Environmental Statement
Non-Technical Summary
May 2012
1. Introduction

The Application

Cardinal Lysander Limited and Crossrail Limited (the ‘Applicant’) is seeking full planning permission for the construction of an office-led development called ‘Cardinal House’ (hereafter referred to as the Proposed Development) which will form an Over Site Development (OSD) at the Farringdon Western Ticket Hall in the London Borough of Islington (LBI). The Site is located at the corner of Cowcross Street and Farringdon Road and is bound to the north by Cowcross Street, to the west by Farringdon Road and to the south by commercial buildings. The Site has a total area of approximately 0.35 hectares (ha).

Construction is underway on the Site for the integrated Crossrail and Thameslink ticket hall, which will serve the existing infrastructure and Crossrail Farringdon Western Ticket Hall. Prior to commencement of the Crossrail project, the Site was occupied by a single 12 storey office building known as Cardinal Tower. Cardinal Tower was demolished in 2009 as part of the Crossrail project enabling works.

Figure 1 shows the location of the Site. Figure 2 illustrates the site plan and planning application red line boundary, and Figure 3 shows the relationship of the Proposed Development to the Crossrail works.

The Environmental Impact Assessment Process

Applications for development that are covered by the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2011 (the ‘EIA Regulations’) are termed ‘Environmental Impact Assessment (EIA) applications’. However, the Crossrail Act 2008 is important in the context of the Proposed Development; as section 14 of the Act provides that, where a building is demolished or substantially demolished for the purposes of the Crossrail works, any later planning application for the replacement development (for example an OSD over a Crossrail station) must be accompanied by an EIA. This is irrespective of whether the developments would be defined as an ‘EIA development’ under the EIA regulations.

As a result, an EIA has been undertaken and an Environmental Statement (ES) prepared to support the planning application for the Proposed Development, in accordance with the requirements within the Crossrail Act 2008, and submitted to LBI as part of the planning application documents. URS Infrastructure & Environment UK Limited (URS) has been commissioned by the Applicant to undertake an EIA in accordance with the EIA Regulations, current guidelines and available legislation.
Figure 2: Site Plan and Planning Application Red Line Boundary

Figure 3: Plan Showing the Relationship between the Oversight Development and Crossrail Work
This document, known as the ES Non-Technical Summary (NTS), provides an overview of the findings of the ES. The ES NTS has been prepared for a general audience, including parties potentially affected by the Proposed Development.

Sensitive receptors in the vicinity of the Site, which have the potential to be affected by the Proposed Development, have been identified. The criteria for indentifying those receptors which are considered to be potentially sensitive, include the nature of the receptor, proximity to the works, and extent of exposure to impacts and impact interactions. These receptors include local and long distance views, areas with special conservation status, and the wider community. Specific criteria for each technical area have been developed, giving due regard to the following:

- Extent and magnitude of the impact;
- Impact duration (short, medium or long-term);
- Impact nature (whether direct or indirect, reversible or irreversible);
- Whether the impact occurs in isolation, is cumulative or interactive;
- Performance against environmental quality standards;
- Sensitivity of the receptor; and
- Compatibility with environmental policies.

In order to assess the potential impact of the Proposed Development, it is necessary to determine the environmental conditions that currently exist on the Site. These are known as ‘baseline conditions’. However, in this case, Crossrail and London Underground Limited (LUL) works are already underway on the site, and therefore it is not possible to accurately determine ‘current’ conditions, as these are constantly changing and vary from day to day.

Since this Proposed Development forms part of the overall Crossrail project, it is considered that there should be a baseline that considers the Site as it existed prior to Crossrail works.

The ES therefore presents two baseline scenarios:

- Pre-Crossrail works on the Site (i.e. prior to the previous Cardinal Tower building being demolished). This is based on the year 2009; and
- The Site following completion of the Crossrail works but prior to the commencement of the OSD (post-Crossrail). This is assumed to be the year 2017.

Further reference is made to aspects of the baseline within each technical chapter.

The ES has highlighted the potential impacts, mitigation measures and ‘residual’ impacts. Mitigation measures to avoid, offset or reduce any significant adverse environmental impacts, and have been incorporated into the project design wherever possible. Residual impacts are defined as those that remain following the incorporation of any identified mitigation measures.

The significance of residual impacts has been evaluated with reference to definitive standards, accepted criteria and legislation where available. Where it has not been possible to quantify impacts, qualitative assessments have been carried out based on professional experience and judgement.

Impacts have been classified as being adverse, negligible or beneficial in nature. Impacts have also been considered in terms of their geographic scale (for example, local, district or regional), and their timescale (for example short-term, long-term and permanent).

For the purpose of consistency and in accordance with the principles of section 14 of the Crossrail Act, URS has used Crossrail’s assessment methodology, and adopts the significance criteria (so far as is possible) set out in Volumes 5 and 8a of the Crossrail ES. The following terms are therefore used:

- Non-significant (NSig); or
- Significant (Sig); or
- Significant impacts of Particular Importance (PSig).

The ES also describes the consultation process undertaken to ensure that the views and concerns of interested parties, and statutory consultees, have been given due consideration in the design process. The ES comprises:

- ES Volume I – Environmental Statement: This document presents the findings of the EIA and is divided into a number of background and technical chapters supported with figures and tabular information for clarity of reading;
- ES Volume II – Townscape and Visual Impact Assessment: This document comprises a stand-alone Townscape and Visual Assessment accompanied by a set of views and images;
- ES Volume III – Technical Appendices: The Technical Appendices provide detail on the assessments undertaken and information used to inform ES Volume I; and
- ES NTS: This document, which provides a summary of the Proposed Development and the findings of the ES using non-technical language.
2. Scoping and Consultation

The process of consultation is critical to the development of a comprehensive and balanced ES. Views of key statutory and non-statutory consultees serve to focus the environmental studies and to identify specific issues, which require further investigation. Consultation is also an ongoing process, which enables mitigation measures to be incorporated into the project design, thereby limiting adverse impacts and enhancing benefits. The Proposed Development responds to the many different comments and responses received from stakeholders during the pre-application stages.

Consultees involved in the evolution of the design and assessment of environmental and socio-economic impacts include:

- LBI;
- The Greater London Authority (GLA);
- Crossrail;
- Transport for London (TfL);
- English Heritage (EH);
- Commission for Architecture and Built Environment
- The Environment Agency (EA); and
- Thames Water Utilities Limited (TWUL).

In addition, the design process has featured stakeholder consultation with local resident societies, community and amenity groups plus local business interest groups, with a public exhibition held from the 25-26 July 2011. Other consultation meetings / presentations have included:

- Presentation to Farringdon Community Liaison Panel (25 May 2011);
- GLA (29 June 2010 and 27 May 2011);
- English Heritage (8 June 2011); and
- London Borough of Camden (10 June 2011).

The ES has been preceded by a ‘scoping’ exercise to determine specific requirements for the EIA and to eliminate those areas for which no significant impacts are anticipated. The EIA Scoping Report was submitted to LBI on 7th July 2011 and a Scoping Opinion was received from LBI on 9th November 2011. LBI considered that the scoping report identified the key relevant issues likely to have significant environmental effects, although a number of comments from LBI and statutory consultees were fed back into the final EIA methodology.

3. Planning Policy Context

The Proposed Development has been assessed against relevant national, regional and local planning policies. Planning policy has been considered in each technical chapter of the ES as appropriate for the consideration of likely environmental impacts.

The recently published National Planning Policy Framework (NPPF) sets out the Government’s economic, environmental and social planning policies for England, replacing the previous suite of national Planning Policy Statements and Planning Policy Guidance documents. The policies contained within the NPPF articulate the Government’s vision of sustainable development, which should be interpreted and applied locally to meet local aspirations.

At the regional level, policies within the Mayor of London’s ‘London Plan’ have been considered.

At the local level, the LBI’s ‘Core Strategy’, and the saved policies of the Unitary Development Plan form the relevant local parts of the development plan. The Core Strategy sets out the overarching vision and spatial strategy for Islington as well as strategic policies to deliver this vision.

4. Alternatives and Design Evolution

Under the EIA Regulations, an ES is required to provide “an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choice made, taking into account the environmental effects”. The alternatives analysis is a key part of the EIA process and serves to ensure that environmental considerations are built into the project design at the earliest possible stage.

Normally an EIA will consider the ‘no development’ alternative, the use of ‘alternative sites’ and ‘alternative designs’ in response to consultee comments.

However, the ‘no development’ alternative and the consideration of ‘alternative sites’ is not applicable as the OSD is ‘committed’ in the Crossrail Act and the subject of an Undertaking to Parliament, and therefore these options are not considered further.

Over the course of design development, the Proposed Development has progressed through consultation and consideration of various ideas that have led to its present scale and form. The footprint of the proposed OSD has rarely altered significantly; however, the massing has evolved. An eleven storey building mass in a tri-partite composition was proposed for the Site in April and May 2010. This proposal re-orientated the mass of the building away from the east-west axis which impact on the local
views of St Paul’s and onto Farringdon Road. When this proposal was presented to the LBI Planners, discussions concluded that the building massing significantly exceeded the height of surrounding buildings and that the design should be amended to reduce the perception of bulk and mass at upper levels. Further consultation suggested that the building should be lower on Cowcross Street.

The design team responded to these comments by reducing the overall height of the building by three stories, which includes the reduction of the cornice height on Farringdon Road by one storey and the introduction of a curvilinear capping element. This design was presented to Islington Council members on 9th March 2011. At this meeting the Councillors were thought to be broadly supportive of the proposal but thought the capping element could be altered.

A further iteration was proposed in August 2011 (as shown on Figure 4) that responded to this feedback. However, following further analysis of the impact of daylight and sunlight to the neighbouring buildings at 17-23 Farringdon Road, 25-27 Farringdon Road and 29-35 Farringdon Road; Islington Council planning department advised in December 2011 that they wished to see further design development to mitigate the impact of the massing on the loss of daylight and sunlight to these building.

This has meant the further setting back of the top three stories to achieve an optimum relationship with the adjacent building (see Figure 4) and forms the basis of the planning application and the Proposed Development which is discussed in ES Volume 1, Chapter 5: The Proposed Development.

The reduction in massing means the proposal is essentially a replacement of the previous developed area on the Site.

The external treatment of the proposed OSD was also investigated. During consultation with CABE and LBI, it was suggested that the Farringdon Road and Cowcross Street elevations should relate differently to the palletees of materials that are individual to these streets. In response to this; the proposed OSD reinforces the variety of colours and materials on Cowcross Street with a terracotta façade, a reference to the listed station buildings, in a dark textured metallic glaze with a tarnish effect metal vertical section between the two arches and a reduced vertical module with tighter column spacing. Farringdon Road has an ‘ox blood red’ glazed terracotta inspired by the warehouse aesthetic which was typical of the area when it was developed to accept goods coming into London on the railways and the traditional London Underground use of glazed ceramics that is typical and distinctive in many stations.

Throughout design development the primary use of space within the proposed OSD consisted of office use with retail at ground floor.
5. The Proposed Development

The Proposed Development has been designed by JRA Architects, and will form a new high quality office building incorporating a small amount of retail use, on the corner of Farringdon Road and Cowcross Street. The Proposed Development will sit adjacent to the new western entrance of the integrated ticket hall forming the interchange between Crossrail and Thameslink Farringdon station which will be located on Cowcross Street.

The Proposed Development will comprise seven storeys, extending to 48.15m above ordnance datum (AOD). This includes retail space and an office reception area at ground floor level; and retail and office space at a mezzanine level. This will be followed by six floors of office space and one floor for plant space. The areas of the proposed uses are given in Table 1.

Table 1: Proposed Area Schedule by Use

<table>
<thead>
<tr>
<th>Use</th>
<th>Gross External Area (GEA) (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>17,466</td>
</tr>
<tr>
<td>Retail</td>
<td>1,050</td>
</tr>
<tr>
<td>Total</td>
<td>18,515</td>
</tr>
</tbody>
</table>

Note: Disparity due to rounding

Figure 5 shows an aerial view of the external façade of the Proposed Development, looking from the North West.

Cowcross Street will be pedestrianised between the junctions with Farringdon Road and Turnmill Street to become part of the new urban realm around the building.
6. Construction Plan and Programme

Given the scale of the Proposed Development, the current expectation is that the construction works would take approximately **24 months**. The construction programme will comprise the following key stages:

- Enabling works;
- Superstructure;
- Envelope and roof, shell and core; and
- Fit out and external works.

The Applicant will develop, and issue to LBI for approval, an Environmental Management Plan (EMP) and a Construction Method Statement (CMS) that will apply to all contractors, sub-contractors, trade and site management. The CMS will place obligations on contractors to adopt best environmental practice, such as careful programming, resource conservation, adhering to health and safety regulations and quality procedures. The CMS will include detailed working procedures for the control of emissions and environmental risk, and will also specify working hours.

Specifically, the EMP and CMS will include measures for, among others:

- Management of trade contractors;
- Management of noise, vibration and dust;
- Waste management;
- Protection of water resources; and
- Energy and water usage.

The measures to be employed to mitigate potential construction impacts on the environment and public health and safety will also be detailed within the EMP.

7. Waste (Operational)

The Proposed Development aims to be a sustainable building with high standards of environmental performance. As such, due consideration has and will continue to be given to the waste generated by the Proposed Development during construction, operation and eventual demolition at the end of the Proposed Development’s life.

Therefore, the waste strategy has the following aims:

- To contribute towards achieving current and long-term government, GLA and WCC targets for waste minimisation, recycling and reuse;
To ensure that all legal requirements for the handling and management of operational waste are complied with; and

To provide tenants with convenient, clean and efficient waste management systems that enhance the operation of the buildings and promote high levels of recycling.

It is predicted that the completed and occupied building will generate approximately 47.3 m³ of waste per week. Of this, approximately 50% (by volume, before compaction) is likely to be recyclable material made up of paper, card, plastics, metals and glass.

A Site Waste Management Plan (SWMP) will be produced, with additional detail identifying the types and quantities of waste that will be produced during every stage of the project. The SWMP will highlight the opportunities to minimise and reduce waste generation.

8. Sustainability

The Proposed Development has been developed with sustainable design principles at its core. A preliminary sustainability appraisal of the Proposed Development has also been undertaken and established the commitments that need to be made to target a Building Research Establishment Environmental Assessment Method (BREEAM) for Offices 'Excellent' rating.

The key beneficial impacts of the Proposed Development in relation to sustainability can be summarised as follows:

- Provision of a high quality, sustainable office scheme on a previously used site in an area with excellent access to public transport;
- Provision of building visually integrated in the surroundings;
- Good practice environmental design, including good daylight, ventilation and acoustics;
- Use of sustainable, energy efficient building techniques to reduce carbon dioxide emissions by a predicted 35% below the Part L requirements of the 2010 Building Regulations;
- Incorporation of low or zero carbon technologies, i.e. Photovoltaic's;
- Provision of water efficient WCs, water detection system and pulsed water metering;
- Minimisation of noise and air quality impacts during construction and operation;
- The incorporation of water pollution prevention measures, such as the use of oil separators/interceptors in parts of the Proposed Development;
- Use of inert and low emission finishes, construction materials, carpets and furnishings;
- Provision of ecological enhancements such as landscaped terraces;
- Provision of a site that is accessible to all, including the disabled and promotes pedestrian and bicycle access (with the provision of bike Storage);
- Maximisation of recycling and implementation of the best practicable environmental options for non-recyclable residual waste;
- Incorporation of 'Secured by Design' principles in the design process;
- Implementation of a travel plan to reduce unnecessary car use;
- Contractual commitment by contractor to:
  - Source timber from reclaimed, reused or responsible sources;
  - Develop and implement an CMP, EMP and SWMP;
  - Sign up to the Considerate Constructors Scheme and go beyond best practice; and
  - Reduce construction site impacts.
- Provision of a Proposed Development that is economically sustainable in terms of job creation for the construction and completed development phases.

9. Socio-economics

The assessment of socio-economic impacts has considered the extent to which the Proposed Development conforms to relevant socio-economic planning policy at appropriate spatial levels. The assessment comprises:

- An economic impact assessment, including employment impact on the labour market; and
- A review of other relevant socio-economic impacts, such as the demand on open space.

It is considered that the Proposed Development will have an overall beneficial economic impact on the Greater London economy ranges from a NSig beneficial impact to a Sig beneficial impact, through the provision of construction, retail and office employment and through associated multiplier effects.

It is estimated that 241 construction workers per year will required for the Proposed Development of which 210 are likely to be from the Greater London area (A NSig Beneficial impact). During the operational phase, there will
be an estimated net employment generation of 1,294 employees on-site, 1,126 of which are likely to be from the Greater London area (a Sig beneficial impact).

The Proposed Development is also likely to have a beneficial impact within the local area, with the potential to support local businesses and the economy. It is expected that as a result of the construction and operational phases of the Proposed Development, there will be an increased number of employees (construction workers and those employed once the Proposed Development is operational), who will potentially help to support local businesses by use of facilities in the area, for example cafes, retail outlets and business support services.

Compared to the previous Cardinal Tower there will be an increase space available to workers due to the roof terraces provided on the 3rd 5th and 6th floor. This represents an NSig beneficial impact on open space.

10. Traffic and Transportation

The Proposed Development will be broadly the same size as the former Cardinal Tower (demolished as part of the Crossrail enabling works) albeit with an increased quantum of office space, a reduction in retail space and the removal of the basement car park.

The potential transportation effects of the Proposed Development have been undertaken using traditional methodology and compared to the former Cardinal Tower (pre 2009) and the existing scenario with the ongoing Crossrail Farringdon Western Ticket Hall construction activity.

The results of the assessments illustrate that there will be a NSig impact on the local and wider transportation network associated with the redevelopment of the Site when compared to both the former Cardinal Tower (pre 2009) and existing scenarios (associated with the construction of the Crossrail Farringdon Western Ticket Hall).

There would be approximately 430 fewer vehicular trips on the local highway network when compared to the former Cardinal Tower (pre 2009) scenario due to the removal of the basement car park. The reduction which represents approximately 2% of the Farringdon Road flows (and diluted further afield) will result in a NSig beneficial impact on pedestrian, cycle and vehicular traffic.

There will be approximately 1,400 more passengers on the public transport network due to the increased office space when compared to the former Cardinal Tower (pre 2009) scenario. The increase which represents a approximately 2% increase (diluted further afield) will result in a NSig adverse impact on public transport users.

Notwithstanding the above, measures will be introduced during the construction and operational phases to reduce the effects of the Proposed Development including the implementation of a CMP and a Travel Plan.

Overall, it is considered that the redevelopment of the Site as proposed will result in a NSig impact on the local and wider highway and transportation network.

11. Air Quality

The ES provides an assessment of the potential impact on local air quality. In particular, the potential impacts associated with atmospheric emissions from:

- On-site construction plant and equipment (e.g. off-road trucks, cranes);
- Dust generation during construction;
- Additional road traffic attributed to the construction and operational stages of the Proposed Development; and
- Heating and power plant associated with the operational Proposed Development (e.g. boilers).

The statutory review and assessment of local air quality within the LBI resulted in the entire borough being designated an Air Quality Management Area (AQMA), due to exceedances of the nitrogen dioxide (NO₂) and particulate matter (PM10) objectives. Consequently, Air Quality Action Plans have been prepared for the Borough, which have been taken into consideration in the assessment of air quality impacts.

An EMP and CMS will be prepared for the Site prior to the commencement of any on-site works and will be agreed in advance with the LBI. The EMP will include details of proposed dust monitoring during construction works, along with measures for controlling emissions to the environment from the works.

Construction vehicle emissions will be minimised or rendered harmless and as such will be considered NSig through use (where appropriate) of catalytic converters and regular maintenance of vehicle engines.

Construction dust is expected to only represent a nuisance to exposed human receptors close to the construction site and will be controlled through a series of best practice measures.

For the completed Proposed Development, it was not considered necessary to mitigate atmospheric emissions associated with traffic flows attributed to the completed Proposed Development, given that the impact upon ground level pollutant concentrations expected during the
operational phase of the Proposed Development is expected to be NSig.

A series of mitigation measures have already been incorporated into the heating and power plant, including:

- Omission of biomass or diesel as a fuel source for the boilers;
- Appropriate design of chimneys to ensure adequate dispersion of pollutants and selection of equipment regarded as Best Available Technology; and
- Regular inspection of the machinery, operation to the manufacturer's instructions, and ensuring that equipment is well maintained.

The impact of the heating and power plant for the operational phase of the Proposed Development is therefore considered to be NSig.

12. Noise and Vibration

An assessment was undertaken of potential noise and vibration impacts associated with the Proposed Development during construction phase and on completion and occupation of the Proposed Development. In particular, the assessment considers potential impacts on identified receptors, in terms of:

- Predicted noise and vibration levels from construction;
- Noise and vibration from the building services plant; and
- Any increases to road traffic attributed to the Proposed Development.

The introduction of the EMP, CMS and use of 'Best Practicable Means' will reduce excessive noise levels and minimise vibration impact on sensitive receptors. However, it remains inevitable that the impact of noise and vibration from construction activities would temporarily affect the nearest existing noise-sensitive residential receptors identified in the area surrounding the Site. Following mitigation, the resulting construction noise is expected to result in a temporary Sig adverse impact on residential and commercial units along Farringdon Road and Cowcross Street. Construction noise will have a NSig impact on other receptors.

Vibration associated with construction and noise generated from construction traffic are both considered to have an NSig impact on all receptors.

Since existing traffic flows will be largely unaffected by the Proposed Development, it is considered that changes to traffic associated with the operational Development (e.g. up would not result in any discernible increase in road traffic noise levels. Therefore, changes in road traffic noise levels along surrounding roads due to operational traffic are considered to have NSig impact.

The building service plant will be designed and installed to have a rating level no more than 5 dB(A) above the background noise level, a small increase where complaints from nearby receptors are unlikely. It is expected that this criteria would also apply to the other mechanical services associated with the Proposed Development. Therefore NSig impacts are expected from the building services plant.

13. Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare

The Proposed Development's potential impact upon daylight and sunlight availability to neighbouring properties, overshadowing of amenity areas, light pollution to residents and solar glare to drivers has been assessed against industry standards (Building Research Establishment (BRE) Guidelines).

Daylight availability to neighbouring residential properties was assessed throughout the design stage of the Proposed Development. Appropriate mitigation including reductions in the height and massing of certain areas of the Proposed Development changes to the orientation and spacing of the buildings were implemented to maximise the daylight amenity to the surrounding residential properties.

All neighbouring residential properties likely to be affected by the Proposed Development were considered in relation to daylight and sunlight studies. The key receptors are located on the opposite side of Farringdon Road, to the west of the Proposed Development, as listed below:

- 17-23 Farringdon Road;
- 25-27 Farringdon Road, and
- 29-35 Farringdon Road

Consideration of those receptors revealed that they are not relevant for sunlight assessment.

For most receptors assessed, the impact of the Proposed Development on the level of daylight to neighbouring properties will be NSig, with just six windows within 17-23 Farringdon Road assessed as Sig adverse.

Due to the orientation of the main facades of the Proposed Development in relation to surrounding roads and pavements, the effect from solar glare is not considered to be detrimental to the safe movement of traffic, hence the residual impact is NSig.

The overshadowing assessment concluded that overall, the Proposed Development is considered to have a NSig effect on the private amenity spaces.
Light pollution from the Proposed Development is considered to be NSig.

Overall, the analysis undertaken demonstrates that given the approach recommended by the BRE guidelines, the effect of the Proposed Development is acceptable in daylight, sunlight, overshadowing, light pollution and solar glare terms.

14. Wind

The ES has included an assessment of the likely impact the Proposed Development will have on the wind microclimate of the Site and surrounding area.

Due to the scale of the Proposed Development (i.e. a building less than 10-storeys high), it was considered that a desk-based assessment by an experienced wind engineering consultant would be sufficient to determine the likely wind conditions. The assessment considered both pedestrian comfort and potential strong winds in accordance with the widely accepted Lawson Comfort Criteria (LCC). These criteria describe wind conditions according to the pedestrian activities that each of the various conditions are suitable for (e.g. sitting, standing/entrance, leisure walking, business walking and car park/roadway use).

The baseline conditions during the windiest season, within and around the pre-Crossrail site are classified as suitable for standing with the potential for leisure walking conditions at the junction of Cowcross Street and Farringdon Street. During the summer, conditions are expected to be suitable for standing and sitting throughout the Site.

The cleared Site permits south westerly winds to blow into the Site thereby increasing the wind exposure of neighbouring buildings. The dominance of south westerly winds means that buildings to the northeast of the Site have been most affected by the demolition of the former Cardinal Tower. However, during the windiest season, the wind conditions within and around the current (post-Crossrail) Site, are expected to be suitable for sitting and standing/entrance use.

Following the completion of the Crossrail works on the Site and the construction of the Proposed Development, the range of wind conditions at street level is expected to be suitable for sitting or standing which would imply an NSig to NSig beneficial impact when compared with the pedestrian use of the site. The completed Proposed Development represents a NSig impact to thoroughfares and a NSig beneficial impact for entrance and amenity areas.

There are no required mitigation measures. However, suitable planting / screening will be incorporated on the upper terraces to provide additional local shelter.

15. Water Resources

The ES addresses the impact of the Proposed Development on water resources, drainage and surface water run-off including on controlled waters, surface water bodies, the hydrology, hydrogeology and drainage of the Site and surrounding area.

The assessment methodology used to identify the baseline conditions at the Site involved identification of surface and groundwater receptors, determination of the short, medium and long-term impacts upon the receptors, identification of suitable mitigation measures and an evaluation of the significance of the impacts relative to the quality and quantity of the receptors.

During construction, impacts associated with the release of suspended sediment, use and storage of hydrocarbon fuels, use of concrete and cement products are considered to be NSig through measures to be implemented in the CMS. Disturbance to contaminated land, foul drainage and preferential pathways are also considered to be NSig. However it is expected that there be a short term Sig adverse impact on water demand resulting from construction activities.

During Operation, it is not anticipated that there will be pollution associated with oil leaks and petrol spillages that may cause polluted run-off. Due to the rainwater attenuation and landscaping features there will be a long term NSig beneficial impact on flood risk and drainage.

The increase in office workers will result in an increased demand for water supply and wastewater generation, both of which are considered to be NSig.

Contamination from in-situ materials and the impact in relation to the buildings structural materials to potentially contaminate underground water resources will result in a NSig impact.

It is not expected that the Proposed Development will result in physical disturbance of regional aquifers, and is therefore considered to be NSig.

16. Townscape and Visual Impacts

Volume II of the Environmental Statement provides a Townscape and Visual Impact Assessment of the Proposed Development. The report concentrates on the local and wider townscape and visual amenity, effect of the Proposed Development on significant and local views, including any potential impact on the views within the London View Management Framework (LVMF); and the impact on local conservation areas and listed buildings. A total of 17 views have been assessed in order to consider
their potential interaction with the proposed scheme, with locations shown in Figure 7.

Figure 7: Location of Views Assessed

The Site is located within two of the designated strategic views across London, as identified in the Mayor of London’s Supplementary Planning Guidance / London View Management Framework (July 2011). The Site is within the foreground of Protected Vista 2A.1, (Parliament Hill) of St. Paul’s Cathedral and the foreground of Protected Vista 9A.1, (Kenwood) of St. Paul’s Cathedral.

The visibility of the Proposed Development will be limited due to its location and the scale of development around it. The views from Farringdon Road, Cowcross Street and Greville Street are deemed to be the most significant, and those that see the largest change from the existing condition. From these viewpoints, the Proposed Development brings a lower massing when compared with the previous Cardinal Tower building; and sees the replacement of poor quality buildings with a new frontage that carefully responds to its more historic counterparts.

The Proposed Development will be a relatively minor part of LVMF views from Parliament Hill and Kenwood House, and in both cases it will not breach the threshold height within either Protected Vista. The proposed height of the redevelopment of Cardinal House is below the viewing corridors for both background views. In terms of views from LBI’s locally protected viewing area LV1, the Proposed Development will be a relatively minor addition, if it is seen at all, and it will not interfere with the ability to appreciate St. Paul’s Cathedral in the distance or detract from the views. It will be a significantly lesser visual presence than the former Cardinal Tower in such views.

The Proposed Development will have a beneficial, neutral or negligible effect on the setting of conservation areas, listed buildings and locally listed buildings in the area around it. In cases where it is seen to a greater than minor extent in views of heritage assets, it will enhance the wider townscape setting of those assets through the replacement of a bulky and unattractive site (baseline conditions pre-Crossrail works) or of a vacant site (baseline conditions as existing) with a building of good architectural quality, appropriately scaled and providing strong definition of surrounding streets.

17. Cumulative Impact Assessment

By definition cumulative impacts are those that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the Proposed Development. For the cumulative assessment, two types of impact have been considered:
Overall, it is anticipated that there will be temporary Sig adverse impact interactions on the closest sensitive receptors during the construction phase. These would typically be residents and businesses opposite the development at Farringdon Road and Cowcross Street as well as passing pedestrians, cyclists and road users. This impact will be temporary in nature (i.e. reversible), lasting for the duration of the construction programme and is considered to be normal for such a large-scale development. There will be a NSig impact on these receptors when considering impact interactions during the operation of the proposed development.

The locations of the development schemes consented for planning, under construction or at pre-planning submission stage, that have been included within the cumulative impact assessment are illustrated in Figure 8. It should be noted that as it is not possible to accurately predict the year of construction or completion for each development, however to adopt a ‘worst case’ scenario it is assumed that the Caxton House / Charterhouse Place and Barts Square developments will be built at the same time as the proposed development.

The daylight analysis shows that when the baseline condition includes the Caxton House scheme, the effect of the Proposed Development on Farringdon Road residences is reduced. The reason for this is because the Caxton House proposals are larger than the current standing conditions on a pedestrian thoroughfare.

In terms of socio-economics, it is expected that cumulative schemes will generate a Sig beneficial impact of between 3,925 and 4,148 gross full time jobs.

Any change in road traffic noise levels along likely common routes due to cumulative operational traffic is considered to have an NSig impact.

Each of the developments identified in the cumulative assessment has reduced levels of car parking when compared to the former uses, which along with recent trends, travel plans and management strategies are anticipated to further assisting in reducing traffic levels on the local road network. Overall, it is considered that there would be a NSig beneficial impact on pedestrians, cyclists and road users in the vicinity of the Proposed Development, however there will be a NSig adverse impact on public transport users.

There will also be a NSig impact on Noise and Air Quality resulting from operational traffic.

Due to the distances between the cumulative schemes and the nearest residential receptors, it is considered that the operational plant noise limits advised in the noise assessments for each scheme will not be exceeded with all developments in operation. Therefore, cumulative building services noise will have an NSig impact.

In relation to the wind microclimate, the impacts remain NSig where suitable for the desired pedestrian use (leisure walking on a thoroughfare) or NSig Beneficial where conditions are one category calmer than desired (e.g. standing conditions on a pedestrian thoroughfare).

When considering the cumulative effects of Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare, the schemes of relevance are the Caxton House scheme and the Charterhouse Place Scheme, both located at 2 Farringdon Road, directly south of the Site. The assessment focuses on the Caxton House scheme 2008 (an 11 storey commercial property for residential and office use), although the differences between the Caxton House scheme and the Charterhouse scheme are minor and will not make a material difference the results.

The generation of surface water run-off from the cumulative schemes must, in line with the NPPF, provide improvement compared with existing rates. Assuming this is achieved on the surrounding development sites, a Sig beneficial cumulative impact will also be observed.

It is possible that increased foul drainage from consented developments elsewhere, combined with the Proposed Development could result in a NSig adverse impact to the, sewer system and downstream sewage treatment works. In addition, the increase in demand for water supply at the Site and other nearby schemes sources of water supply in the area (e.g. river, reservoirs and groundwater supplies would lead to a NSig adverse impact to any sources of water supply.
Figure 8: Location of Cumulative Schemes

Key:
- Site Boundary
- Site Boundary 500m Buffer
- Borough Boundary

Planning Status
- Submitted
- Resolution to Grant
- Consented
- Under Construction

Cumulative Scheme
1. Charterhouse Place / Caxton House, 2 Farringdon Road
2. Farringdon West Crossrail Station, 54-60 Cowcross St
3. Farringdon East Crossrail Station, 38-42 Charterhouse Street, 33-37 Charterhouse Square
4. Farringdon East CSD, 38-42 Charterhouse Street, 33-37 Charterhouse Square
5. Barts Square
18. Residual Impacts and Conclusions

Residual impacts are defined as those impacts that remain following the implementation of mitigation measures. Mitigation measures for each area of environmental and social impact are discussed in full in the relevant technical chapters.

The EIA for the Proposed Development has been undertaken in parallel with the design process. Hence, many measures have already been undertaken to eliminate adverse environmental and social impacts. These include, for example, appropriate height and massing to provide an overall scale appropriate to the Site’s location.

With respect to construction, there are a number of potential temporary adverse impacts identified (particularly noise, and air quality). However, during this phase the principal contractor will be appointed to develop a Construction Method Statement (CMS) which will incorporate all of the commitments within the ES and provide mitigation for these issues.

Once completed and occupied, the Proposed Development will have an overall positive effect on the local area. A moderate *Sig beneficial* impact has been identified for the socio-economic assessment due provision of office and retail jobs.

In transport terms, the Proposed Development incorporates positive attributes in the promotion of sustainable development. Proposed Development will provide facilities and enhanced pedestrian accessibility to future users of the forthcoming Crossrail development.

The Proposed Development will seek to comply with the standards set out in the London Plan SPG ‘Sustainable Design and Construction’ and the LBI sustainability objectives and planning policies.

A number of sustainability measures including energy efficiency measures and Photo-Voltaic panels have been included will reduce the CO₂ emissions of the Proposed Development. Additionally, the Proposed Development targets a Building Research Establishment Environmental Assessment Method (BREEAM) for Offices rating of ‘Excellent’.

The overall conclusion of the EIA is that the Proposed Development will have an overriding beneficial impact on the Borough and Greater London and will regenerate and enhance the site and contribute to the accessibility and connectivity of the wider area. It accords with the overall objectives of planning policies at national, regional and local levels, and is considered to be in accordance with the Government’s objectives for sustainable development.

19. ES Availability

The ES is available for viewing by the public during normal office hours at the Planning Department of LBI. Comments on the Planning Application should be forwarded to LBI at the following address:

London Borough of Islington Planning Department
222 Upper Street
London
N1 1YA

Additional copies of the Non-Technical Summary are available free of charge in electronic form, while copies of the full ES is available for purchase from:

URS
St Georges House
5 St Georges Road
Wimbledon
London SW19 4DR