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Volterra

Health Impact Assessment

Mount Pleasant

Prepared by Volterra Partners
April 2013

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MOUNT PLEASANT – ERRATA NOTE

This note has been prepared by DP9 on behalf of the Royal Mail Group Ltd. The note should be read in conjunction with all documents and plans submitted in support of the following planning applications:

- The Calthorpe Street planning and associated conservation area consent applications to the London Borough of Islington; and
- The Phoenix Place planning application to the London Borough of Camden.

The above applications were submitted simultaneously to the relevant Local Planning Authority on 1 May 2013. Following the submission of the applications the London Borough of Camden requested that the redline application boundary for the Phoenix Place application was re-drawn to mirror the administrative boundary down the centre of Phoenix Place.

As a consequence, the redline boundary for both applications has been withdrawn and amended plans submitted to the relevant Local Planning Authority, alongside this Errata Note. The redline boundary change affects the site areas as follows:

- Calthorpe Street Site – From 2.22 ha to 2.36 ha
- Phoenix Place Site – From 1.31 ha to 1.17 ha

For the avoidance of doubt, the application proposals for the Mount Pleasant Site as a whole are unaffected and the documents submitted in support of each application remain valid and robust.

The table below lists the application documents submitted for each planning application and whether, other than plans showing the respective redline boundary and resultant site areas, this change affects the documents or conclusions.

APPLICATION DOCUMENT	EFFECT OF THE REDLINE BOUNDARY CHANGE
<i>Documents submitted in support of the Calthorpe Street Site application only</i>	
Planning Application Form, Land Ownership Certificate A and Agricultural Holdings Certificates;	Unaffected
The Covering Letter	Unaffected

Design and Access Statement: Volume 2: Calthorpe Street Development	Density calculations on page 45 amended to 1,036 habitable rooms within a site area of 2.36ha to provide a density calculation of 438 habitable rooms/hectare.
Calthorpe Street Waste Management Plan	Unaffected
Calthorpe Street Framework Travel Plan	Unaffected
Calthorpe Street Operational Waste Plan	Unaffected
Calthorpe Street Sustainability Statement including Code for Sustainable Homes Pre-Assessment and BREEAM Pre-Assessment	Unaffected
Calthorpe Street Energy Strategy including Overheating Report	Unaffected
<i>Documents submitted in support of the Phoenix Place Site application only</i>	
Planning Application Form, Land Ownership Certificate B and Agricultural Holdings Certificates	Unaffected
The Covering Letter	Unaffected
Design and Access Statement: Volume 3: Phoenix Place Development	Density calculations on page 31 amended to 1,077 habitable rooms within a site area of 1.17 to provide a density calculation of 921 habitable rooms/hectare.
Phoenix Place Waste Management Plan	Unaffected
Phoenix Place Framework Travel Plan	Unaffected
Phoenix Place Operational Waste Plan	Unaffected
Phoenix Place Sustainability Statement including Code for Sustainable Homes Pre-Assessment and BREEAM Pre-Assessment	Unaffected

Phoenix Place Energy Strategy including Overheating Report	Unaffected
<i>The application documents which assess the Development across the Site are set out below</i>	
Planning Statement which includes the Economic and Regeneration Statement and draft Section 106 Heads of Terms	Density calculations for Calthorpe Street (page 37) amended to 1,036 habitable rooms within a site area of 2.36ha to provide a density calculation of 438 habitable rooms/hectare. Density calculations for Phoenix Place (page 38) amended to 1,077 habitable rooms within a site area of 1.17 to provide a density calculation of 921 habitable rooms/hectare.
Design and Access Statement: Volume 1: Mount Pleasant	Unaffected
Environmental Statement: Volume 1: Main Text	Unaffected
Environmental Statement: Volume 2: Figures	Unaffected
Environmental Statement: Volume 3: Townscape, Visual and Built Heritage Assessment	Unaffected
Environmental Statement Volumes 4A to 4F (Appendices)	Unaffected
Environmental Statement Non-Technical Summary	Unaffected
Public Realm and Playspace Strategy	Unaffected
Housing Statement	Unaffected
Internal Daylight and Sunlight Assessment	Unaffected
Residential Travel Plan	Unaffected
Delivery and Servicing Plan	Unaffected

Framework Construction Logistics Plan	Unaffected
Parking Management Plan	Unaffected
Health Impact Assessment	Unaffected
Community Involvement Report	Unaffected

DP9

4 June 2013

Contents

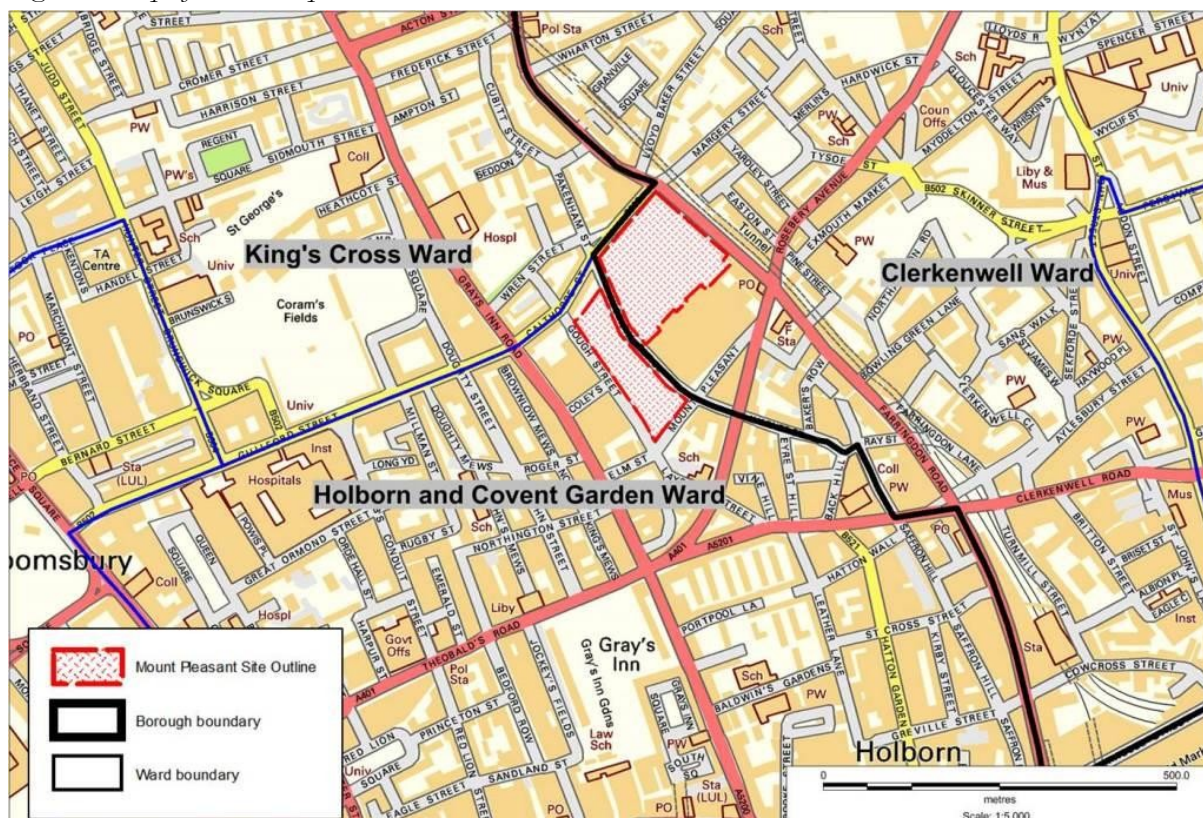
1	Introduction	3
2	Planning and Health Policy	7
3	Baseline Demographic Profile.....	14
4	Health Facilities and Related Infrastructure.....	31
5	Development Proposals	43
6	Potential Health Impact.....	46

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1 Introduction

- 1.1 This assessment has been prepared in support of the planning applications to Camden and Islington Borough Councils for the Mount Pleasant Sorting Office site. The purpose of a Health Impact Assessment (HIA) is to establish the direct and indirect effects of a development on the population. Consideration is given to the health of the current and future local population, and the future development population. The assessment also considers how a development may result in health gains for the local population.
- 1.2 For the purposes of this assessment, the Mount Pleasant Sorting Office site (the 'Site') relates to the existing Royal Mail Group landholding at Mount Pleasant. The Site is split over two adjacent sites; the Phoenix Place site in the Borough of Camden to the west and the Calthorpe Street site in the Borough of Islington to the east. The Phoenix Place site is located within the Holborn & Covent Garden Ward and the Calthorpe Street site is located within the Clerkenwell Ward.
- 1.3 The Mount Pleasant Development (the 'Development') relates to the completed and operational development on the Calthorpe Street and Phoenix Place sites post construction. It is anticipated that the entire Site would be redeveloped, although the Calthorpe Street site or the Phoenix Place site could be developed in isolation.
- 1.4 Therefore, there are three potential development scenarios for the Site: Development Scenario 1 relates to the entire Site; Development Scenario 2 relates to the Calthorpe Street site only; and, Development Scenario 3 relates to the Phoenix Place site only. For the purposes of this assessment, only Development Scenario 1 (i.e. the entire Site) is considered.
- 1.5 The scale of the Development would have a significant effect on the demographic profile, health and well-being of the local population. This is due to the size of the future estimated Development population of 1,200 people. As such, an HIA is required in order to examine these effects. In addition, Islington Core Strategy¹⁵ policy CS 19 stipulates that all major new development proposals are required to conduct a prospective health impact assessment.
- 1.6 For the purposes of this assessment, the Study Area is defined as the zone within 500m from the centre of the Site.

Figure 1: Map of the Development Site



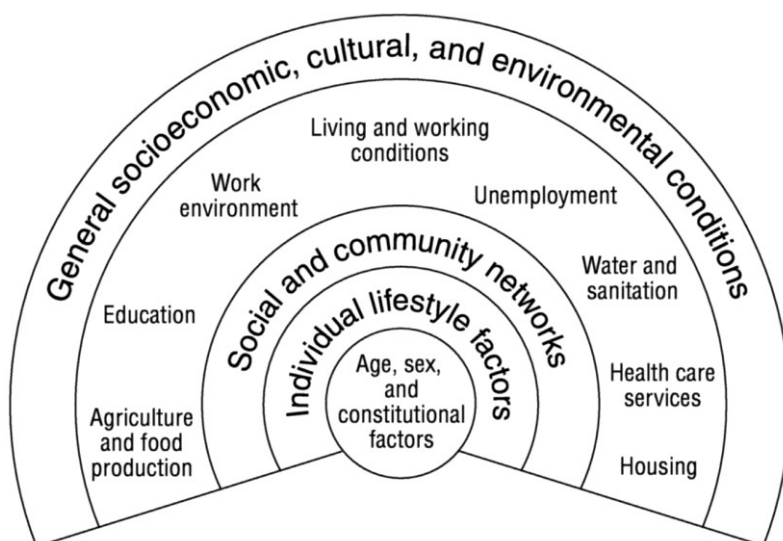
Source: Volterra 2013

- 1.7 The HIA is based on a holistic, social model of health which recognises that the health of individuals and communities is determined by a wide range of economic, social and environmental influences, as well as by heredity and health care. The aim of the HIA is to support the planning application by providing a systematic analysis of the potential impacts. Where appropriate, the HIA will provide recommendations for enhancing the positive impacts, mitigating the negative ones and reducing health inequalities.
- 1.8 The Environmental Impact Assessment (EIA) submitted in support of the planning applications considers (within the Socio Economics chapter) the effect of the proposed Development on the provision of primary care services at the local and district level. Meanwhile, the HIA allows for a wider range of health effects and a deeper examination of current and future demand for health services to be explored. This is particularly relevant for helping to determine planning obligations related to the additional demand for health services created by a development, and not current shortfalls in healthcare service provision.

Approach and Methodology

- 1.9 There is no clear established methodology for carrying out an HIA although there are a number of HIA best practice guides available from a variety of sources. The following HIA guides have been considered as part of developing the approach taken in this assessment: London HIA guide¹, Department of Health HIA tools², NHS HUDU unit ‘Watch Out for Health’ HIA checklist³, NHS Wales HIA Guide⁴; the Human Impact Partners HIA Toolkit⁵; and the Department of Health HIA of Government Policy Guide⁶.
- 1.10 These guidance manuals generally advise the same structure for a HIA, which involves: identifying the health effects; quantifying and describing the health impacts; and providing recommendations to maximise health outcomes for the community.
- 1.11 Our report follows the standard HIA structure and will comprise of the following stages:
- Planning and health policy
 - Baseline assessment of demographic profile and health facilities
 - Assessment of potential effects
 - Recommendations for maximising health outcomes
- 1.12 The assessment draws on Dahlgren and Whitehead’s social model of health⁷ which considers health as being influenced by a number of broad factors. These include not just the individuals’ age, sex and hereditary factors, but also their lifestyle, living conditions and environment. Factors that are within and outside the individual’s control play a part in determining health outcomes. According to a US study on the determinants of health⁸, 21% of health outcomes are due to social and economic factors, 7% due to environmental exposure, 57% due to behavioural patterns and 14% due to shortfalls in medical care.

Figure 2: Determinants of health and well-being



Source: Dahlgren G & Whitehead M, 1991, ‘Policies and strategies to promote social equity in health’

Data Sources and Indicators

1.13 The following indicators were used for the Baseline Demographic Profile and the Health Facilities and Related Infrastructure section:

- Health related population trend data and information were sourced from the Greater London Authority (GLA) population projections²⁰, the Ethnicity and Health report by the Parliamentary Office of Science and Technology²¹, the Queen's University study on Marital Status and Health²², and the British Columbia Worker's Board paper on unemployment and health²⁹.
- Housing quality data and crime rates were sourced from the National Census 2011¹⁹, DCLG Decent Homes²⁸ Standard and Metropolitan Crime Figures.
- More specific health indicators, including those at the Borough level, were sourced from the Department of Health APHO Borough Profiles^{23,24}, National Census 2011 and the Department for Community and Local Government (DCLG) English Indices of Deprivation^{25,26}.
- Information and statistics on primary and secondary healthcare facilities were sourced from NHS statistics^{32,33,34}, the Department for Education (DfE)^{35,39}, and the Daycare Trust³⁸. The London Health Urban Development Unit HUDU Model⁵⁰ was used to calculate the extra demand for secondary health services associated with the increase in population from the Development.

1.14 Other social and communal health related indicators were used, including information from the Islington Open Space Study⁴⁰ and the Camden Open Space Study⁴¹.

2 Planning and Health Policy

- 2.1 In this section we review relevant national, regional and local policy relating to health care provision and funding. The policies described in this section provide an outline to healthcare priorities at each spatial level.

National Policy

Healthy Lives Healthy People: Update and Way Forward, 2011

- 2.2 The White Paper ‘Healthy Lives, Healthy People: Our strategy’ for public health in England (2010) and 2011 update⁹ set out a bold vision for a reformed public health system in England. The strategy involves reaching out to local communities and putting them at the heart of public health provision.
- 2.3 The paper outlines the commitment to reform the public health system in England. This will involve:
- Giving local authorities new responsibilities for public health
 - Supporting local authorities with a new integrated public health service, Public Health England
 - Placing a stronger focus on achieving better public health outcomes through a new public health outcomes framework
 - Making public health a clear priority and providing the resources to ensure focus on public health interventions is maintained
 - Committing to reduce health inequalities across the public health system

Fair Society, Healthy Lives: The Marmot Review, 2010

- 2.4 The Marmot Review¹⁰ was commissioned by the Secretary of State for Health in 2008 as an independent review to propose the most effective evidence-based strategies for reducing health inequalities in England from 2010. The purpose of the report was to contribute to the Development of a post-2010 health inequalities strategy for England.
- 2.5 The report highlights the fact that there is a social gradient to health. The lower a persons’ social position, the worse his or her health. Health inequalities result from social inequalities and action is required across all social determinants of health.
- 2.6 The report finds that in order to reduce the steepness of the social gradient in health, actions must be universal, but with a scale and intensity that is proportionate to the level of disadvantage.
- 2.7 One of the key messages of the report is that action taken to reduce health inequalities can benefit society in many ways, including reducing losses from illness associated with health inequalities. These currently account for productivity losses, reduced tax revenue, higher welfare payments and increased treatment costs.

2.8 The report outlines six key policy objectives:

- Give every child the best start in life
- Enable all children, young people and adults to maximise their capabilities and have control over their lives
- Create fair employment and good work for all
- Ensure a healthy standard of living for all
- Create and develop healthy and sustainable places and communities
- Strengthen the role and impact of ill health prevention

Healthy Lives, Healthy People: Improving outcomes and supporting transparency, 2012

2.9 This document prepared by the Department of Health sets out a new ‘Public Health Outcomes Framework for England¹¹’. The framework focuses on two high level outcomes: increasing healthy life expectancy and reducing differences in life expectancy between communities. The vision of the framework is to improve and protect the nation’s health and wellbeing, and improve the health of the most deprived people fastest.

2.10 The framework develops a set of supporting public health indicators that help to understand how regions and districts compare under four domains:

- Improving the wider determinants of health
- Health improvement
- Health protection
- Healthcare, public health and preventing mortality

London Policy

London Health Inequalities Strategy, 2010

2.11 The Greater London Authority Act 2007 requires that the London Mayor sets out a strategy to reduce health inequalities in London and the role that key partners such as Local Authorities (LAs) need to play in achieving the strategy’s objectives. The London Health Inequalities Strategy¹² aims to improve the well-being of all Londoners and narrow the gap between those with the best and worst health.

2.12 The strategy has five key objectives for reducing health inequality. These objectives were prepared in accordance with the Marmot Review recommendations:

- Empowering individuals and communities – a commitment to promote effective parenting, motivate Londoners to adopt healthier behaviours, promote community approaches to public health and build public knowledge about health and well-being.
- Equitable access to high quality health and social care services – working with London’s health and social care services to ensure that resources are allocated to tackle health inequalities and not just health in general.

- Income inequality and health – improving the employment prospects of disadvantaged groups, helping people to develop skills to progress within work and making sure that Londoners on pensions and benefits have the best possible chance of receiving an appropriate ‘living income’ for London.
- Health, work and well-being – Work has the potential to greatly increase a person’s physical and mental health. The health inequalities strategy aims to reduce barriers to employment, improve conditions in the workplace, increase the recognition of unpaid work and create more volunteering opportunities.
- Healthy places – the strategy recognises the strong relationship between the quality of the physical environment and an individuals’ health. The strategy commits to ensuring that new developments in London are designed in ways that improve health and reduce health inequalities.

NHS London Strategic Plan, 2008

- 2.13 NHS London was established in 2006 and was formed from the five previous London Strategic Health Authorities; North West London, North Central London, North East London, South East London and South West London. The NHS London Strategic Plan¹³ sets out the organisations’ programme of work for the period 2008 to 2013.
- 2.14 One of the key objectives of the plan is to work in partnership with pan-London organisations to improve health and reduce health inequalities. In order to achieve this, NHS London will develop programmes of health improvement, reducing health inequalities, ensure high-quality, safe, effective health services and build public health capability and capacity.

The London Plan, 2011

- 2.15 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 to 25 years. The plan sets the strategic, London-wide policy context within which Boroughs should set their detailed local planning policies.
- 2.16 The plan recognises that London has persistent problems of poverty and disadvantage which are geographically concentrated in specific areas. It emphasises the importance of geographically targeted approaches to development and regeneration, focussing investment and action on places with the highest need.
- 2.17 Policy 3.2 *‘Improving health and addressing health inequalities’* states that the Mayor will take account of the potential impact of Development proposals on health and health inequalities within London. Boroughs should work with key partners to identify and address significant health issues facing their area and monitor policies and interventions for their impact on reducing health inequalities. Boroughs should also integrate planning, transport, housing, environmental and health policies to promote the health and wellbeing of communities.
- 2.18 Policy 3.16 *‘Protection and Enhancement of Social Infrastructure’* notes that London requires additional and enhanced social infrastructure provision to meet the needs of its growing

and diverse population. Development proposals which provide high quality social infrastructure will be supported in light of local and strategic needs assessments.

- 2.19 Policy 3.17 *'Health and Social Care Facilities'* states that 'The Mayor will support the provision of high quality health and social care appropriate for a growing and changing population, particularly in areas of under-provision or where there are particular needs. Development proposals which provide high quality health and social care facilities will be supported in areas of identified need, particularly in places easily accessible by public transport, cycling and walking.

Borough Policy

Mount Pleasant Supplementary Planning Document (SPD), 2012

- 2.20 The Mount Pleasant SPD¹⁴ adopted by Islington and Camden councils is intended as a guide for the Development of the Site. The SPD does not make specific reference to health provision or planning requirements related to health infrastructure. The Site is characterised by a lack of integration with the adjoining neighbourhood, lack of open space and poor quality public spaces around the Site.
- 2.21 The key objectives of the SPD include:
- Creating a new neighbourhood which integrates fully into the local area and supports a new mixed and balanced community.
 - Providing new housing, particularly affordable housing, much of which would be homes suitable for families.
 - Helping to promote a strong local economy that provides a range of opportunities for different types and sizes of businesses. The new neighbourhood will be mixed, providing new homes with amenity space, as well as employment, cultural, retail and recreation uses.
 - Opening up the Site with both new and improved streets that make better connections between Mount Pleasant and the surrounding neighbourhoods. The vision for the Site is that the new Development will improve the relationship with the surrounding streets, provide increased levels of activity and integrate the new neighbourhood with the surrounding areas.
 - Creating new high quality and inclusive public spaces for local people both on the Site and at its four corners. The SPD notes that the area generally lacks public open space. Any redevelopment of the Site must provide sufficient public open spaces for a variety of uses, including recreation and play.
 - Promoting high quality design for buildings and public spaces which sustain and enhance the historic significance of the Site and its surrounding area.

Islington Core Strategy, 2011

- 2.22 The Islington Core Strategy¹⁵ was adopted in February 2011. The Core Strategy forms part of the Islington Local Development Framework and sets out the spatial strategy and objectives for the Borough.
- 2.23 The Core Strategy contains a number of policies relating to social infrastructure:
- *Policy CS15: Open Space and Green Infrastructure* aims to improve quality and access of open space in the Borough and maximise opportunities for further provision in areas with little or no open space locally. The Clerkenwell Ward in which the Site is situated is designated as a priority area for increasing the quality and functionality of existing spaces.
 - *Policy CS16: Play Space* aims to improve the quality and function of existing play spaces. Part E of the policy states that play space will be maximised by requiring developers to provide new inclusive play space as part of new developments.
 - *Policy CS17: Sports and Recreation Provision* states that the existing and future need for sports and recreation facilities will be met improving the quality, accessibility and capacity of sports facilities.
 - *Policy CS18: Delivery and Infrastructure* states that the council will require contributions from new developments to ensure that the infrastructure needs associated with Development will be provided for, and to mitigate the impact of Development.
- 2.24 The Core Strategy makes reference to existing and future healthcare plans for the Borough. This will include a major shift of care out of hospitals into primary and community services. NHS Islington is actively encouraging GP practice mergers capable of delivering a wider range of services and longer opening hours. NHS Islington also has plans to introduce three polysystems across the Borough. Polysystems are designed to give local clinicians the ability to manage their patients across the whole population rather than just across an individual list base.

NHS Islington Commissioning Strategy Plan 2009 - 14

- 2.25 The NHS Islington Commissioning Strategy Plan¹⁶ sets out the strategic plans and commitments for NHS Islington as well as reporting on the current status of NHS services within the Borough.
- 2.26 The Commissioning Strategy Plan sets out specific goals for the period. These include:
- Improving the health of local people, especially targeting those with the worst health outcomes
 - Improving quality through patient experience
 - Ensuring people and services work together to design and deliver the best care pathways that are safe and clinically effective
 - Improving and expanding services delivered closer to home and commissioning acute and specialist hospitals to provide only those services that they do best

- 2.27 A further target of the plan is to open a polysystem hub in the south of Islington by the summer of 2012. It will provide a range of services including primary medical services, pharmacy, community, out patients, diagnostics, prevention and screening.
- 2.28 The plan lists a number of primary care capital projects to be delivered as part of the Transforming Primary Care Programme. In the south of the Borough, these include the refurbishment of the River Place Health Centre, refurbishment of the Bingfield Health Centre to create more capacity for community dentistry and conversion of Amwell St GP Practice to enable a podiatry satellite service.

Camden Core Strategy, 2010

- 2.29 The Camden Core Strategy¹⁷ was adopted in November 2010. It sets out the key elements of Camden Council's planning vision and strategy for the Borough and forms a central element of the Local Development Framework.
- 2.30 Policy CS10 refers to Camden's community facilities and services. The policy states that the council will require Development that increases the demand for community facilities and services to make appropriate contributions towards providing new facilities or improving existing facilities.
- 2.31 Policy CS16 outlines Camden's strategy for improving health and well-being in the Borough. This policy recognises that there is an important link between the environment in which we live and how healthy we are. The policy states that the council will support NHS Camden in its goal to reduce health inequalities by targeting measures to improve health in the areas with poorest health, including King's Cross, St Pancras & Somers Town, Gospel Oak and Kilburn;
- 2.32 Other policies relevant to addressing health inequalities in the Borough include:
- Policy CS6: improving housing standards and affordability
 - Policy CS8: providing job, training and educational opportunities
 - Policy CS10: improving Camden's leisure facilities which can encourage Camden's residents to choose healthier and more active lifestyles, help to improve mental well-being and encourage social interaction
 - Policy CS 11: encouraging walking and cycling
 - Policy CS15: Protecting and improving Camden's parks and play areas
 - Policy CS17: promoting community safety
- 2.33 Key infrastructure projects listed in the Core Strategy related to reducing health inequalities in the Borough include:
- Provision of approximately 582 early years places for 2 to 4 year olds to meet identified need
 - Provision of a new primary school in the King's Cross area by 2012/13
 - Provision of 2 additional secondary school classes for 11 to 16 year olds plus 100 new sixth form places in South Camden Community School

- 1 new GP clinic at the King's Cross Development and 2 new GP clinics with 3 GPs in the South Camden area
- Potentially up to 3 new dental surgeries in the South Camden area
- 89 acute beds, 18 intermediate beds and 18 intermediate day spaces in Camden hospitals
- A new 25m swimming pool and sports hall at the King's Cross Development funded by developer contributions
- 28 play spaces/ MUGAs in current areas of deficiency funded through developer contributions
- Provide additional open space throughout the Borough funded by developer contributions

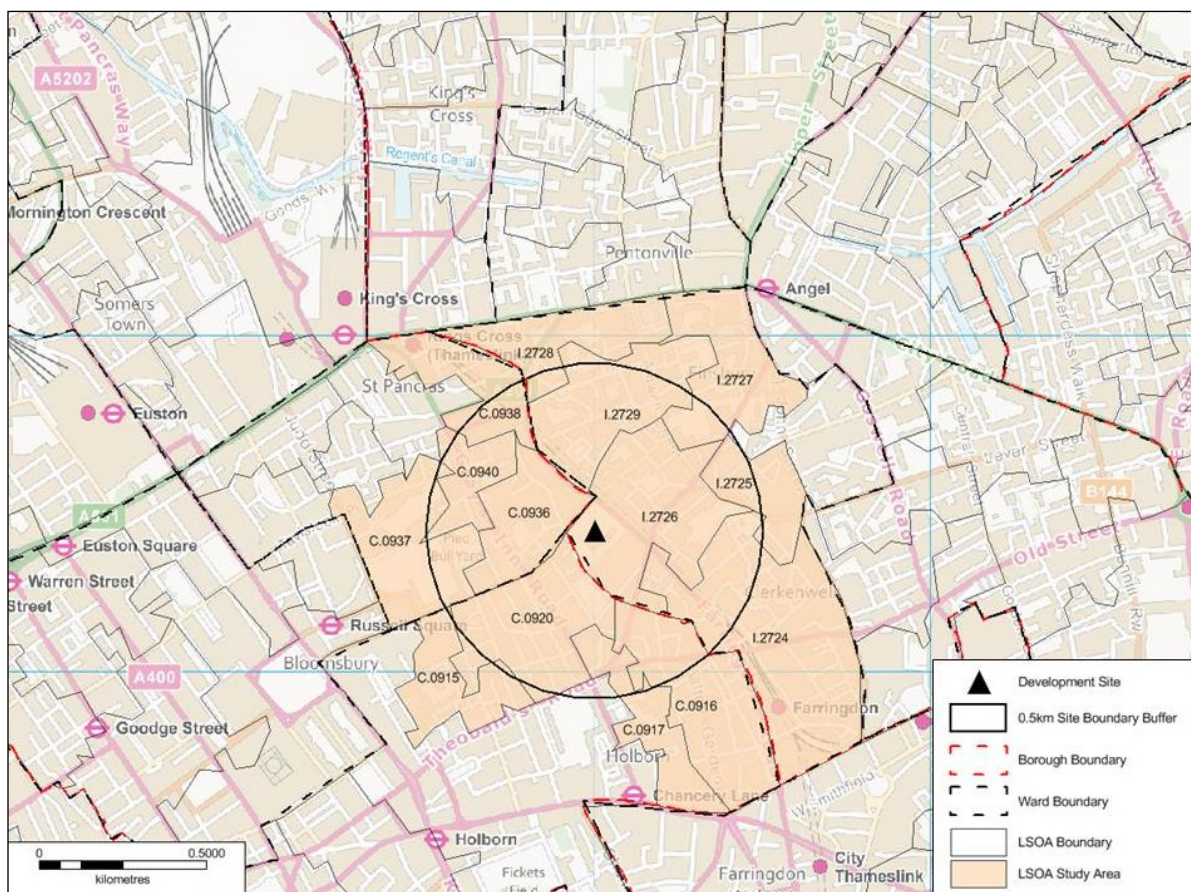
NHS Camden Commissioning Strategy Plan 2009 - 14

- 2.34 The NHS Camden Commissioning Strategy Plan¹⁸ sets out the strategic plans and objectives for NHS Camden for the period 2009 – 2014.
- 2.35 In 2009, under the 'strengthening commissioning' initiative, NHS Camden delegated to the North Central London Acute Commissioning Agency with responsibility for commissioning acute services on their behalf which allows the organisation to focus solely on primary and community services.
- 2.36 NHS Camden's key health goals are as follows:
- To enable the people of Camden to live longer healthier lives
 - Reduce the gap in life expectancy between the most and least deprived Wards
 - Provide high quality accessible care to all residents
 - Improve maternity and children's services
 - Build the 'recovery model' for mental health services
- 2.37 Similar to NHS Islington, NHS Camden intends to create four primary care polysystems in the North, West, East and South with a population of approximately 60,000 in each. The proposed hub of the south polysystem would be at Stephenson House located adjacent to UCL Hospital.

3 Baseline Demographic Profile

- 3.1 This section presents data on the demographic and health characteristics of the existing residents within the Study Area of the Site, see *Figure 3*.
- 3.2 The section is structured as follows:
- Population Profile
 - Cultural Diversity
 - Marital Trends
 - Population health profile
 - Deprivation
 - Housing Profile
 - Employment and Socio-Economic Grouping
 - Crime and Safety
- 3.3 Depending on availability and relevance, data relating to the Study Area will be examined at three spatial levels:
- Borough level for the two London Boroughs of Camden (LBC) and of Islington (LBI).
 - Ward level for Holborn & Covent Garden ward, King's Cross ward within LBC, and Clerkenwell within LBI.
 - Lower Super Output Areas ('LSOA') are areas with similar population size. These represent the second smallest geographical level of the Census data, and give one of the most detailed demographic characteristics of the Study Area.
- 3.4 *Figure 3* shows the LSOA, Ward and Borough boundaries within the Development and surrounding area.

Figure 3: Study Area - Boroughs, Wards and LSOAs



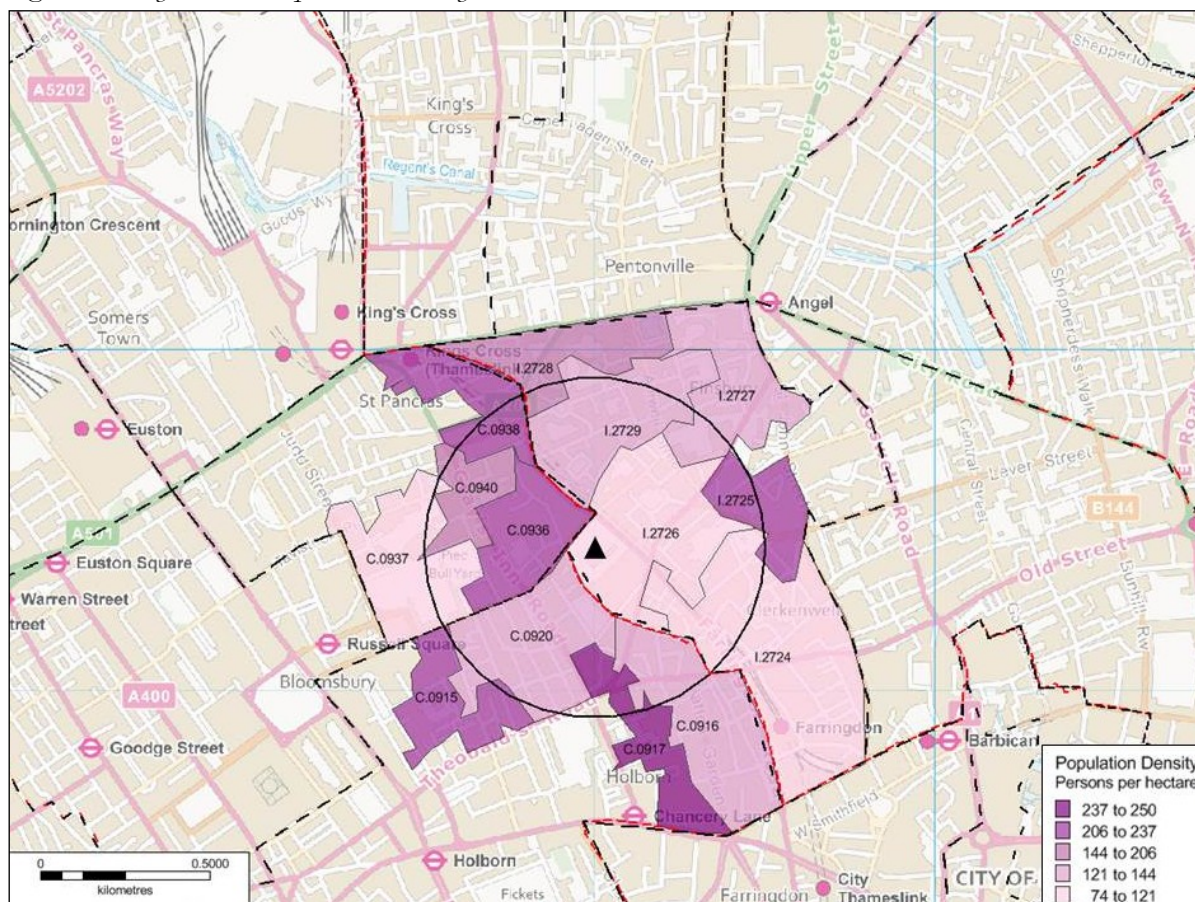
Source: Volterra 2013

Population Profile

Population Projections

- 3.5 According to the 2011 Census¹⁹, the population of Camden currently stands at 220,087 compared to the population of Islington at 206,285.
- 3.6 GLA Population Projections²⁰ forecast a high rate of population growth to 2031 for LBI at 26%, compared to the Inner London average of 20%. The forecast for population growth is relatively lower in LBC at 14% for the same time period.
- 3.7 The population densities according to the LSOAs within the Study Area are shown in **Figure 4**. Population densities vary greatly between the specified LSOAs ranging from 249.7 persons per hectare in C.0917 to 74.7 in I.2724. The two LSOAs in which the Development is located have relatively low population densities compared to the Study Area average.
- 3.8 Holborn & Covent Garden has the lowest population density out of the three Wards within the Study Area. This is primarily due to the high density of commercial land use within the Ward.

Figure 4: Study Area – Population Density

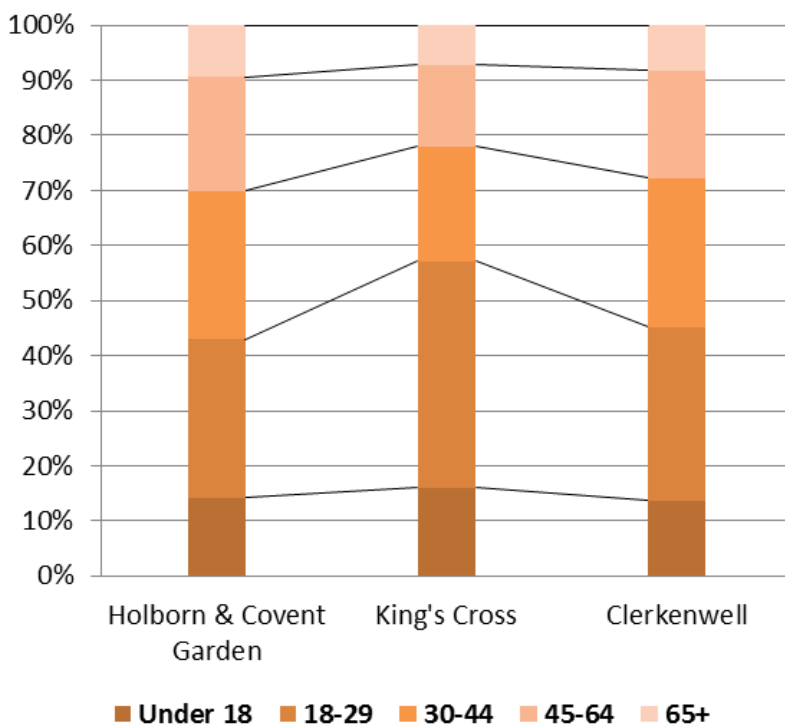


Source: Volterra 2013 (based on 2011 Census data)

Age Profile

- 3.9 The two age groups most associated with vulnerability are the under 18 and over 65 age groups. It is important to establish the size and distribution of these two age groups within the Study Area, as this will indicate the nature of potential population vulnerability within the Study Area.
- 3.10 The age group 18-29 is the most populous within the Study Area at LSOA level, and even more so at Ward level.
- 3.11 **Figure 5** shows the population demographic broken down according to the three Wards. Age group sizes are mostly consistent between the three Wards, although King's Cross has a significantly higher proportion of 18-29 year olds.

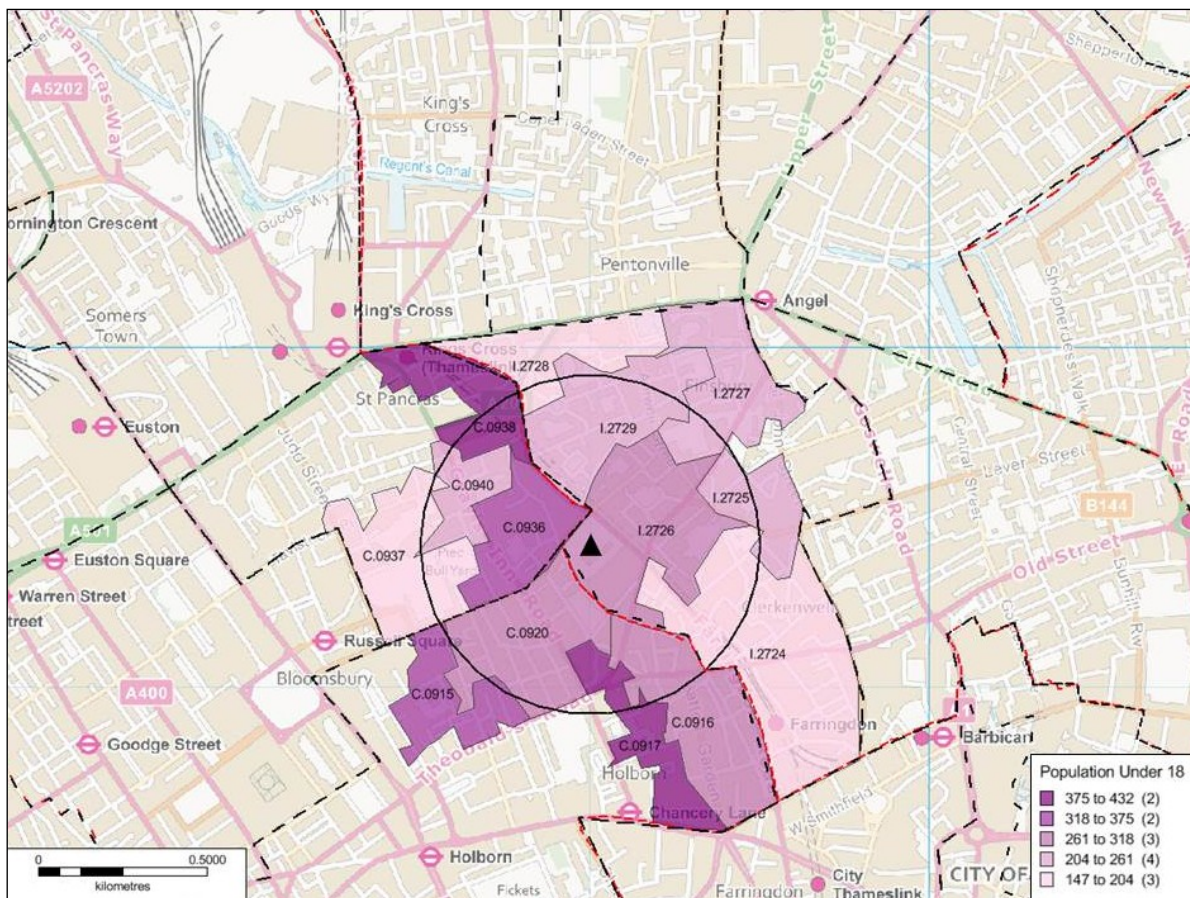
Figure 5: Ward Level Age Structure by Broad Age Band



Source: 2011 Census 'Age Structure'

3.12 **Figure 6** indicates the location of under 18 year olds according to LSOAs within the Study Area. The LSOA I.2724 has the lowest count of under 18 year olds within the Study Area at a total of 147. The two LSOAs in which the Development is located have higher than the Study Area average for count of under 18 year olds. The age group under 18 year olds is the second smallest size of all age groups for the LSOAs within the Study Area. This is also the case for the three Wards of Holborn & Covent Garden, King's Cross and Clerkenwell.

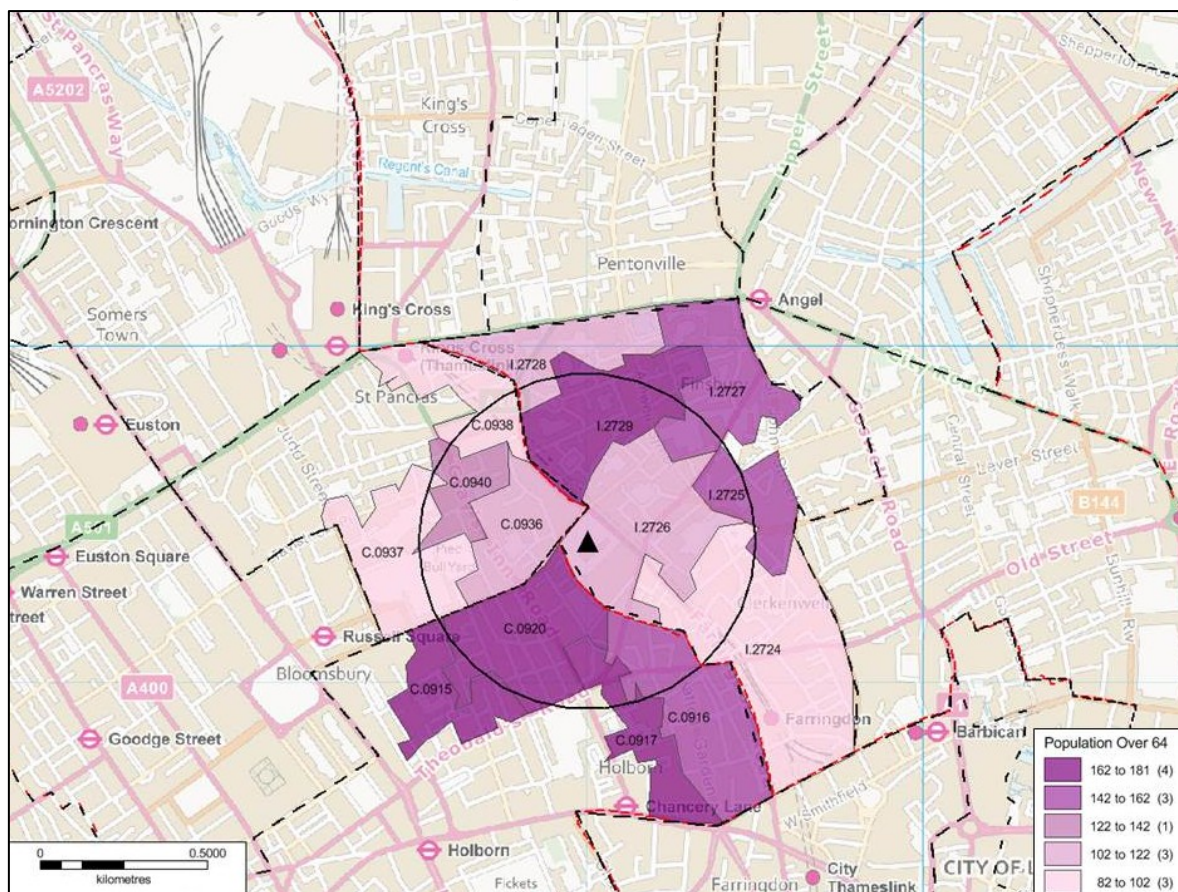
Figure 6: Study Area – Under 18 Year Olds Population Density



Source: Volterra 2013 (based on 2011 Census data)

3.13 According to data from Census 2011, the spread of over 64 year olds is relatively even within the Study Area and the Development Site. The average size of the over 64 age group is comparable at LSOA level and Ward level. The smallest count of over 64 year olds can be found in the LSOAs to the north west of the Development, within the Ward of King’s Cross.

Figure 7: Study Area – Over 64 Year Olds Population Density

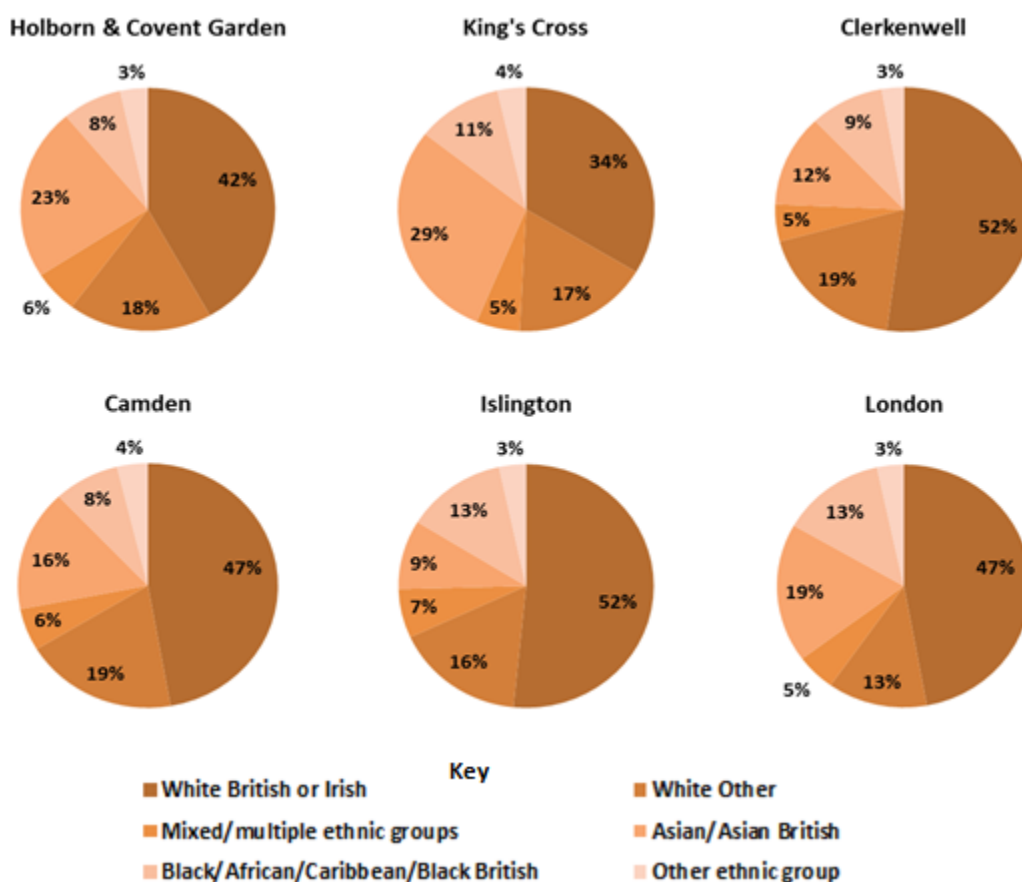


Source: Volterra 2013 (based on 2011 Census data)

Ethnic Diversity

- 3.14 The Parliamentary Office for Science and Technology states 'black and minority ethnic (BME) groups generally have worse health than the overall population'²¹, although evidence suggests that general health levels can vary greatly between different BME groups. In particular, different causes of death are associated with different BME groups. Males from a South Asian background are 50% more likely to have a heart attack than the general male population²¹. Males from a Caribbean background are 50% more likely to die from a stroke than the general population²¹.
- 3.15 The broad ethnic composition of the Study Area is shown in **Figure 8**. According to 2011 Census data, residents from a 'White' background constitute the majority of residents within the Study Area. People of 'White British or Irish' and 'White Other' ethnicity represent over 50% of the total population of the Holborn & Covent Garden, King's Cross and Clerkenwell wards. Residents from a 'White' background represent the largest ethnic group in Camden and Islington.
- 3.16 There is a high concentration of residents from the ethnic group 'Asian/Asian British' within the King's Cross ward, at 29% of the total population compared to the London average of 19%.

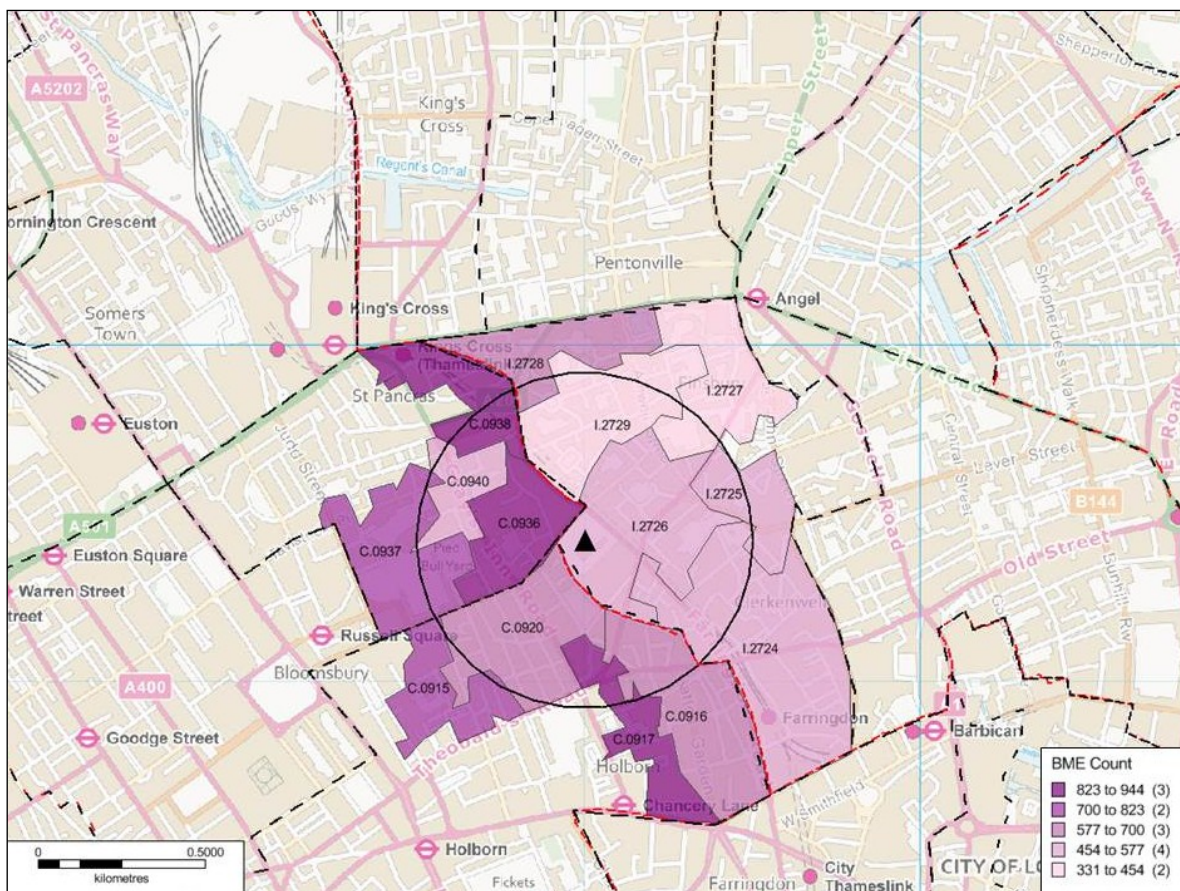
Figure 8: Borough and Ward Level Broad Ethnic Composition, as % of Total Population



Source: 2011 Census 'Ethnic Group'

- 3.17 The proportion of residents of 'Mixed/Multiple Ethnic Groups', 'Black/African/Caribbean/Black British' and 'Other Ethnic Groups' are consistent in relative size throughout the Wards and Boroughs within the Study Area.
- 3.18 Within the Study Area, the number of residents from Black and Minority Ethnic (BME) backgrounds varies significantly at the LSOA level.
- 3.19 **Figure 9** displays the distribution of BME groups within the Study Area. The associated LSOAs of Camden have on average a higher BME count compared to the associated LSOAs within the Borough of Islington. C.0936 in the Ward of King's Cross has the highest BME count at 939.

Figure 9: Study Area – BME Groups Population Count



Source: Volterra 2013 (based on 2011 Census data)

Marital Status

- 3.20 Previous research has established the relationship between marriage and health within the population. For example, a paper by Prior and Hayes, 2003²² found that there is a positive association between marital status and health.
- 3.21 Throughout the Study Area, the proportion of residents married or in a civil partnership is significantly lower than that for the London average of 40%. The average proportion of residents married or in a civil partnership for the three Study Area Wards stands at 23%; comparable to the average across the Study Areas LSOAs of 25%.
- 3.22 The divorce rate throughout the Study Area is however comparable to the London average of 7.4%. Only LSOA C.0917 has a significantly higher divorce rate at 13%. The similarity in the local divorce rate with the London average, combined with a significantly lower marriage/civil partnership rate throughout the Study Area suggests that there is a high proportion of single residents who have never been married or in a civil partnership. It can be argued that this is due to the large 18 to 29 age group living in the Study Area who tend to have lower marriage rates than older age groups.

Population Health Profile

3.23 This subsection outlines the health characteristics of the two London Boroughs of Camden and Islington. Detailed annual health profiles²³ are produced for the Primary Care Trust (PCT) of each Borough and published by the Association of Public Health Observatories (APHO). In each profile, the key health characteristics of the relevant Borough are assessed in order to guide local authorities and healthcare commissioners in reducing health inequalities through effective policies.

Health Priorities

3.24 The APHO Health Profiles outline the major health priority areas for the two Boroughs. This gives a general overview of most important relevant health factors. The areas that require significant improvement in both Boroughs are:

- Health inequality within each Borough
- Childhood obesity rate, more specifically for the year 6 school age group
- Rate of sexually transmitted infections (STIs)
- Hospital stays due to excessive alcohol consumption
- Proportion of children living in poverty
- Violent crime rate
- Mortality rate due to road traffic accidents

Key Direct and Indirect Health Indicators

3.25 The severity of each major health priority area can be analysed according to their relevant indicators.

3.26 Life expectancy for both men and women vary significantly between the Boroughs. Camden performs well with male life expectancy in line with the national average of 78.6 years, and female life expectancy performs significantly better than the national average of 82.6 years. This is in contrast to Islington, where both male and female average life expectancies perform significantly worse than the national average.

3.27 Camden as a Borough performs significantly better on average than Islington across a number of key direct and indirect health indicators. There are however a number of areas where Camden performs significantly worse than the national average:

- The proportion of children in poverty in Camden is 37.1%. This is above the national average of 21.9%. The threshold for children in poverty is where children live in families receiving means-tested benefits & low income²⁴.
- The level of violent crime per 1,000 population stands at 25.4 for Camden, significantly worse than the national average rate of 14.8 per 1,000 population.
- Camden has an obesity rate of 22.5% for children in school year 6, compared to the national average of 19%. Camden contrastingly performs better than the national average for the obesity rate for adults.

- The rate of Sexually Transmitted Infections (STIs) is significantly higher in Camden (1,262 per 100,000 population) than the national average (775 per 100,000 population). Other poor health indicators where Camden performs significantly worse than the national average are in drugs misuse, hospital stays due to excessive alcohol consumption and new cases of tuberculosis.
- Road injury and death incidences per 100,000 population are significantly higher in Camden, at 54.2, than the national average of 44.3.

3.28 The Borough of Islington performs significantly worse than the national average in a number of direct and indirect health indicators. This is exemplified by the level of general deprivation in Islington at 52.3% compared to the national average of 19.8%¹. The specific areas where Islington performs significantly worse than the national average are as follows:

- The proportion of children in poverty in Islington is 43.4%, above the national average of 21.9% and that of Camden Borough (37.1%).
- The level of violent crime per 1,000 population stands at 30.8 for Islington, significantly worse than the national average rate of 14.8 per 1,000 population, and one of the worst performing Local Authority areas in England.
- The rate of early deaths due to heart disease or stroke per 100,000 population is significantly higher in Islington, at 105.2, than the national average at 67.3. Other causes of death which are significantly high in Islington are smoking related, and cancer related deaths.
- General poor health areas where Islington indicators perform significantly worse than the national average are in the rate of STIs, drugs misuse, hospital stays due to excessive alcohol consumption and new cases of tuberculosis.

Vulnerable Groups

3.29 According to evidence in the Health Profiles of the respective Boroughs of Camden and Islington, the following population groups can be identified as vulnerable or in need of priority in the area, and consequently the Study Area:

- Children – Both Camden and Islington have high levels of child poverty. Islington has a high level of general deprivation which is linked to its level of children in poverty. Both Boroughs also have high levels of childhood obesity, more specifically in age school year six.
- Sexual health – Both Camden and Islington are home to a large 18-29 age group, higher than the London average. There is also a significantly high rate of diagnosed STIs in both areas, which makes this age group particularly vulnerable as it is the age group most associated with sexual health issues.

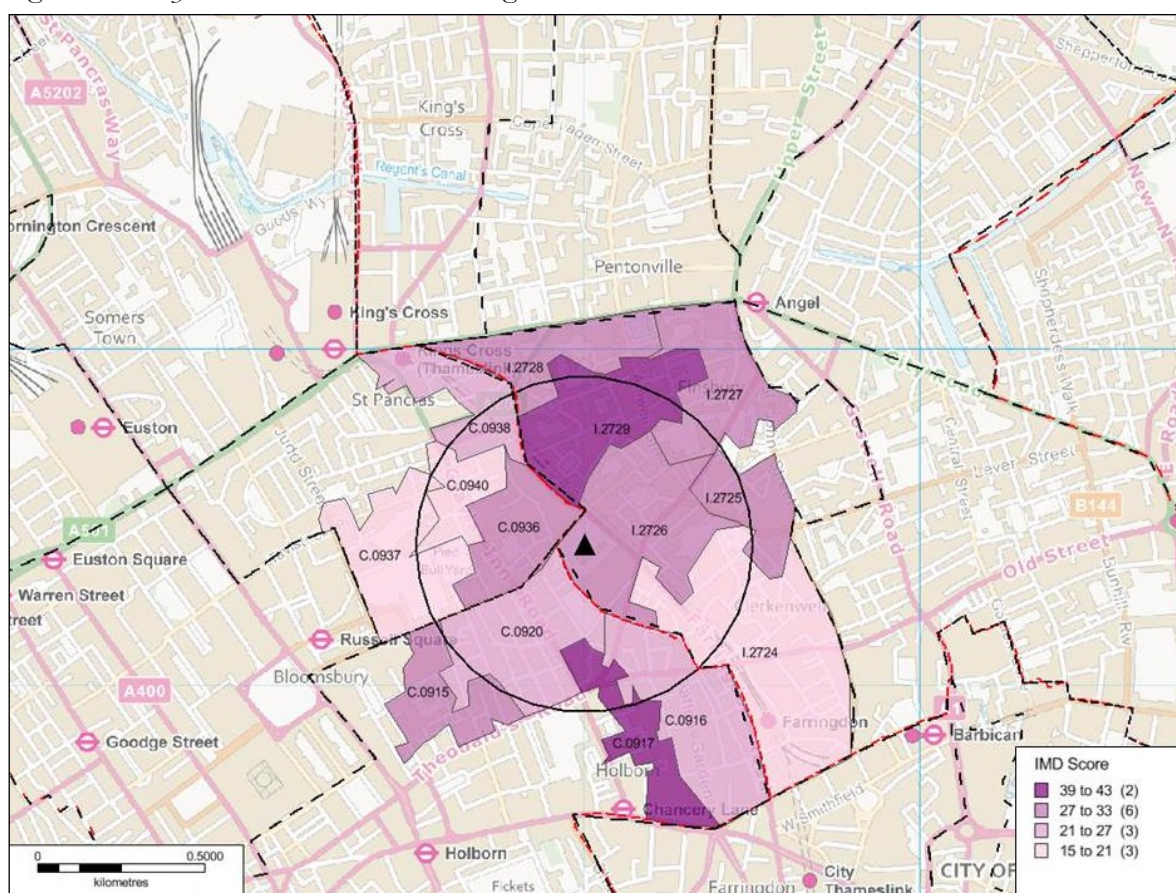
¹ Percentage of people in this area living in 20% most deprived areas in England, 2010

Deprivation

Deprivation

- 3.30 The English Indices of Multiple Deprivation²⁵ (IMD) provide a relative measure of deprivation at various area levels across England. The indices provide scores according to several indicators: income, employment, health, education, crime, barriers to services, the living environment. Therefore, both relative deprivation of the population and the wider determinants of health are scored.
- 3.31 **Figure 10** shows IMD scores according to the LSOAs within the Study Area. The highest score represents the most deprived.
- 3.32 According to the English IMD 2010/25 there are high levels of deprivation in both the London Boroughs within the Study Area. LBI's average IMD rank is in the top 2% of the most deprived Local Authorities in England. LBC performs better in terms of deprivation but still has an IMD rank within the top 23% of most deprived Local Authorities.
- 3.33 There is a high level of inequality at the LSOA level within the Study Area. **Figure 10** shows IMD according to LSOA within the Study Area. The rank of average IMD score varies by LSOA from I.2729 in the top 2% of most deprived LSOAs in England, to I.2724 in the top 56%. This high level of variation between the LSOAs indicates inequality between the three LSOAs in which the Development is located.

Figure 10: Study Area – IMD 2010 Rankings

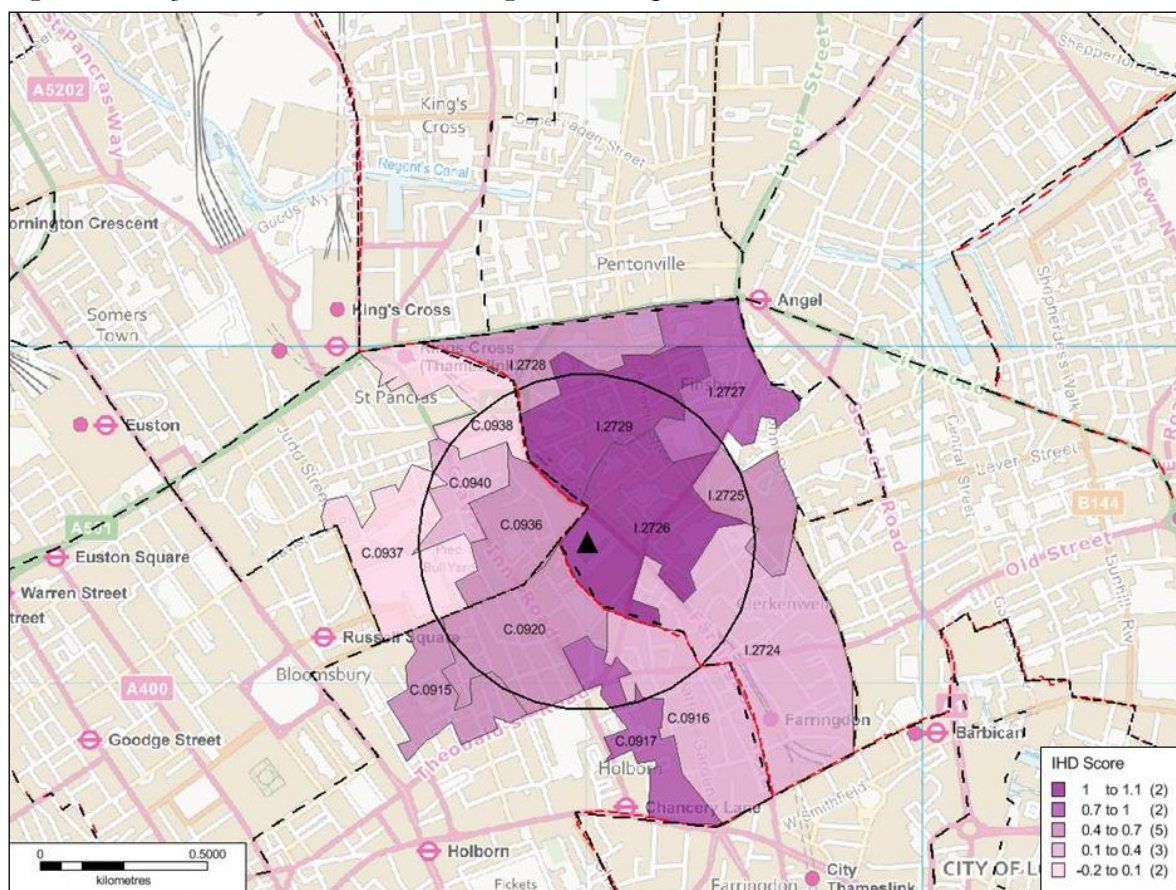


Source: Volterra 2013 (based on DCLG 2010 English Indices of Deprivation: Overall data)

Health Deprivation

- 3.34 The English Indices of Deprivation also produce health deprivation and disability indicators. **Figure 11** maps the English Indices of Deprivation 2010²⁶ health deprivation and disability score for each LSOA within the Study Area. The area with the highest score representing the most deprived; the size band of 1.00 to 1.19 in **Figure 11** represents the most deprived LSOAs in terms of health.
- 3.35 At the LSOA level, all areas except one within the Study Area perform worse than the London average score of -0.10. There is also a high level of health deprivation inequality with the least deprived LSOA of C.0937 scoring -0.19 compared to the most deprived LSOA of I.2729 scoring 1.04. The average score for the eight LSOAs within Camden Borough at 0.31 is notably lower than the average for the six LSOAs within Islington Borough at 0.71.

Figure 11: Study Area – IMD 2010 Rankings, Health Deprivation



Source: Volterra 2013 (based on DCLG 2010 English Indices of Deprivation: Health and Disability data)

Housing Profile

Housing Tenure

- 3.36 Housing tenure is often a good indicator for the wealth of the inhabitants, where owner-occupied housing is often associated with higher levels of personal wealth compared to

social rented type housing. Furthermore, existing evidence suggests there is a strong positive correlation between personal wealth and levels of general health.

- 3.37 Housing tenure distribution varies greatly throughout the Study Area. **Table 1** shows the housing tenure composition in the four different spatial levels relevant to the Study Area. The most common type of housing tenure as a percentage of total housing is socially rented, where both the LSOA average and the Ward average are significantly higher than the London average for this tenure type. Private rented housing as a percentage of total housing is also more prevalent within the Study Area than the average at the London level.
- 3.38 Owner occupied housing as a percentage of total housing is lower at the LSOA level and Ward level than the average for London. It can be argued that this is due to a large amount of young single professionals choosing to live within Inner London who are more likely to occupy rented accommodation, as opposed to people with families choosing to live away from the centre of the capital who are more likely to be owner-occupiers.

Table 1: Borough, Ward and LSOA level Housing Tenure

	Owner-occupied	Shared ownership (part owned and part rented)	Social rented	Private rented
LSOA Average	24%	0%	46%	30%
Ward Average	24%	1%	44%	31%
Borough Average	31%	1%	38%	30%
London	49%	1%	24%	25%

Source: 2011 Census 'Tenure'

Decent Home Standard

- 3.39 Housing quality is closely associated with health; for example a warm, dry and secure home is linked with better health. The Building Research Establishment estimates that poor housing costs the NHS £600million per year²⁷. According to the Decent Home Definition and Guidance (2006)²⁸, a home is decent if it meets the following criteria:
- Is in accordance with the statutory minimum fitness standard for housing
 - Major housing components are in decent repair
 - Facilities and services are in decent repair
 - Dwelling provides a decent degree of thermal comfort
- 3.40 There is no available data on levels of Decent Homes at the LSOA and Ward level.
- 3.41 In Camden, the proportion of Council homes that fail the Decent Homes Standard is over twice the average for England. In 2011 it was estimated that 28% of council homes failed to meet the standard. Private rented tenure type performed better where 23% of the housing stock type failed to meet the Decent Home standard.
- 3.42 In Islington Borough, it was estimated in 2010 that only 5% of all social housing failed to meet the decent homes standard. Privately rented tenure type performed similarly to

Camden Borough, with 26.4% of this tenure type failing the Decent Home standard in 2008.

Employment and Socio-Economic Grouping

Economic Activity

- 3.43 A review of existing evidence by Jin et al. (1995)²⁹ on the impact of economic activity on health concluded that there exists a strong positive association between unemployment and many adverse health outcomes.
- 3.44 Economic activity rates are shown in **Table 2** at the Ward and Borough level relevant to the Study Area. According to the 2011 Census, all three Wards in the Study Area have an economic activity rate lower than the London average. Given the large full-time student population living within these wards, this is not entirely surprising. Of the three wards, King's Cross has the lowest percentage of total population who are economically active at 52% which tallies with a large student population.
- 3.45 At the Borough level, Islington has the higher rate of total working population who are economically active at 71%, which is comparable to the London average of 72%. Camden has a slightly lower economically active rate of 68%, although its total working population is higher than that of Islington.

Table 2: Borough and Ward level Economic Activity Rate as % of Total Working Age Population

Area	Economically Active (%)	Economically Inactive (%)	Total Working Age Population
Holborn & Covent Garden Ward	66	34	10,805
King's Cross Ward	52	48	9,730
Clerkenwell Ward	67	33	9,596
Camden	68	32	173,833
Islington	71	29	165,149
London	72	28	6,117,482

Source: 2011 Census 'Economic Activity'

- 3.46 The economic activity rate of the working population varies significantly across the LSOAs of the Study Area. The LSOA with the lowest proportion of population who are economically active is C.0937 in Camden at 45%, which is significantly lower than the average at Ward and Borough level. LSOA I.2726 in Islington, one of two LSOAs in which the Development is situated, has one of the highest economic activity rates at 73%.

Claimant Count

- 3.47 Claimant count and rate at the Ward and Borough level are shown in **Table 3**. According to data from the ONS, the claimant rate is consistent throughout the three Wards, although an average claimant rate of 3.2% is lower than the London average of 3.7%.
- 3.48 At the Borough level, Islington has a claimant rate at 4.2% of the total working population. Camden has a notably low claimant rate of 2.9%, which despite being lower than the London average is more comparable with the Ward average.

Table 3: Borough and Ward level Claimant Count

Area	Claimant Count	Claimant Rate
Holborn & Covent Garden Ward	346	3.2%
King's Cross Ward	301	3.1%
Clerkenwell Ward	329	3.4%
Camden	5,071	2.9%
Islington	6,884	4.2%
London	225,630	3.7%

Source: ONS 2013

Education

- 3.49 There is a positive link between educational attainment and health with the longer people spend in education and the higher their educational attainment, the better their overall health and healthy lifestyle behaviour.
- 3.50 The level of educational attainment in the Study Area and three Wards near the Site is lower than the Borough averages but higher than the average for London. However, the percentage of residents with no qualification is lower than the Borough averages.
- 3.51 The National Qualifications Framework (NQF) provides a standardised system of classifying qualifications which allows the level of achievement to be compared. Level 1 indicates GCSE at grades D-G or Foundation diploma; Level 2 indicates GCSE grades A-C; Level 3 indicates A and AS level qualification and Level 4 and above indicates achievement from Diploma to PhD level. The level of educational attainment for residents at each spatial level is described in **Table 4**.

Table 4: Educational Attainment by spatial level

Area	Level 4 and above	Level 3	Level 2	Level 1	Other qualifications	No qualifications
Study Area	46.5%	14.4%	7.7%	7.4%	10.0%	13.9%
Holborn & Covent Garden Ward	46.2%	14.2%	7.9%	7.3%	11.5%	12.9%
King's Cross Ward	39.7%	22.8%	8.2%	6.7%	10.4%	12.1%
Clerkenwell Ward	47.9%	12.8%	7.7%	7.1%	9.4%	15.1%
Camden	50.5%	12.1%	7.8%	6.8%	10.1%	12.7%
Islington	48.1%	9.8%	8.4%	8.0%	8.8%	17.0%
London	37.7%	10.5%	11.8%	10.7%	11.6%	17.6%

Source: National Census 2011

- 3.52 A high percentage of residents in the local area and the three Wards especially King's Cross have level 3 educational attainment. This is indicative of the large numbers of undergraduate university students living within these Wards. According to National Census 2011, 24% of the local area population was made up of full-time students. In King's Cross Ward, the proportion is 39%.

Crime and Safety

- 3.53 Crime and safety are associated with the general quality of life of a population, where both the physical and psychological health can be affected. Fear of crime can lead to poorer mental health, reduced physical functioning, and lower quality of life³⁰. Ensuring low levels of crime and fear of crime is an important aspect in the design of new developments, including the Secured by Design³¹ police scheme.
- 3.54 The Metropolitan Police Crime Figures, as offences per 1,000 population, are shown in **Table 5** at the Ward and Borough level relevant to the Study Area.
- 3.55 The London Boroughs of Camden and Islington have similar crime rates to the Metropolitan area average. Theft and Handling offences per 1,000 population is significantly higher in both Camden and Islington, at 6.3 and 5.3 respectively, than the London average at 3.2. It can be argued that Camden has the highest theft and handling rate due to the high density of retail land use, more specifically high street shops, within areas of the Borough. The rate of violent offences is also higher for the two Boroughs compared to the London average. The high violence crime rate is also referred to in the Health Profile section of this report.

Table 5: Borough and Ward level Crime Rates by Offence Type, per 1,000 Population

Offence	Holborn & Covent Garden	King's Cross	Clerkenwell	Camden	Islington	Metropolitan Total
Burglary	3.4	0.8	1.7	1.3	0.9	1.0
Criminal damage	1.5	1.0	0.9	0.7	0.7	0.6
Drugs offences	2.2	0.8	0.8	0.9	0.8	0.5
Fraud or Forgery	1.0	0.8	0.3	0.6	0.4	0.4
Robbery	0.9	0.6	0.2	0.3	0.4	0.3
Sexual offences	0.1	0.0	0.1	0.1	0.1	0.1
Theft and Handling	20.3	5.3	7.7	6.3	5.3	3.2
Violence	4.7	2.4	1.2	2.0	2.0	1.4
Other	0.2	0.0	0.1	0.1	0.1	0.1

Source: Metropolitan Police Crime Figures 2012-13, 2011 Census

- 3.56 At the Ward level, Metropolitan Police Crime Figures show the Islington ward of Clerkenwell has similar crime rates to the Metropolitan area average for most offences. The theft and handling crime rate per 1,000 population is the only offence type to be notably higher, at 6.3, than the London average.
- 3.57 The Camden Ward of Holborn & Covent Garden performs poorly with a high crime rate. Holborn & Covent Garden has one of the highest rates of theft and handling crime offences, at 20.3, out of all London Wards. This is most likely due to the high density of retail land use and more specifically high street shops, within the ward. King's Cross Ward performs better, with most offences comparable to the London Average. However, both

Holborn & Covent Garden and King's Cross wards have high rates of violent crime which are above the London average.

4 Health Facilities and Related Infrastructure

Introduction

- 4.1 In this section, we describe the health facilities meeting demand for healthcare facilities in the vicinity of the Site. We include where relevant the future investment plans of the NHS and other providers in order to outline the future baseline service provision for the area. This will allow consideration of the potential effects of the proposed Development.
- 4.2 This section also provides an overview of other social infrastructure which is indirectly relevant to health and well-being such as education facilities, community facilities, open space and play space.

Primary Health Care Facilities

- 4.3 Islington PCT and Camden PCT are responsible for commissioning health care services for the PCT areas. In 2009, Camden delegated secondary acute care service commissioning to NHS North Central London's acute commissioning services.
- 4.4 According to the NHS North Central London Primary Care Strategy³², Camden has a total of 39 GP practices spending £35m (or £898,000 per practice) during the financial year 2011/12. Islington has 35 practices spending £28m (or £753,000 per practice) during the same period. This equates to £137 per patient measured by unified weighted patient population (UWP) in Camden and £118 per UWP in Islington.
- 4.5 As of March 2012, Camden PCT had 160 dentists under contract³³ and spent a total of £10m on dentist funding during the period 2011/12³². Islington PCT for the same period had 133 contracted dentists spending £9m on dentist funding.
- 4.6 According to the NHS Information Centre³⁴ there are 40 NHS registered GP practices in Camden with a total of 186 GPs. In Islington, there are 38 registered practices with a total of 152 GPs. There are a total of 234,641 registered patients in Islington and 254,697 registered patients in Camden. The number of registered patients in each Borough diverges from the population for the Boroughs. Camden has more registered patients than its population implying a significant number of patients living in other Boroughs are registered in Camden. The opposite is true from Islington where there are fewer patients than residents.
- 4.7 For Camden, the average list size is 1,628 patients per GP, lower than the London average of 1,851 and similar to the England average of 1,667 patients per GP. Islington has a higher average GP list size of 1,882. As shown in **Table 6**, there is a wide divergence of average list sizes for practices in the Study Area.
- 4.8 Camden and Islington PCTs both have plans to develop polysystems in their areas. Each polysystem will serve a population of approximately 60,000. The polysystems will deliver commissioning and operating efficiencies by managing patients across the whole population rather than just across an individual list base. Polysystems provide appropriate urgent care services in the community which reduces the use of A&E and improves the management of long term conditions.

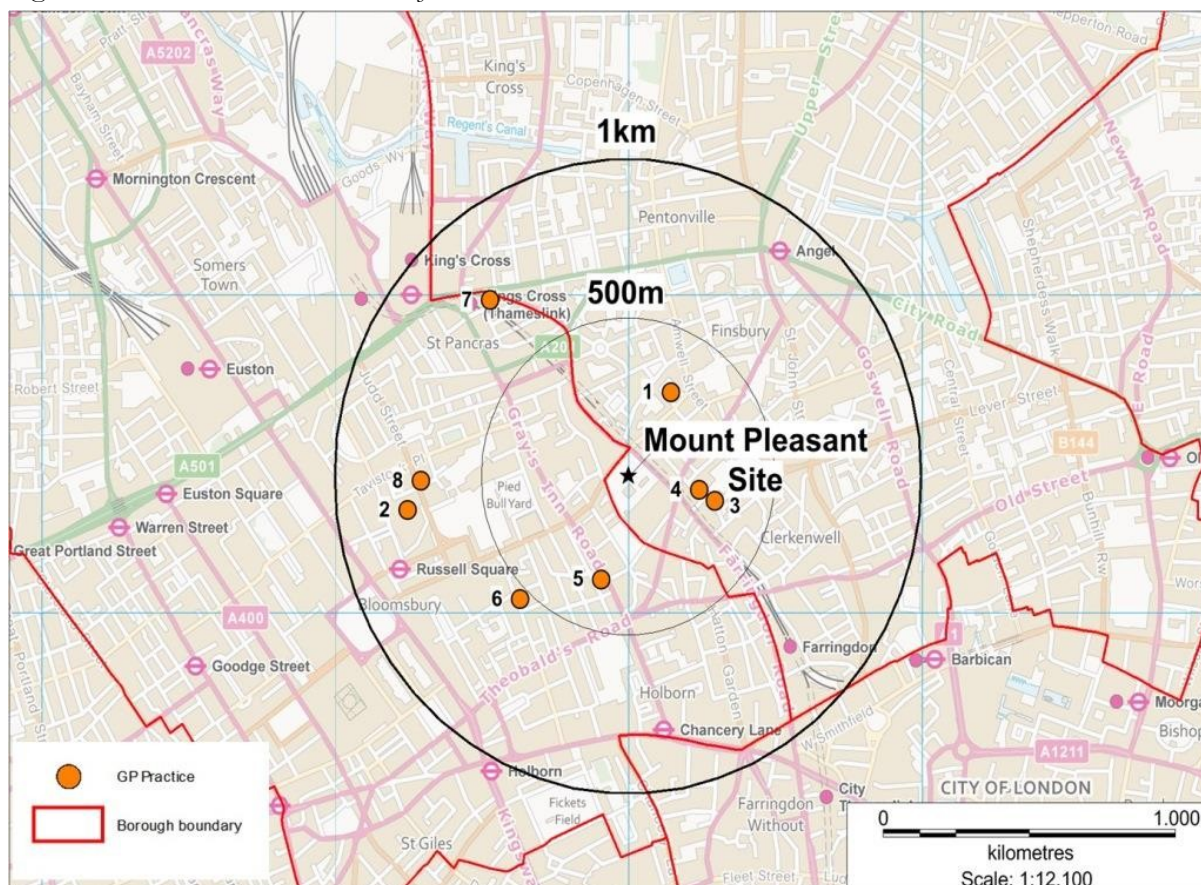
- 4.9 Details of the South Camden polysystem have been agreed with the hub to be located at Stephenson House on Hampstead Road near Warren Street tube station and UCL hospital. Bloomsbury, Brunswick, Grays Inn Road and Holborn Practices will all be part of the South Camden polysystem. Details of the South Islington polysystem have not yet been finalised but are expected to include many of the practices in the vicinity of the Site. Amwell Street Surgery located 300m from the Site has recently had investment from Islington PCT to convert two rooms in order to accommodate a podiatry satellite service following the closure of the Finsbury Health Centre.
- 4.10 There are 8 GP practices located within 1km of the Site. Further information relating to these practices is listed in **Table 6**. The GP surgeries between them have an average list size of 1,058 patients per GP, far lower than the average level for either Borough. There is a wide variation between the average list sizes of each practice, with some practices heavily undersubscribed and others oversubscribed.

Table 6: GP Surgeries within 1km of the Development Site

No. in	GP Practice Name	Approx. distance from Site	No. of GPs	Patients	Avg. list size
1	Amwell Group Practice	300m	8	6,483	810
2	Brunswick Medical Centre	750m	2	4,347	2,174
3	Clerkenwell Medical Practice	300m	8	7,408	926
4	Dr Segarajasinghe	250m	2	2,656	1,328
5	Grays Inn Road Medical Centre	300m	5	3,761	752
6	Holborn Medical Centre	500m	6	9,194	1,532
7	Kings Cross Road Practice	700m	2	1,980	990
8	The Bloomsbury Surgery	700m	5	4,376	875

Source: NHS Health Information Centre, NHS Choices

Figure 12: GP Practices within 1km of the Site



Source: NHS Health Information Centre, NHS Choices

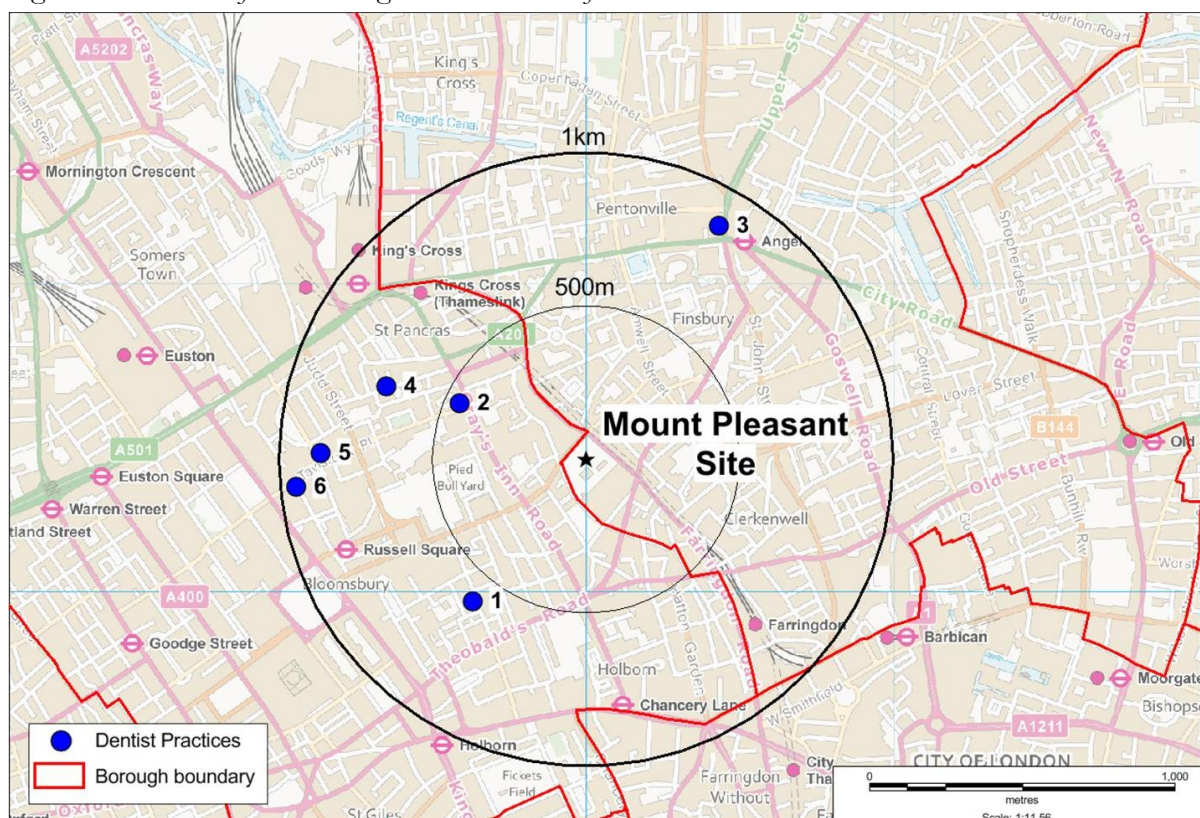
- 4.11 According to NHS Dental Statistics for England 2011/12³³, Camden PCT has 160 contracted dentists equivalent to one dentist per 1,471 people living in the Borough. Camden has the 11th lowest average list size in London and has a far lower average list size than the London or England averages (1,923 and 2,279 respectively).
- 4.12 Similarly, Islington PCT has 133 contracted dentists equivalent to 1,459 patients per dentist. Islington has the 9th lowest average list size in London.
- 4.13 There are 6 dental surgeries located within a typical walking distance (1km) from the Site, 5 of which are accepting new patients. There are no published data on the list sizes of the local surgeries. Many people use dental surgeries near their place of work implying that demand for these services would come from a mix of local residents and people working at employment sites in the local area. Table 7 gives further details on the local dental surgeries.

Table 7: Dental surgeries within 1km of the Site

No. in Figure 13	Name	Address	Services available	Accept new patients	dentists
1	Levenstein Dental Surgery	41 Lambs Conduit Street, WC1N 3NG	General dental, hygienist	No	2
2	Gandhi & Chan Dental Surgery	231 Gray's Inn Road, WC1X 8RH	General dental	Yes	2
3	London City Smiles	19/21 Islington High Street, N1 9LQ	General dental, hygienist, cosmetic	Yes	5
4	Raval Dental Surgery	86 Cromer Street, WC1H 8DG	General dental, hygienist	Yes	1
5	Travers Dental Surgery	96 Marchmont Street, WC1N 1AG	General dental, hygienist	Yes	1
6	Tavistock Dental Practice	16 Tavistock Place, Bloomsbury, WC1H 9RU	General dental, hygienist	Yes	4

Source: NHS Dental Statistics for England 2011/12, NHS Choices

Figure 13: Location of Dental Surgeries within 1km of the Site



Source: NHS Dental Statistics for England 2011/12, NHS Choices

Secondary Health Care Facilities

4.14 Secondary health care relates to care provided by healthcare professionals who do not have first contact with patients. This includes hospital specialists such as cardiologists and

psychiatrists as well as acute care in Accident and Emergency departments and maternity services.

- 4.15 The local area is well served by general and specialist healthcare services. Islington has two hospitals located within the Borough; Whittington hospital and Moorfields Eye Hospital. Camden has three general/acute hospitals and seven specialist hospitals, most of which are clustered in the south of the Borough. UCL Hospital at Euston is the largest hospital in the local area and provides a comprehensive range of services.
- 4.16 Islington PCT commissions the majority of its secondary services from Whittington and UCL hospitals with the remainder from the Royal Free, St Barts and the Royal London. Camden PCT delegated its responsibility for commissioning acute services to the North Central London Acute Commissioning Agency in 2009. Camden sources the majority of its secondary services from the Royal Free and UCL hospitals.
- 4.17 There are a number of world class specialist hospitals located in vicinity of the Site. Moorfield Eye Hospital is world-renowned centre for ophthalmic treatment. Great Ormond Street Hospital is the UK's largest paediatric centre and one of the world's leading children's hospitals. Eastman Dental Hospital located 300m from the Site is one of the UK's largest dental hospitals and together with the adjoining Eastman Dental Institute is a major international centre for research and training.
- 4.18 **Table 8** outlines the acute and specialist hospitals located with the two Boroughs.

Table 8: Hospitals in Camden & Islington

No. in <i>Error!</i> Reference source not found.	Name	Trust	Type
1	University College London Hospital	UCL NHS Foundation Trust	acute / general
2	Whittington Hospital	Whittington Hospital NHS Trust	acute / general
3	Royal Free London	Royal Free Hampstead NHS Trust	acute / general
4	St Pancras Hospital	Camden PCT	acute / general
5	Moorfields Eye Hospital	Moorfields Eye Hospital NHS Foundation Trust	Specialist
6	Great Ormond Street Hospital	Great Ormond Street Hospital for Children NHS Foundation Trust	Specialist
7	Eastman Dental Hospital	UCL NHS Foundation Trust	Specialist
8	Highgate Mental Health Centre	Camden and Islington NHS Foundation Trust	Specialist
9	Hospital for Tropical Diseases	UCL NHS Foundation Trust	Specialist
10	The National Hospital for Neurology and Neurosurgery	UCL NHS Foundation Trust	Specialist
11	Royal London Hospital for Integrated Medicine	UCL NHS Foundation Trust	Specialist
12	Royal National Throat, Nose and Ear Hospital	Royal Free Hampstead NHS Trust	Specialist

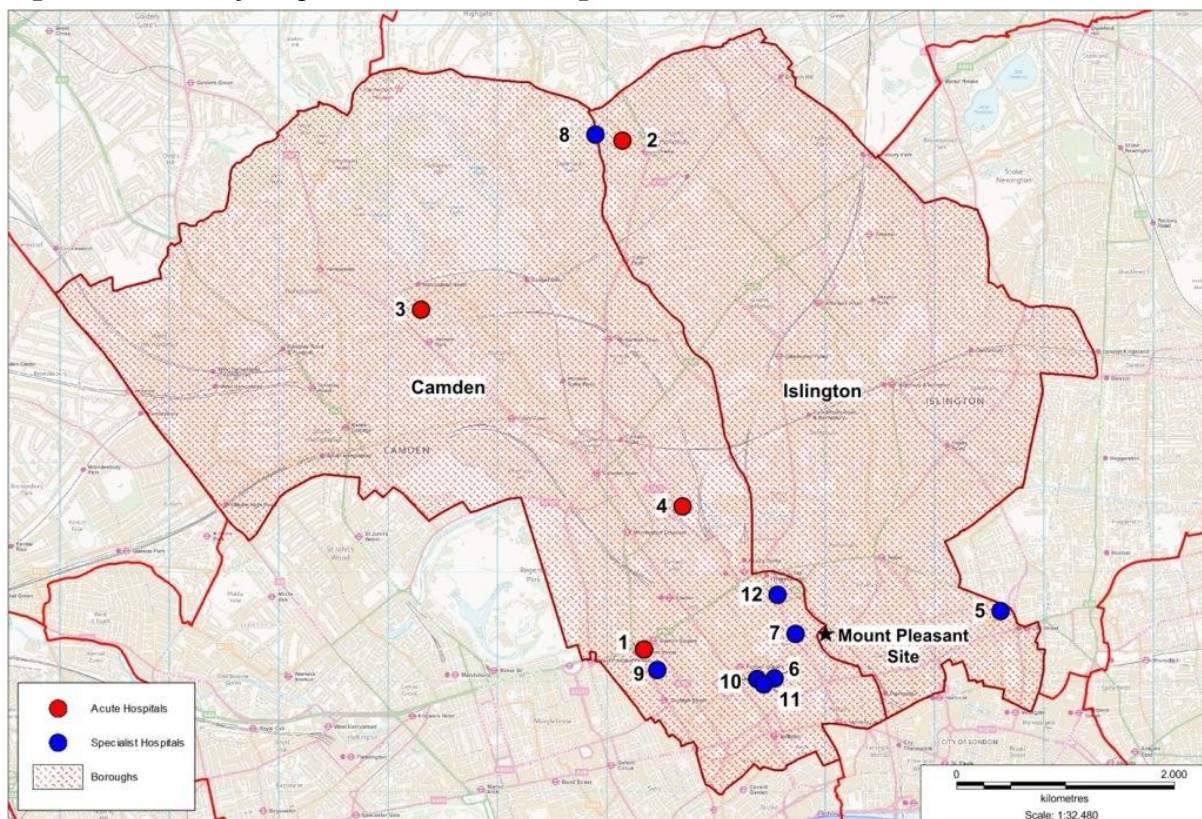
Source: NHS Health Information Centre

4.19 Camden and Islington Foundation Trust provides the majority of mental health services in Camden and Islington Boroughs and runs the Highgate Mental Health Centre.

4.20 There are a number of NHS Foundation Trusts and Hospital Trusts operating hospitals and institutions within and providing services to Camden and Islington Boroughs. These include:

- Moorfields Eye Hospital NHS Foundation Trust
- Great Ormond Street Hospital for Children NHS Foundation Trust
- Royal National Orthopaedic Hospital NHS Trust
- UCL NHS Foundation Trust
- Camden and Islington NHS Foundation Trust
- Imperial College Healthcare NHS Trust
- Royal Free Hampstead NHS Trust
- Whittington Hospital NHS Trust
- Homerton University Hospital NHS Foundation Trust
- St Bart’s and The London NHS Trust

Figure 14: Location of Hospitals in Camden & Islington



Source: NHS Health Information Centre, NHS Choices

Social Infrastructure and Education Services

- 4.21 Social infrastructure is relevant to health because it indirectly influences the quality of life and well-being of people in the community.
- 4.22 There is a positive link between educational attainment and health with the longer people spend in education and the higher their educational attainment, the better their overall health and healthy lifestyle behaviour.
- 4.23 Education builds skills, confidence and learning, helps to promote and sustain healthy lifestyles and choices, supports and nurtures human development and human relationships and supports the development of personal, family and community wellbeing. For this reason, it is important to establish the quality and capacity of educational services in the local area.

Childcare and Early Years' Education

- 4.24 The most recent statistics from the DfE Early Years' Census³⁵ show that 4,830 pupils in Camden and 4,560 pupils in Islington were enrolled in some form of early years' education (private or state-funded providers) in January 2012. In Islington, 95.6% of these pupils benefitted from some free early years education. In Camden, 80.7% of 3 and 4 year old pupils in early years education benefitted from some free education, well below the Inner London average of 93.6%.
- 4.25 The Wards bordering the Site are characterised by low numbers of children relative to their total populations. Children age 0-14 represent 11% of the local area population compared to 16% in Camden and 15% in Islington.
- 4.26 The Camden Childcare Sufficiency Assessment 2011³⁶ found that the supply of childcare in the Borough broadly meets the needs of parents who are working or undertaking activities which support employment. The Holborn and Covent Garden Ward was found to have 297 childcare places for 0-4 year olds representing 45 places for every 100 children in the Ward. King's Cross had 218 places representing 31 places per 100 children. This compares with the Camden average of 39 places per 100 children. Cost of childcare was found to be an important issue with increasing numbers of parents finding cost a barrier to accessing childcare.
- 4.27 The Islington Childcare Sufficiency Assessment 2011³⁷ found that supply of childcare places was most constrained in the younger age groups i.e. 0-2 year olds. It was found that supply of childcare is broadly sufficient for 3 to 4 year olds although there are some deficiencies in the supply of childcare during school holidays. The assessment found that Clerkenwell Ward has sufficient childcare provision given the relatively high level of vacancies and supply of childcare places.
- 4.28 A major concern for local residents and parents of young children across London is the high cost of childcare. The average cost of 25 hours nursery care for under 2s in London is nearly 25% higher than the Great Britain average³⁸. High childcare costs discourage parents from returning to the labour force after parental leave which can have a negative effect on the wider health of parents and children. The cost of childcare is market driven and efforts

to make this more affordable for parents require policy intervention at the Borough, regional and national level.

Primary Education

- 4.29 Camden has 41 state-funded primary schools, and one primary level academy. Islington has 42 state-funded primary schools and 2 primary level academies. The most recent statistics from the Department for Education³⁹ (DfE) show state funded schools in Camden and Islington have a total of 11,600 pupils and 14,177 pupils respectively. The number of primary-age Camden residents is predicted to increase by 6.7% between 2010/11 and 2015/16. The number of primary-age Camden residents is predicted to increase by 11.7% between 2010/11 and 2015/16.
- 4.30 There are 9 state-funded primary schools within 1km of the Site including 4 community schools and 5 voluntary aided schools. These schools have 2,425 places and 2,086 pupils implying a surplus of 14% of total places. This exceeds the Camden and Islington surplus rates of 6.6% and 11.8% respectively. These schools are listed in **Table 9**

Table 9: State funded primary schools within 1km of the Site

Name	Borough	Type	Places	Pupils	Surplus
Argyle Primary School	Camden	Community	432	393	39
Christopher Hatton Primary School	Camden	Community	210	204	6
Clerkenwell Parochial CofE Primary School	Islington	Voluntary Aided	209	200	9
Hugh Myddelton Primary School	Islington	Community	420	351	69
St Alban's Church of England Primary School	Camden	Voluntary Aided	210	193	17
St George the Martyr Church of England Primary School	Camden	Voluntary Aided	210	192	18
St Josephs Primary School	Camden	Voluntary Aided	209	176	33
St Peter and St Paul RC Primary School	Islington	Voluntary Aided	210	194	16
Winton Primary School	Islington	Community	315	183	132
Total			2,425	2,086	339

Source: Department of Health Annual School Census 2012

Secondary Education

- 4.31 There are 5 state-funded secondary schools within 2km of the Site, two of which are voluntary aided, two are community schools and one school is academy sponsor led see **Table 10**. These schools have a combined 5,420 places and 4,076 pupils³⁹. Central Foundation Boys' School is the only school with a deficit of school places. These schools are listed in **Table 10**.

Table 10: State-funded Secondary Schools within 2km of the Site

Name	Borough	Type	Places	Pupils	Surplus / Deficit
Central Foundation Boys' School	Islington	Voluntary Aided	828	894	-66
City of London Academy - Islington	Islington	Academy Sponsor Led	805	759	46
Elizabeth Garrett Anderson Language College	Islington	Community	1,320	796	524
Maria Fidelis Roman Catholic Convent School	Camden	Voluntary Aided	917	780	137
Regent High School	Camden	Community	1,550	847	703
Total			5,420	4,076	1,344

Source: DfE School Census 2012

- 4.32 Camden has 9 state-funded secondary schools. These schools have a combined 10,440 places and 9,708 pupils. All Camden schools have some surplus places. There are 732 surplus places in Camden equivalent to 7% of total places in the Borough.
- 4.33 There are currently 10 state-funded secondary schools in Islington, including 2 academies³⁹. According to the most recent DfE statistics, there are 9,891 school places in state-funded secondary schools in the Borough with 8,673 pupils on the role. Three schools have pupil numbers that exceed stated capacity. Seven Islington schools have surplus places amounting to 1,431 places or 14.5% of total places.

Independent Schools

- 4.34 Camden has a total of 27 independent schools; 19 primary schools, 3 secondary schools and 5 schools that provide education at both primary and secondary level. Islington has 5 independent schools in the Borough all of which are at primary level. Islington has the lowest number of independent schools in Inner London with the exception of the City of London.
- 4.35 According to the most recent DfE statistics³⁹, Camden independent schools provide education for 8,780 pupils. Islington independent schools have a combined headcount of 820 pupils.
- 4.36 Most of Camden's independent schools are situated in the centre and north of the Borough. Only Abbey College and Cats College are located in the south of the Borough. Three of Islington's six independent schools are situated within 1km of the Site. These are The Gower School, Italia Conti Academy of Theatre Arts and Dallington School.
- 4.37 The five independent schools within 2km of the Site provide education for a total of 885 pupils.

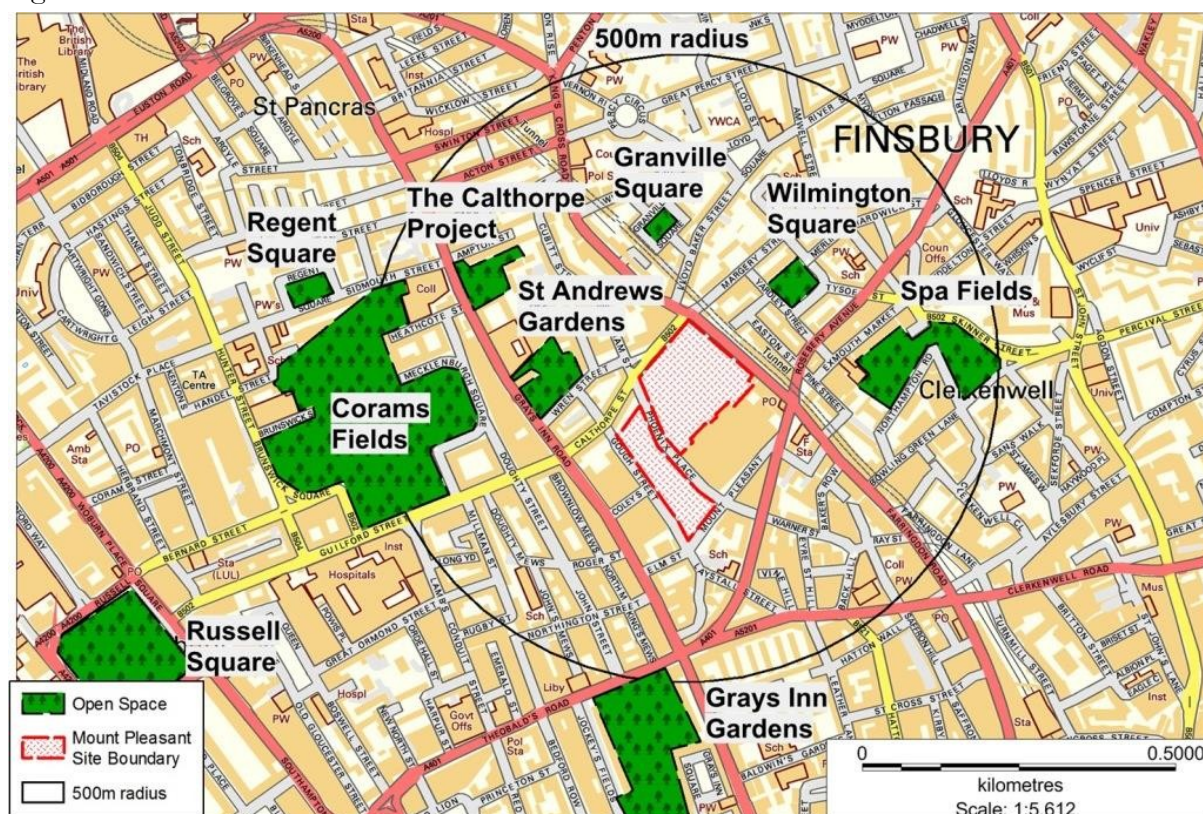
Open Space and Play Space

- 4.38 There is a lack of public space in the immediate vicinity of the Site. The public spaces in the vicinity of the Site are identified as being of poor quality and have significant capacity for improvement. This supports the findings of the Islington Open Space, Sport and

Recreation Study⁴⁰ which identified the Clerkenwell Ward as a priority area for increasing quality and functionality of existing spaces.

- 4.39 There are a number of publicly accessible parks and green spaces within 500m from the Site. These include Wilmington Square, Spa Fields, Granville Square, St. Andrew's Gardens, Grays Inn Gardens, The Calthorpe Project and Coram's Fields (see **Figure 15** below). These green spaces have a combined area of 5.6 Ha. Spa Fields, Granville Square and Coram's Fields all provide children's playgrounds.

Figure 15: Local Public Parks and Gardens



Source: Volterra 2013

- 4.40 The Camden Open Space, Sport and Recreation Study⁴¹ shows that the Central area (King's Cross, Bloomsbury and Holborn & Covent Garden wards) in which part of the Site is located has a total of 11.4 Ha of publically accessible open space. The study found that the central area has 4 sq m of public open space per resident. This is broadly in line with similar areas in Camden such as Kentish Town and Gospel Oak although well below areas which incorporate the major parks of Hampstead Heath and Regents Park. The Camden Unitary Development Plan has set out a target of 9 sq m of publically accessible open space per resident. As a whole, the Borough meets this target although many areas fall short.
- 4.41 The Islington Open Space, Sport and Recreation study proposes accessibility standards for the maximum distance a resident can be expected to travel for each type of open space. These standards are predominantly based on Greater London Authority (GLA) open space standards. It is recommended that residents should have to travel no further than

1,200m to a strategic park or garden, 800m to a major park or garden and 400m to a small local park or neighbourhood square.

Community and Leisure Facilities

- 4.42 Due to its proximity to Central London, the Site has a wide range of facilities within walking distance. The Holborn Library located on Theobalds Road is approx. 400m south west from the Site. There are a number of youth clubs in the local area including: Coram's Fields Youth Resource Centre and Harmsworth Memorial Playground; South Camden Youth Access Point; Brunswick Neighbourhood Association Youth Work.
- 4.43 Other existing community groups in the local area include: Camden Learning Disabilities Service; Umbrella mental health; Vibast Community Centre and the King's Corner Project.
- 4.44 There are a wide range of leisure facilities in the local area. Finsbury Leisure Centre is supported by Islington Council and located approximately 1.4km to the east of the Site. The centre provides swimming and gym facilities as well as a sports hall and outdoor floodlit pitches. Oasis Leisure Centre located 1.6km south west from the Site on High Holborn is supported by Camden Council and provides a range of facilities including gym, swimming pool and squash courts. There are five private gyms within 1km from the Site including Vie Health Club on Clerkenwell Road and Nuffield Health on Mecklenburgh Place.

Policing

- 4.45 At the smallest area level, Metropolitan Police Safer Neighbourhood Teams (SNTs) operate in each of the three respective Wards. SNTs are made up of police officers and policy community support officers. Working priorities are set by the local community.
- 4.46 At the Borough level, LBC has five police stations. Holborn Police Station is located 800m from the Development and is open 24 hours a day. LBI has two police stations. Islington Police Station is located 1.3km from the Development and open 24 hours a day.

Fire and Ambulance

- 4.47 LBC has four London Fire Brigade Stations. Euston Station is located 1.6km from the Development.
- 4.48 LBI has three London Fire Brigade Stations within the Borough. The Clerkenwell Fire Brigade Station is situated adjacent to Mount Pleasant Sorting Office.

Elderly People's Homes and Care Facilities

- 4.49 Facilities for the elderly and vulnerable health groups consist of both residential and nursing homes offering full time health and personal care, and day centres. Both are provided by the National Health Service or by privately owned intuitions.
- 4.50 There are four main residential and nursing homes in LBC run by Camden Council. Overall, 15 care homes exist in LBC.

- 4.51 There are relatively few Council-run elderly care homes in LBI, and consequently more privately run care homes both for the elderly and vulnerable health groups. A total of 19 care homes exist in LBI.

Transport and Accessibility

- 4.52 The Site is well served by public transport. The Site is located within Transport Zone 1 and the TfL PTAL rating for the area ranges from 5 near Calthorpe Street to 6b at the Phoenix Place site.
- 4.53 The Site is very well served by existing bus routes. A total of nine bus routes have stops which are accessible within 8 minutes walk from the Site.
- 4.54 The Site is strategically located between Kings Cross / St Pancras stations (1.1 km to north-west) and Farringdon Station (900m to south-east). These stations offer excellent connectivity for national and international train users.
- 4.55 The nearest London Underground station is Farringdon Station. This station is served by three underground lines; Circle, Metropolitan and Hammersmith & City. The station will also be connected to the Crossrail network when the line opens in 2018. Other London Underground stations within 15 minutes walking distance from the Site include Kings Cross St Pancras, Angel, Chancery Lane, Holborn and Russell Square.
- 4.56 Public pedestrian access to the Site is currently not permitted. The Mount Pleasant SPD adopted jointly by Camden and Islington Councils highlights the need for any future developments at the Site to open up the Site with both new and improved streets that make better connections between Mount Pleasant and the surrounding neighbourhoods.
- 4.57 The Site is well served by existing cycling links. There are marked cycling routes along Farringdon Road, Calthorpe Street, Margery Street and Roseberry Avenue. The roads surrounding the Site have been described in the TfL Cycle Guide as quieter roads recommended for cyclists. Barclays Cycle Hire has five stations located within 5 minutes walk of the Site.

5 Development Proposals

Introduction

- 5.1 This section outlines the key components of the Royal Mail Group's Development proposal. This will set the context for the assessment of potential health impacts of the Development proposal.

Site Setting and Proposals

Site Area

- 5.2 The Site straddles the Clerkenwell Ward in the Borough of Islington and the Holborn and Covent Garden Ward in the Borough of Camden (see *Figure 1*). The entire Development occupies approximately 4.8Ha. There are two sites within the Development boundary and divided by Phoenix Place. The Calthorpe Street site in Islington Borough is located to the east of Phoenix Place, adjacent to the Royal Mail Sorting Office and is bounded by Farringdon Road to the north-east and Calthorpe Street to the north-west. The Phoenix Place site is located to the west of Phoenix Place and bounded by Gough Street and Mount Pleasant to the south-west.
- 5.3 The Site is currently occupied by operations associated with the Royal Mail Mount Pleasant Sorting Office building. Although the Sorting Office building is located outside the Site boundary, it is within the Applicant's ownership.

Development Proposals

- 5.4 The Development is designed to meet the key objectives of the Mount Pleasant Supplementary Planning Document jointly adopted by LBI and LBC in 2012.
- 5.5 To facilitate the Development, enabling works involving the demolition of the existing building and parking facilities at Calthorpe Street would be carried out. Current Royal Mail parking would be relocated to the basement of the Sorting Office. To enable the redevelopment of the Calthorpe Street site, a podium would be constructed over the lower level of the existing service yard which would allow delivery and service operations to continue.
- 5.6 The Development would comprise five buildings on the Calthorpe Street site with an anticipated maximum height of 11 storeys. The buildings would be arranged around newly created public and private communal open space, totalling approximately 8,600 sq m, as well as new connecting pedestrian routes. Within the Phoenix Place site, four buildings are proposed, with an anticipated maximum height of 15 storeys. New public space would also be created within the Phoenix Place site, totalling approximately 2,000 sq m, as well as new connecting pedestrian routes.
- 5.7 The proposed residential-led mixed use Development would provide a total of approximately 63,000 sq m (NIA) of new residential and commercial floorspace. The Development would consist of:

- 432 sq m flexible retail and 1,469 sq m of flexible retail & community use floorspace
- 2,935 sq m office floorspace located at the Calthorpe Street site
- 681 residential units including 132 affordable homes

5.8 **Table 11** below details floorspace area for each land use within the Development and the potential jobs that could be generated.

Table 11: Use and Area Schedule, Estimated Employment by Use Class

Use	Area sq m (NIA)	Potential Job Creation
Flexible retail (A1, A2, A3)	432	41
Flexible - retail & community ² (A1, A2, A3, D1, D2)	1,469	23
Office (B1)	2,935	245
Residential - private	46,700	-
Residential - intermediate	3,846	-
Residential - social	7,465	-
Total	62,847	309

Accommodation Schedule and Estimated Population

5.9 The unit mix provides for a wide range of different sized units and is designed to meet market demand. The average unit size for market units is 2 bedrooms. The average unit size for affordable units is somewhat larger and close to 3 bedrooms per unit.

Table 12: Accommodation Schedule Unit Mix

	Market Owned/Rented	Intermediate Rented	Social Rented	Total
Studio	5	0	0	5
1 bed	143	32	1	176
2 bed	322	18	24	364
3 bed	71	5	35	111
4+ bed	8	0	17	25
Total	549	55	77	681

5.10 **Table 13** outlines the estimated population that would be living at the completed Development. These estimates are calculated using data from the Islington Housing Needs Assessment 2007. Also provided is an estimate of the number of children that would be living at the completed Development. Residents of social housing tend to have bigger families. The future residents that would be living in the social rented units at the Development therefore would have a proportionately larger population than market units.

² The employment density used to estimate the job creation potential of the flexible retail and community floorspace is based on the assumption that 100% of the floorspace will be occupied by community uses. This gives the worst case scenario for the job creation potential of the floorspace which is in accordance with the approach taken for the Mount Pleasant EIA.

Table 13: Estimated Population of the Completed Development

Unit Type	Estimated Population			Estimated Children		
	market	Social/ intermediate ³	Total	market	Social/ intermediate	Total
Studio	6	0	6	0	0	0
1 bed	200	1	201	7	0	7
2 bed	552	59	611	61	17	78
3 bed	171	119	289	27	28	56
4 bed	23	72	95	5	16	21
Total	951	251	1202	100	62	162

Source: Volterra estimates using Islington Housing Needs Assessment

³ Population yield for social and intermediate units for the purposes of modelling are taken to be the same and therefore one number is provided here.

6 Potential Health Impact

Overview

- 6.1 The objective of this section is to assess the potential health impacts that arise during the construction and operational phases of the Development. This section will be structured according to the main determinants of health:
- Biological Factors
 - Lifestyle Factors
 - Social Environment
 - Physical Environment
 - Public Services Access
- 6.2 For each main health determinant, the assessment will address the key issues and context of that determinant. The existing situation and future trends in the local area will then be outlined according to the determinant, followed by the Development specific situation. Lastly any proposed mitigation of the Development will be examined alongside possible further recommendations.
- 6.3 This section will aim to identify both beneficial and adverse potential impacts of the Development, alongside any consequent relevant mitigation.

Potential Health Impacts:

Biological Factors

Context

- 6.4 The biological characteristics of a population such as age, gender and ethnicity are strongly associated with levels of general health and social care needs.
- 6.5 Younger adults are less likely to have a regular need for health care services, whereas older and younger age groups have specific health issues related to their age which require more regular use of the health care services. Ethnicity is also proven to be related to the level of general health. BME groups are more likely to suffer from poor levels of health²¹, where a combination of lifestyle factors also plays a role.

Existing Situation and Future Trends

- 6.6 The current and future forecasted population of the Study Area are characterised by:
- Large 18-29 year old age group. GLA population projections⁴² forecast this to also be the case in 2021.
 - A culturally diverse population where the largest ethnic minority group is 'Asian/Asian British'. The BME count is varied at the LSOA level within the Study Area.
 - Significantly high health inequalities throughout the Study Area, and at the Borough level. Major health risks to the vulnerable younger age group include

childhood obesity and childhood poverty. The large 18-29 year old age group is associated with the high rate of STIs in the Study Area.

Development Specific Situation

- 6.7 It is estimated that the completed Development would have an estimated population of 1,202 where a total of 251 would be living in social and intermediate housing. It is estimated that there would be 132 children between the ages of 0 and 15 living at the Development.
- 6.8 The proposed Development contains a range of residential unit sizes. However the average size of unit would be a 2 bedroom flat making up 53% of the unit mix. One bedroom units would make up the next largest grouping. These unit sizes are most likely to be occupied by single people, couples without children and small families. The majority of children living at the Development would be between 0 and 4 years of age. This reflects the predominance of 1, 2 and 3 bed units which tend to be more suitable for families with small children. It is anticipated that many of these new residents will come from outside the Boroughs.
- 6.9 The Development would provide 77 social rented units in a mix of sizes. The largest proportion of social units would have 3 bedrooms. Out of the 77 units, there would also be 17 four bedroom units. Residents living in social rented housing tend to have larger families and therefore it is appropriate that these units are larger than those for private sale or rent. It is anticipated that a large proportion of the residents living in intermediate and social housing at the Development will be already living within the Boroughs.
- 6.10 Given the scale of the Development, there is likely to be some change in the population profile of the Study Area. The local area has a large 18 to 29 year old population made up of full-time students and people in employment. There are also fewer people under 18 living in the area compared to the London average. The population of the proposed Development is anticipated to be significantly older than the existing population with the majority of the residents in the 30 to 44 and 45 to 59 age groups.
- 6.11 Younger people in the 18 to 29 age group place less strain on health services, community facilities and open space than people between the ages of 30 and 59 and children. The change in the population profile of the Study Area would therefore lead to higher demand on local services than would be the case if the new population had a similar age profile to the existing population.

Proposed Mitigation

- 6.12 The Development proposals include extensive plans for open space and play space within the Development that will meet the additional need of the residents and also provide new open space and gardens for the local community.
- 6.13 The proposals include provision for flexible retail and community space that would mitigate the potential impact on local community facilities.
- 6.14 It is also anticipated that a developer contribution relating to health, education and other factors identified by the Borough councils would mitigate any impact of the change in the population profile as a result of the Development.

Lifestyle Factors

Context

- 6.15 The lifestyle and behavioural choices of an individual can greatly impact levels of general health.
- 6.16 Extensive evidence for the impact of economic activity on health concluded that there exists a strong association between unemployment and many adverse health outcomes²⁹. Unemployment is associated with higher levels of both physical illness, bringing about premature mortality, and mental illnesses such as depression and the risk of suicide.
- 6.17 There is a positive link between educational attainment and health, with the longer people spend in education and the higher their educational attainment the better their overall health and healthy lifestyle behaviour. Education builds skills, confidence and learning, helps to promote and sustain healthy lifestyles and choices, supports and nurtures human development and human relationships, and aids the development of personal, family and community wellbeing. Education can also have an indirect effect on health levels through employment. Higher levels of education typically increase employment opportunities, although causality is yet to be established.
- 6.18 The behavioural choices of an individual such as smoking, alcohol consumption, diet and physical exercise are known to influence health status. Causal links between smoking, or excessive alcohol consumption, and poor health have been established. Diet and physical exercise are especially significant for the Development of a child's health as they grow.

Existing Situation and Future Trends

- 6.19 The rate of economic inactivity is relatively high in the Study Area compared to the London average. However, the claimant count rate is also relatively low in the Study Area which suggests a high proportion of students living in the local area.
- 6.20 The level of educational attainment in the Study Area is higher than the London average, characterised by a large percentage of residents possessing a high level qualification. This is again indicative of the large undergraduate student population living locally to the Site. It must be noted that attainment of the highest level of qualification, a university qualification, is lower in the Study Area than the Borough averages. This is most likely due to a large undergraduate population who have yet to gain their university degree.
- 6.21 The wider area of LBC and LBI is characterised by high rates of hospital stay due to excessive alcohol consumption. There is less evidence that this health problem is endemic in the Study Area itself, although the two Boroughs are likely to be representative.

Development Specific Situation

- 6.22 To maximise the potential health gain from the Development, it is important that the new residential population and future workers at the Site are encouraged to engage in healthy lifestyles.
- 6.23 The Development proposals provide for 1,469 sq m (NIA) flexible community and retail use floorspace (A1, A2, A3, D1, D2 classes) within the Phoenix Place and Calthorpe Street sites. Five units would be provided in each of the Development sites. The activities within

these units could be tailored to meet the needs of the resident population by providing community space as well as leisure space which would meet the needs of people of different age groups. This could be in the form of a gym or multi-use community space.

- 6.24 Healthy lifestyles will be encouraged through the physical layout of the Development. The Development will create new pedestrian links across space that is currently closed to public access, along with a good provision of public open space. A more detailed explanation of transport and public space provision proposals within the Development is provided in the Physical Environment section. The Calthorpe Street Development would include the provision of 268 cycle spaces for the residents at basement level. A further 170 cycle spaces would be provided at ground level. Further cycle spaces would be provided at the Phoenix Place Development.
- 6.25 There are strong links between demographic characteristics of a population and lifestyle behaviours. For example, excessive alcohol consumption and lack of exercise can lead to bad health. The future Development population is anticipated to have an older age profile, have a higher level of educational attainment and have a higher socio-economic classification than the existing population which has a large number of students living in the local area. These characteristics are associated with less risky behaviours and better lifestyle choices which are conducive to good health.
- 6.26 Therefore it is anticipated that the new Development population would have a positive impact on the health profile of the local areas with regards to lifestyle factors.

Proposed Mitigation

- 6.27 The proposed Development is anticipated to improve the population profile in terms of individual lifestyle and risk behaviours. Therefore no mitigating measures are required in this regard.
- 6.28 The Development proposals contain extensive provision for public realm space with attractive gardens and landscaped areas located throughout. In addition, the Development proposals will provide extensive pathways through the Site that would be open to the public. Such measures are anticipated to promote well-being and healthy living by encouraging residents to walk, engage in exercise and use public transport more frequently.
- 6.29 Proposals for the Development include 1,469 sq m (NIA) flexible retail and community floorspace within 10 units. These units can be used for leisure purposes such as a gym or studio as well as being used being available to the community for a variety of uses.
- 6.30 Smoking will be prohibited in enclosed public areas within the Development. Where alcohol is served at restaurants or bars within the Development, proprietors will be encouraged to promote responsible alcohol consumption.

Social Environment

Context

- 6.31 The social environment plays an important role in determining the quality of life of an individual, be it physical or mental health. Indeed some evidence argues that social

cohesion, from community facilities to family networks, can be more important in determining quality of life than the direct effects of material living standards⁴³.

- 6.32 Community facilities in the built environment help promote a healthy society. Community open space and leisure facilities are often valued more by identified vulnerable groups within the population. These facilities enable those, who would otherwise be unable, to build social connections and overcome specific physical or mental health problems through exercise.
- 6.33 The integration of difference socio-economic groups is important to Local and National level planning policy, including the communities agenda. Ensuring a mix of dwelling type and including a good level of affordability is significant in attracting a healthy population mix.
- 6.34 Crime and safety are associated with the general quality of life of a population, where both the physical and psychological health can be affected. Ensuring low levels of crime and fear of crime is an important aspect in the design of new developments, including the Secured by Design³¹ police scheme.
- 6.35 As previously explained in the Lifestyle Factors section, there is evidence for the positive impact of employment on personal health. It is also important to recognise that increased employment opportunities in an area represent an opportunity for local residents to enhance their social inclusion within the local community. If these increased job opportunities are taken up by the local population, a significant community wide effect can be felt. Local residents can increase their ties to a place, and develop increased concern for the local area and environment.

Existing Situation and Future Trends

- 6.36 The local area of the Site, which for community facilities purposes we state as slightly larger than the Study Area, has a wide range of facilities mainly due to its centrality within London. An extensive number of youth and community groups are accessible to the local population.
- 6.37 Alongside an ethnically diverse population, there is also a diverse mix of housing tenures within the Study Area. Social rented housing remains the most common. Owner occupied housing is the least common.
- 6.38 Crime rates for all offence types vary through the different LSOA of the Study Area depending on their parent Borough. The LSOAs on the west side of the Study Area have extremely high rates of theft and handling offence type. This is indicative of the London Borough of Camden in which the LSOAs are located. The rate of violent offences occurring is consistently high throughout the Study Area, as both LBC and LBI exhibit this trend.
- 6.39 The existing site is underutilised and provides minimal on-street frontage. The Site is protected by security contracted by Royal Mail Group.
- 6.40 The existing housing stock in the local area has a higher proportion of social housing accommodation than the Ward, Borough and regional average.

- 6.41 The Site currently accommodates Royal Mail Group staff and activities on a temporary basis. These employees are due to be relocated to the main Mount Pleasant Sorting Office building once enhancement works have been carried out. As such, it is not anticipated that any employment would be lost as a result of the proposed Development.

Development Specific Situation

- 6.42 A mix of activities within a development is conducive to a healthy, cohesive community. The Development proposals include provision for office, retail, community and residential uses. The activity that these uses bring would create a lively, friendly atmosphere during the week and at weekends.
- 6.43 The Development proposals ensure that the mix of housing that exists in the local area would be continued. The Development would provide 549 market rate residential units in a range of sizes from studio to four bedrooms size units. The proposals include plans for 132 social and intermediate units. The largest number of market flats would have two bedrooms. The most common size for social flats would be a three bed unit. These social units would most likely be made available to qualifying candidates through local housing associations and/or registered social landlords. The inclusion of intermediate units (housing at prices and rents above social and below market rates) reflects the Applicant's aim to create a mixed and successful community within the Development.
- 6.44 The Development would create some opportunities for local people to work in the shops, restaurants and offices that are planned for the Site. It is estimated that the retail and flexible retail/ community space has the potential to create up to 64 jobs. The office floorspace has the potential to create up to 245 new jobs at 100% occupancy of the available space.
- 6.45 The construction and demolition phase of the Development would last for five years and generate an estimated 2,697 job years equivalent to an average of 514 jobs per year of construction. While no specific initiatives have been put in place to ensure local residents would be employed at the construction site, it is anticipated that there would be opportunities for local residents and residents of the Boroughs to be employed during the construction and demolition phase.
- 6.46 Crime and anti-social behaviour can have negative impacts on individual's health and on community well-being. Good design and layout of a new Development can reduce the opportunity for crime and thus can have positive impacts on the health of the community. The existing site has minimal on-street frontage and therefore provides limited natural surveillance. The presence of residents, on-Site employees and active management of the Site will improve natural surveillance and movement in the vicinity of the Site and therefore reduce the opportunities for crime. Due to the Development's design, it is likely that there will be a reduction in public anticipation of crime in the local area which would result in an improvement in the sense of well-being for some members of the local community.

Proposed Mitigation

- 6.47 The proposed Development would provide new accommodation in the local area including social and intermediate housing. This would have a positive impact on the local

community in terms of providing new affordable housing and also in matching the existing housing tenure mix of the area. Therefore, no mitigation is required in this regard.

- 6.48 The Development would generate up to 312 jobs in the retail, community and office floorspace as well as generating up to 743 temporary construction jobs per year of construction. While no specific measures have been put in place to ensure that local residents will be employed at the Development, it is anticipated that people living in the Development, the local area as well as those living in other London Boroughs would be employed at the Development. Employment is linked to improved self-esteem and well-being. There is a positive relationship between health and employment that is mutually enforcing. The employment generated by the Development would therefore produce a positive impact on the health of the local community and the future residents of the Development.
- 6.49 Given the existing lack of significant natural surveillance in the vicinity of the Site, the Development proposals would represent an improvement in the ability to detect and prevent crime. The design of the Development would also reduce the anticipation of crime within the local community. The Development would therefore represent an improvement over the existing situation and no mitigation would be required.

Physical Environment

Context

- 6.50 The demolition and construction phase of a development can have an adverse effect on the health and quality of life for population exposed to the Site. There are several determinants through which this adverse effect can take place, ranging from minor adverse to moderate adverse. Waste, contamination, and traffic and pedestrian routing are classed as minor adverse effects. Noise and vibration, and ecology are both classed as moderate adverse. In all instances the demolition and construction phase should maximise health and safety, and ensure all adverse effects are minimised. Although noise and air quality are relevant during the operation phase of the Development, their largest health impact will be during the demolition and construction phase. High levels of noise are most associated with a loss of sleep, and higher levels of stress and hypertension. Poor air quality has been linked to respiratory disorders such as asthma.
- 6.51 Housing quality is closely associated with health, for example a warm, dry and secure home is linked with better health. The World Health Organisation⁴⁴ outlines a house that is warm and dry, safe and free from infestation, as a prerequisite for all development and health policy. More specifically, the temperature and air quality within housing has a direct impact on the health of its inhabitants. Damp accommodation is linked to acute health problems such as asthma, colds, fever and diarrhoea. Cold accommodation is linked to acute health problems such as hypothermia, stroke, heart attacks and respiratory disorders.
- 6.52 The built environment is important in maintaining high qualities of both physical and mental health. The provision of green public space is important in encouraging physical exercise in the population. The mental health charity Mind⁴⁵ has emphasised the importance of the provision of accessible green space for the mental well-being of the population.

- 6.53 The quality of transport can directly impact the health of a population through traffic accidents. It is also important to acknowledge the indirect effect of transport. Local access to important services such as health and social care can be significant to the quality of life for people who have a dependency on public transport.

Existing Situation and Future Trends

- 6.54 At the Borough level, the quality of housing significantly varies according to tenure type. A large percentage of social housing in LBC, nearly twice as much as the national average, fail the Decent Homes standard. In LBI a large proportion of private rented housing fails the Decent Homes standard.
- 6.55 The immediate vicinity of the Site falls below the standards set by the GLA and Borough Councils for the provision of public space. At the larger Study Area level, the amount of publicly accessible open space per resident meets the standards required by The Camden Unitary Development Plan, although the level is still lower than other areas of London.
- 6.56 The quality of transport is high within the Study Area, due to the Development's locality within central London. Residents have good access to public transport, travelling either by bus or by tube. The Site is well served by public transport. The Site is located within Transport Zone 1 and the TfL PTAL rating for the area ranges from 5 near Calthorpe Street to 6b at the Phoenix Place site.
- 6.57 Public pedestrian access to the Site is currently not permitted. The Mount Pleasant SPD adopted jointly by Camden and Islington Councils highlights the need for any future developments at the Site to open up the Site with both new and improved streets that make better connections between Mount Pleasant and the surrounding neighbourhoods. The Site is well served by existing cycling links.

Development Specific Situation

- 6.58 The principal Contractor of the demolition and construction phase would be required to prepare and implement two site-specific Construction and Environmental Management Plans (CEMP), one in accordance with LBC's Guide for Contractors Working in Camden⁴⁶ and the other in accordance with LBI's Code of Practice for Construction Sites⁴⁷. Implementing a CEMP is an established method for managing potentially adverse environmental and population health effects resulting from demolition and construction works. The adverse health effects will be managed through the following:
- To reduce the adverse effects of waste and contamination, a Site Waste Management Plan (SWMP) will be developed and implemented during the demolition and construction works. This includes maximising recycling potential, ensuring safe waste storage, and the safe transportation of waste to authorised waste treatment and disposal sites.
 - A Construction Traffic Management will be imposed by the contractor in agreement with the LBI and LBC, to minimise the risk of traffic congestion. This is likely to include but not limited to: phased delivery times to ensure continued operation of Mount Pleasant sorting office; advanced notification of large deliveries to local residents; deliveries to be carried out during working hours and

where possible outside peak travel times; loading and unloading to be carried out on site where possible.

- Measures to minimise noise and vibration will be set out in the CEMP, and will be adhered to by the contractor upon agreement with LBI and LBC. This will be monitored on the Site, where necessary, to assist in controlling levels at specific receptors. Control measures aimed at minimising noise and vibration would include: using best practicable machinery; non-vibratory percussive piling techniques; creating enclosures and screens around noisy fixed plant; liaising with adjacent residents or businesses; adhering to relevant British Standards to establish noise and vibration ‘Threshold’ and Action’ levels.
- The CEMP would also include measures to minimise potential disturbances to ecology, more specifically flora and fauna. Controlled lighting will ensure all lighting is appropriately aimed and switched off when the Site is not operational. Construction and demolition will also adhere to the British Standard⁴⁸ in relation to the protection of trees.

- 6.59 The quality of housing provision planned for the Development is to be of high quality, not only meeting the Decent Homes Standard but also providing additional sustainability and environmentally friendly features. At the Site an energy centre will host combined heat and power, which will feed through to the individual housing. This will provide all the heating and energy needs of the Development, adhering to the thermal requirements of the Decent Homes Standard. The build quality of all new housing will ensure the structural requirements of the Decent Homes Standard are also met.
- 6.60 There is a Carbon Reduction Strategy in place such that the Development will meet the CO₂ emission targets of future planning requirements. Further to this, all new homes will meet the Code for Sustainable Homes⁴⁹. This Code is a framework to improve the overall sustainability of new homes, with higher environmental standards. The categories that constitute the Code for Sustainable Homes are: energy; water; materials; surface water run-off; pollution; health & wellbeing; management; ecology. A rating is given in accordance to the performance over all these categories, ranging from one to six stars where six is the highest possible rating. All new homes within the Development are set to achieve a minimum Code for Sustainable Homes rating of level 4, stating the build quality will be above current best practice.
- 6.61 High quality open space will be a key feature of the Development. The Calthorpe Street Development would create 5,124 sq m of public open realm accessible to the general public and residents of the Calthorpe Street Development. The Phoenix Place Development would create 1,820 sq m of public open realm accessible to the general public and residents of the Phoenix Place Development. Secure communal amenity space only accessible to residents would also be provided at both Development sites.
- 6.62 The open realm space would create an attractive built environment conducive to healthy living. These areas would comprise a combination of hard and soft landscaped areas. Soft landscaped areas within The Gardens and the private communal area at ground level

within the internal courtyard would comprise lawn, shrub and perennial planting, together with raised planting beds.

- 6.63 The Development will create new pedestrian links across space that is currently closed to public access. The creation of The Gardens would form a significant pedestrian link connecting neighbourhoods to the north-east of the Site to the neighbourhoods to the south-west. Pedestrian links to the Calthorpe Street Development would also be created in a north-west to south-east direction, linking Calthorpe Street with The Gardens. This link would continue across the Phoenix Place Development, through the creation of a pedestrian link along Phoenix Square connecting the Site to Gough Street.

Proposed Mitigation

- 6.64 The demolition and construction phase will undoubtedly cause some disruption to the local area. However, Chapter 6 'Development Programme, Demolition and Construction' of the Mount Pleasant EIA extensively outlines necessary measures to minimise the minor and moderate adverse effects that could arise. Therefore, currently no further mitigation is required at this stage.
- 6.65 The Development proposals contain extensive provision for public realm space with attractive gardens and landscaped areas located throughout. This will be a significant benefit to residents in the local area to the Development, in the context of the current inadequate provision of open public space. In addition, the Development proposals will provide extensive pathways through the Site that would be open to the public. Such measures are anticipated to promote a more sustainable use public transport. As referenced in the Lifestyle Factors section, these measures are anticipated to promote well-being and healthy living by encouraging residents to walk, engage in exercise and use public transport more frequently.

Public Services Access

Context

- 6.66 Quality of health care, though not necessarily a determinant itself, is critical in alleviating the effects that other health determinants may have had on the general level of population health. Provision should attempt to create an equitable health and social care service where accessibility is equal for all groups in society.
- 6.67 As previously explained in this section, there is a positive link between educational attainment and health. The level and accessibility of education should be comparable to the health service, where access is equal for all groups of society.

Existing Situation and Future Trends

- 6.68 The average list size for patients per GP varies according to practice within the Study Area. The average GP list size across LBC is lower than the London average, and also that of LBI where the average GP list size is relatively high.
- 6.69 The Study Area, and both LBC and LBI perform well in terms of dental care. Out of the 6 dental surgeries located within walking distance (1km) of the Site, 5 are accepting new patients. Both LBC and LBI have relatively low list sizes for patients per dentist.

- 6.70 The local area is also well served by secondary healthcare facilities, more specifically specialist hospitals. A number of world class specialist hospitals operate within LBC and LBI, where care is provided by healthcare professionals who do not have first contact with patients.
- 6.71 There is excellent accessibility to educational services within the Study Area. There is a surplus of school places, at both the primary and secondary school level, above the target set by the Camden and Islington LAs respectively. The availability of childcare places is marginally constrained at the borough level.

Development Specific Situation

- 6.72 The completed Development population is estimated to be 1,202 with 162 children living in 681 residential units. The eight local GP surgeries have a combined 40,000 patients served by 38 doctors. The average list size per GP is 1,058; far lower than the Borough averages. Camden has an average list size of 1,628 and Islington has an average of 1,851. Using the lower of these average list sizes as a target, the Development would generate demand for an additional 0.74 GPs. This equates to approximately 100 sq m or one extra treatment room at a GP surgery. However, given the excess capacity in a number of local surgeries, in practice it is not anticipated that expansion of existing surgeries would be required. Depending on the degree to which existing residents of the local area become residents of the new Development, the demand for new GPs could be significantly lower.
- 6.73 The population profile of the Development indicates that residents will be older relative to the existing situation where there are a large number of students living in the local area. In addition, it is estimated that there would be a larger proportion of children living at the new Development relative to the existing situation. Therefore, it is anticipated that the new population will put a proportionately larger strain on health services than the existing population.
- 6.74 The NHS HUDU model⁵⁰ is used to assess the additional demand on NHS services that a new Development would have in terms of additional capital and revenue expenditure of the local PCT. The model can also be used to estimate the secondary healthcare demand created by a development. The model estimates that 1.7 acute hospital beds would be required to offset the demand of the new Development. This assumes that approximately 85% of new market flats would be occupied by people from outside the Boroughs. It also assumes that approximately 55% of affordable housing tenants would come from outside the Boroughs. The potential pressure on NHS services would decrease if a higher proportion of the new residents already lived within the Boroughs.
- 6.75 It is estimated that the largest age group of the children living at the completed Development would be between the ages of 0 and 4. The existing provision of primary and secondary educational services is sufficient to meet the needs of children over the age of 4. However, childcare sufficiency assessments for both Camden and Islington show that early Early years' places in the Borough are borderline sufficient or slightly constrained. Due to the small numbers of young children in the local area relative to population and the fact that many people enrol their children in nurseries near their place of work; the

increase in demand for childcare generated by the Development may not have a significant impact.

- 6.76 Of greater concern is the high cost of childcare in Camden, Islington and in London as a whole. While policies have been put in place at a national level to provide free nursery places for children ages 3 to 4, the cost of childcare for the 0 to 2 age group remains unacceptably high for some families which can distort parents' choices regarding work. This has an impact on well-being and life satisfaction.

Proposed Mitigation

- 6.77 The Development will increase the demand, to a limited extent, on local primary and secondary health services. However, there is already a good provision of primary and secondary services for the local area. The scale of the Development is not sufficiently large as to warrant the construction of a new GP surgery or other capital project. It is recommended instead that a developer contribution be made as part of section 106 agreement with the borough councils.
- 6.78 The local area is well provided for in terms of primary and secondary education and does not require mitigation measures. In terms of childcare, the boroughs to an extent have a constrained supply of childcare places. While many parents enrol their children near their place of work, the new development would still place additional pressure on the supply of existing services. While a constrained supply of childcare places does not have a direct impact on the wider aspects of health, it does have an indirect impact by putting upward pressure on childcare prices. The price of childcare can distort an individual's choice in terms of work, which can in turn have an impact on the well-being and mental health of an individual. Despite this, such issues cannot be mitigated at the development level and therefore no mitigation measures are recommended.

Table 14: Summary of Health Impacts

Determinant of health	Potential beneficial or adverse health impacts	Current Development specific mitigation	Further comments and recommendations
Biological Factors			
	<ul style="list-style-type: none"> The completed Development will have an estimated population of 1,202 of which 132 would be children. The Study Area currently has a large 18 to 29 year old population. The population profile of the proposed Development is likely to be significantly older. This is likely to lead to an increased demand for local health services. 	<ul style="list-style-type: none"> The Development is to provide a range of residential unit sizes. The average unit size will be 2 bedroom. This reflects the estimated population profile of the Development, which is expected to comprise of predominantly single people, couples and small families. The Development proposal includes extensive plans for flexible retail and community open space as well as publicly accessible landscaped gardens and open space. This would mitigate the impact on current local facilities and open spaces of the increase in population. 	<ul style="list-style-type: none"> The use of newly created community open space should reflect the continual needs of the local population.
Lifestyle Factors			
	<ul style="list-style-type: none"> The lifestyle choices of an individual can greatly impact levels of general health. Existing health problems associated with the study area include excessive alcohol consumption and childhood obesity. These lifestyle related health problems along with other general health issues, will need to be addressed within the Development proposal for future population. 	<ul style="list-style-type: none"> Healthy lifestyles will be encouraged through the physical layout of the Development. Appropriate flexible community space will be provided to meet the needs of the future population. Walking, cycling and use of public transport will also be encouraged by the physical layout. More extensive detail is provided in the Physical Environment determinant sub-section. 	
Social Environment			
Community Facilities	<ul style="list-style-type: none"> A mix of space available for activities within a development is conducive to a healthy, cohesive community. 	<ul style="list-style-type: none"> Due to the large amount of community facilities currently accessible within the local area and the provision on-Site, little mitigation is required for the potential increase in population. 	<ul style="list-style-type: none"> The use of newly created community space should reflect the continual needs of the local population.

Housing Mix	<ul style="list-style-type: none"> Ensuring a mix of unit sizes, along with a good level of affordability, attracts a range of socio-economics groups. This is important for creating a healthy and sustainable population mix. 	<ul style="list-style-type: none"> The Development aims to create a mixed and successful community, and will provide a unit mix similar to that currently offered in the local area. 549 market rate units and 132 social and intermediate units will be provided. There will also be a significant variation in the unit size within the Development. Sizes will range from studio to four bedroom, with two bedroom size the most common. 	
Employment	<ul style="list-style-type: none"> Employment can have a strong positive impact on personal health. Additionally, local jobs being taken up by local population can create community wide effects, including place-commitments and local ties. 	<ul style="list-style-type: none"> The Development has the potential to create 65 community and retail jobs, and a further 245 office jobs. The construction and demolition phase of the Development is likely to generate 2,697 jobs over a five year period, an average 514 jobs per year. No specific initiatives are in place to ensure local take up of created jobs, although it is anticipated that there will be some job opportunities for local residents and residents of the wider Borough area. 	<ul style="list-style-type: none"> It is recommended that an initiative be put in place to ensure that the local population have access to new jobs that would be created on-Site.
Crime and Safety	<ul style="list-style-type: none"> Crime and fear of crime can negatively affect both the physical and psychological health of a population. Safety within the local environment is also associated with the general well-being of a population. 	<ul style="list-style-type: none"> Due to the Development's design, including adhering to the Secure by Design scheme, there is likely to be a reduction in both levels of crime and public fear of crime. The Development presents a significant improvement in natural surveillance from the existing site. There will be an increase in residents' presence, on-street frontage, and layout of public pathways. 	<ul style="list-style-type: none"> Consultation with the local police body is recommended to ensure that specific local area requirements are met.

Physical Environment			
Demolition and Construction Phase	<ul style="list-style-type: none"> • During the demolition and construction phase, measures should be put in place to prioritise health and safety. • Possible minor and moderate adverse effects should be minimised through suitable health and safety procedures for each working stage. 	<ul style="list-style-type: none"> • Chapter 6 of the EIA – Development, Demolition and Construction, outlines the necessary measures that will be put in place by any demolition and construction contractors, within an overall CEMP. • Noise and vibration, and ecology are two areas where possible moderate adverse effects will be minimised. Waste contamination and traffic are two areas where possible minor adverse effects will be mitigated. 	<ul style="list-style-type: none"> • During the demolition and construction phase, continual engagement with the local public will aid in prioritising the specific health and safety needs of the local population. This should include noise, vibration and air quality concerns.
Housing Quality	<ul style="list-style-type: none"> • Housing quality is positively associated with the health of an individual. 	<ul style="list-style-type: none"> • All housing within the proposed Development will be of high quality, meeting the Decent Homes Standard²⁸ and the Code for Sustainable Homes⁴⁹ • A more detailed outline of Housing quality for the Development is provided by the Sustainability Strategy document. 	
Neighbourhood and Built Amenity	<ul style="list-style-type: none"> • The built environment is important in maintaining good physical and mental health. More specifically, the provision of green public space can improve both an individual's physical and mental health. 	<ul style="list-style-type: none"> • High quality open public space will be a key feature of the Development. A total of 6,944 sq m newly created public open realm will be accessible to the general public and new residents. • Hard and soft landscaped areas will exist within these public open realms. This will create an attractive built environment conducive to healthy living. 	
Transport	<ul style="list-style-type: none"> • The quality of transport routing and public transport can have direct and indirect effects on public health. 	<ul style="list-style-type: none"> • The Development will significantly improve pedestrian access both to and within the Site. This will promote healthy living by encouraging residents to walk, engage in cycling and use public transport more frequently. 	

Public Services Access			
Health Care	<ul style="list-style-type: none"> The population profile within the Development is predicted to be older than that current age profile of the Study Area. Extra demand will be placed on local GP and dental services than would otherwise be the case for a similar size population. 	<ul style="list-style-type: none"> The current provision of primary and secondary health care within the Study Area is superior to the average for LBI and LBC. Given the scale of the Development and existing provision, there would be requirement for a new GP or dental surgery, although there will be still be some extra demand on healthcare services that would not be accounted for within the NHS budget. The proportion of new residents from outside the Borough will determine the level of extra strain on healthcare. 	<ul style="list-style-type: none"> It is recommended that a developer contribution be made as part of a larger section 106 agreement with the Borough Councils. A contribution towards the capital budget for local healthcare facilities is not considered to be required.
Education	<ul style="list-style-type: none"> Local primary and secondary school provision is of high quality within the local area, with sufficient places. Local childcare is slightly constrained, with upwards pressure on price likely to occur with an increase in demand due to the Development population. 	<ul style="list-style-type: none"> The Development is estimated to contain a relatively small proportion of children over the age of 4. This, combined with a sufficient capacity of primary and secondary education places, means no mitigation is required. The Development is likely to put upwards pressure on existing childcare prices, from the increase in demand. 	<ul style="list-style-type: none"> An upwards pressure on existing childcare prices cannot be mitigated at the development level, and therefore no mitigation measures are recommended.

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