on Sheen Road, all of which enable office and retailer workers to buy lunch from during the working day, if they wish to.

Public realm

- 6.48 A key design technique of the proposed development is to encourage 'wellness' within the offices. This is through the provision of a feature staircase from the atrium at ground floor level to the first floor. It is also possible that this new staircase could be designed with a transparent enclosure to encourage its use between office floor levels. This would help connect the different floors and potentially facilitate greater social interaction amongst workers.
- 6.49 There will be a new atrium area and courtyard provided as part of the proposed development which will sit behind the new retail unit at ground floor level. This will create a new open space for workers and other building users to enjoy as internal and external amenity space.
- 6.50 The approach from Golden Court to Reception will become an extension of the streetscape, with matching flag stones and include a living wall. This extension will help to connect

-
- existing and new public realm improvements. Additionally, steps at the Golden Court entrance will be removed which makes it accessible to all and contributes to improving the public realm.
- 6.51 The proposed development will be easily accessible from a number of entrance points throughout the site. This includes direct access to the retail units from the George Street footpath and vertical circulation within the retail units will be provided through a combination of lifts and stairs. This design creates an accessible environment and promotes inclusivity which can create better experiences of the development.

7.0 CONCLUSIONS

- 7.1 The potential impacts of the proposed development have been fully assessed against the NHS Healthy Urban Development Unit's 'HUDU Planning for Health - Healthy Urban Planning Checklist', which has enabled completion of the 'HUDU Planning for Health – Rapid Health Impact Assessment Tool'. This involved assessing the proposals against 50 criteria, with the full assessment available in Appendix 1.0.
- 7.2 Of the 50 criteria the proposed development has been assessed against, 30 are deemed to have a positive impact on health, 16 a neutral impact and only 4 with a negative impact. Where this is the case, mitigation measures have been suggested, as well as enhancement measures for some of the neutral impacts where applicable. The development is therefore seen to have an overall positive impact on both mental and physical health of the residents and local area.
- 7.3 The report and associated appendix have demonstrated a clear review of the current baseline health conditions of the area and assessed the proposed development and its associated health impacts accordingly. The outcomes demonstrate that the proposed development has incorporated many measures into the design to ensure its impact on health is as positive as possible throughout both the construction and operational phases. This therefore meets all identified policy requirements for production of an HIA as well as ensuring healthy lifestyles and healthier neighbourhoods are promoted.

9.0 REFERENCES

- 1 NHS, London Healthy Urban Development Unit, (2017); HUDU Planning for Health – Healthy Urban Planning Checklist, Third Edition April 2017
- 2 NHS, London Healthy Urban Development Unit, (2017); HUDU Planning for Health – Rapid Health Impact Assessment Tool, Third Edition April 2017
- 3 Communities and Local Government, (2019), National Planning Policy Framework
- 4 Greater London Authority, (2016); The London Plan, The spatial development strategy for London consolidated with alterations since 2011, March 2016
- 5 Greater London Authority, (2017): The Draft London Plan showing Minor Suggested Changes 2018.
- 6 London Borough of Richmond upon Thames Local Plan (2018) www.richmond.gov.uk/
- 7 World Health Organisation, (2015); Health Impact Assessment (HIA) – available at: <http://www.who.int/hia/evidence/doh/en/> [Date accessed: 08/05/19]
- 8 2011 Census, Health and provision of unpaid care (KS301EW), South Richmond Ward, LB Richmond upon Thames, London and England.
- 9 Office for National Statistics, (2014); People, population and community – Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/datasets/lifeexpectancyatbirthandage65bylocalareasuk> [Date accessed: 08/06/19]
- 10 Public Health England (2018) Local Authority Health Profile 2018: Richmond upon Thames.
- 11 Department for Digital, Culture, Media & Sport, (2013); London Data Store: Personal Well-being (Happiness) by Borough – Available at: <https://data.london.gov.uk/dataset/subjective-personal-well-being-borough> [Date accessed: 08/05/19]
- 12 Indices of Deprivation 2015 explorer – Health Deprivation and Disability Domain – Available at <http://dclgapps.communities.gov.uk/imd/idmap.html> [Data accessed: 08/05/19]
- 13 Department for Communities and Local Government, (2015); English Indices of Deprivations 2015 – Available at <https://data.london.gov.uk/dataset/indices-of->

deprivation-2015/resource/ce3afc23-78ce-4df5-b035-96bb06b0a2e2# [Date
accessed: 22/11/18]

APPENDIX 1.0 – HUDU RAPID HIA TOOL



London Healthy Urban Development Unit

HUDU Planning for Health

Rapid Health Impact Assessment Matrix

Self-completion Form

June 2015

Contents

Introduction	3
1 Housing quality and design.....	4
2 Access to healthcare services and other social infrastructure	5
3 Access to open space and nature	7
4 Air quality, noise and neighbourhood amenity	8
5 Accessibility and active travel.....	9
6 Crime reduction and community safety	11
7 Access to healthy food.....	12
8 Access to work and training.....	13
9 Social cohesion and lifetime neighbourhoods	14
10 Minimising the use of resources	15
11 Climate change	16

NHS London Healthy Urban Development Unit

www.healthyurbandevelopment.nhs.uk

© 2015 All rights reserved

HUDU Planning for Health

Rapid Health Impact Assessment Matrix – Self-completion Form

Introduction

The assessment matrix is designed to rapidly assess the likely health impacts of development plans and proposals, including planning frameworks and masterplans for large areas, regeneration and estate renewal programmes and outline and detailed planning applications. It should be used prospectively at the earliest possible stage during plan preparation, or prior to the submission of a planning application to inform the design, layout and composition of a development proposal.

The matrix does not identify all issues related to health and wellbeing, but focuses on the built environment and issues directly or indirectly influenced by planning decisions. It is generic and should be localised for specific use. Not all the issues or assessment criteria may be relevant and the user is encouraged to prioritise specific actions which focus on key impacts.

The assessment matrix identifies eleven topics or broad determinants. Under each topic, Section 2 of the tool identifies examples of planning issues which are likely to influence health and wellbeing and the section also provides supporting information and references.

Health impacts may be short-term or temporary, related to construction or longer-term, related to the operation and maintenance of a development and may particularly affect vulnerable or priority groups of the population. Where an impact is identified, actions should be recommended to mitigate a negative impact or enhance or secure a positive impact.

Name of assessor / organisation:

Name of project (plan or proposal):

Planning reference (if applicable):

Location of project:

Date of assessment:

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)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal address the housing needs of older people, ie extra care housing, sheltered housing, lifetime homes and wheelchair accessible homes?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include homes that can be adapted to support independent living for older and disabled people?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal promote good design through layout and orientation, meeting internal space standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include a range of housing types and sizes, including affordable housing responding to local housing needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal contain homes that are highly energy efficient (eg a high SAP rating)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

2 Access to healthcare services and other 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?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal assess the impact on healthcare services?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include the provision, or replacement of a healthcare facility and does the facility meet NHS requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal assess the capacity, location and accessibility of other social infrastructure, eg schools, social care and community facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal explore opportunities for shared community use and co-location of services?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal contribute to meeting primary, secondary and post 19 education needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

3 Access to 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?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
In areas of deficiency, does the proposal provide new open or natural space, or improve access to existing spaces?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide a range of play spaces for children and young people?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide links between open and natural spaces and the public realm?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Are the open and natural spaces welcoming and safe and accessible for all?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal set out how new open space will be managed and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

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?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal minimise air pollution caused by traffic and energy facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal minimise noise pollution caused by traffic and commercial uses?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

5 Accessibility and active 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?)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal connect public realm and internal routes to local and strategic cycle and walking networks?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include traffic management and calming measures to help reduce and minimise road injuries?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Is the proposal well connected to public transport, local services and facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

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 plans measures?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal allow people with mobility problems or a disability to access buildings and places?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

6 Crime reduction and community safety

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal incorporate elements to help design out crime?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal incorporate design techniques to help people feel secure and avoid creating 'gated communities'?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include attractive, multi-use public spaces and buildings?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Has engagement and consultation been carried out with the local community?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

7 Access to healthy food

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal facilitate the supply of local food, ie allotments, community farms and farmers' markets?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Is there a range of retail uses, including food stores and smaller affordable shops for social enterprises?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal avoid contributing towards an over-concentration of hot food takeaways in the local area?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

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?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide childcare facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include managed and affordable workspace for local businesses?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include opportunities for work for local people via local procurement arrangements?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

9 Social cohesion and lifetime neighbourhoods

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal connect with existing communities, ie layout and movement which avoids physical barriers and severance and land uses and spaces which encourage social interaction?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal include a mix of uses and a range of community facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal provide opportunities for the voluntary and community sectors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal address the six key components of Lifetime Neighbourhoods?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

10 Minimising the use of resources

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal make best use of existing land?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal encourage recycling (including building materials)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal incorporate sustainable design and construction techniques?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	

11 Climate change

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions
Does the proposal incorporate renewable energy?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal ensure that buildings and public spaces are designed to respond to winter and summer temperatures, ie ventilation, shading and landscaping.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal maintain or enhance biodiversity?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	
Does the proposal incorporate sustainable urban drainage techniques?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Neutral <input type="checkbox"/> Uncertain	