



EUSTON TOWER

ES Volume 3: Technical Appendices

December 2023



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Euston Tower: Statement of Competent Experts

Regulation 18(5) of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (referred to as ‘the EIA Regulations’) require that to ensure the completeness and quality of the ES:

“(a) the developer must ensure that the environmental statement is prepared by competent experts”; and

“(b) the environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts”.

The ‘developer’ as referenced in the EIA Regulations is British Land Property Management Limited.

As set out in **ES Volume 1, Chapter 1: Introduction** of the ES, Trium is an environmental consultancy specialising in urban regeneration and property development projects in the United Kingdom (UK), with a specific focus in London. Trium is therefore considered to be ‘competent experts’ as referenced in the EIA Regulations. In addition, and for completeness, Table 1 below sets out the company, persons and expertise of all the key technical specialists that have worked on the EIA.

Table 1 Competent Expert Experience and Expertise

Discipline	Company	Expertise
EIA Coordination	Trium	Trium is an environmental consultancy specialising in urban regeneration and property development projects in the United Kingdom (UK), with a specific focus in London. Trium’s Partners and Employees have extensive experience in managing the environmental issues and impacts surrounding large scale, high profile urban regeneration development projects. The Partners and Employees of Trium have, over the course of their careers to date (including with former employers), project directed, managed or contributed to over 500 EIAs within the commercial, retail, residential, leisure, cultural, infrastructure and industrial sectors. They have particular expertise in London based development projects. Trium’s lead EIA practitioner for this project has 20 years EIA experience of managing EIA projects within London.
Socio-Economics	Trium	Trium is a consultancy with a specialism in socioeconomic and health assessments. Trium specialises in urban regeneration and property development projects in the United Kingdom (UK), with a specific focus in London. Trium have extensive experience in assessing socioeconomic and health issues and impacts surrounding large scale, high profile urban regeneration development projects. Trium have worked on numerous socio-economic and health assessments within the commercial, retail and residential sectors. Trium’s lead for this project’s socio-economics assessment has over 20 years’ experience within Environmental Impact Assessments (EIAs) and socio-economic assessments within London.
Demolition and Construction	Lendlease	Lendlease is a globally integrated real estate and investment group with core expertise in shaping cities and creating strong and connected communities. We create award-winning urban precincts, new communities for older people and young families just starting out, retail precincts, and workplaces to the highest sustainability standards. We are also privileged to create essential civic and social infrastructure including state-of-the-art hospitals, universities and stadiums around the world. Lendlease has been entrusted with many projects of public, cultural and social significance: constructing the Sydney Opera House, creating the National September 11 Memorial & Museum in New York, and restoring and renovating historic buildings such as London’s Tate Britain and National Theatre. As we expand our experience and our footprint, we aspire to continue creating places people want and care about and providing value for securityholders and the broader community. Headquartered in Sydney, our people are located in four operating regions: Australia, Europe, the Americas and Asia. The Construction segment provides project management, design and construction services across a wide range of sectors. Our construction capability is showcased in the places and structures we create – workplaces for some of the world’s largest organisations, vibrant retail centres, residential apartments, including affordable housing options, state of the art hospitals, and other buildings of civic and social importance. We have delivered construction projects around the world for more than six decades, creating thousands of buildings – and the projects delivered by businesses acquired by Lendlease span more than a century. We are recognised for creating innovative places that stand the test of time and we have been entrusted to create and restore iconic buildings that shape city skylines.
Traffic and Transport	Velocity	Velocity Transport Planning Ltd is a specialist consultancy providing transport planning and highways services to public and private sector clients. Velocity’s Directors alone have in excess of 100 years of experience within the industry, providing services to a broad range of sectors, with extensive experience in delivery of residential, education, hotel, retail, commercial and mixed-use development projects.

Discipline	Company	Expertise
Air Quality, Climate Change and Greenhouse Gases	AQC	Air Quality Consultants provides expert advice and support to developers, industry, local authorities and policy makers. The Company has played a leading role in developing the air quality monitoring, modelling and assessment regime both in the UK and overseas. The Company frequently provides expert evidence at Public Inquiries and it has staff who have been involved in UK Government expert groups and European Commission working groups on air quality management and assessment. A large team of highly qualified consultants now provides expert services in the field of ambient air quality and climate change. Competent experts involved in the assessment and preparation of the Air Quality and Greenhouse Gas Emissions chapters have membership of the Institution of Environmental Sciences (MIEnvSc) and Institute of Air Quality Management (MIAQM); the air quality lead for this project has over 20 years relevant experience of undertaking assessments across the UK.
Noise and Vibration	Hann Tucker	Hann Tucker Associates is an independent acoustic consultancy offering expertise in a large number of sectors; from major building development planning and design to sound insulation testing and environmental monitoring. As one of the original names in the field of acoustic consultancy Hann Tucker staff have worked with nearly every major developer, architect, and contractor in the UK and have played a key role in major projects throughout Europe and internationally, showcasing our global reach and consistent performance. Hann Tucker’s lead engineers for this project have over 20 years’ combined experience in the field.
Wind Microclimate	Arup	Arup are responsible for numerous complex environmental wind studies over the last 40 years, including many of the tallest developments in the UK and London. Arup have a good understanding of the type of wind issues that can arise for such projects. Arup use decades of experience based on their desk top studies, previous wind tunnel and planning studies, and practical delivery of mitigation, to assist with feasible, safe, and economic design. Arup work with many wind tunnel laboratories and research facilities around the world.
Daylight, Sunlight and Overshadowing	Point 2	Point 2 is firm of surveyors specialising in Daylight, Sunlight, Overshadowing, Solar Glare and Light Pollution. Point 2 have advised on over 3,200 projects and have worked alongside the majority of the UK’s leading developers, institutions, architects and professional teams to advise on the impacts caused by some of the largest and highest profile urban development projects in London and across the UK. Point 2 have vast experience in advising on highly technically and politically challenging projects and have provided ES Chapters predominantly within the commercial, retail and residential sectors. Point 2’s project lead has over 16 years’ experience advising on the subject matter and is supported by other experienced members of staff.
Built Heritage, Townscape and Visual Impact Assessment	Tavernor	Tavernor Consultancy is a townscape and heritage practice, advising on design and planning matters relating to the historic and urban built environment. Tavernor Consultancy have over two decades of experience advising on large and small scale projects, many of which involve complex and sensitive sites, primarily in London. The team includes architects and conservation professionals with a range of backgrounds and decades of experience of heritage-sensitive London sites between them.

It can be confirmed that British Land Property Management Limited (the ‘developer’) has ensured that the ES is prepared by competent experts. This document is therefore considered to address the requirements of Regulation 18(5) of the EIA Regulations.

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Annex 2 – Location of Information within the ES (‘Wayfinding’ Document)

Information for Inclusion in Environmental Statements, as Specified in Schedule 4 of the EIA Regulations 2017		How the EIA will address the Information Specifications
1.	A description of the development, including in particular:	
(a)	a description of the location of the development;	ES Volume 1: Chapter 1: Introduction;
(b)	a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Deconstruction and Construction;
(c)	a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used,	ES Volume 1: Chapter 4: The Proposed Development;
	...nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; and	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Demolition and Construction;
(d)	an estimate, by type and quantity, of expected residues and emissions (such as water, ...	ES Volume 1: Chapter 4: The Proposed Development;
	...air, ...	ES Volume 1: Chapter 8: Air Quality; ES Volume 3: Appendix: Air Quality;
	...soil and subsoil pollution,...	ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
	...noise, vibration, ...	ES Volume 1: Chapter 9: Noise and Vibration; ES Volume 3: Appendix: Noise and Vibration;
	...light, ...	ES Volume 1: Chapter 11: Daylight, Sunlight, Overshadowing and Solar Glare; ES Volume 3: Appendix: Daylight, Sunlight, Overshadowing and Solar Glare;
	...heat, radiation and ...	ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
	...quantities and types of waste produced during the construction and operation phases;	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Demolition and Construction;
	2.	A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.
3.	A description of the relevant aspects of the current state of the environment (baseline scenario) ...	ES Volume 1: Chapter 1: Introduction; Chapter 3: Alternatives and Design Evolution; Technical Chapters 6 - 12;

Information for Inclusion in Environmental Statements, as Specified in Schedule 4 of the EIA Regulations 2017		How the EIA will address the Information Specifications
	...and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	ES Volume 1: Chapter 2: EIA Methodology; Technical Chapters 6 – 12;
4.	A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, ...	ES Volume 1: Chapter 4: The Proposed Development; Chapter 6: Socio-Economics;
	...biodiversity (for example fauna and flora), ...	ES Volume 1: Chapter 4: The Proposed Development; ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
	...land (for example land take), ...	ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
	...soil (for example organic matter, erosion, compaction, sealing), ...	ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
	...water (for example hydromorphological changes, quantity and quality), ...	ES Volume 1: Chapter 4: The Proposed Development; ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
	...air, ...	ES Volume 1: Chapter 8: Air Quality; ES Volume 3: Appendix: Air Quality;
	...climate (for example greenhouse gas emissions, impacts relevant to adaptation), ...	ES Volume 1: Chapter 4: Proposed Development; Chapter 8: Air Quality; Chapter 12: Climate Change and Greenhouse Gases; ES Volume 3: Appendix: Air Quality; Appendix: Climate Change and Greenhouse Gases;
	...material assets, cultural heritage, including architectural and archaeological aspects, and landscape...	ES Volume 2: Townscape, Visual and Built Heritage Impact Assessment; ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report (‘Topics to be Scoped Out’);
5.	A description of the likely significant effects of the development on the environment resulting from, inter alia:	ES Volume 1: Technical Chapters 6 – 12; Chapter 14: Likely Significant Effects;
(a)	the construction and existence of the development, including, where relevant, demolition works.	ES Volume 1: Chapter 5: Deconstruction and Construction;
(b)	the use of natural resources, in particular land, soil, ...	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Deconstruction and Construction;
	...water and ...	ES Volume 1: Chapter 4: The Proposed Development;

Information for Inclusion in Environmental Statements, as Specified in Schedule 4 of the EIA Regulations 2017	How the EIA will address the Information Specifications
	ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report ('Topics to be Scoped Out');
...biodiversity, ...	ES Volume 1: Chapter 4: The Proposed Development; ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report ('Topics to be Scoped Out');
...considering as far as possible the sustainable availability of these resources;	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Deconstruction and Construction; Technical Chapters 6 – 12;
(c) the emission of pollutants, ...	ES Volume 1: Chapter 7: Traffic and Transport; Chapter 8: Air Quality; Chapter 12: Climate Change and Greenhouse Gases ES Volume 3: Appendix: Traffic and Transport; Appendix: Air Quality; Appendix: Climate Change and Greenhouse Gases
...noise, vibration.	ES Volume 1: Chapter 9: Noise and Vibration; ES Volume 3: Appendix: Noise and Vibration;
...light, ...	ES Volume 1: Chapter 10: Daylight, Sunlight, Overshadowing and Solar Glare; ES Volume 3: Appendix: Daylight, Sunlight, Overshadowing and Solar Glare;
...heat and radiation, ...	ES Volume 3: Appendix: EIA Methodology, Annex 3 – EIA Scoping Report ('Topics to be Scoped Out');
...the creation of nuisances, ...	ES Volume 1: Chapter 8: Air Quality; Chapter 9: Noise and Vibration; ES Volume 3: Appendix: Air Quality; Appendix: Noise and Vibration;
...and the disposal and recovery of waste;	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Deconstruction and Construction; ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report ('Topics to be Scoped Out');
(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);	ES Volume 1: Chapter 6: Socio-Economics; Technical Chapters 6 – 12; ES Volume 2: Townscape, Visual and Built Heritage Impact Assessment; ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping

Information for Inclusion in Environmental Statements, as Specified in Schedule 4 of the EIA Regulations 2017	How the EIA will address the Information Specifications
	Report ('Topics to be Scoped Out'); Appendix: Socio-Economics;
(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;	ES Volume 1 Technical Chapters 6 – 12; ES Volume 2: Townscape, Visual and Built Heritage Impact Assessment;
(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change; and	ES Volume 1: Chapter 4: The Proposed Development; Chapter 12: Climate Change and Greenhouse Gases;
(g) the technologies and the substances used.	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Deconstruction and Construction; Technical Chapters 6 – 12;
6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	ES Volume 1: Chapter 2: EIA Methodology; Technical Chapters 6 – 12;
7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.	ES Volume 1: Chapter 4: The Proposed Development; Chapter 5: Deconstruction and Construction; Technical Chapters 6 – 12; Chapter 15: Environmental Management, Mitigation and Monitoring Schedule;
8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(c) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(d) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	ES Volume 3: Appendix: EIA Methodology, Annex 1 – EIA Scoping Report ('Topics to be Scoped Out');
9. non-technical summary of the information provided under paragraphs 1 to 8.	ES Non-Technical Summary;
10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.	ES Volume 1: Chapter 2: EIA Methodology; Technical Chapters 6 – 12.

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GLOSSARY OF TERMS

Accuracy	A measure of how well a set of data fits the true value.	Cast In Situ	The process of pouring liquid material into a mould or form work.
Accurate Visual Representations	A static or moving image which shows the location of a proposed development as accurately as possible; it may also illustrate the degree to which the development will be visible, its detailed form or the proposed use of materials. AVRs are produced by accurately combining images of the proposed building with a representation of its context.	Combined Heat and Power	A low carbon technology which generates electricity whilst also capturing usable heat that is produced in the process.
Acoustic Screening	Use of a fabric-covered, double-sided screen used in open areas such as offices to absorb noise.	Completed Development	A development scheme which has been build out.
ADMS Roads	Atmospheric Dispersion Modelling System Roads is a line-source Gaussian dispersion model with the capability to model 3-point sources.	Conservation Area	An area designated by the Local Authority as being of special architectural or historic interest under the provisions of the Planning (Listed Buildings and Conservation Areas 1990) Act, the character or appearance of which it is desirable to preserve or enhance.
AERMOD 8	Atmospheric dispersion integrated modelling system.	Considerate Constructors Scheme	A non-profit-making, independent organisation founded in 1997 by the construction industry to improve its image.
Air Quality Objective	Policy target generally expressed as a maximum ambient concentration to be achieved, either without exception or with a permitted number of exceedances within a specific timescale (see also air quality standard).	Construction Environmental Management Plan	A documented management system with environmental procedures to monitor residual impacts of the construction phase of a development.
Air Quality Standard	The concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on the assessment of the effects of each pollutant on human health including the effects on sensitive sub groups (see also air quality objective).	Construction Logistics Plan	A documented travel plan specific for a construction site.
Ambient air	Outdoor air in the troposphere, excluding workplace air.	Cumulative Schemes	Developments that have received planning permission and have a signed legal agreement in place. They are assumed to be in place by the time the Development being assessed is completed.
Ambient Noise Level	The totally encompassing sound in a given situation at a given time, usually composed of a sound from many sources both distant and near ($LA_{F_{eq},T}$).	Decibel	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10} (s_1 / s_2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu Pa$.
Amenity	A pleasant or advantageous aspect of the environment.	Defra Air Information Resource	Webpages providing in-depth information on air quality and air pollution in the UK.
Annual mean	The average (mean) of the concentrations measured for each pollutant for one year. Usually this is for a calendar year, but some species are reported for the period April to March, known as a pollution year. This period avoids splitting winter season between 2 years, which is useful for pollutants that have higher concentrations during the winter months.	Point 2	Daylight, Sunlight, Overshadowing and Solar Glare
Annual Probable Sunlight Hours	A measure of sunlight that a given window may expect over a year period.	Demarcation	The action of fixing the boundary or limits of something.
AQC	Climate Change Consultants	Design Brief	A written document for a design project developed by a person or team in consultation with the 'client'.
Arisings	Material (often spoil) derived from the ground through excavation.	Design Freeze	A method used during design development stage to mitigate the risks associated with change. This organizes and complies the design process, control changes, and force the completion of design stages on time.
Asbestos	A mineral substance previously used as in insulator but, is highly toxic.	Desk-Top Study	A non-intrusive study and review of all available information pertaining to a site, including historical records, collated and monitored data, and consultation with relevant stakeholders.
A-weighting, dB(A)	The unit of sound level, weighted according to the A-scale, which takes into account the increased sensitivity of the human ear at some frequencies.	Directive	European Union (EU) Directives impose legal obligations on European Member States. They are binding as to the results to be achieved but, allow individual states the right to decide the form and methods used to achieve the results. An example of this is the EU Air Quality Framework Directive (1996) that is brought into legal effect in the UK by the Air Quality (England) Regulations (2000).
Baseline Studies	Studies of existing environmental conditions which are designed to establish the baseline conditions against which any future changes can be measured or predicted.	Displacement	An estimate of economic factors that may have reasonably been attained by other competitors in the absence of the development.
Biodiversity	The diversity, or variety of plants and animals and other living things in a particular area of region. It encompasses landscape diversity, ecosystem diversity, species diversity and genetic diversity.	Dust Soiling	The accumulation of particulates that can give rise to human health effects.
Borehole	A deep hole bored into the ground as part of intrusive geological investigations.		
Bunding	A constructed retaining wall around storage 'where potentially polluting substances are handled, processed or stored, for the purposes of containing any unintended escape of material from that area until such time as remedial action can be taken'.		
Carbon Budget	A tolerable quantity of greenhouse gas emissions that can be emitted in total over a specified time.		
Carbon Dioxide (CO ₂)	Carbon dioxide is a naturally occurring gas comprising 0.04% of the atmosphere. The burning of fossil fuels releases carbon dioxide fixed by plants many millions of years ago, and this has increased its concentration in the atmosphere by some 12% over the past		

Glossary of Terms and Abbreviations

EIA Scoping	An initial stage in determining the nature and potential scale of the environmental impacts arising from a proposed development and assessing what further studies are required to establish their significance.	Heritage Asset	A building, area or scene which makes a positive contribution of special architectural, historic or environmental interest.
EIA Scoping Opinion	A written statement of the opinion of the relevant planning authority as to the information to be provided in the Environmental Statement which specifically requires a local planning authority to respond or consult with consultees within a statutory period.	Hoarding	A temporary board fence set up on the perimeter of a building site.
EIA Screening	An initial stage in which the need for EIA is considered in respect of a development. Some developments are automatically subject to EIA by means of their inevitable size, nature and effects (Schedule 1 developments). Other projects are made subject to EIA because it is anticipated that they are likely to have significant environmental effects (Schedule 2 developments).	Hydrogeology	The study of geological factors relating to the Earth's water.
Emission	A material that is expelled or released to the environment. Usually applied to gaseous or odorous discharges to the atmosphere.	Indices of Multiple Deprivation	A UK government qualitative study of deprived areas in English local councils.
Environmental Impact Assessment	A process by which information about the environmental effects of a development is collected and taken into account by the relevant decision-making body before a decision is given on whether the development should go ahead.	In-situ	In the natural, original or appropriate position.
Environmental Statement	A statement that includes such information that is reasonably required to assess the environmental effects of a development.	Intrusive Investigation	An in-depth investigation involving further sampling and analysis, such as the gathering of samples from the ground, walls, ceilings for the detection of contamination, asbestos and or archaeological remains.
Exceedance	A period of time where the concentrations of a pollutant is greater than, or equal to, the appropriate air quality standard.	L _{AFeq,T}	The A-weighted noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.
Façade	The front or face of a building.	L _{AFmax,T}	The A-weighted noise level index defined as the maximum noise level during the period T. L _{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall Leq noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
Fit-out	Installation of all non-substructure and non-superstructure items such as electrical water services, as well as final internal finishings.	L _{A90}	The noise level exceeded for 90% of the measurement period A-weighted and calculated by Statistical Analysis.
Floodplain	Land adjacent to a watercourse over which water flows, or would flow but for defences in place, in times of flood.	Lawson Comfort Criteria	The so called 'Lawson' criteria which define whether a space is comfortable for business walking, strolling or sitting by a threshold wind speed i.e. the hourly mean wind speed exceeded 5% of the time.
Flood Resistance and Resilience	Measures put in place to protect a property against flooding.	Lawson Safety Criteria	Criteria for the safety of an individual in relation to the wind environment. There are two categories: S1: unsafe for typical use (threshold speed 20m/s) and S2: unsafe for sensitive use (threshold speed 15m/s).
Fugitive emissions	Emissions arising from the passage of vehicles that do not arise from the exhaust system.	Light Trespass	The spilling of light beyond the boundary of the area to be lit.
Geotechnical	Ground investigation, typically in the form of boreholes and/or trial/test pits, carried out for engineering purposes to determine the nature of the subsurface deposits.	Listed Building	A building or structure of special architectural or historic interest which is included in a list made by the Secretary of State.
Glare	The uncomfortable brightness of a light source or illuminated area when viewed against a dark background.	Local Plan	A series of documents which sets out the vision and framework for development in the borough.
Grade I Listed Building	A listed building that is of exceptional interest.	London Plan	The adopted Spatial Development Strategy for London that sets out a vision for London and identifies the means by which this vision might be achieved. Issued in 2016.
Grade II Listed Building	A listed building that is of special interest.	Made Ground	Soils or other material which has been deposited by man rather than natural processes, for example to make up ground levels.
Grade II* Listed Building	A listed building that is of particular importance and of more than special interest.	Magnitude of Impact	The degree and extent to which the project changes the environment.
Greater London Authority's Population Yield Calculator	A tool for estimating population yield from new housing development.	Massing	Massing refers to the structure in three dimensions, usually outlining the height and size of a building.
Gross External Area	A measure of floor space calculated in accordance with the Royal Institution of Chartered Surveyors (RICS) Code of Measuring Practice.	Mechanical Ventilation Heat Recovery	An energy recovery ventilation system using equipment known as a heat recovery ventilator, heat exchanger, air exchanger, or air-to-air heat exchanger which employs a cross flow or counter-flow heat exchanger (counter current heat exchange) between the inbound and outbound air flow. The system provides fresh air and improved climate control, while also saving energy by reducing heating (and cooling) requirements.
Gross Internal Area	A measure of the area of a building measured to the internal face of the perimeter walls at each floor level.	Microclimate	The climate of a very small or restricted area, particularly when this is different from the climate of the surrounding area.
Hardstanding	Ground surfaced with a hard material for parking vehicles on.	Mitigation	Any process, activity of thing designed to avoid, reduce or remedy adverse environmental impacts likely to be caused by a development project.

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Mitigation Measure	Measure aiming at reducing an adverse environmental effect.	Planning Inspectorate	An executive agency of the Department for Communities and Local Government with responsibility of determining final outcomes of town planning and enforcement appeals and public examination of local development plans.
National Planning Policy Framework	Came into force on 27 March 2012 and was most recently updated in September 2023. It sets out the Government's economic, environmental and social planning policies for England and summarises, in a single document, all previous national planning policy advice (Planning Policy Statements and Planning Policy Guidance notes).	Planning Practice Guidance	A web-based resource that came into force in 2014 and is updated at regular intervals. It seeks to consolidate existing technical guidance into a consolidated online format and provides further detail on the policies contained within the NPPF.
Nitrogen Dioxide	Road transport and the burning of fossil fuels for power are the main sources of Nitrogen dioxide. In addition to being a greenhouse gas it also contributes to photochemical smog formation. It is an irritant to the respiratory system.	Planning Statement	Sets out the policy background to the proposal, describes the site and its surroundings, identifies constraints and explores the planning policy framework.
Non-Technical Summary	A summary of the Environmental Statement in 'non-technical language'.	Porous	A rock or material having minute holes through which liquid or air can pass.
No-sky Line	A measure of the distribution of diffuse daylight within a room.	Proposed Development	An area of land that has had a potential scheme put forward to be built on.
Obtrusive Light	Any light emitted from artificial sources into spaces where this light would be unwanted.	Public Transport Accessibility Level Assessment	A means of quantifying and comparing accessibility by public transport for a given site.
Open Space	Includes all open spaces, plus other spaces that provide a break from the densely built-up urban form, such as pedestrianised areas and station concourses; hard-landscaped areas with private access; pedestrian/cycle and wildlife routes; and all the green infrastructure that links open spaces together, including green corridors, private residential gardens, trees, green roofs, and green landscaped areas.	Public Realm	The space between and within buildings that are publicly accessible, including streets, squares, forecourts, parks and open spaces.
Ordnance Datum	Land levels are measured relative to the average sea level at Newlyn, Cornwall. This average level is referred to as 'Ordnance Datum'.	Ratification (Monitoring)	Involves a critical review of all information relating to a data set, in order to amend or reject the data. When the data have been ratified they represent the final data to be used (see also validation).
Oversailing	Something (part of a project) being above or beyond something else (a lower part).	Receptor (Sensitive)	A component of the natural, created, or built environment such as human being, water, air, a building, or a plant that is affected by an impact.
Overshadowing	Overshadowing occurs when a structure blocks out sunlight from neighbouring properties mainly on the northern side of that structure. It can affect the amount of daylight let into neighbouring properties when the shadow cast falls across windows or glazed doors, or on amenity spaces.	Residual Effects	Those effects of a development following implementation of any relevant mitigation proposals.
Particulate Matter	Discrete particles in ambient air, sizes ranging between nanometres (nm, billionths of a metre) to tens of micrometres (µm, millionths of a metre).	Risk Assessment	An assessment of the likelihood and severity of an occurrence.
Party Wall	A wall common to two adjoining buildings or rooms.	Safeguarding	Protecting from harm or damage with an appropriate measure.
Party Wall Act (1996)	A framework for preventing or resolving disputes in relation to party walls, part structures, boundary walls and excavations near neighbouring buildings.	Screening (townscape)	A natural or man-made feature which separates land uses.
Pathways	The routes by which impacts are transmitted through air, water, soils or plants and organisms to their receptors.	Secure by Design standards	Initiative combining the principles of 'designing out crime' with physical security.
Pedestrian Level Wind Speed	Mean or gust wind speed measured at 1.5 m above ground level.	Sensitive Area	According to EIA Regulations is any of the following: land notified under section 28(1) (Sites of Special Scientific Interest) of the Wildlife and Countryside Act 1981 (23); a National Park; the Broads; a property on the World Heritage List; a scheduled monument; AONB or a European site.
Pedestrian Environment Review System (PERS)	Pedestrian Environment Review System (PERS) is a walking audit tool developed by TfL for assessing the level of service and quality provided for pedestrians to across a range of pedestrian environments.	Setting	The context in which a building or area can be appreciated.
Percentile	The percentage of results below a given value.	Severance	The perceived divisions that can occur within a community when it becomes separated by a traffic route.
Photomontage	The use of photographs of a site from a certain viewpoint to show both the current base (pre-development) state of the site and the anticipated view of the site once development is complete.	Site of Importance for Nature Conservation	A non-statutory site identified as being areas of importance for wildlife and geology.
Pile	A timber, steel or concrete post which is driven, jacked or cast (bored) into the ground to carry vertical or horizontal loads.	Site Suitability Assessment	A comprehensive analysis of both the on-site subsoil characteristics and the local hydrogeological features of the site to determine the most feasible means of treating effluent on-site whilst ensuring full compliance with wastewater treatment requirements.
Pile Cap	A thick, concrete mat that rests on concrete or timber piles that have been driven into the ground.	Socio-Economics	The social science that studies how economic activity affects and is shaped by social processes.
Plant	A building's generator, heating, ventilation, and/or electricity-production system.	Solar Glare	A continuous source of excessive brightness from the sun.
Planning Application Red Line Boundary	Border that incorporates all land necessary to carry out the proposed development.	Sound Power Level	The total sound power emitted by a source in all directions in watts (joules per second).

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Specific Noise Level	The equivalent continuous A-weighted sound pressure level at the assessment position produced by the specific noise source (the noise source under investigation) over a given time interval (LAeq,T)	Vertical Sky Component	A 'spot' measure of the skylight reaching the mid-point of a window from an overcast sky. It represents the amount of visible sky that can be seen from that reference point, from over and around an obstruction in front of the window.
Statement of Community Involvement	Required by local authorities to explain to the public, their involvement in the preparation of local planning documents. The Statement of Community Involvement for this project was prepared by the London Communications Agency (LCA) and British Land Property Management Limited.	Ward	An administrative division of a city or borough that typically elects and is represented by a councillor or councillors.
Statutory Consultees	Groups or bodies that, by law, must be consulted as part of the planning application process for EIA development.	Waste Arisings	Materials forming the secondary or waste products of industrial operations.
Strata	Layer of rock or soil.	Watching Brief (archaeological)	An archaeological watching brief is 'a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons.'
Substructure	Elements of a development below ground level, typically basements and foundations.	Wind Tunnel Testing	Assessment used in aerodynamic research to study the effects of air moving past solid objects.
Superstructure	Elements of a development above ground principally the mega frame, supporting northern core and outer shell cladding.	Wireline	A single line representing the outline of the building.
Supplementary Planning Document	Documents which seek to give guidance and support on the Council's planning processes and are one of the material considerations in determining planning applications.		
Surface Water Drainage Strategy	A report into how surface water, usually caused by rain, affects a site and the surrounding area.		
The Applicant	The persons or entities making the planning application.		
The London Clay Formation	A marine geological formation of Ypresian age which crops out in the southeast of England.		
The Site	The extent of the development site, as defined by the red-line boundary plan.		
Time slicing	A technique to implement multitasking in operating systems.		
Topography	The natural and man-made features of an area collectively.		
Townscape	The visual appearance of a town or urban area.		
Transport Assessment	Prepared and submitted alongside planning applications for developments likely to have significant transport implications.		
Travel Plan	A document which puts measures in place that will encourage sustainable travel and reduce reliance on single occupancy cars.		
Uncertainty	A measure, associated with the result of a measurement, which characterizes the range of values within which the true value is expected to lie. Uncertainty is usually expressed as the range within which the true value is expected to lie with a 95% probability, where standard statistical and other procedures have been used to evaluate this figure. Uncertainty is more clearly defined than the closely related parameter 'accuracy', and has replaced it on recent European legislation.		
Unexploded ordnance	Explosive weapons that did not explode when they were employed and still pose a risk of detonation, sometimes many decades after they were used or discarded.		
Urban Grain	The combined pattern of blocks and streets, taking into account the character of street blocks and building height and size and how they work together to enable movement and access.		
Urban Heat Island Effect	An urban area or metropolitan area that is significantly warmer than its surrounding rural areas due to human activities.		
Validation (modelling)	Refers to the general comparison of modelled results against monitoring data carried out by model developers.		
Validation (monitoring)	Screening monitoring data by visual examination to check for spurious and unusual measurements (see also ratification).		
Verification (modelling)	Comparison of modelled results versus any local monitoring data at relevant locations.		
Verified Image	An outline image of a development on a base photograph to provide projections of key views.		

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ABBREVIATIONS

<p>$\mu\text{g}/\text{m}^3$ Micrograms per cubic metre</p> <p>μm</p> <p>AADT</p> <p>AAWT</p> <p>ADMS</p> <p>AHU</p> <p>AI</p> <p>AI</p> <p>APA</p> <p>APSH</p> <p>AQ</p> <p>AQAL</p> <p>AQAP</p> <p>AQC</p> <p>AQG</p> <p>AQN</p> <p>AQMA</p> <p>AQO</p> <p>ASHP</p> <p>ASR</p> <p>ATC</p> <p>ATMs</p> <p>ATZ</p> <p>AURN</p> <p>AVRs</p> <p>B</p> <p>BAP</p> <p>BEB</p> <p>BEIS</p> <p>BLG</p> <p>BNG</p> <p>BOH</p> <p>BPM</p> <p>BRE</p> <p>BREEAM</p> <p>BS</p> <p>BSI</p>	<p>A measure of concentration in terms of mass per unit volume. A concentration of $1\mu\text{g}/\text{m}^3$ means that one cubic metre of air contains one microgram (millionth of a gram) of pollutant.</p> <p>Micrometres</p> <p>Annual Average Daily Total</p> <p>Annual Average Weekly Total</p> <p>Atmospheric Dispersion Modelling System</p> <p>Air Handling Unit</p> <p>Access Index</p> <p>Artificial Intelligence</p> <p>Archaeological Priority Area</p> <p>Annual Probable Sunlight Hours</p> <p>Air Quality</p> <p>Air Quality Assessment Level</p> <p>Air Quality Action Plan</p> <p>Air Quality Consultants</p> <p>Air Quality Guidance</p> <p>Air Quality Neutral Assessment</p> <p>Air Quality Management Area</p> <p>Air Quality Objectives</p> <p>Air Source Heat Pumps</p> <p>Annual Status Report</p> <p>Automatic Traffic Counters</p> <p>Air Traffic Management systems</p> <p>Active Travel Zone</p> <p>Automatic Urban and Rural Network</p> <p>Accurate Visual Representations</p> <p>Beaufort</p> <p>Biodiversity Action Plan</p> <p>Building Emissions Benchmark</p> <p>Business, Energy, and Industrial Strategy</p> <p>Below Ground Level</p> <p>Biodiversity Net Gain</p> <p>Back of House</p> <p>Best Practicable Means</p> <p>Building Research Establishment</p> <p>British Research Establishment Environmental Assessment Method</p> <p>British Standard</p> <p>British Standard Institute</p>	<p>BST</p> <p>CA</p> <p>CAAP</p> <p>CC</p> <p>CCC</p> <p>CERS</p> <p>CFA</p> <p>CFD</p> <p>CHP</p> <p>CIL</p> <p>CLOCS</p> <p>CLP</p> <p>CMP</p> <p>CMS</p> <p>CO</p> <p>CO₂</p> <p>CoCP</p> <p>CoP</p> <p>CoPA</p> <p>COSHH</p> <p>CoW</p> <p>CPDMP</p> <p>CPG</p> <p>CRTN</p> <p>CS</p> <p>DAS</p> <p>dB</p> <p>DBA</p> <p>DECC</p> <p>DEFRA</p> <p>DfE</p> <p>DfT</p> <p>DHW</p> <p>DLUHC</p> <p>DMP</p> <p>DMR</p> <p>DMRB</p> <p>DMS</p> <p>DRA</p> <p>DRP</p>	<p>British Summer Time</p> <p>Conservation Area</p> <p>Clean Air Action Plan</p> <p>Congestion Charge</p> <p>Climate Change Committee</p> <p>Cycle Environment Review System</p> <p>Continuous Flight Auger: A piling method.</p> <p>Computational Fluid Dynamics</p> <p>Combined Heating and Power</p> <p>Community Infrastructure Levy</p> <p>Construction Logistics and Cycle Safety</p> <p>Construction Logistics Plan</p> <p>Construction Management Plan</p> <p>Construction Method Statement</p> <p>Carbon monoxide</p> <p>Carbon dioxide</p> <p>Code of Construction Practice</p> <p>Code of Practice</p> <p>Control of Pollution Act</p> <p>Control of Substances Hazardous to Health</p> <p>City of Westminster</p> <p>Car Parking Design and Management Plan</p> <p>Camden Planning Guidance</p> <p>Calculation of Road Traffic Noise</p> <p>Cycle Superhighway</p> <p>Design and Access Statement</p> <p>Decibel</p> <p>Desk Based Assessment</p> <p>Department for Energy and Climate Change</p> <p>Department of Environment, Food and Rural Affairs</p> <p>Department for Education</p> <p>Department for Transport</p> <p>Domestic Hot Water</p> <p>Department for Levelling Up, Housing and Communities</p> <p>Dust Management Plan</p> <p>Dry Mixed Recyclable Waste</p> <p>Design Manual for Roads and Bridges</p> <p>Deconstruction Method Statement</p> <p>Dust Risk Assessment</p> <p>Design Review Panel</p>
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Glossary of Terms and Abbreviations

DSOSG	Daylight, Sunlight, Overshadowing and Solar Glare	HS2	High Speed 2
DSP	Delivery Servicing Plan	HSE	Health and Safety Executive
EA	Environment Agency	HU	Habitat Units
EAL	Environmental Assessment Level	HUDU	Healthy Urban Development Unit
EAP	Euston Area Plan	IAQM	Institute of Air Quality Management
EC	European Commission	ICE	The Inventory of Carbon and Energy
EFT	Emission Factor Toolkits	IDP	Infrastructure Delivery Plan
EHO	Environmental Health Officer	IEMA	Institute of Environmental Management and Assessment
EHV	Extra High Voltage Lines	IFC	International Finance Corporation
EIA	Environmental Impact Assessment	ILP	Institution of Lighting Professionals
EMR	East Midlands Railway	IOA	Institute of Acoustics
EPA	Environmental Protection Act	IoD	Indices of Deprivation
EPUK	Environmental Protection UK	IWEC	International Weather for Energy Calculation
ES	Environmental Statement	JAQU	Joint Air Quality Unit
Fv	Vertical Illuminance In Lux	Kg	Kilograms
FORS	Fleet Operator Recognition Scheme	km	Kilometres
FRA	Flood Risk Assessment	KSI	Killed or Seriously Injured
FTE	Full Time Equivalent	kWh	Kilowatt hour
FW Drainage	Foul Water Drainage	l/s	Litres per second
GBN	Ground-borne Noise	LAEI	London Atmospheric Emission Inventory
GDP	Gross Domestic Product	LAQM	Local Air Quality Management
GEA	Gross External Area	LAQM.TG	Local Air Quality Management Technical Guidance
Geoarch	Geoarchaeological Deposit Model	LBC	London Borough of Camden
GHG	Greenhouse Gas	LCC	London Congestion Charge
GIA	Gross Internal Area	LDDC	London Docklands Development Corporation
GLA	Greater London Authority	LDV	Light Duty Vehicles
GLAAS	Greater London Archaeology Advisory Service	LEGGI	London Energy and Greenhouse Gas Inventory
GLHER	Greater London Historic Environment Record	LEZ	Low Emission Zone
GLVIA	Guidelines for Landscape and Visual Impact Assessment	LGV	Light Goods Vehicle
GMT	Greenwich Mean Time	LLFA	Lead Local Flood Authority
GRC	Glass Reinforced Concrete	LLSOAs	Lower Layer Super Output Areas
GWP	Global Warming Potential	LMA	London Metropolitan Archive
Ha	Hectare	LNER	London North Eastern Railway
HCA	Homes and Communities Agency	LOAEL	Lowest Observed Adverse Effect Level
HDV	Heavy-Duty Vehicle	LPA	Local Planning Authority
HE	Historic England	LTHW	Low Temperature Hot Water
HFCs	Hydrofluorocarbons	LUL	London Underground Limited
HGV	Heavy Goods Vehicle	LVMF	London View Management Framework
HMRC	His Majesty's Revenue and Customs	LWA	The mean A-weighted sound power level
HMSO	His Majesty's Stationery Office	m	Metre

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m ²	Square metre	PFRA	Preliminary Flood Risk Assessment
m ³	Cubic metre	PIC	Personal Injury Collision
mAOD	Metres Above Ordnance Datum	PM ^{2.5} /PM ¹⁰	Particulate Material of a particular size fraction
MEP	Mechanical, Electrical and Plumbing	ppb parts per billion	The concentration of a pollutant in the air in terms of volume ratio. A concentration of 1 ppb means that for every billion (10 ⁹) units of air, there is one unit of pollutant present.
MHCLG	Ministry of Housing, Communities and Local Government	PPE	Personal Protective Equipment
mm/s	Millimetres per second	PPG	Planning Practice Guidance
m/s	Meters per Second	PPG	Pollution Prevention Guidelines
MTS	Mayor's Transport Strategy	ppm parts per million	The concentration of a pollutant in the air in terms of volume ratio. A concentration of 1 ppm means that for every billion (10 ⁶) units of air, there is one unit of pollutant present.
MVHR	Mechanical Ventilation and Heat Recovery	PPV	Peak Particle Velocity
NAEI	National Atmospheric Emission Inventory	PRA	Preliminary Risk Assessment
NAQO	National Air Quality Objectives	ProPG	Professional Practice Guidance on Planning & Noise
N/A	Not Applicable	PRoW	Public Right of Way
NGET	National Grid Electrical Transmission	PV	Photovoltaic
NHS	National Health Service	PTAL	Public Transport Accessibility Level
NIA	Net Internal Area	RANS	Reynolds Averaged Navier-Stokes
NIP	National Infrastructure Planning	RFRA	Regional Flood Risk Assessment
NMR	National Monuments Record	RHS	Royal Horticulture Society
NMVOCs	Non-methane Volatile Organic Compounds	RICS	Royal Institution of Chartered Surveyors
NNR	National Nature Reserve	RMP	Resource Management Plan
NO	Nitrogen monoxide, a.k.a. nitric oxide	SAC	Special Area of Conservation
NO ₂	Nitrogen Dioxide	SCI	Statement of Community Involvement
NO _x	Nitrogen Oxides	SFRA	Strategic Flood Risk Assessment
NPPF	National Planning Policy Framework	SINC	Site of Importance for Nature Conservation
NPPG	National Planning Practice Guidance	SOAEL	Significant Observed Adverse Effect Level
NPSE	Noise Policy Statement for England	SoS	Secretary of State
NRMM	Non-Road Mobile Machinery	SO ₂	Sulphur Dioxide
NSL	No-Sky Line	SOC	Standard Occupational Classification
NTS	Non-Technical Summary	SPA	Special Protection Area
NVZ	Nitrate Vulnerability Zone	SPD	Supplementary Planning Documents
O ₃	Ozone	SPG	Supplementary Planning Guidance
OC	Organic Carbon	SPZ	(Groundwater) Source Protection Zone
OD	Ordnance Datum	SRN	Strategic Road Network
ONS	Office of National Statistics	SSSI	Site of Special Scientific Interest
OS	Ordnance Survey	SuDS	Sustainable Urban Drainage Systems
OWMP	Operational Waste Management Plan	SW Drainage	Surface Water Drainage
PAN	Public Admission Numbers	SWMP	Site Waste Management Plan
PCL	Pedestrian Comfort Level	TA	Transport Assessment
PEA	Preliminary Ecological Appraisal	TEB	Transport Emissions Benchmark
PERS	Pedestrian Environment Review System	TfL	Transport for London
PFCs	Perfluorocarbons		

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TLR	Transport Research Laboratory
TLRN	Transport for London Road Network
TOC	Take Off and Climb Surface
TP	Travel Plan
TPC	Travel Plan Coordinator
TTE	Total Transport Emissions
TVBHIA	Townscape, Visual and Build Heritage Impact Assessment
UCH	University College Hospital
UK	United Kingdom
UGF	Urban Greening Factor
UKAS	United Kingdom Accreditation Service
UKCP	United Kingdom Climate Projections
ULEZ	Ultra Low Emission Zone
VDV	Vibration Dose Values
VOA	Valuation Office Agency
VOC/SVOCs	Volatile Organic Compounds
VSC	Vertical Sky Component
WEBCAT	Web-based Connectivity Assessment Toolkit
WHO	World Health Organization
WHS	World Heritage Site
WSHP	Water Source Heat Pump
WSI	Written Scheme of Investigation