



# THE GOODSYARD

Environmental Statement Addendum Volume 1

July 2020



ballymore.



Hammerson



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# INTRODUCTION

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1.1.1 This document is a Non-Technical Summary (NTS) of the Environmental Statement Addendum (ES Addendum) prepared by Temple Group Ltd (“Temple”) on behalf of Bishopsgate Goods Yard Regeneration Limited (“the Applicant”), which is a joint venture between Hammerson Plc and The Ballymore Group, with the objective of bringing forward the redevelopment of land formerly known as Bishopsgate Goods Yard in Shoreditch, in London (‘the site’). For the boundary of the site see Figure 1.

1.1.2 The Applicant is seeking to obtain outline planning permission with details submitted in part for a comprehensive mixed-use redevelopment (‘the Proposed Development’) partly located within the London Borough of Hackney (LBH) and partly within the London Borough of Tower Hamlets (LBTH).

1.2.1 Identical planning applications for the Proposed Development were originally submitted on the 21<sup>st</sup> July 2014 to both LBH and LBTH for determination. An Environmental Statement was submitted with the applications.

1.2.2 Following further consultation with LBH and LBTH amendments to the planning applications were submitted in August 2015.

1.2.3 On 15<sup>th</sup> September 2015 the former Mayor received a request to become the local planning authority for the purpose of determining the two planning applications at the Bishopsgate Goods Yard site. On 23<sup>rd</sup> September 2015, having considered a report on the case, the former Mayor notified LBH and LBTH that he would act as the local planning authority for the purposes of determining the planning applications. A Stage 3 report was published by the GLA in April 2016 with a public representation hearing to follow. However the Applicant requested that the hearing be deferred to allow them to work with the Greater London Authority (GLA) officers to address the concerns raised.

1.2.4 Since that time, the Applicant has been working with the officers at the GLA, LBTH and LBH with regard to the submission of amendments to the planning applications for determination by the current Mayor.

1.2.1 Following on from the Stage 3 report, changes were made to the Proposed Development by the Applicant to satisfactorily address the concerns raised which has resulted in a number of amendments to the Proposed Development.

1.2.2 The heights of the buildings across the site have been reduced to address concerns raised with regards to townscape and the availability of daylight and sunlight. The plot references have changed though the buildings are broadly located in the same positions. The range of the core uses has not changed (residential, business, retail, community uses and public open space) and a hotel use has now been included.

1.2.3 The Applicant is now submitting amendments to the application for the Proposed Development. This amended proposal is referred to as the “Revised Scheme”.

1.2.4 To ensure that the ES Addendum is presented in a way so that it can be easily understood by the public and all consultees and not complicated by continual cross referencing back to the previous ES, the ES Addendum provides a complete revision of the relevant assessment chapters so that they can be kept “clean” to avoid complication and confusion.

1.2.5 The purpose of this NTS is to provide interested parties and the public with easy, non-technical access to the information contained within the ES Addendum.

1.2.6 The location of the site is shown by the redline boundary in **Figure 1**, centred on Ordnance Survey (OS) National Grid Reference (NGR) TQ336822. The proposed layout at ground level is shown in **Figure 2**.

## Description of the ‘applications’

1.2.7 It should be noted that references in this NTS to ‘application’ should be taken to read ‘applications’ reflecting the fact that two identical planning applications were originally submitted – one to the LBH and one to the LBTH with each borough tasked with determining consent for the extent of the Proposed Development that fell within each respective area. Therefore, references to ‘planning permission’ should be taken to read ‘planning permissions’ given that two planning permissions will be required for the Proposed Amendments to proceed in its entirety.

Figure 1 The Application Site Boundary

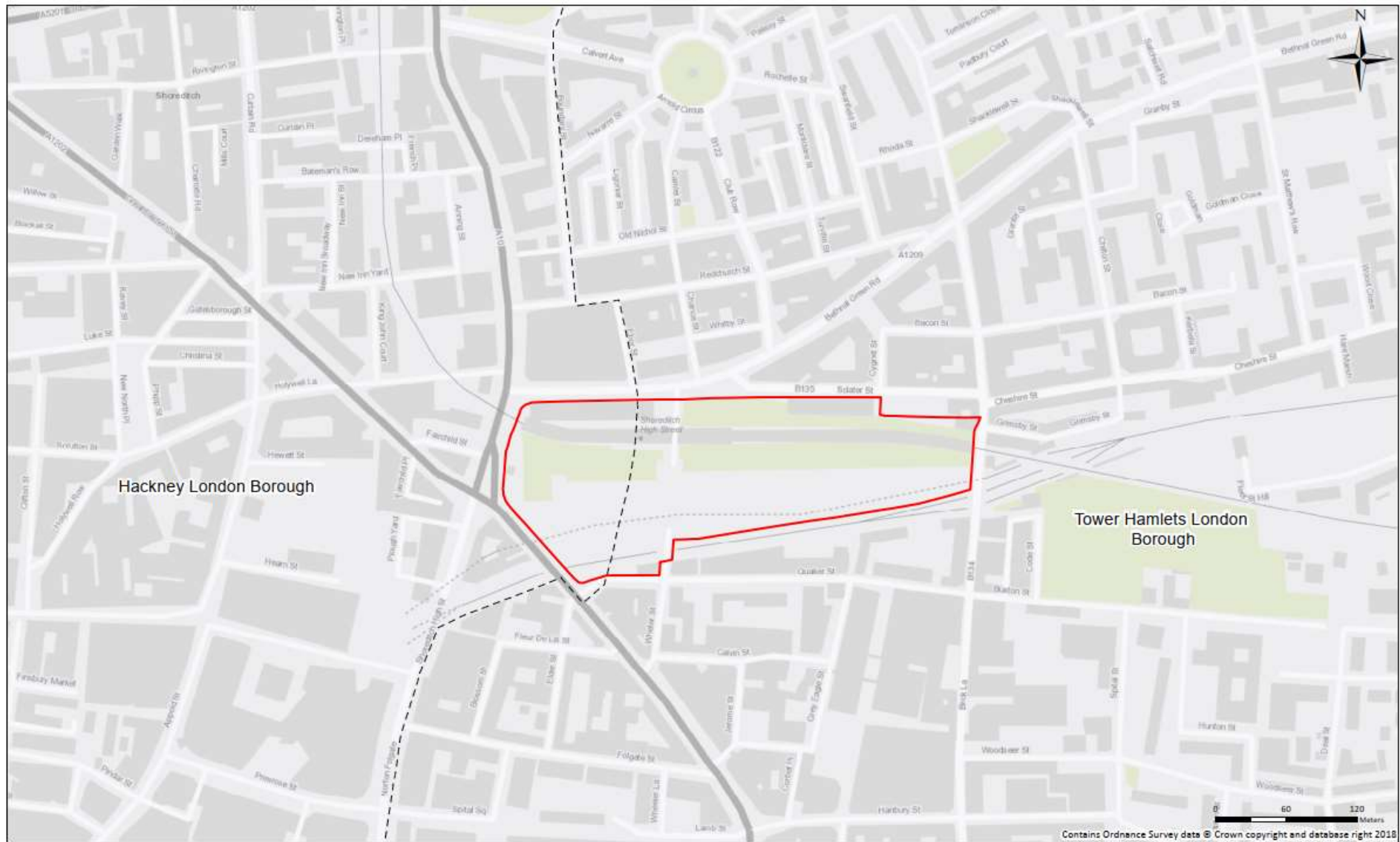
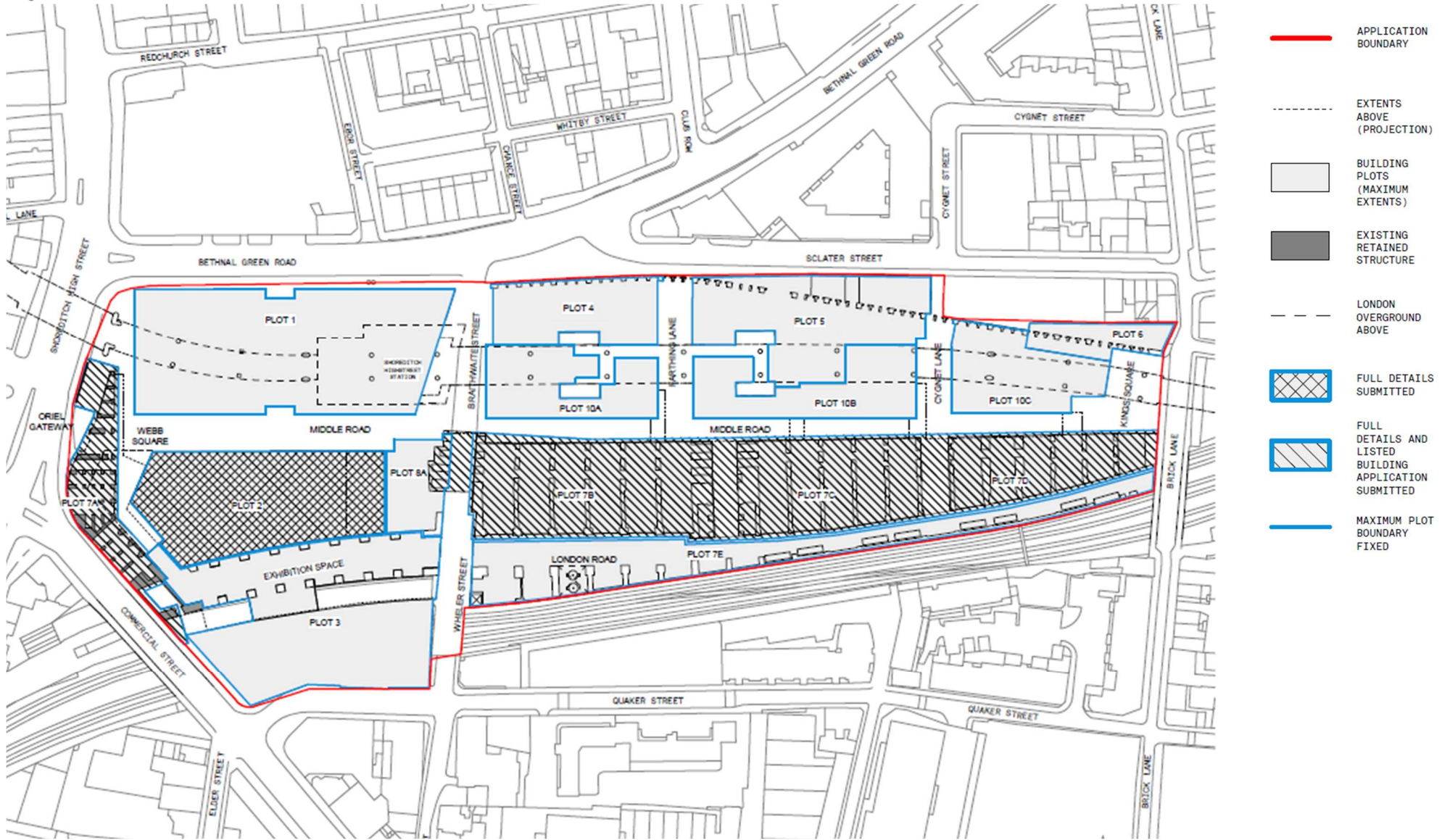


Figure 2 Proposed site layout at ground level



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## 1.2 THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

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- 1.2.1 An Environmental Statement prepared in line with the 2011 EIA Regulations<sup>1</sup> was submitted in support of the 2014 and 2015 planning applications. There have since been a number of amendments to the scheme which has resulted in the 'Revised Scheme' currently proposed. The 2019 ES Addendum has been prepared to assess the Revised Scheme.
- 1.2.2 The 2017 EIA Regulations<sup>2</sup> have since come into force. However, the Revised Scheme is proposing to amend the existing 'live' applications and therefore in accordance with the GLA's requirements, the ES Addendum has been prepared pursuant to the 2011 EIA Regulations. In the interests of best practice and robustness, the ES Addendum incorporates the requirements of the 2017 EIA Regulations which go over and above those in the 2011 EIA Regulations, all references to the 'EIA Regulations' throughout the document will refer to the 2011 EIA Regulations, and any references to the 2017 EIA Regulations will be expressed as such.
- 1.2.3 EIA is a process used to ensure planning decisions are made with full knowledge of a proposed development's likely significant effects. It helps to ensure that any effects are reduced or prevented, whilst encouraging the enhancement of positive effects. The Revised Scheme has been assessed with particular consideration to the existing use of the site, adjacent land uses, planning policies and law, the need for the Revised Scheme and the effects during construction and operational use.
- 1.2.4 The requirement for an EIA is either mandatory or conditional, depending on the classification of the development project and in the latter case, this is based, in turn, on the likelihood of significant effects arising. Under the EIA Regulations, an ES must be submitted with planning applications for "EIA Development". EIA Development may be:
- Schedule 1 Development (development of a description set out at Schedule 1); or
  - Schedule 2 Development likely to have significant effects on the environment by virtue of factors such as its nature, size or location (where Schedule 2 Development is development of a description mentioned in

column 1 of Schedule 2 where the relevant thresholds in Column 2 are exceeded (or any part of the development is in a "sensitive area" (e.g. AONBs, National Parks)).

- 1.2.5 Schedule 1 Development always requires EIA. Schedule 2 development requires EIA only if it is likely to have significant effects on the environment.
- 1.2.6 Where it is determined that a proposed development requires an EIA or where an ES is submitted, the application is known as an 'EIA Development'.
- 1.2.7 The Revised Scheme falls within a description of development listed within Schedule 2 of the EIA Regulations: paragraph 10b Urban Development Projects. The thresholds for developments under paragraph 10b are:
- the development includes more than 1 hectare of urban development which is not dwellinghouse development; or
  - the development includes more than 150 dwellings; or
  - the overall area of the development exceeds 5 ha; or
  - provide over 10,000m<sup>2</sup> of new commercial floorspace.
- 1.2.8 The Revised Scheme will include the provision of up to 500 residential homes and will therefore exceed 150 dwellings and will provide in excess of 139,000 m<sup>2</sup> GEA of commercial floorspace. For Schedule 2 development, exceeding the thresholds alone does not make a development an 'EIA Development'; the proposed development must also have likely significant effects on the environment to be considered 'EIA Development'.
- 1.2.9 The Applicant recognises that the Revised Scheme will constitute 'EIA Development' under the EIA Regulations and has committed to undertaking an EIA for the Revised Scheme. This ES Addendum has been prepared to report the findings of the EIA.
- 1.2.10 This ES Addendum is split into four volumes as follows:
- Volume 1: Non-Technical Summary (NTS) – this document, which is provided as a standalone document but also forms Volume 1 of the ES Addendum and summarises the other Volumes;
  - Volume 2: Main Text – contains the main text of the ES Addendum and should be read in conjunction with Volume 3;

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<sup>1</sup> The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (SI 2011/1824).

<sup>2</sup> The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/571).

- Volume 3: Townscape and Visual Impact Assessment (TVIA) – this document provides an assessment of the townscape and visual effects of the Revised Scheme and is accompanied by visualisations; and
- Volume 4: Technical Appendices – the appendices to the ES Addendum, including additional information, data and figures.

1.2.11 The ES Addendum is available for viewing by the public during normal office hours at the Planning Department of the GLA at:

City Hall,  
The Queen's Walk,  
London,  
SE1 2AA

1.2.12 Copies of the NTS, the full ES Addendum and other associated documents are available (subject to availability) to purchase as either hard or digital copies from Temple Group Ltd, The Woolyard, 52-56 Bermondsey Street, London SE1 3UD. Further details, including pricing, are available on request.

## 1.3 ASSESSMENT APPROACH

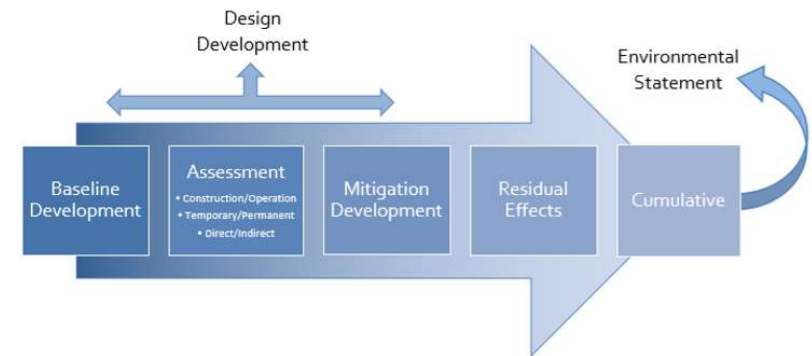
1.3.1 The general approach to assessing environmental impacts and effects is to consider the current conditions on and around the site for a range of environmental issues or topics, and then to compare them with the predicted conditions during the construction and operational phases of the Revised Scheme.

1.3.2 In order to assess the potential impacts and effects of the Revised Scheme on the environment, the sensitivity of existing resources (or receptors<sup>3</sup>) are considered in conjunction with the scale (or magnitude) of the predicted impacts to establish the significance of the predicted effects. Mitigation measures can then be proposed to reduce the significance of an effect, leading to a 'residual effect'.

1.3.3 Each environmental topic takes this same general approach to assessment, as outlined in **Figure 3**.

<sup>3</sup> Receptors could include people, features of the environment and ecological receptors. They are evaluated in terms of their value and their sensitivity or susceptibility to likely changes.

Figure 3 The Assessment Process



1.3.4 **Section 1.6** sets out the findings of the EIA process. The order of topic subsections matches the order in which they have been considered in Volume 2 of the ES Addendum.

1.3.5 It was agreed through consultation with key statutory and non-statutory consultees<sup>4</sup> which topics would be scoped in and out of the EIA (by virtue of their potential for significant effects). These are as follows:

### Scoped In

- Waste and Recycling;
- Socio-Economics;
- Ground Conditions;
- Traffic and Transport;
- Wind Microclimate;
- Daylight, Sunlight and Overshadowing;
- Air Quality;
- Noise and Vibration;
- Water Resources, Drainage and Flood Risk;
- Archaeology;
- Built Heritage;
- Ecology;
- Climate Change Mitigation and Adaptation; and
- Townscape and Visual Impact Assessment.

<sup>4</sup> Further details on key consultees can be found in Volume 2, Chapter 3: EIA Methodology, Section 3.2.

### Scoped Out

- Aviation;
- Electronic Interference;
- Population and Human Health; and
- Major Accidents and Disasters

1.3.6 The EIA process has included the identification and assessment of all likely significant effects to sensitive receptors resulting from the demolition and construction works, and once the Revised Scheme is complete and occupied. Potentially sensitive receptors that have been assessed through the EIA include:

Table 1 Potentially sensitive receptors

Category	Potential Sensitive Receptor / Land Use
Residential	Future residents within the site (as part of the phased development); Surrounding residential areas such as Quaker Street and Brick Lane; and Users of the site and the surrounding roads / footpaths / cycleways.
Commercial	Commercial operations on the site at the Boxpark and Powerleague; Surrounding commercial units such as those on the A1209 and A10 and the surrounding area; and Users of the Great Eastern Main Line and West Anglia Main Line.
Community	Receptors and their approximate distances to the site: Schools (62 primary schools within 2.7 km and 32 secondary schools within 4 km); Health facilities (6 GP practices within 1 km); and Parks and open spaces (3 pocket parks and 3 small open spaces within 0.4 km; 5 local parks within 1.2 km; 1 metropolitan park within 3.2 km; and the Lee Valley Regional Park within 2.5 km).

Category	Potential Sensitive Receptor / Land Use
Ecological	The site does not fall within the boundaries of any statutory or non-statutory designated sites. There are no sites with European or National statutory designations within a 2 km radius and no Local Nature Reserves (LNRs) were identified within 2 km of the site.
Geological	The site is located upon the London Clay formation, which is overlain by river terrace deposits, alluvium and made ground. The site overlays a Secondary Aquifer, a receptor of moderate sensitivity to pollutants. There is a potential risk to construction workers from lead contamination within the made ground on site. There is a potential risk to construction workers and future residents from land contamination caused by buried infrastructure associated with the historical use of the site.
Archaeological assets	The site is located within Tier II Archaeological Priority Areas as defined by LBTH (Spitalfields and Brick Lane) and LBH (Shoreditch). Potential archaeological remains (buried assets): The site has a low potential to contain archaeological remains dated to the prehistoric period. Roman and early medieval periods; The site has a moderate potential to contain archaeological remains dated to the later medieval period; The site has a high potential to contain archaeological remains dated to the post-medieval period; and The site has a very high potential to contain archaeological remains of 19 <sup>th</sup> century railways structures.
Heritage assets	Listed buildings within and close to the site: 2 Grade II listed structures are on-site: Braithwaite Viaduct and the Forecourt Wall, Oriel and Gates to Goods Station. There are 272 listed buildings or heritage assets in close proximity to the site, including the Tower of London World Heritage Site.

Category	Potential Sensitive Receptor / Land Use
	Conservation Areas close to the site: The north east corner of the site is within the Brick Lane and Fourier Street Conservation Area. there are 4 further conservation areas in close proximity to the site: South Shoreditch; Redchurch Street, Boundary Estate and Elder Street.
Townscape and views	Potential impacts upon townscape receptors including: Local townscape character areas, such as Shoreditch and Bethnal Green Road; Views towards the site; London View Management Framework views, such as Alexandra Palace LVMF; and LBTH and LBH Designated views and landmarks.
Utilities	Existing and proposed utilities within and close to the site such as Thames Water infrastructure (sewers, water mains, existing drainage) and electrical utilities such as the existing UKPN substation and high voltage (HV) cable which runs across the north-western corner of the site. A BT Tunnel runs north-south through the centre of the site, beneath Braithwaite Street.
Transport Infrastructure	Shoreditch Hight Street Station lies within the site. The London Underground Central Line runs beneath the western part of the site. The Great Eastern Main Line and West Anglia Main Line run to the south of the site. Liverpool Street Station and Old Street Station are within 1km of the site.

- 1.3.7 The changes generated by a development project may result in outcomes which are considered to be positive or adverse, and in some cases may be considered to be neutral.
- 1.3.8 Examples of receptors / resources that might be affected by such changes include: people (residents, passers-by, workers etc.), designated sites (Sites of Specific Scientific Interest, Conservation Areas, groundwater protection zones etc.) and non- designated environmental resources of value.

- 1.3.9 Effects come about as the result of imposing changes on receptors / resources. The physical extent of effects (in terms of the geographical area affects, or the size of the human population affected, or the spatial extent of any protected species or habitats affected) should all be taken into account when assessing the importance of likely changes along with duration, frequency and reversibility.
- 1.3.10 Some changes will affect different receptors / resources to different degrees, and some receptors / resources may be affected by a range of potential changes (to which they may well exhibit different sensitivities). Significance must therefore be judged in the context of a specific combination of change and receptor / resource.
- 1.3.11 Generic criteria for determining the value / sensitivity of a receptor or resource based on its relative importance and its ability to accommodate change and / or recover from impacts.
- 1.3.12 A generic Effect Significance Matrix is set out in **Table 2** to assist in this judgement of significance, whereby it is generally considered that any effect greater than “minor” is considered a significant effect.

Table 2 Effect Significance Matrix

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial
Moderate	Major - Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate - Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor - Negligible
Negligible	Negligible	Negligible	Negligible

- 1.3.13 The ES Addendum primarily describes environmental impacts in terms of the extent of likely change to the baseline environment. Unless stated otherwise, the baseline represents the current environmental conditions of the site (2018/2019).

- 1.3.14 For most of the technical ES Addendum chapters, this means the baseline has been updated and taken as the existing conditions (2018/19) at the site. However in some circumstances it may be necessary to apply a ‘future baseline’ or a more historic one when based on population survey data.
- 1.3.15 The redline boundary of the Revised Scheme remains unchanged from the boundary presented in the 2015 Proposed Development shown in **Figure 1.1**.
- 1.3.16 The maximum and minimum extents of the building massing on the Revised Scheme have been assessed.
- 1.3.17 In addition to assessing the effects arising from the Revised Scheme in isolation, those additional effects (referred to as ‘cumulative effects’) in conjunction with other nearby committed third-party developments have also been assessed.
- 1.3.18 The ES Addendum also includes a summary of the effects if only those parts of the Revised Scheme located wholly within LBTH were given planning permission. This is referred to as the ‘Limited Development Scenario’. There is no Limited Development Scenario for LBH only parts of the site as it would not be possible to construct any part of the Revised Scheme on only LBH land.

- 1.4.3 Part of the site is situated in the London View Management Framework (LVMF) Supplementary Planning Guidance (March 2012) which includes two protected views of St Pauls Cathedral. There is a further non LVMF view from the South Bastion of Tower Bridge towards the site and the city which restricts the height of buildings across the site to 142.5 m AOD to avoid negatively impacting the setting of the Tower of London World Heritage Site.
- 1.4.4 There are no Sites of Special Scientific Interest (SSSI), Ramsar sites, Special Protection Areas (SPA), National Parks or Local Nature Reserves (NNR) within 1 km of the site. The site contains an area of Open Mosaic Habitat on Previously Developed Land (OMHPDL), which is recognised in both the UK and LBTH Biodiversity Action Plans as a Priority Habitat.
- 1.4.5 The site is situated within Zone 1 and has excellent connectivity to the public transport network. The new Shoreditch High Street Rail Station on the London Overground opened in the centre of the site in April 2010, with the ‘boxed’ London Overground line in the centre of the site providing services to the south east, north London and Canary Wharf.
- 1.4.6 The site has been derelict since a fire on the site in the December of 1964 and demolition of the majority of the buildings in 2004. In the north of the site, adjacent to Bethnal Green Road, are number of Power League temporary football pitches and the temporary Box Park Shopping Mall, comprising of shops and cafes, in refurbished shipping containers. The southern section of the site includes the listed arches and viaduct and is vacant and overgrown with scrub-like vegetation and several low value trees.
- 1.4.7 Aside from the Shoreditch High Street Rail Station building and associated elevated London Overground rail line, there are currently no other permanent buildings within the boundary wall. The Weavers’ Cottages and former Mission Room are situated on the site to the north of the boundary wall.
- 1.4.8 There are a number of below ground constraints including a BT tunnel, the Central Line, the suburban line and existing basements between the main line and suburban line.
- 1.4.9 Further details can be found in **ES Addendum Volume 2, Chapter 2: The Site**.

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## 1.4 THE SITE

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- 1.4.1 The site is approximately 4.4 hectares in size and is located in Shoreditch, east London. It straddles the boundary of two London Boroughs: Tower Hamlets (LBTH) and Hackney (LBH). The western part of the site lies within Hoxton and East Shoreditch Ward of LBH, whilst the central and eastern section of the site is situated in the Weavers Ward of LBTH. The location of the site in its wider geographical context can be seen in **Figure 1**.
- 1.4.2 The north east corner of the site is within the Brick Lane and Fourier Street Conservation Area. The site is surrounded by 4 further conservation areas. There are two Grade II listed structures with a medium to high level of significance for historic interest on site: Braithwaite Viaduct, the Forecourt Wall and Gates to Goods Station. There are also 272 listed buildings in the vicinity of the site, which is located in Tier II Archaeological Priority Areas for both LBH and LBTH.

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## 1.5 ALTERNATIVES CONSIDERED AND DESIGN EVOLUTION

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- 1.5.1 The EIA Regulations require the consideration of 'reasonable alternatives' relating to the scheme, including alternative locations and the 'do nothing' scenario.
- 1.5.2 The Revised Scheme have been specifically designed to accommodate the unique constraints of the site, such as above ground and below ground railway infrastructure, the listed buildings including the arches and viaduct and other below-ground structures such as the BT communications tunnel.
- 1.5.3 These constraints have restricted the locations of buildings and have required complex engineering solutions to enable development whilst protecting and enhancing the listed features. The intention of this development is to enable the site to reach its potential for an office and residential led mixed use scheme despite these site constraints. Enabling the development of a brownfield site with good accessibility which has been vacant for a number of years adding to the regeneration of the local area and providing access to much need greenspace.
- 1.5.4 Therefore, no alternative locations for the development have been considered.

### 'Do Nothing' Scenario

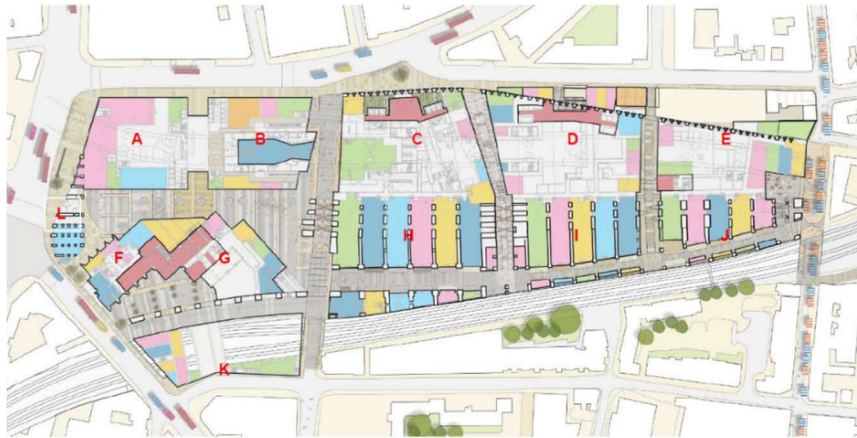
- 1.2.8 The consideration of alternatives, as required by the EIA Regulations, should address the evolution of the site in the absence of the development in question. This is known as the 'do nothing' scenario.
- 1.2.9 In the "No Development" alternative the site would continue to be vacant or occupied by temporary uses such as the current Boxpark and the Power League football pitches. The complexity of the site constraints places a number of restrictions on its development that have so far prevented comprehensive redevelopment since its previous use as a goodsyard in the 1950s.
- 1.2.10 In absence of the Revised Scheme the site would be predominantly vacant with the exception of the temporary uses outlined above and the listed buildings would be subject to dereliction and deterioration.

- 1.2.11 The site is identified by the London Plan as located within the City Fringe / Tech City Opportunity Area and the Central Activities Zone with the potential to accommodate substantial numbers of new jobs and homes.
- 1.2.12 This development would complement other developments within Shoreditch and the provision of open space would open up pedestrian linkages through the site and provide access to green space for new residents and the surrounding public.
- 1.2.13 Shoreditch is currently undergoing a process of regeneration which is reinforcing its character as a cultural quarter of national significance and which aims to make it both an important retail and creative business district. New developments such as 'The Stage' and 'Principal Place' are in close proximity and 'The Goodsyard' will complement the overall regeneration of the area.

### Design Evolution

- 1.5.5 The design development process is described in detail in the **Design and Access Statement (DAS)** which has been submitted in support of the Application, further details can also be found in **ES Addendum Volume 2, Chapter 4: Alternatives Considered and Design Evolution**.
- 1.5.6 The Proposed Development was originally submitted in 2014, **Figure 4**. Several different versions of the design for the site were tested with the public and with key consultees including LBTH, LBH, the GLA, the MDA and Historic England.

Figure 4 Illustrative Masterplan as of 2015 – Ground Floor



## 1.6 THE REVISED SCHEME

1.6.1 The Revised Scheme is described as follows: An OUTLINE application for the comprehensive mixed use redevelopment of the site comprising:

- Residential (Class C3) comprising up to 500 residential units;
- Business Use (Class B1) – up to 130,940 m<sup>2</sup> (GIA);
- Hotel (Class C1) – up to 11,013 m<sup>2</sup> (GIA)
- Retail, financial and professional services, restaurants and cafes and hot food takeaways (Class A1, A2, A3 and A5) – up to 18,390 m<sup>2</sup> (GIA) of which only 3,678 m<sup>2</sup> (GIA) can be used as Class A5;
- Non-residential Institutions (Class D1) / Assembly and Leisure (Class D2) – up to 6,363 m<sup>2</sup> (GIA);
- Public conveniences (sui generis) – up to 298 m<sup>2</sup> (GIA);
- Basement, ancillary and plant space – up to 21,216 m<sup>2</sup> (GIA);
- Formation of new pedestrian and vehicular access; means of access and circulation and car parking within the site; and
- Provision of new public open space and landscaping.

The application proposes a total of 10 buildings that range in height, with the highest being 142.4m AOD and the lowest being 19.0 m AOD.

With all matters reserved save that FULL DETAILS for Plot 2 are submitted for alterations to, and the partial removal of, existing structures on the site and the erection of a building for office (Class B1) and retail use (Class A1, A2, A3, A5) comprising a part 17 / part 29 storey building; and Plots 7 A, B, C and D comprising the use of the ground level of the Braithwaite Viaduct for retail and food and drink uses (A1, A2, A3, A5) and works to and use of the Oriel and adjoining structures for retail and food and drink uses (A1, A2, A3, A5).

1.6.2 There is public access to the site at two levels. At the ground level, streets will take pedestrians and cyclists underneath the existing viaducts and provide access to a number of retail units. Above this, a platform level will provide access to the site's green spaces and further access to the buildings. Much of the platform level is on top of the existing viaducts. Figure 5 is an illustrative view of Plot 2 from Commercial Street, showing an example of how the ground and platform levels would be accessed from the surrounding streets.

- 1.5.7 Following consultation, a new conceptual proposal was put forward and the strengths and weaknesses were assessed in line with the feedback and site constraints. In particular, the height of a number of buildings was substantially reduced, to limit the effect upon surrounding daylight and sunlight amenity and potential effects on protected views. This was to address the concerns raised by the Mayor in the Stage 3 Hearing Report in April 2016.
- 1.5.8 The masterplan was presented to the MDA and Boroughs and formal feedback led to an increase in green open space, a rebalancing of heritage and new architectural features, and reconsideration of residential units.
- 1.5.9 The refined masterplan was then taken to public consultation. Further attention was given to density and scale and to increasing the size of public realm.
- 1.5.10 Further consultation identified a need to submit detailed planning application for Building 2 and to undertake a residential optimisation study. As a result of this work, the plans for Building 2 were further refined, the scale of Buildings 4 and 5 was increased, Building 10 was converted to residential use, Building 8 was converted to mixed residential and hotel use and Building 9 was removed to provide further public realm at platform level.
- 1.5.11 Further testing of the Revised Scheme identified a requirement for horizontal fins to be added to Building 2 to improve wind microclimate conditions. A number of options were considered resulting in the fins displayed in Figure 5.

Figure 5 Illustrative view of Plot 2 from Commercial Street



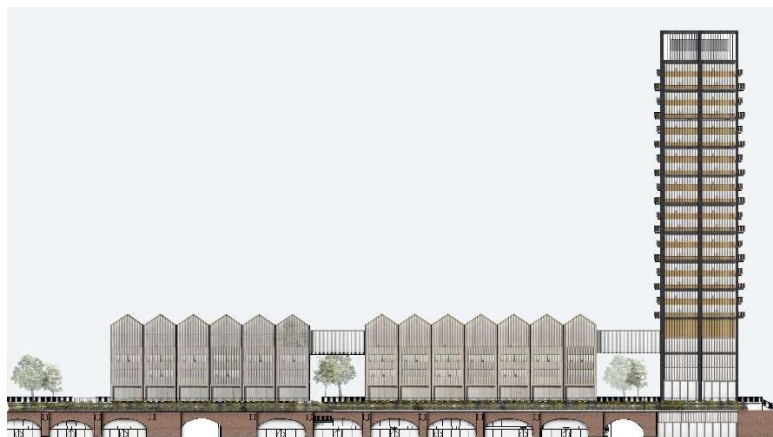
Table 3 Revised Scheme Plot Descriptions

Plot	Description
Plot 1	A commercial (office) building, 12-16 storeys in height, with retail on the ground floor. The plot is situated in the north west corner of the site bridging over the London Overground box.
Plot 2	A predominantly commercial (office) building, 29 storeys in height at its tallest, making it the tallest building in the Goodsyard Masterplan. Retail units will form the ground floor and platform level. The plot is situated on the western edge of the site.
Plot 3	A commercial use building of 7 storeys, with retail units on the ground and first floor and office space above. The plot is situated in the south west corner of the site, bridging across the open cut railway line.
Plot 4	A single residential building, with retail on the ground floor. Plot 4 is 19 storeys at maximum and is to the north of the site on Sclater Street.
Plot 5	Plot 5 consists of three separate new residential buildings with retail at the ground floor, varied in height, but 13 storeys at its highest. Plot 5 also includes the renovation of three 18 <sup>th</sup> century Weaver's cottages, the 19 <sup>th</sup> century Mission Hall and another Victorian building. These buildings are to the east of Building 4 along Sclater Street.
Plot 6	This plot consists of one 5 storey building to be used for cultural purposes. This building would consist of two separate blocks linked by a shared ground floor and incorporating the northern boundary wall. This is situated at the eastern-most part of the site and faces onto Brick Lane.
Plot 7	Plot 7 covers all the areas where the existing heritage structures will house retail units. On the west of the site, Plot 7A will consist of retail units situated in the arches facing onto Shoreditch High Street, with the restoration of the Grade II listed Oriel over the existing Gates to the Goods Yard, through which the rest of the site can be accessed. Plots 7B, C, D and E consist of retail units situated in the arches under the Grade II listed Braithwaite Viaduct and other arches in the centre of the

1.6.3 The Revised Scheme comprise of 11 distinct plots, as seen in **Figure 2**. **Table 3** provides a brief description of each plot. Further details can be found in **ES Addendum Volume 2, Chapter 5: The Revised Scheme and Construction Overview**, and the **Design and Access Statement**.

Plot	Description
	site, facing onto Braithwaite Street and three new streets through the site.
Plot 8	This Plot contains three buildings, (8A, B and C). Two buildings are 4 storeys in height, located at the platform level and used entirely as the hotel. They are linked to the taller building 8a (25 storeys) by glazed bridges as shown in <b>Figure 6 below</b> . Building 8a will consist of a hotel at the lower storeys with entrances and receptions on the ground and platform levels. From the 6 <sup>th</sup> storey onwards the rest of building 8a will be residential.
Plot 9	<i>Plot 9 was removed as part of the design evolution to maximise the amount of open green space</i>
Plot 10	Plot 10 consists of three residential buildings with retail on the ground floor. These buildings are located in the centre of the site along the newly created Middle Road.
Plot 11	Plot 11 will consist of a single storey retail building, "The Pavilion", located in the park.

Figure 6 Northern elevation of Plot 8



## Use Class

- 1.6.4 The buildings in the Revised Scheme will include a range of different uses, such as residential, office space, retail and hotel. A breakdown of the areas taken up by each 'Use Class' measured in maximum Gross External Area (GEA) (m<sup>2</sup>) is provided in **Table 4**.

Table 4 Maximum GEA by Use Class

Use Class	Maximum GEA (m <sup>2</sup> )
Use Classes A1, A2, A3 and A5 Shops, financial and professional services, restaurants, cafes and takeaways.	19,547
Use Class B1 Offices	139,023
Use Class C1 Hotel	11,595
Use Class D1, D2 Small Medical Centre Assembly and Recreation Venue and other Leisure	7,074
Total (This also includes other minor categories, such as space for mechanical plant and miscellaneous uses)	243,856

## Unit Mix

- 1.6.5 The Revised Scheme will provide residential units with a number of different bedrooms. The Revised Scheme will provide social, private and intermediate housing, where intermediate is defined as being above the cost of social housing but below market levels. A dwelling mix for the Revised Scheme as a whole is set out in **Table 5** and is based on the maximum parameters for the scheme. All proposed residential accommodation is situated within LBTH and is included within the application for Outline planning permission.

Table 5 Overall Unit Mix based on maximum parameters

MAXIMUM (Parameter) SCHEME						
Unit Type	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Total
<b>Social</b>	0	21	27	28	14	<b>90</b>
<b>Intermediate</b>	0	612	39	44	0	<b>95</b>
<b>Private</b>	0	242	72	1	0	<b>315</b>
<b>Total</b>	0	275	138	73	14	500

### Car Parking

1.6.6 The Revised Scheme is very well served by public transport, including Shoreditch High Street station which is located on site. The Revised Scheme will be car-free with the exception of accessible parking provision.

### Open Space, Play and Recreation, Green Infrastructure

1.6.7 There is 25,812 m<sup>2</sup> of public realm at the ground and platform levels, made up of public thoroughfares and open space including green infrastructure and play spaces. In addition to this there are private amenity spaces and inaccessible habitat spaces.

1.6.8 Landscaping on the site is divided into three levels:

- Ground level;
- Platform level; and,
- Roofs consisting of both accessible garden terraces and inaccessible biodiverse roofs.

1.6.9 Both covered and open publicly accessible space is provided at ground level, consisting of gateways, streets and squares. Stairways and lifts will provide access to the platform level. There are four distinct areas at platform level (The Balconies, The Gardens, The Field and The Banks). These include private and publicly accessible space and green planting including a 500m<sup>2</sup> area of Open Mosaic Habitat and woodland glade areas. Roof garden terraces will provide privately accessed communal space for residents, office workers and the hotel. Private residential roof terraces will include space for children's play. A total of 3,970m<sup>2</sup> of play space will be provided across the Revised Scheme.

1.6.10 A bio-diverse roof of wildflower rich and drought tolerating planting will be provided where roof space is not required for mechanical plant. This will be on buildings 1,2,3,4,5, 8A, 10A,10B and 10C and will be inaccessible to the public and residents alike. Areas will be left to be colonised naturally by plants, invertebrates and birds. **Figure 5** shows the total green space that will be available on site. The bold areas will be at the roof level and the faint areas will be at the platform level.

### Construction Programme

1.6.11 The Revised Scheme will be constructed in 8 phases over a period of 13 years. **Table 6** below details the key periods and sequences of activities during construction.

Table 6 Periods of Development for the Construction Phase

Phase	Plots / Buildings	Start Date / End Date	
Phase 1	Plot 2 (Office) & Plot 7A (Retail)	Q1 2021	Q2 2024
Phase 2	Plot 7B, 7C, 7D, 7E (Retail) & Plot 11 & Park	Q1 2021	Q4 2023
Phase 3	Plot 5 and Plot 10B (Residential), Plot 6 (Leisure)	Q4 2022	Q1 2025
Phase 4	Plot 8A, 8B, 8C (Hotel & Retail)	Q3 2025	Q3 2028

Phase	Plots / Buildings	Start Date / End Date	
Phase 5	Plot 10C (Residential)	Q3 2028	Q3 2030
Phase 6	Plot 1 (Office)	Q4 2028	Q3 2031
Phase 7	Plot 4 (Residential) & Plot 10A (Residential)	Q2 2030	Q1 2033
Phase 8	Plot 3 (Office)	Q3 2031	Q1 2034

1.6.18 The construction phase is anticipated to generate 520 FTE jobs.

1.6.12 Various construction plant, such as excavators, tower cranes, generators and piling rigs will be used to construct the Revised Scheme.

1.6.13 Construction plant will access the site in phases 1-3 from the A1209 and will leave via Wheeler Street and Commercial Street. In phase 4 and 5 construction traffic will enter and leave via Sclater Street.

1.6.14 The number of vehicle movements per day peaks at 65 in 2023 when Phase 1,2 & 3 are in construction.

1.6.15 Further information on construction traffic routes will be available in the forthcoming Construction Environmental Management Plan and Construction Logistics Plan.

1.6.16 Core working hours will be from 08:00 to 18:00 on weekdays (excluding bank holidays) and from 08:00 to 13:00 on Saturdays. No construction work is typically undertaken on Sundays, however if works are required outside of the core permitted working hours, this will be agreed upon with LBTH and LBH.

1.6.17 To minimise construction related impacts, a Code of Construction Practice (CoCP) has been produced. This sets out the standards and procedures for managing the environmental impacts, and public health and safety aspects that may affect local residents, business and the general public. The Applicant will also prepare a Construction Environmental Management Plan (CEMP) for the construction of the Revised Scheme for approval by LBTH and LBH prior to beginning construction.

Figure 5 Illustrative masterplan showing green space at the roof (bold) and platform level (faint)



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## 1.7 SUMMARY OF TOPIC ASSESSMENTS

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### Introduction

- 1.7.1 Environmental effects have been assessed for the construction and operational phase. Operational effects describe those that would exist after the Revised Scheme have been built and are occupied and in use.

### Waste and Recycling

#### Baseline

- 1.7.2 The authorities responsible for waste collection would be LBTH and the North London Waste Authority. They have both identified that they have sufficient capacity to manage their share of the waste targets in the London Plan (known as the “apportioned waste targets”).

#### Anticipated Effects

- 1.7.3 In total, 97,728 m<sup>3</sup> of waste will be generated during the demolition, excavation and construction phase. This equates to 94,935 tonnes of waste generated over the 13-year construction programme, which equates to approximately 7,303 tonnes per annum.
- 1.7.4 During the operation phase, the Revised Scheme is expected to generate approximately 714,500L waste per week, with 102,000L from residential uses and 613,500L from non-residential uses. This equates to 7,813 tonnes per year in total.

#### Mitigation Measures

- 1.7.5 The Site Waste Management Plan, which will be secured via an appropriately worded planning condition, will include the reduction of construction waste on-site as a main aim, which it will achieve via a number of standard Best Practice Measures. These include implementation of a ‘just-in-time’ material delivery system, re-use of materials wherever feasible, and the segregation of waste where practical.

- 1.7.6 The Operational Waste Management Strategy outlines the mitigation embedded into the design of the Revised Scheme for the operational stage.

#### Residual Effects

- 1.7.7 Once the embedded mitigation measures outlined in the Operational Waste Management Strategy and the Site Waste Management Plan have been implemented, the residual effects of waste and recycling are negligible. No additional mitigation measures are necessary.
- 1.7.8 The risk that the combination of the Revised Scheme and other cumulative schemes exceed the waste that can be managed within the Boroughs is not significant

#### Socioeconomics

##### Baseline

- 1.7.9 Demand for housing is significantly higher than supply and the wards are expected to experience high levels of population growth. Local schools should be able to take up the number of pupils generated by the Revised Scheme despite challenges in secondary provision beyond 2027. There may be issues with the capacity of 0-4 years childcare provision. Access to healthcare services and community facilities is sufficient. Crime rates, unemployment and economic inactivity are relatively high.

##### Anticipated Effects

- 1.7.10 There are non-significant minor adverse effects from the impact of the additional population on the availability of childcare and education provision – the need generated by the Revised Scheme could be absorbed by existing facilities given that only a proportion of the children will require formal childcare. The scale of additional housing in the cumulative schemes would exacerbate this effect.
- 1.7.11 There will be significant beneficial effects from the additional 346-500 dwellings that will be added to the housing stock in LBTH. This will include a proportion of affordable housing and a mix of dwelling sizes in line with local policies. The scale of additional housing in cumulative schemes increases this beneficial effect.

1.7.12 Non-significant, minor beneficial effects from this development include: the increase in employment during construction; spending of additional population within the local economy; increased access to local retail and eateries; increased access to health services and an increase in community and recreational facilities as well as open and play space.

1.7.13 The increase in employment during operation is considered a significant moderate-minor beneficial effect. The impact on the population due to an increase in housing supply is considered a significant moderate-minor beneficial effect.

1.7.14 While the residential use could present opportunities for crime and anti-social behaviour, the effect would be minor adverse and not significant. The Revised Scheme could increase the absolute crime rate (the total number of crimes committed) but is unlikely to increase the relative crime rate (the number of crimes committed per head) and may reduce it due to the Secured by Design measures taken in the Revised Scheme's design.

1.7.15 The cumulative impact of surrounding schemes would increase the significance of additional employment opportunities and the additional spend of new residents in local shops, raising these impacts. However, other cumulative developments are likely to generate demand for healthcare facilities.

#### **Mitigation Measures**

1.7.16 The Revised Scheme will require a Community Infrastructure Levy (CIL) payment to be made to both LBH and LBTH, which could be used to fund a wide range of infrastructure (including childcare, education, healthcare and community facilities). Contributions could help to mitigate the likely adverse effects with respect to demand for services within LBH and LBTH. There is no certainty, however, that CIL funds will be applied to any specific needs generated by this development. Funding through a Section 106 agreement is subject to further discussion between the Applicant and the relevant authorities and could be more specifically targeted to mitigate adverse effects of the Revised Scheme.

1.7.17 Crime related mitigation measures including securing the site to prevent unauthorised entry and exit during construction and Secured by Design measures taken in the Revised Scheme's design.

1.7.18 The Revised Scheme would provide a GP surgery with 1-2 GPs.

#### **Residual Effects**

1.7.19 The crime related mitigation measures outlined above would reduce the effect of the additional population on levels of crime to a negligible level. All other effects would remain as outlined above.

#### **Ground Conditions**

##### **Baseline**

1.7.20 As the site was previously used as a railway and goods station and then as a car and lorry park, the ground at surface level consists of Made Ground and there could be contamination from previous site uses. The areas was previously heavily bombed and asbestos surveys and abatement have previously taken place on site. Therefore, previous uses of the site all create the potential for significant contamination.

1.7.21 The groundwater underneath the Made Ground is moderately sensitive to contamination – while the primary aquifer is relatively protected by a low-permeability stratum of London Clay above it, this could be disrupted by piling allowing any pollution present in the upper groundwater to move into the primary aquifer.

1.7.22 The baseline assessment carried out for the 2015 application identified and described occasional low levels of ground contamination only.

##### **Mitigation Measures**

1.7.23 If additional or higher level contamination were identified during demolition and construction, remediation of soils or groundwater might become necessary.

1.7.24 The CoCP would ensure that construction activities follow procedures than minimise harm to the environment and human health from both existing contamination on site and any new contamination that could be introduced as a result of construction activities.

### **Residual Effects**

- 1.7.25 The removal of any contaminated soils associated with the preparatory ground works and foundation excavations of the Revised Scheme will result in a moderate beneficial residual effect to the local environment, as this will reduce the total amount of contamination in the area.
- 1.7.26 The likely residual effects on site workers, nearby residents, site users, groundwater beneath the site, and on-site and nearby buildings are considered negligible in all cases.

### **Traffic and Transport**

#### **Baseline**

- 1.7.27 The site is located within an area of excellent public transport accessibility. Shoreditch High Street station is on site, and a number of bus, Underground and National Rail stops are within a short walking distance.

#### **Anticipated Effects**

- 1.7.28 During construction, there may be delays to pedestrians, cyclists and public transport users due to construction traffic needing to access the site. This delay would not be significant (minor adverse). Cyclists may experience a non-significant increase in fear and intimidation from large construction vehicles. This would be mitigated using the measures outlined below.
- 1.7.29 In most cases, during the operational phase of the scheme, pedestrians would have an improved (major beneficial) experience walking through and around the site. There are a small number of areas where there would be more pedestrian congestion, but these are not considered significant (minor adverse). Public transport users may experience a minor adverse effect on routes with the highest patronage.

#### **Mitigation Measures**

- 1.7.30 During construction, a phased opening of the construction sites will be put in place to reduce conflict between ongoing construction and new residents on site. The Construction Logistics Plan will contain measures to further reduce conflict between construction vehicles and pedestrians and cyclists. With these mitigation measures in place, all effects of construction would be negligible.

- 1.7.31 Once operational, the design of a public realm will lead to an improved pedestrian and cyclist experience in most cases. Signs and maps will help pedestrians find their way around the new site. A Travel Pack for office users of Building 2 will be produced that will encourage building users to take a pedestrian route to Liverpool Street Station that will reduce pedestrian congestion.

- 1.7.32 The site is car-free (with the exception of accessible parking provision), reducing its contribution to congestion in the area as far as practical.

### **Residual Effects**

- 1.7.33 The only significant effect of the Revised Scheme would be the improved pedestrian amenity in most cases throughout the site, which would be a major beneficial effect.

### **Wind Microclimate**

#### **Baseline**

- 1.7.34 The current site has generally calm wind conditions, suitable for sitting or standing throughout the site, and within the recommended criteria for pedestrian safety.

#### **Anticipated Effects**

- 1.7.35 A model of the site with only Buildings 2 and 7 constructed, which represents conditions after Phase 1 and 2 of the construction, was tested. Another model of the completed development was also tested.
- 1.7.36 In both scenarios, wind speeds are likely to increase in some areas and decrease in others once the Revised Scheme is complete as buildings change the wind flow across the site. Buildings can shelter locations from prevailing winds, however there can be increased windiness around the corners of buildings and at new heights created by the Revised Scheme.
- 1.7.37 The ground level of the site and the surrounding area will remain suitable for their intended uses.
- 1.7.38 The platform level will generally have wind conditions suitable for the intended uses of the platform apart from terrace areas to the west of Plot 2 where conditions in some locations are one category too windy for their proposed use (minor adverse).

1.7.39 All areas of the Revised Scheme would be within safety criteria in the event of strong winds – there would be no areas of the site considered unsafe in strong winds.

#### **Mitigation Measures**

1.7.40 Mitigation measures have been built into the design of Building 2 in particular, as it is the tallest building on site and located to the south west of the site, which is the windiest location. These embedded mitigation measures are:

- horizontal fins 3 m wide protruding from floor levels 5,10,15 and 20 on Building 2, and a solid 6 m wide canopy above the transfer structure on the southwestern facade of Building 2;
- 11 elevated banners along the thoroughfare to the north of Building 2, 6m above the ground and suspended from poles;
- baffles suspended from the underside of the Overground structure where this crosses pedestrian thoroughfares;
- planting or hedging to the west of Plot 2, and between the southeastern corner of Plot 2 and the southwestern corner of Plot 8A;
- three trees east of the southwestern corner of Plot 2; and
- solid screens between the southeastern corner of Plot 2 and the southwestern corner of Plot 8A; and
- solid balustrade around the Building 2 roof terraces.

#### **Residual Effects**

1.7.41 With the mitigation measures outlined above, there are no locations with wind speeds higher than required for the proposed use of that location apart from the balcony terraces on the western side of Building 2, which are considered suitable for standing conditions representing a significant minor adverse effect. There are no locations where strong winds may cause a location to be unsafe. There are no locations where the change from the baseline would be significant and adverse.

#### **Daylight, Sunlight and Overshadowing**

##### **Baseline**

1.7.42 There are 136 residential properties surrounding the scheme that would have a reasonable expectation to natural light and windows facing the Revised Scheme.

#### **Anticipated Effects**

1.7.43 The introduction of new buildings can reduce the amount of daylight and sunlight that nearby properties receive. Buildings can also overshadow parks and other amenity areas.

#### **Mitigation Measures**

1.7.44 All mitigation measures related to daylight, sunlight and overshadowing are embedded in the design of the scheme, including the reduction of massing of many of the buildings as part of the design evolution.

1.7.45 Measures to reduce light pollution nuisance to residents in Plot 8 include a detailed lighting design as well as light dimming and automatic blinds after the hotel curfew time.

#### **Residual Effects**

1.7.46 During the worst case in the construction phase, and during the operation of the Revised Scheme, it is likely that there would be 28 instances where neighbouring properties would experience a minor adverse effect on the amount of daylight received, 11 instances of significant moderate adverse effects and 9 instances of significant major adverse effects. The effect to the remaining 88 properties would be negligible. This level of daylight effects is not unusual for the urban context of the site.

1.7.47 During the worst case in the construction phase, and during the operation of the Revised Scheme, it is likely that there would be 13 instances where neighbouring properties would experience a minor adverse effect on the amount of sunlight received, 4 instances of significant moderate adverse effects and 9 instances of significant major adverse effects. The effect to the remaining 87 properties would be negligible. This level of sunlight effects is not unusual for the urban context of the site.

1.7.48 For daylight and sunlight, this assessment is based on the number of windows facing the development.

1.7.49 During construction and operation, light pollution from nearby buildings would have a moderate adverse effect on Building 8A, the combined hotel and residential building. The effect of light pollution on all other receptors would be negligible.

1.7.50 The effect of the Revised Scheme once complete and operation on the overshadowing of nearby amenity areas such as parks would range from negligible to major adverse with the roof terrace and pool areas of Shoreditch House the only significantly affected areas.

### Air Quality

#### Baseline

1.7.51 Both LBH and LBTH have Borough-wide Air Quality Management Areas for both NO<sub>2</sub> and PM<sub>10</sub>. Annual mean concentrations of NO<sub>2</sub> are likely to exceed and therefore not meet the NO<sub>2</sub> annual mean objective at some roadside and kerbside locations within the study area. Short term objectives for NO<sub>2</sub> and both short term and long-term objectives for PM<sub>10</sub> and PM<sub>2.5</sub> are likely to be met.

#### Anticipated Effects

1.7.52 In the construction phase, development can negatively affect air quality by producing dust and through construction traffic emissions. Once a development is complete and operational, air quality can be affected by traffic to the site and by plant operating on the site.

1.7.53 The overall dust risk for dust is predicted to be high during the construction phase. The overall dust risk for health effects is also predicted to be high.

1.7.54 Based on the EPUK guidance, the change in annual mean NO<sub>2</sub> concentrations associated with the construction phase of the Revised Scheme results in the air quality impact being classified as substantial adverse at a modelled receptor inside a building on Commercial Street (E14), slight adverse at E7 and E8 located on Sclater Street and negligible at all other modelled receptors. The change in annual mean PM<sub>10</sub> concentrations associated with the construction phase results in the air quality impact being classified as substantial adverse at receptor E14 and negligible at all other receptors. The change in annual mean PM<sub>2.5</sub> concentrations results in the air quality impact being classified as slight adverse at receptor E14 and negligible at all other receptors.

1.7.55 The change in annual mean NO<sub>2</sub> concentrations when the Revised Scheme is operational results in the air quality impact being classified as substantial adverse at receptor E14 and negligible at all other modelled receptors. The change in annual mean PM<sub>10</sub> concentrations results in the air quality impact being classified as substantial adverse at receptor E14 and negligible at all other receptors. The change in annual mean PM<sub>2.5</sub> concentrations results in the air quality impact being classified as slight adverse at receptor E14 and negligible at all other receptors.

#### Mitigation

1.7.56 Standard good practice measures to mitigate dust emissions from the construction phase of the Revised Scheme would be included within a CoCP to prevent or minimise the release of dust entering the atmosphere and/or being deposited on nearby receptors. With these mitigation measures in place, residual effects on receptors are likely to be negligible, with possible short-term minor adverse effects during adverse weather conditions.

1.7.57 Effects at receptor E14 can be addressed by mitigation measures agreed with the local planning authority and secured through planning conditions. These could include sealing facades and mechanical ventilation with NO<sub>x</sub> filtration. The effectiveness of mitigation measures can be assessed by further detailed assessment.

#### Residual Effects

1.7.58 Annual mean NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations at future receptors on the Revised Scheme were modelled at various heights representing different floor levels of the Revised Scheme. The predicted NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations are all within, and therefore meet, the air quality objectives at all new receptors introduced by the Revised Scheme. Therefore, the site is considered as suitable for the proposed use.

1.7.59 The Revised Scheme meets the requirements for air quality neutrality in terms of building, and transport emissions.

1.7.60 The residual effects of the Revised Scheme on air quality would be negligible.

## Noise and Vibration

### Baseline

- 1.7.61 The site is exposed to continuous traffic noise from surrounding roads, rail noise from the London Liverpool Street and Shoreditch High Street, construction noise from 55b Holywell lane and Silwex and occasional aircraft noise.

### Anticipated Effects

- 1.7.62 A noise impact is a change in the acoustic environment. This may be through the introduction of a new noise source or a change to an existing source causing change to the noise climate at existing receptors or the introduction of a new noise sensitive development. The magnitude of the noise impact can depend on the absolute noise level, change in noise level, duration of exposure and the time of day of exposure.
- 1.7.63 In the construction phase, construction activities can lead directly to noise and vibration effects. Construction traffic can also lead to noise effects.
- 1.7.64 Noise impacts can lead to effects on receptors, such as annoyance or sleep disturbance for residential receptors or disturbance to non-residential receptors. The significance of noise effect can vary depending on the type of receptor and its sensitivity to noise, such as residential, commercial or hotel uses.
- 1.7.65 Noise levels from construction activities are predicted to be higher than existing ambient noise levels at the closest noise sensitive receptors to the works so a temporary minor to moderate adverse effect is likely.
- 1.7.66 As the Revised Scheme is being constructed in phases, noise from construction activities could affect new users of the site, including residents, as well as existing neighbours.
- 1.7.67 Vibration levels from construction are predicted to be at a level where it might just be perceptible in the closest sensitive receptors, so a temporary minor adverse effect is likely.
- 1.7.68 In the operational phase, noise effects could originate from mechanical plant noise and operational traffic noise as a consequence of the Revised Scheme. In addition, new residential and commercial uses on site could be undermined by noise and vibration exposure from existing sources.

- 1.7.69 There is no detailed information about the noise that plant on the site will generate, but mechanical plant noise will have to comply with noise limits in the LBH and LBTH Local Plans, and no significant effects are anticipated.
- 1.7.70 Changes in road traffic noise due to the Revised Scheme during operation are likely to be negligible.
- 1.7.71 Noise levels are suitable for new residential and hotel uses on site subject to the mitigation measures outlined below. The majority of outdoor amenity areas in the Revised Scheme will be within acceptable noise levels.
- 1.7.72 Groundborne noise and vibration from existing sources is below the acceptable limit for new uses of the site. Based on vibration exposure measurements, adverse vibration effects from the rail infrastructure on site are not expected.

### Mitigation

- 1.7.73 Prior warning and explanation should be given to residents which are likely to be impacted by vibration from construction activities.
- 1.7.74 Where minor to moderate adverse effects are predicted, further best practicable means measures should be investigated to minimise noise from the construction site.
- 1.7.75 The proposed hotel and residential building specifications, including double glazing and acoustically-rated passive ventilation, are sufficient to meet noise standards. For some sensitive receptors in buildings 4, 5 and 10C, mechanical ventilation will be used, reducing the reliance on opening windows for ventilation. Non-residential buildings will have ventilation systems and will not require openable windows.

### Residual Effects

- 1.7.76 With the prior warning of vibration given to residents the effects are likely to be negligible. Therefore, the main residual effects will be the effects of construction noise on existing (neighbouring) residents and non-residential receptors, and new residential and non-residential users of the site. With further best practicable means measures to reduce the noise impacts on site, the residual effect will be minor adverse.

## Water Resources, Drainage and Flood Risk

### Baseline

- 1.7.77 There are no surface water bodies within 1 km of the site and the underground River Walbrook is hydrologically isolated from the site.
- 1.7.78 The site is connected to the River Thames via the sewer network which can overflow into the River Thames during periods of high runoff. The water quality of this stretch of the River Thames is sometimes of poor chemical condition but is considered to be in moderate ecological condition; this section of the Thames cannot achieve a higher ecological condition because it has been heavily modified from its natural state. Although the River Thames is not classed as a Fishery there are good populations of fish in the local section;
- 1.7.79 There is a small shallow aquifer within the Taplow Gravels close to the surface on the site which may be affected by surface activities. Another, more significant aquifer lies in the White Chalk at greater depth below the site and isolated from the surface by a thick layer of the London Clay Formation.
- 1.7.80 The site is at a low risk of flooding by rivers but there is a risk of limited flooding from surface water at present. The site lies within a heavily urbanised area and runoff from the site could affect surrounding areas if not properly managed.
- 1.7.81 The supply of drinking water for the London area is being managed and upgraded to deal with the continued increase in population.

### Anticipated Effects

- 1.7.82 The construction phase could give rise to water and/or groundwater pollution. Piling can provide new pathways to enable contamination to reach the underlying groundwater by breaking through the low-permeability London Clay.
- 1.7.83 The development once operational could change the surface water run off from the site. The development would increase water demand and the production of effluent from the site. Pollution leaks and spillages may contaminate the drainage system.

### Mitigation

- 1.7.84 Mitigation measures to reduce the potential for contamination from the construction phase are outlined in the CoCP and will include the proper management of concrete and cement handling, the prevention of leaks and spills, regular cleaning of site access points, the use of geotextile silt fences, controlled earth movements, wheel washing and pumping dewatering effluent to settling tanks.
- 1.7.85 A piling risk assessment will outline measures to protect the underlying aquifers from contamination. Additional site investigation could be used to re-design the piling strategy to avoid penetrating the London Clay.
- 1.7.86 The Drainage Strategy is designed to reduce surface water run-off by holding and treating water on site.
- 1.7.87 The residential development will be equipped with efficient water devices to reduce water user per inhabitant.

### Residual Effects

- 1.7.88 Effects on groundwater, surface water and flood risk will be negligible, with the exception of a minor adverse effect on the Taplow Gravels aquifer because that aquifer is likely to already be in contact with the Made Ground.
- 1.7.89 Once the Revised Scheme is complete and operational, there is likely to be a permanent improvement to surface water runoff quantity and a reduction in the possibility of flooding on the site and in the surrounding area. This is due to the creation of a modern drainage system on site.
- 1.7.90 It is expected that the Revised Scheme will have no effect on the important chalk aquifer that lies at depth below the site.
- 1.7.91 There should also be no impact on water resources within the London area as a result of the Revised Scheme.

## Archaeology

### Baseline

- 1.7.92 The site has a low potential to contain prehistoric, Roman or Saxon remains; a moderate potential to contain later medieval remains; a high potential to contain post-medieval remains of medium significance and a very high potential to contain 19<sup>th</sup> century railway remains of medium significance.

### Anticipated Effects

- 1.7.93 The effects of construction and demolition are likely to be greatest to the west of the site where Plots 1 and 2, which will have accompanying basements, will be located. A permanent, direct, major-moderate adverse effect before mitigation is anticipated for post-medieval and 19th century remains in this area, representing the greatest potential impact on the site pre-mitigation.

### Mitigation

- 1.7.94 The mitigation proposed for these impacts consists of targeted archaeological excavation in advance of preliminary ground works and the excavations for basements and foundations. This would allow remains to be recorded prior to their removal. This would be accompanied by an archaeological watching brief in areas not affected by deep ground intrusions.

### Residual Effects

- 1.7.95 With the implementation of the proposed mitigation, the residual effects would be a mix of negligible and minor adverse. There is unlikely to be a significant cumulative impact of the Revised Scheme with other development schemes.

## Built Heritage

### Baseline

- 1.7.96 The Site contains two listed buildings, a number of Bishopsgate Goods Yard structures that are not explicitly identified in list descriptions and three unlisted historic buildings on Sclater Street. These Heritage Assets will be directly impacted by the development.

- 1.7.97 A review of the National Heritage List for England confirmed that there are just over 200 Listed Buildings, one Registered Park and Garden and three Scheduled Monuments within the 500m radius Study Area. In addition, the Site lies partly within Brick Lane and Fournier Street Conservation; this part of the Site includes the unlisted Sclater Street buildings. The Site is bordered by a further three Conservation Areas which include South Shoreditch in LBH and Redchurch Street and Elder Street Conservation Areas (both in LBTH). The 500m radius Study Area contains these conservation areas as well as the Boundary Estate Conservation Area. The Study Area also includes 26 Locally Listed Buildings.

- 1.7.98 The Revised Scheme will not be visible in views of and from the Tower of London World Heritage Site (WHS) and does not form part of its wider setting. The Revised Scheme would therefore not cause harm to the significance or Outstanding Universal Value of the WHS. Following consultation with Historic England throughout the design evolution at pre- and post-application stage, the design of Plot 2, the only elements of the 2015 Proposed Development visible within the setting of the WHS, was reviewed and revised so as to remove the visual impact of the proposal on the setting of the WHS.

### Mitigation

- 1.7.99 Historic Goods Yard structures on the Site will be recorded at Historic England Level 3 or 4 before refurbishment or demolition in order to understand the complex development of the Bishopsgate Goods Yard before alteration. Whilst this will not mitigate the effect upon these structures it will help to partially offset the loss of the heritage significance of the assets demolished.. On site heritage structures that are to be retained will be protected; works to historic structures will be sensitively and appropriately handled and undertaken by appropriately qualified professionals.

- 1.7.100 The design of the Revised Scheme is carefully considered to minimise harmful impacts upon the heritage assets. The overall height and density of the scheme has been reduced, in particular the height of the tallest building, Building 2, has been revised in light of consultation with Historic England, particularly around the impact on the setting of the Tower of London.

- 1.7.101 A Construction Environmental Management Plan (CEMP) will be prepared, and it will provide for mitigation measures including hoarding, control of noise, vibration and dust, etc. Conservation of the heritage assets fabric will be a priority of the construction works and fully integrated into the CEMP.

### Residual Effects

- 1.7.102 The construction phase would have a moderate beneficial effect upon the significance of the two listed buildings on the Site: the Braithwaite Viaduct and Forecourt Wall and Gates to old Bishopsgate Goods Station as a result of the long-term effect of repair and restoration. It would also have a minor to moderate beneficial effect upon the significance of the Goods Yard structures that are to be retained but would have a moderate to major adverse effect upon the significance of the Goods Yard structures that are to be demolished. Historic building recording will help to partially offset the loss of the heritage significance of the assets demolished. The demolition of these structures would have a moderate adverse effect on the setting and therefore significance of the two listed buildings and the remaining Goods Yard structures. Some of the structures to be demolished adjoin the Listed Buildings and structures to be retained. Removal of part of the Goods Yard boundary wall to create a new staircase from Commercial Street to Platform Level would have a Moderate to Major Adverse effect upon the significance of the Listed Forecourt Wall and Gates to old Bishopsgate Goods Station. In addition, the proposals include building within and upon the listed viaduct. These alterations may involve some loss of, or covering up of, historic fabric and may have a Moderate Adverse effect on the significance of the Listed Building.
- 1.7.103 The construction phase would have a minor to moderate beneficial effect upon the significance of the unlisted 18th century Weavers Cottages 70-74 Sclater Street and a minor beneficial effect upon the significance of the Victorian Building and 19th century Mission Hall in Sclater Street due to their repair and restoration. The effect of alteration (removal of historic fabric) to the Weavers Cottages would be minor to moderate adverse to the significance of this heritage asset.
- 1.7.104 The impacts of construction vibration upon the viaduct and the forecourt wall and gates is currently unknown. Initial surveys indicate that the viaduct and forecourt wall are in relatively good structural condition, though this is subject to full investigative structural survey which will be undertaken subject to approval and prior to any construction works commencing. The Oriel window is in a poor condition. The conservation of the Heritage Assets' condition will be a priority of the construction works and fully integrated into the CEMP. It is considered that with appropriate implementation and full understanding of the condition of the assets, the likely effect would not be significant.
- 1.7.105 The construction phase would give rise to temporary minor to moderate adverse effects upon the listed and unlisted Goods Yard Structures and the unlisted buildings on Sclater Street in terms of noise, dust and other construction effects.
- 1.7.106 Once operational, the impact of the Revised Scheme would be minor to moderate adverse upon the setting of the on-site heritage assets: Braithwaite Viaduct, Forecourt wall and gates to old Bishopsgate Goods Station and remaining Goods Yard structures. It would be minor adverse on the unlisted buildings in Sclater Street and minor to moderate adverse on the part of the Site that lies within the Conservation Area.
- 1.7.107 The Revised Scheme would have a moderate adverse impact on the Boundary Estate and Elder Street Conservation Areas. The buildings in these conservation areas derive their value from their consistency of period, scale and character. This significance would be diminished by tall buildings in the backdrop of views of the conservation area towards the Site, particularly where previously tall modern buildings were not visible. The Revised Scheme would also have a minor to moderate adverse effect upon the Redchurch Street and the Brick Lane and Fournier Street Conservation Areas. However, the views of the tower blocks would be occasional, especially in these two Conservation Areas where the narrow streets and tight urban grain help to mitigate against long views.
- 1.7.108 The impact on setting of some listed heritage asset within 500 m of the site would also be moderate adverse. These comprise the following:
- Arnold Circus Garden and residential blocks in the Boundary Estate.
  - The Elder Street group of 18th century terraced houses.
  - Nos 10-18 Folgate Street a row of 18th century terraced houses.
- 1.7.109 It would be minor to moderate adverse on other Listed and Locally Listed Buildings. These include the following:
- Commercial Street – the Spitalfields market buildings and the Commercial Public House (including Locally Listed nos 144-146 Commercial Street).
  - Great Eastern Street –nos 6-8 Great Eastern Street and 5, Fairchild Place/11-15, Great Eastern Street.
  - Wheler Street – Bedford House.

## Ecology

### Baseline

- 1.7.110 There are six non-statutory designated sites for nature and ecology within 1 km of the site. The closest is Spitalfields City Farm and Allen Gardens SINC, which is 100 m to the east of the site and is designated as important at the Borough level. There is Open Mosaic Habitat on Previously Developed Land on the site which is important at the Borough level, particularly for the invertebrates living in this habitat.
- 1.7.111 As well as a Phase 1 Habitat Survey to describe and map the habitats on site, surveys were carried out for bat roosting and activity, black redstart, terrestrial invertebrates and reptiles.
- 1.7.112 The invertebrate and black redstart populations are considered to be important at the metropolitan/borough level. The nesting bird and foraging bat populations were assessed by the baseline survey to be important at the local level only. All other habitats and species present were assessed as of importance in the vicinity of the site only. The site is of negligible importance for roosting bats.

### Mitigation Measures

- 1.7.113 Because the Proposed Amendment will be constructed in phases, there will be refuge habitat available which reduces the impact on habitats, invertebrates, black redstart and other birds in particular.
- 1.7.114 A number of mitigation measures have been proposed. These include avoiding accidental spillage of chemicals; timing the removal of scrub, shrubs and trees outside of the bird breeding season; the provision of bird boxes; the planting of hedges and trees; and the creation of living roofs, new open mosaic habitat; species rich lawn and additional landscape planting of wildlife value.
- 1.7.115 Additionally, although no hibernating bats were found during the surveys it was not possible to survey all locations therefore a precautionary approach has been applied and an appropriate mitigation strategy will be implemented for bats to ensure no net loss of roost sites.

## Residual Effects

- 1.7.116 The assessment of the impacts of the Proposed Amendment on ecology, including consideration of mitigation measures and the phased development, would lead to a non-significant minor adverse effect on invertebrates during the construction phase, with negligible effects during construction or operation on the rest of the ecology of the site.
- 1.7.117 A number of living roofs and landscape planting is proposed in surrounding developments. The cumulative impact of the Revised Scheme and other nearby schemes is considered to be minor beneficial.

## Climate Change Mitigation and Adaptation

### Greenhouse Gas Emissions– Anticipated Effects

- 1.7.118 The Revised Scheme will contribute to the emissions of Greenhouse Gases (GHGs) in the atmosphere, which drive climate change. This ES Addendum estimated the GHG emissions associated with each phase of the entire life of the site using estimation methods based on best practice.
- 1.7.119 GHG emissions associated with the construction phase consist of the embedded carbon in building materials, carbon emissions from construction traffic and carbon emissions from construction plant.
- 1.7.120 GHG emissions associated with the operational phase consist of regulated and non-regulated energy use and traffic emissions from residents, workers and visitors. Regulated energy use consists of lighting, space heating and cooling, pumps and fans whereas unregulated energy use include small electronics and catering equipment.

### Greenhouse Gas Emissions - Mitigation Measures

- 1.7.121 With the construction phases mitigation measures to reduce GHG emissions including a construction traffic management plan as well as the potential for low carbon construction materials and construction efficiency to be considered in a CEMP the residual effect on climate change would be moderate-minor adverse and significant.

1.7.122 With the mitigation measures outlined in the Energy Strategy - which would adopt the use of the Energy hierarchy set out in the London Plan – and the forthcoming Travel Plan, the effect of operational regulated energy usage and traffic emissions would be minor adverse and not significant. The effect of unregulated energy use in this Revised Scheme on climate change is not possible to determine.

1.7.123 There will also be GHG emissions associated with the end of the Revised Scheme's life, including its demolition and replacement. This activity will be too far in the future for mitigation measures to be outlined at this stage; circular economy principles should be adopted. The residual effect would be moderate-minor adverse and significant.

#### **Greenhouse Gas Emissions – Residual Effects**

1.7.124 Climate Change will also alter the effects of the Revised Scheme on other topics outlined in this ES Addendum. However, with the implementation of a Climate Change Adaptation Plan at a future design stage the effects described in the other ES Addendum topics will remain valid and are less likely to be exacerbated.

#### **Townscape and Visual Impact Assessment**

##### **Baseline**

1.2.14 The site is currently derelict and detracts from the townscape character of the surrounding area. The Revised Scheme will have a new townscape character of its own.

##### **Mitigation**

1.7.125 The Revised Scheme has been designed to reflect the character of the surrounding areas. Therefore, all townscape and visual impact mitigation is embedded within the design of the Revised Scheme.

#### **Residual Effects**

1.7.126 As well as judging the significance of the townscape and visual effects on the surrounding area, a qualitative judgement is made on whether an effect is adverse, beneficial or neutral. This is based on a judgement in the round and is a 'net equation' – for example, a combination of both beneficial and adverse effects caused by different parts of the development on the same view might yield a neutral judgement.

1.7.127 After assessment, the effects of the Revised Scheme on the townscape and views would be almost entirely beneficial or neutral. The beneficial effects will be greatest and most noticeable in the immediate vicinity of the site.

1.7.128 Townscape character areas near to the site have been identified – the site itself, Shoreditch, Bethnal Green Road, Spitalfields, The City, Boundary Estate, and the Eastern Fringe. These areas were identified by studying the historical development and present-day condition of the area, and then dividing the study area into geographical areas which have readily identifiable characteristics in common. Effects on all the townscape areas considered would be neutral or beneficial.

1.7.129 The effect on the Elder Street Conservation Area, within which this street lies, is neutral, reflecting the varied nature of this area and its location in the City Fringe.

1.7.130 The study identified 64 viewpoint locations. These include views considered significant in policy, such as those covered by the London View Management Framework or by World Heritage Site designation, or points where the Revised Scheme might have a particularly big impact. Also considered were views characteristic of townscape areas as described above, and views across local open spaces. These viewpoint locations were agreed with LBTH and LBH.

1.7.131 There is an adverse effect to one view (view number 49 in the assessment) along Elder Street. This would be the case in the day and night. View 49, unlike other views nearby that would feature Plot 2, comprises a cohesive foreground of mostly grade II listed 18<sup>th</sup> century terraced houses. The buildings of Plot 2 and 3 would appear as a distinct layer of townscape in the background of this view, clearly separate from the older houses in the foreground. It is considered that this adverse effect on the view in this location would be less in the Revised Scheme than in the previously submitted scheme.

1.7.132 There would be an adverse effect on the setting of listed buildings around Elder Street and Fleur De Lis Street.

## 1.8 COMPARISON WITH THE 2015 ES

1.8.1 **Table 7** below outlines the differences between the conclusions drawn in the 2015 ES and the 2019 ES Addendum.

Table 7 Comparison between 2015 ES and 2019 ES Addendum

Topic	Summary
Waste and Recycling	No change to baseline, pre mitigation or residual effects.
Socio-Economics	<p>Non-significant temporary minor beneficial effect on crime rates in 2019 ES Addendum was not raised in 2015 ES.</p> <p>Moderate beneficial effect on housing provision in 2015 ES revised to a Moderate-Minor beneficial effect in 2019 ES Addendum due to reduction in housing provision.</p> <p>Negligible effect on education in 2015 ES revised to a non-significant minor adverse effect in the 2019 ES Addendum through the increase in demand for school places.</p> <p>Negligible effect on health provision revised to a non-significant minor beneficial effect in the 2019 ES Addendum through the provision in the Revised Scheme of a GP surgery.</p>
Ground Conditions	No change to baseline, pre mitigation or residual effects.
Traffic and Transport	No significant change to baseline, pre mitigation or residual effects. Some improvement over the 2015 ES as the Revised Scheme is now car free.
Wind Microclimate	No significant changes to baseline or residual effects.

Daylight Sunlight Overshadowing Solar Glare and Light Pollution	Reduction in number of significant adverse effects on daylight and sunlight in neighbouring properties due to the reduction in height and massing of the scheme, particularly on the eastern side of the site. Overshadowing of amenity areas is greatly reduced.
Air Quality	No change - all air quality effects are negligible both before and after the application of mitigation for both the 2015 ES and the 2019 ES Addendum.
Noise and Vibration	Reduction of construction noise effect on existing residential and non-residential receptors within 15m of the site from major to moderate adverse.
Water Resources and Flood Risk	<p>Negligible effect on the Taplow Gravel secondary aquifer in the 2015 ES revised to a minor adverse effect in the 2019 ES Addendum.</p> <p>Negligible effect on the River Thames (water quality, ecology and fisheries) and on the flood risk to neighbouring properties in the 2015 ES revised to a minor beneficial effect in the 2019 ES Addendum as a result of enhanced rainwater attenuation.</p>
Archaeology	<p>Reduction of pre-mitigation effects due to reduced basement footprint on site.</p> <p>No change to baseline or residual effects.</p>
Built Heritage	Reduction in construction phase effect on the Tower of London World Heritage Site from minor adverse to negligible.
Ecology	There is no change in effects between the 2015 ES and 2019 ES Addendum.
Climate Change	There was no standalone climate change chapter in the 2015 ES.
Townscape Visual Impact Assessment	Removal of majority of adverse effects on townscape. All issues raised in respect of LVMF views have been addressed.

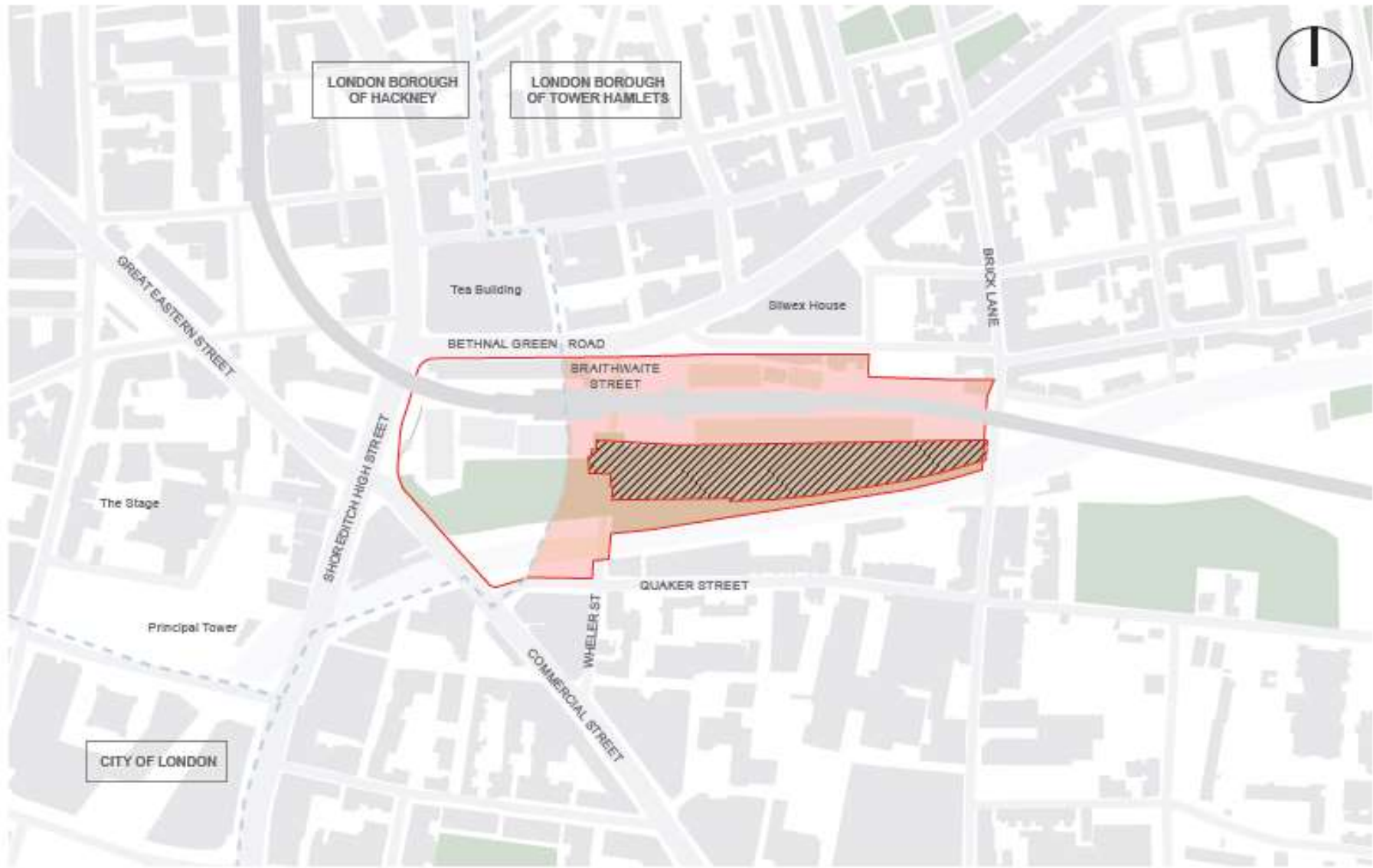
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## 1.9 LIMITED DEVELOPMENT SCENARIO

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- 1.9.1 The Limited Development Scenario is a scenario where only LBTH planning permission is approved or implemented. In this scenario only development plots 4, 5, 6, 7 (B, C, D and E), 8, 10 and 11 would be built. **Figure 6** shows the site boundary under this scenario.
- 1.9.2 The effects of the Limited Development Scenario were assessed for all topic areas.
- 1.9.3 For waste and recycling, while the overall volume and weight of waste produced would be reduced the mitigation measures in the Site Waste Management Plan and the Operational Waste Management Strategy would still apply and the residual effect on LBTH's ability to meet the Borough's apportioned waste targets would remain negligible.

Figure 6 Site Boundary of the Limited Development Scenario



- 1.9.4 For socio-economics, most residual effects on people remain unchanged but the number of jobs created would be reduced from an estimated 6,231 to 496 net jobs (under the minimum development scenario).
- 1.9.5 For ground conditions, water resources and flood risk, and ecology, the baseline, effects and proposed mitigation would be the same for the Limited Development Scenario and the full Revised Scheme. Beneficial effects on the River Thames and on the flood risk of the surrounding area would be slightly reduced because there would be less holding of water on site. There would be slightly less replacement habitat in the Limited Development Scenario as there would be two fewer biodiverse roofs. However, the majority of the green space, habitat and water attenuation are situated in the Limited Development Scenario.
- 1.9.6 For traffic and transport, the impact on public transport users would be reduced relative to the Revised Scheme and would have a negligible effect.
- 1.9.7 While the LDS would provide a higher level of pedestrian comfort than the Revised Scheme overall, the eastern footway of Shoreditch High Street, southern footway of Bethnal Green Road and northern end of Braithwaite Street would carry a greater number of pedestrians as the western end of Middle Road would not be constructed.
- 1.9.8 Other residual effects and proposed mitigation measures would be unchanged from the Revised Scheme, with the exception of the travel packs proposed for Building 2 in the Revised Scheme, which would not be necessary in the LDS.
- 1.9.9 For wind microclimate, the effects of the Limited Development Scenario will be lower than for the Revised Scheme. Mitigation specific to Building 2 will not need to be implemented.
- 1.9.10 For daylight, sunlight, overshadowing, solar glare and light pollution there would be a substantial reduction in the number of neighbouring buildings experiencing moderate or major adverse effects on the sunlight or daylight that they receive.
- 1.9.11 The effects on air quality of the Limited Development Scenario would be lower than those of the Revised Scheme. The air quality impact of the operation of the Limited Development Scenario would be negligible at all of the receptor locations that were modelled.
- 1.9.12 For noise and vibration the majority of residual effects will remain unchanged, although there will be a reduction in the number of noise sensitive receptors who experience minor adverse effects related to construction noise and vibration. There will be a slight reduction in the screening of residential properties from existing noise sources as a result
- 1.9.13 For archaeology, the pre-mitigation effects would be lessened as the Limited Development Scenario would not be constructing basements. The mitigation employed would remain the same as the Revised Scheme and would result in no residual effects on buried remains.
- 1.9.14 For built heritage all effects would remain as for the Revised Scheme except that further deterioration of the on-site, listed Forecourt Wall, Oriel and Gates to the Goodsyrd would occur, leading to a moderate adverse effect on this heritage asset under the Limited Development Scenario compared to the moderate beneficial effect for the Revised Scheme.
- 1.9.15 The contribution towards Climate Change through GHG emissions would be slightly reduced in the Limited Development Scenario but the significance of the effects and the proposed mitigation would remain the same. A Climate Change Adaptation Plan is still recommended to ensure that climate change does not exacerbate the issues raised by other topics in this ES Addendum.
- 1.9.16 For townscape and visual impact, the effect of the Limited Development Scenario would be reduced when compared to the Revised Scheme, as the tallest buildings in the Revised Scheme would not be present in the LDS. All the townscape and visual impact effects of the Limited Development Scenario would be neutral or beneficial. The Limited Development Scenario would not be visible at view 49 along Elder Street.

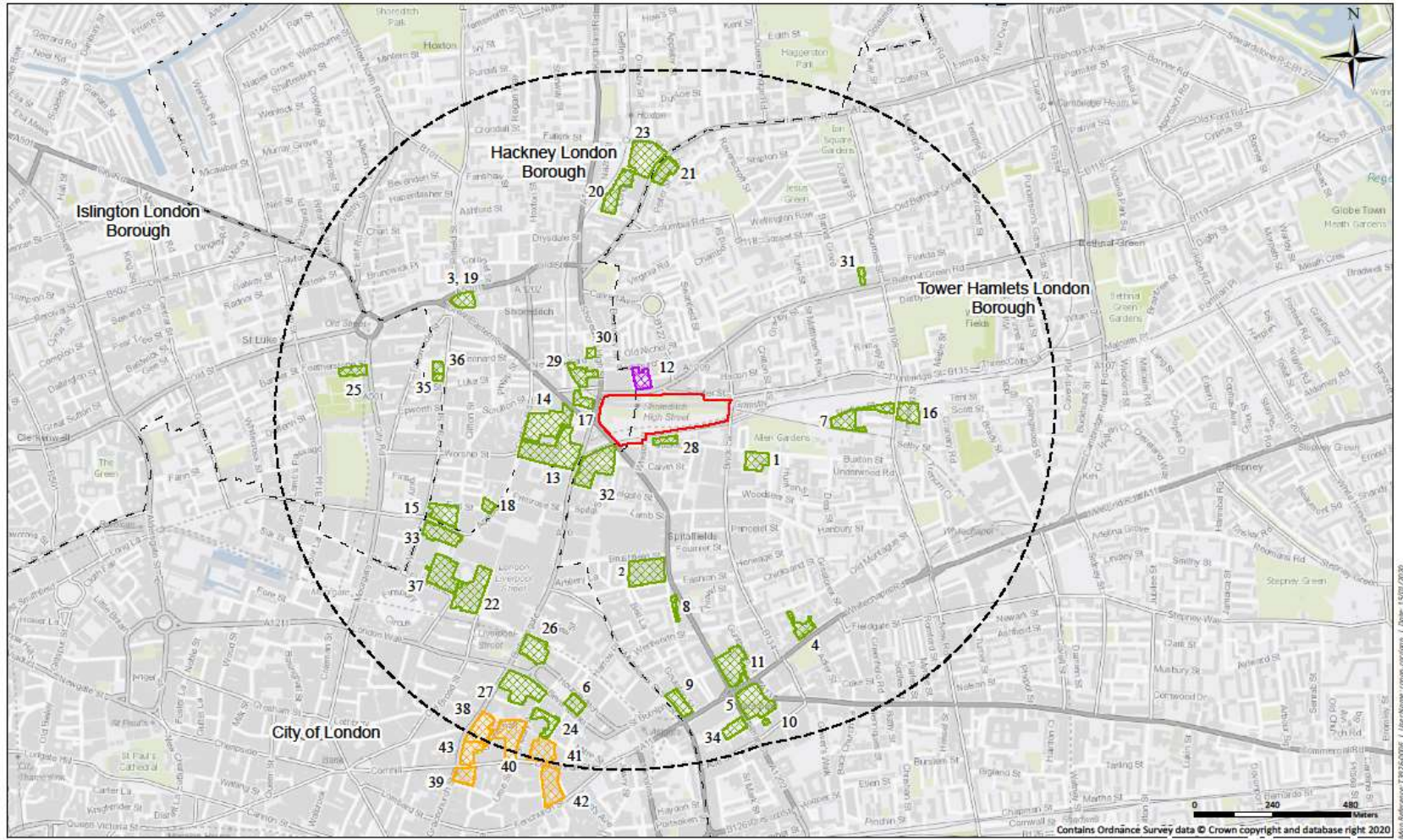
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## 1.10 CUMULATIVE EFFECTS

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- 1.10.1 There are two types of cumulative effects: Intra-Project effects which result from the interaction of individual effects from the Revised Scheme on a particular receptor and Inter-Project effects which result from the combined effects of other projects alongside the Revised Scheme.
- 1.10.2 Details of the 43 submitted, committed and reasonably foreseen developments considered within the assessment of inter-project effects can be found in **Volume 2, Chapter 3, Table 3.8**. Four of these schemes are considered only for their potential effects on townscape. Their locations are shown in **Figure 7**.

Figure 7 Cumulative Schemes



Project: Bishopsgate Goods yard  
 Client: Bishopsgate Goods Yard Regeneration Ltd

### Cumulative Schemes Surrounding the Site



Temple Group Ltd., The Woolyard, 52 Bermondsey Street, London, SE1 3UD  
 Tel: 020 7394 3700 Fax: 020 7394 7071

- Legend**
- 1km Site Buffer
  - Site Boundary
  - Cumulative Schemes
  - TVMA
  - Not Submitted
  - Borough Boundaries



### Intra-Project Effects

- 1.10.3 There is some potential for overall nuisance effects to nearby residents during the construction phase due to the interaction of construction noise, reduction in daylight and sunlight to surrounding buildings, and construction traffic.
- 1.10.4 Interactive effects during the operational phase are expected to be mostly minor positive. Adverse interactive effects are likely to be limited to those residents affected by reductions in daylight and sunlight availability who are also affected by pedestrian amenity reduction such as that anticipated at the western end of Bethnal Green Road and at road crossings with Shoreditch High Street.

### Inter-Project Effects

- 1.10.5 There will also be some significant cumulative effects when considering the Revised Scheme with the surrounding development schemes.
- 1.10.6 Significant adverse cumulative effects comprise:
- Significant loss of daylight to an additional 14 properties
  - Significant loss of sunlight to an additional 2 properties
  - Increase in adverse effects on the setting of heritage assets, particularly in combination with effects from Principal Tower (PA 2016/2044), The Stage (2015/3453) and 201-207 Shoreditch High Street (2015/2403), although this will not exceed the significance of the residual effect of the Proposed Development in isolation on the setting of these heritage assets.
- 1.10.7 Significant beneficial cumulative effects comprise:
- Further improvement to some local views
  - Impact of the spending of the additional population on the local economy in LBH and LBTH

## 1.11 CONCLUSIONS

- 1.11.1 **Table 8** outlines the significant effects which have been considered likely to occur during both construction and operation, once measures have been put in place to minimise any likely adverse environmental effects, and in some cases, enhance the benefits from the Revised Scheme.

Table 8 Significant Residual Effects

Topic	Residual Effect
<b>Waste and Recycling</b>	
Construction	None
Operation	None
<b>Socio-Economics</b>	
Construction	None.
Operation	Permanent moderate-minor beneficial effect on the population with respect to housing supply. Permanent moderate-minor beneficial effect on the population with respect to employment and skills.
<b>Ground Conditions</b>	
Construction	None.
Operation	Uncertain minor to major beneficial effect from the removal of contamination from soil and groundwater.
<b>Traffic and Transport</b>	
Construction	None.

Topic	Residual Effect
Operation	Major beneficial effect on pedestrian amenity at locations throughout the site where improvements have been made to public realm.
<b>Wind Microclimate</b>	
Construction	None.
Operation	Minor adverse effect on the suitability of wind conditions on balconies/terraces on the western side of Building 2.
<b>Daylight, Sunlight and Overshadowing</b>	
Construction	<u>Daylight</u> - Moderate Adverse to 11 properties and Major Adverse to 9 properties. <u>Sunlight</u> - Moderate Adverse to 4 properties and Major Adverse to 9 properties. <u>Light Pollution</u> - Moderate adverse to 1 receptor (Building 8A) internal to the Site <u>Overshadowing of amenity areas</u> Negligible (most amenity areas) to Major Adverse (Shoreditch House).
Operation	<u>Daylight – neighbouring properties</u> - Moderate Adverse to 11 properties and Major Adverse to 9 properties. <u>Sunlight – neighbouring properties</u> - Moderate Adverse to 4 properties and Major Adverse to 9 properties. <u>Light Pollution</u> – Negligible to all external receptors, Moderate to 1 receptor (Building 8A) internal to the Site <u>Overshadowing of amenity areas</u> Negligible to Major Adverse (Shoreditch House).
<b>Air Quality</b>	
Construction	None

Topic	Residual Effect
Operation	None
<b>Noise and Vibration</b>	
Construction	Temporary minor to moderate adverse effect from the Phased Construction during Foundation and Super-Structure for existing residential and non-residential receptors within 15m of the site perimeter. (R1, R2, R5, R6, R7, R8, R9, R11, R15, R16)
Operation	None
<b>Water Resources, Drainage and Flood Risk</b>	
Construction	None
Operation	None
<b>Archaeology</b>	
Construction	None
Operation	None
<b>Built Heritage</b>	
Construction	Long term effects of repair and restoration - Braithwaite Viaduct, Forecourt wall and gates to old Bishopsgate Goods Station - Moderate Beneficial Goods Yard structures that are to be demolished – Moderate to Major Adverse. Long term effects of alteration, loss, covering up of historic fabric upon Braithwaite Viaduct and Forecourt wall and

Topic	Residual Effect
	<p>gates to old Bishopsgate Goods Station – Moderate Adverse.</p> <p>Long term effects of alteration, loss, covering up of historic fabric upon Forecourt wall and gates to old Bishopsgate Goods Station – Moderate to Major Adverse.</p> <p>Demolition of unlisted Bishopsgate Goods yard structures Heritage Assets: (vaults to the west of the Braithwaite Viaduct), ramp and vaults below between Commercial Road and Wheeler Street - Braithwaite Viaduct, Forecourt wall and gates to old Bishopsgate Goods Station - Moderate Adverse.</p> <p>Long term physical effects of removal of adjoining and other Goods Yard structures Goods Yard Structures that are to be retained - Moderate Adverse.</p>
Operation	<p>Effect upon setting of nearby heritage asset (listed and locally listed) in Boundary Estate – Arnold Circus Garden, Residential blocks and ancillary services and Elder Street group of 18th century terraced houses and Folgate Street, Nos, 10-18 – group of 18th century terraced houses - Moderate Adverse.</p> <p>Effect on setting of Elder Street and Boundary Estate conservation areas - Moderate Adverse.</p>
<b>Ecology</b>	
Construction	None
Operation	None
<b>Climate Change Mitigation and Adaptation</b>	
Construction	Moderate-minor adverse effect on global climate as a result of embedded greenhouse gas emissions associated with building materials.

Topic	Residual Effect
Operation	Moderate-minor adverse effect on global climate as a result of greenhouse gas emissions associated with end of life carbon costs.
<b>Townscape and Visual Impact Assessment</b>	
Construction	Moderate adverse effect on local townscape and pedestrian amenity.
Operation	<p>Moderate to moderate major beneficial effect on local townscape character areas (the site itself, Shoreditch, Bethnal Green Road and Spitalfields)</p> <p>Moderate neutral effect on the Boundary Estate local townscape character area and on the setting of listed buildings in the Boundary Estate.</p> <p>Moderate-major beneficial or neutral effect on the setting of South Shoreditch, Redchurch Street, Brick Lane and Fournier Street, Elder Street and Boundary Estate Conservation Areas.</p> <p>Moderate neutral effect on London View Management Framework (LVMF) views 1A.1, 2A.1, 4A.1, and 6A.1,</p> <p>Moderate beneficial effect on the setting of on-site listed buildings.</p> <p>Effects on most local views and on the setting of listed buildings on routes that align onto the site range from minor the major and neutral to beneficial.</p> <p>Moderate adverse effect on the setting of listed buildings on the junction of Elder Street and Fleur-de-Lis Street. Major adverse effect on a local view from the junction of Elder Street and Folgate Street.</p>

Topic	Residual Effect
<b>Cumulative Effects</b>	
Construction	<p>Significant loss of daylight to an additional 13 properties</p> <p>Significant loss of sunlight to an additional 2 properties</p>
Operation	<p>Significant loss of daylight to an additional 13 properties</p> <p>Significant loss of sunlight to an additional 2 properties</p> <p>Effects on the setting of some heritage assets, although this will be less than the residual effect in some places due to screening from other developments</p> <p>Additional effect on some local views: City Road / Cayton Street (moderate neutral), Cheshire Street / St Matthew's Row (moderate neutral), Shoreditch High Street (moderate-major beneficial), Blossom Street (major beneficial).</p> <p>Moderate neutral effect on LVMF views 10A.1, 15B.1, 15B.2, 17B. 2, 17B.2, 25A.1, 25A.3 and medium range views around Tower Bridge, Waterloo and South Bank</p> <p>Impact of the spending of the additional population on the local economy in LBH and LBTH.</p>