

**MAYOR OF LONDON**

# London Plan Guidance

## **Air Quality Positive**

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**London Plan Policy**

[Policy SI1 Improving Air Quality – Part \(C\)](#)

**Local Plan making**

Planning authorities should apply an air quality positive approach to the development of masterplans, development briefs and area planning frameworks, including Opportunity Area Planning Frameworks and area based Supplementary Planning Documents.

**Planning Application type and how the LPG will be applied**

Development subject to an [Environmental Impact Assessment](#) (EIA)<sup>1</sup>. This includes large-scale developments that are required to undertake an EIA scoping report such as planning applications with more than 150 residential units or on sites larger than 5 hectares. The guidance sets out the requirement for these developments to submit an Air Quality Positive (AQP) Statement at the planning application stage that outlines the air quality positive approach taken.

For reserved matters this guidance is relevant if the outline application was subject to the air quality positive approach.

**Who is it for**

Planning authorities should use this guidance when undertaking the development of masterplans, development briefs and area planning frameworks. Applicants (and their planners, designers and architects) should use this guidance to ensure applicable planning applications are delivered using an air quality positive approach. This includes the submitting of an AQP Statement.

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<sup>1</sup> These are developments listed under Schedule 1 and 2 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017

## **1 About this document**

### **1.1 What is 'air quality positive'?**

1.1.1 Air quality positive is making an active contribution to *improving* air quality in and around a development site or masterplan area and minimising exposure to existing sources of poor air quality.

### **1.2 Integrating an air quality positive approach in the design process**

1.2.1 For large-scale development, it is expected that air quality expertise has been engaged throughout the design process in order to maximise the potential benefits. The air quality positive approach is not an assessment in its own right, it instead brings together a range of evidence in support of a planning application to show how air quality has been considered holistically.

1.2.2 Development design teams should identify opportunities to deliver an air quality positive development in combination with addressing other requirements of London Plan policies at an early stage, such as those relating to transport and energy.

1.2.3 This guidance considers measures that contribute to the delivery of an air quality positive scheme under four key themes, which are detailed further in Section 4:

- Better design and reducing exposure
- Building emissions
- Transport emissions
- Innovation and futureproofing

**Box 1: Relationship of air quality positive to other London Plan policies**

Policy SD4 The Central Activities Zone

Policy D1 London's form, character and capacity for growth

Policy D3 Optimising site capacity through the design-led approach

Policy G1 Green infrastructure

Policy G5 Urban greening

Policy SI2 Minimising greenhouse gas emissions

Policy SI3 Energy infrastructure

Policy SI4 Managing heat risk

Policy T2 Healthy streets

Policy T4 Assessing and mitigating transport impacts

Policy T5 Cycling

Policy T6 Car parking

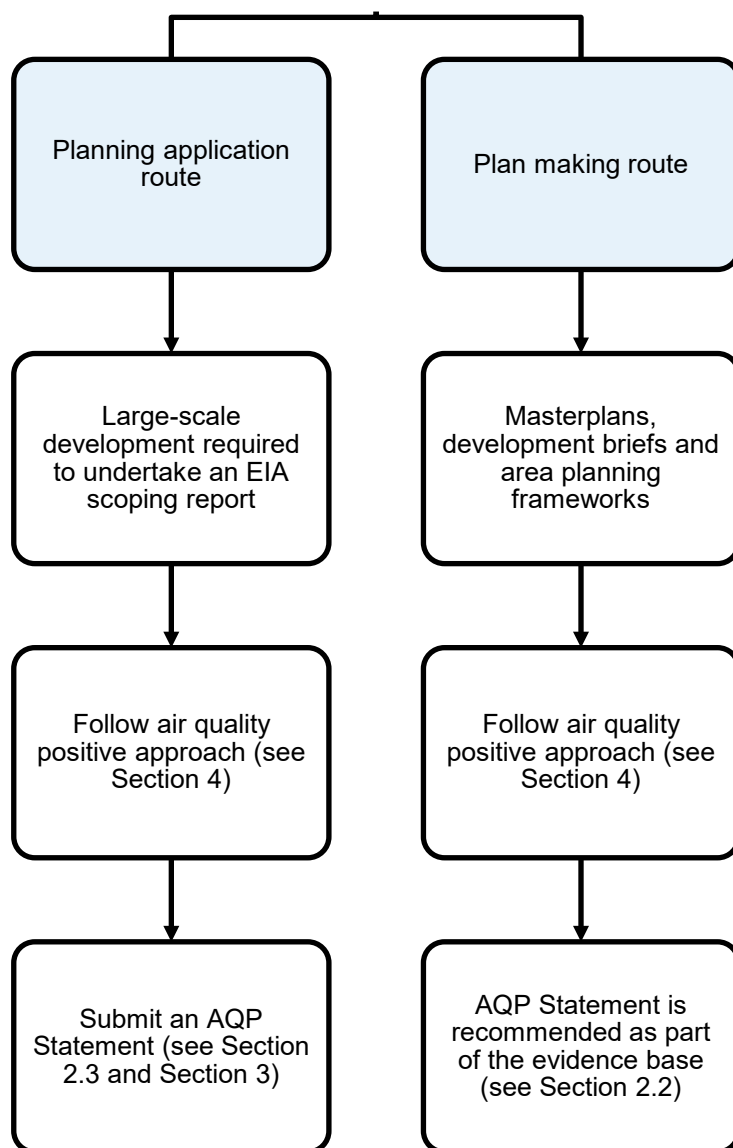
Policy T7 Deliveries, servicing and construction

Policy T9 Funding transport infrastructure through planning

## 2 Applying air quality positive

2.1.1 Large-scale development has a significant opportunity to improve local air quality throughout the design process and the air quality positive approach should be applied to these developments at the plan making and application stages.

Figure 2.1 Routes to applying the air quality positive approach



## **2.2 Plan making**

- 2.2.1 LPAs and developers involved in developing masterplans, development briefs or area planning frameworks should take the opportunity to improve local air quality by applying an air quality positive approach through the plan making process. As a minimum, the guidance in Section 4 should be followed in the development of these plans to identify measures and approaches to improve air quality.
- 2.2.2 Where possible, these plans should consider the phasing and timing of future key infrastructure delivery, such as energy centres, heat networks and transport. This is to ensure delivery in a way that secures the most beneficial outcomes to air quality. Where full build out will take many years, it may also be necessary to consider intermediate and transitional phases of infrastructure delivery.
- 2.2.3 These plans should provide a framework within which individual sites can reinforce and enhance the air quality positive approach to ensure the benefits and principles are not lost during the subsequent development of individual plots of land. This may be achieved through a design code or phasing strategy. An AQP Statement is therefore recommended to form part of an evidence base for any such plan.

## **2.3 Planning applications**

### **Outline planning applications**

- 2.3.1 Outline planning applications that are subject to EIA scoping report are required to be accompanied by an AQP Statement. Consideration of how outline applications will affect future detailed applications is a key element to achieving an air quality positive development.

### **Full planning applications**

- 2.3.2 Full planning applications for development that are subject to an EIA scoping report, require the most specific and detailed commitments to air quality positive measures and are required to be accompanied by an AQP Statement.
- 2.3.3 Air quality positive measures that are fundamental to the design of a development can be secured directly through approved plans and enforced where necessary. The use of planning conditions can secure the implementation of measures where they are not inherent to the design or are liable to variation. For example, these may involve 'provision of details', or additional monitoring.
- 2.3.4 Section 106 agreements can be used to secure measures where appropriate, such as off-site infrastructure improvements or post-completion monitoring.



### **Where an Air Quality Positive Statement has been already produced**

- 2.3.5 Where full or reserved matter applications form part of the delivery of a development for which an AQP Statement has already been produced, the AQP Statement should show how the relevant approaches and measures previously established have been followed through in the application. If the application is substantially in accordance with the original AQP Statement, a summary statement outlining how the proposed measures are being delivered is sufficient.
- 2.3.6 Where full or reserved matter applications deviate significantly from those at the earlier stage, it will be necessary to submit an updated AQP Statement to show that air quality conditions are at least as good as, if not better than, initially assumed. It should also be shown that changes do not prejudice the ability of subsequent phases to implement an air quality positive approach.

## **3 Air Quality Positive Statement**

### **3.1 Purposes of the statement**

3.1.1 The key aim of the AQP Statement is to demonstrate how all aspects of a development – including the buildings, public spaces, landscaping and infrastructure – have responded to their environment, contributed to improvement and implemented best practice in relation to air quality. Compiling the statement should ideally be a continuous process throughout development design.

3.1.2 The AQP Statement should not duplicate information already contained in other documents, such as that contained in the air quality assessment or Environmental Statement. It should instead act as:

- a guide to understanding how air quality has influenced the decision making;
- a document of reference indicating where to find the supporting information in the wider application or evidence pack; and
- a list of the measures that need to be taken to secure the expected outcomes, either by the applicants or the decision makers.

### **3.2 Minimum requirements**

3.2.1 The AQP Statement will vary considerably between schemes, and therefore there is a degree of flexibility in what a statement that is 'compliant' with this guidance and London Plan policy might contain. However, in general, an AQP Statement will be deemed compliant if it meets the following criteria:

- it meets all the minimum content requirements as outlined in Table 3.1;
- there is evidence that air quality considerations have informed the design of the development;
- the reasons for undertaking measures are justified and appropriate to either deliver improvements in air quality or a reduction in exposure to air pollution;
- the expected benefits to air quality are backed up by reasonable evidence;
- justification has been given where measures have not been implemented but could reasonably be expected;
- there is suitable evidence that measures are incorporated into the development application, i.e. evidence of assessment and/or reporting;
- there is a realistic mechanism to ensure the measures will be secured; and
- there is a suitable implementation and monitoring plan for longer-term targets.

### 3.3 Structure of the statement

3.3.1 The statement is likely to vary in length and detail depending on the application but should contain all the elements outlined in Table 3.1, which are explained in more detail below.

**Table 3.1 Air Quality Positive Statement structure**

Statement section	What to include
Introduction	Description of the development Method statement
Constraints and opportunities	Summary of site air quality constraints and opportunities Map of constraints and opportunities
Measures adopted	Matrix of adopted measures Rationale for adoption/non-adoption of measures Glossary of technical evaluations and assessments that have informed the measures adopted
Implementation and monitoring	Consultation Implementation plan (how measures will be secured, e.g. against variation in the future) Monitoring plan

#### Introduction

3.3.2 The introduction should include a short planning description of the development. It should also include any information on phasing, including whether the development is part of a larger masterplan or phased development, or whether further phases will come forward.

3.3.3 The description should aim to highlight elements of the plan or masterplan that are most significant for understanding how the air quality positive approach has influenced the development.

- 3.3.4 If key information is detailed elsewhere, such as in a Design and Access Statement (DAS), this can be referenced and does not need to be repeated in detail.
- 3.3.5 The method statement should provide a summary of the design process and how an air quality positive approach has been implemented. This can include details on meetings, workshops, or how preliminary work has informed the final proposals. It should also include references to any supporting technical documents (such as the energy statement or transport assessment) and where these can be found in the application pack to avoid duplication.

### **Constraints and opportunities**

- 3.3.6 This section is to provide evidence of how the air quality context of the site has informed the design process. In addition to a map of the site, a summary of its air quality constraints and opportunities should be provided, including:
- statutory designations (Air Quality Management Areas [AQMAs], Focus Areas, etc.);
  - major off-site sources of air pollution (roads, railways, industrial sources, energy centres, incinerators/energy from waste etc.);
  - a general overview of off-site sensitive receptors (proximity to residential, schools, hospitals);
  - proximity to energy networks;
  - transport infrastructure opportunities (rail/tube stations, cycle routes etc.); and
  - site permeability and access (in terms of pedestrian, cyclist and vehicular).
- 3.3.7 A more detailed account of constraints and opportunities may be hosted elsewhere, for instance in a technical Air Quality Assessment. The [Mayor's School Air Quality Audits toolkit](#) provides one possible method for applying a rigorous qualitative approach to understanding the constraints and opportunities around the site.
- 3.3.8 Where development may be delivered in phases, the earlier phases may create new constraints and opportunities for later phases. These should be considered as part of the development of phasing plans, including the delivery of key transport and energy infrastructure.

### **Measures adopted**

- 3.3.9 The range of measures adopted and the reason for adoption should be summarised in a matrix. Applicants are advised to consider as many measures as possible, based on their understanding of the constraints and opportunities at the site, and put forward a positive case for adoption. Where measures have not been implemented where they could reasonably be expected, the applicant should provide a rationale for not adopting these.

3.3.10 The matrix should break down measures by the four key themes listed in Paragraph 1.2.3. An example matrix is provided in Appendix 1, and should be used as a benchmark for the level of detail that is expected to be provided. Where the air quality benefits of a particular measure or approach may not be evident in the supporting documentation alone, further description should also be provided. In addition to the matrix, free text description is also encouraged, should this be deemed necessary. Further explanation on the identification of these measures and the four key themes is detailed in Section 4.

### **Implementation and monitoring**

3.3.11 Applicants should detail any consultation with the Local Planning Authority (LPA), Greater London Authority (GLA), Transport for London (TfL) and other stakeholders which have informed the air quality positive approach. This will include consultation on how measures are to be secured and implemented.

3.3.12 The matrix will detail how specific, individual measures will be implemented. An implementation and monitoring plan will go into greater depth and outline tangible, specific and measurable targets and commitments, describing how often these will be monitored and reported. Applicants should be able to answer ‘who, what, when and how?’ in the implementation and monitoring plan.

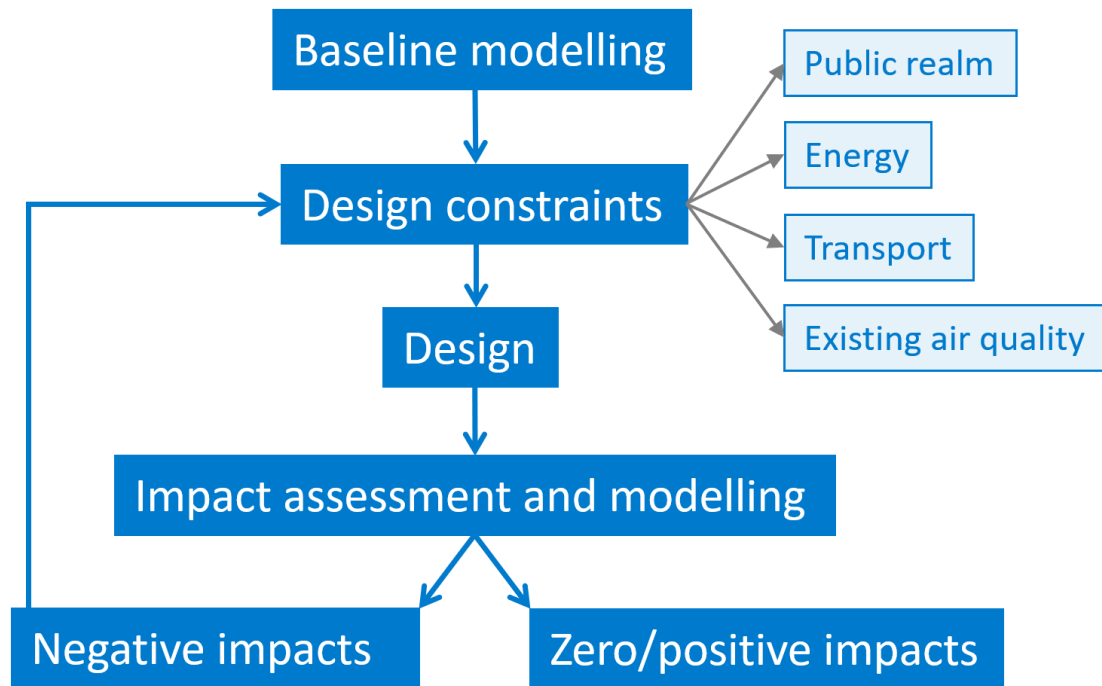
3.3.13 For outline developments, the implementation plan should include an explanation of how the air quality positive approach will be secured at the detailed design and application stage.

3.3.14 This section should also detail the monitoring and reporting requirements that will ensure that the measures are implemented as stated, for example, frequency of reporting, achievement of targets, fulfilment of section 106 agreements, etc.

## **3.4 Technical assessments**

3.4.1 Applicants and their consultants are encouraged to use a variety of assessment tools in designing an air quality positive development. These tools provide both evidence to an air quality positive approach, and advance understanding in how the development is affected by the design process. An example approach has been illustrated in 0.

**Figure 3.1 Schematic approach to assessment for an air quality positive development**



3.4.2 More detailed information on the range of technical assessment methods available is provided in Appendix 2.

## 4 Identifying measures and approaches

### 4.1 Rationale for measures

- 4.1.1 An air quality positive approach will optimise design to improve the air quality environment and minimise exposure to poor air quality. This would go beyond the requirement to simply ensure that developments do not lead to adverse impacts on air quality.
- 4.1.2 This guidance is not designed to represent an exhaustive list of measures to support an air quality positive approach. Applicants are encouraged to propose new or unique measures and innovations to actively improve air quality or reduce exposure and provide evidence to an air quality positive approach throughout their proposals.

### 4.2 Better design and reducing exposure

- 4.2.1 Using the design and layout of a development or plan area to improve the dispersion of local or regional pollution, and to reduce exposure to pollution in the public and private realms, is a key element of achieving an air quality positive compliant development. The approach should consider how the design can promote or create better air quality.

#### Buildings

- 4.2.2 The shape, orientation, height and location of buildings within a site has a significant impact on air flow, and consequently on the dispersion of pollutants. The aim should be to avoid designs which lead to an accumulation of pollution and to promote designs which enable airflows to easily disperse pollution from local and regional sources.

#### Roads and transport links

- 4.2.3 Roads and transport links can act both as an emission source and an opportunity to create attractive alternatives to private vehicle use. Development proposals should adopt the [Healthy Streets Approach](#) and consider both the location and function of roads at an early stage, prioritising strategies that enhance access and connectivity for sustainable modes of transport. Proposals should include detailed consideration of how walking, cycling and public transport routes are not only attractive within the site, but are prioritised over the use of private vehicles and link sensibly to the wider network and important destinations. Adopting smarter delivery practices like consolidation services and encouraging the use of clean transport such as cargo bikes and zero-emission vehicles can further reduce emissions from freight.

- 4.2.4 Where roads that carry large amounts of vehicular traffic form part of a development, detailed consideration should be given to how the location and expected use of these roads can be designed and managed to reduce exposure in both the public and private realm, within and around the development.

### Public and green spaces

- 4.2.5 Places within the development where people are expected to spend time outdoors, or at work or play, should be located where there are already low pollutant concentrations, or where the development will create the conditions for low pollutant concentrations.
- 4.2.6 Well considered use of green infrastructure may also form part of air quality positive proposals and should be considered in line with [Using Green Infrastructure to Protect People from Air Pollution](#) guidance.

### Other emission sources

- 4.2.7 Other sources of emissions include energy centres, industry (light or heavy) and energy from waste facilities, as well as direct emissions from individually heated buildings. The location of these elements within the development, and other design parameters such as stack heights and relationship to host or surrounding buildings, can have a significant impact on the dispersion or accumulation of pollutants.
- 4.2.8 These issues are clearly linked and should normally be considered holistically, alongside other key design considerations such as density. Failure to consider air quality at an early stage will create issues that are difficult to address once the design and layout is fixed. Every effort should therefore be made to reflect on how the design influences local air quality from the early stages of site optimisation and iterative design processes.
- 4.2.9 The submitted plans for the development should demonstrate how the outcomes from the consideration of air quality in design and layout have been incorporated in the final design.
- 4.2.10 For outline applications, mechanisms will need to be put in place to ensure that subsequent detailed designs do not undermine or reduce the expected outcome (such as by re-orienting or re-locating buildings, roads or emission sources) in a way that increases exposure (refer to Section 2.3).

## 4.3 Building emissions

- 4.3.1 Building emissions primarily arise from heat demand. New large developments and masterplans are already encouraged to create area-wide heat networks which utilise low or zero carbon energy systems. An air quality



positive approach should also ensure that these systems will achieve low or zero emissions of air pollutants.

- 4.3.2 Developments should also seek opportunities to provide low or zero emission heat to surrounding areas beyond the site boundary, both where there is existing housing and industry or where new developments are planned.
- 4.3.3 Developments should seek to futureproof heating and energy systems to ensure that there is a plan in place to manage growth and new connections without creating additional emissions. Where the initial energy strategy includes combustion-based heat, future proofing should include the possibility to transition to a zero-emission heating system in the future.
- 4.3.4 The air quality positive approach can be secured in a variety of ways, including binding agreements or conditions to ensure that the predicted outcomes are achieved in the installed system. Where combustion appliances are unavoidable, consideration should be given to instituting a programme of emission testing to ensure that the installed system behaves as expected.

### **4.4 Transport emissions**

- 4.4.1 Large-scale developments are likely to impact travel behaviour in the surrounding area, especially in developments involving retail, leisure or social infrastructure, or redevelopment of town centres. New development can positively influence travel behaviour in the surrounding area. This may be achieved by providing new routes and opportunities for sustainable transport modes to become the most convenient, safest and helpful choice for local residents and workers such as segregated cycle lanes which are integrated into the wider cycle network. It may also be achieved by providing the appropriate infrastructure to make low emission transport options more desirable, such as electric vehicle charging infrastructure or bicycle storage facilities and include measures to consolidate trips and reduce individual freight movements.
- 4.4.2 The air quality positive approach to transport can be secured in a variety of ways, which could include plans, binding agreements or conditions, or integration into wider approaches, such as the [Healthy Streets indicators](#).
- 4.4.3 Soft measures, such as travel plans, can be useful in achieving an air quality positive development. However, care should be taken to identify core elements by which successful implementation can be objectively measured and secured.

### **4.5 Innovation and futureproofing**

- 4.5.1 The Mayor seeks to encourage new and innovative solutions to improve air quality. As well as exploiting new and emerging low and zero emission technologies, innovation can include developing new, bespoke approaches to

developments. This may include enhancing and extending best practice from elsewhere or using a wider range of analysis techniques to improve understanding of the air pollution environment.

- 4.5.2 Air quality professionals and consultants working on large developments and masterplans should keep abreast of developments and best practice to inform the implementation of an air quality positive approach.
- 4.5.3 Where innovative approaches are being considered, it will be beneficial to consult on these in detail with the LPA at an early stage. As experience grows with air quality positive developments, the Mayor will publish case studies highlighting innovative approaches that can be used elsewhere.

## Appendix 1 Air quality positive matrix

An example matrix of air quality positive measures is provided in Table A1.1, which aims to provide a starting point for how to summarise and report on the measures employed in order to achieve an air quality positive compliant development. This example demonstrates the level of detail required for each measure, but the number of measures included can vary.

**Table A1.1 Example measures in an air quality positive matrix**

Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
Better design and reducing exposure							
Localised low traffic neighbourhood	The proposed development will close Elderfield Street to through traffic, except for pedestrians, cyclists and local buses.	Elderfield Street suffers from excessive through traffic and conflict with pedestrians and cyclists. It is a narrow road with	Elderfield Street will be quieter and more accessible and attractive by active travel	Air quality and transport assessments carried out, including surrounding	Y	Y	Secured through approved plans and in agreement with the local

<sup>2</sup> All references to other documents in this column should be accompanied by an appropriate citation or direction.

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Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
		more appropriate through routes nearby.	modes, with air quality benefits for new residential dwellings adjacent to the roadside.	roads. Consultation with TfL on diverted bus route along Elderfield St. Bus journey times reviewed two years after implementation.			highways authority and TfL.
Road realignment	The proposed development will require road realignment to accommodate a new junction. An air quality assessment was carried out to inform the design and improve air quality for existing and proposed receptors.	The realignment was necessary to accommodate the development. Consideration has been given to the optimum design of the revised junction.	Lower concentrations of pollutants at sensitive receptors.	Air quality assessment carried out.	N	Y	Secured through approved plans

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Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
Building design	The proposed development has been designed to avoid creating a street canyon on High St and to include building forms that aid dispersion.	Reduce the potential to increase pollutant concentrations on High St.	Reduced exposure to high levels of pollutants for new and existing residents of High St.	CFD modelling carried out to assess the effect on High St. The design is described in the DAS.	Y	Y	Secured through approved plans
Ventilation strategy	Passive ventilation strategy on all habitable rooms following re-siting of buildings away from roadside.	Acceptable air quality is provided to future residents without requirement for mechanical ventilation (cooling hierarchy).	Future residents will experience acceptable air quality without recourse to energy intensive ventilation systems.	Air quality assessment shows air quality acceptable for future residents. Ventilation strategy report. Design informed by preliminary	N	Y	Secured through approved plans

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Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
				air quality assessment and explained in DAS.			
Further measures	<i>(Complete if necessary)</i>						
Building emissions							
Energy Strategy	The heat demand for the scheme will be met using Communal Air Source Heat Pumps in combination with peak gas boilers and include a heat exchanger for future connection to the nearby district heat network.	The Energy Strategy sets out the rationale for the measure and quantifies the impact on NOx emissions compared with other options such as CHP.	The selected option will meet the carbon emission targets but will also deliver a 95% reduction in on-site NOx emissions as	Energy strategy.	N	Y	Delivery is subject to s106 agreement.

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Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
			compared to connection to a standalone energy centre with CHP/boilers.				
Zero emission generators	Emergency life safety generators will use zero emission gensets from either battery or hydrogen technology.	Diesel generators are high NOx and PM emitters and contribute to background pollutant concentrations, and alternatives are now available.	Reduced contribution of the building to background pollution and pollution hotspots.	Air quality assessment showed impact of diesel generator.	N	Y	Secured by condition.

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Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
Transport emissions							
Rapid EV charging hub	A rapid charging hub for 10 vehicles will be fully funded and installed prior to the opening of Phase 2 (retail and commercial) of the development. This will take account of best practice design principles.	Additional rapid EV charging capacity will increase existing shortage of rapid charging infrastructure and increase accessibility of EV use. The hub will be delivered to coincide with the opening of the retail element where short-term parking is more likely.	Increased availability of suitable charging infrastructure will incentivise EV use which will help to reduce tailpipe emissions from road traffic in the future.	EV charging hub is designed into approved plans.	Y	N	Delivery is subject to s106 agreement.



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Measure	Summary of the measure	Reason for undertaking measure	Expected benefits	Assessment and reporting			How will this measure be secured
				Methods <sup>2</sup>	Quantitative	Qualitative	
Healthy streets	A Healthy Streets transport assessment has been carried out on on-site and off-site routes.	Report against the TfL Healthy Streets indicators to increase the attractiveness of walking and cycling.	Reduced emissions associated with increased walking and cycling for short journeys.	Healthy Streets Transport Assessment.	Y	N	Cycling and walking infrastructure secured by approved plans or conditions
Car park leasing	100% of on-site parking spaces will be leased only to owners of low emission vehicles.	Encourage the uptake of low emissions vehicles and reduce emissions associated with private vehicle use.	Reduced emissions associated with private vehicle trips and increased uptake of low emission vehicles.	Travel Plan.	Y	N	Car park leasing plan to be secured by s106 agreement.
Further measures	<i>(Complete if necessary)</i>						

## **Appendix 2 Technical assessments**

### **A2.1 Overview**

- A2.1.1 The fundamental determinants of exposure to poor air quality are easily understood: How much pollution is there? Where is the pollution likely to concentrate and where are people expected to be? In reality, however, these relationships are complex and understanding how the development contributes and responds to each of these determinants will usually require a variety of technical assessments.
- A2.1.2 The traditional approach, where a development is tested against specific pollution thresholds after the major design work is complete, is unlikely to be sufficient for many air quality positive developments.
- A2.1.3 Developers and their consultants are encouraged to use a variety of assessment tools to understand the development throughout the iterative and detailed phases of design.

### **A2.2 Dispersion modelling**

- A2.2.1 Dispersion models, such as Advanced Distribution Management System (ADMS) and American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD), are widely used for air quality assessments in support of planning applications. These modelling packages are continuously being developed, and consultants working on these should keep their knowledge up to date and ensure that they are able to use advanced features which may provide additional information relevant to a development's design.
- A2.2.2 Dispersion models can also be used early in the design process to help describe the existing air quality environment within and around the development site, informing the discussion of constraints and opportunities.
- A2.2.3 During the design process, dispersion models can be used to understand the air quality impacts of different design options. This can inform decisions on how to progress to more detailed stages of design.

### **A2.3 Advanced analysis tools**

- A2.3.1 A limitation of the most common dispersion models is that they can struggle to describe how complex built environments interact with very local effects on pollutant concentrations.
- A2.3.2 More advanced air quality models are in development, and these may be used where appropriate. Alternatively, computational fluid dynamics models and wind tunnel or microclimate models can be used to aid

understanding and describe how the built environment may affect pollutant dispersion and accumulation. This is especially applicable in the case of larger, complex developments, or tall buildings which can have major impacts on the local microclimate.

- A2.3.3 Air quality professionals should ensure that they are aware of how best to use these tools to supplement and enhance understanding gained through dispersion modelling.

### **A2.4 Qualitative tools**

- A2.4.1 It is not always possible to fully quantify the impact of a development on air quality, or to numerically describe likely patterns or determinants of exposure. Nor is it realistic to expect every possible design iteration to be subject to detailed air quality modelling.

- A2.4.2 The [Mayor's Schools Air Quality Audit programme](#) pioneered innovative approaches to robust qualitative analysis of air quality at the local scale. Although not fully transferable to development planning, the toolkit produced contains a number of key themes and ideas that can be applied to qualitative assessment, interpretation and the identification of measures.

- A2.4.3 Air quality professionals are encouraged to maintain a working knowledge of qualitative methods and how to combine them with quantitative analyses.

### **A2.5 Measuring and monitoring**

- A2.5.1 Concentrations of air pollutants in the real world can be measured with a variety of instruments depending on the density, level of accuracy and purpose of the monitoring campaign. Direct air quality monitoring is not, however, an alternative to action and should not be used as a "mitigation" for avoidable impacts.

- A2.5.2 For development management purposes, monitoring is likely to be most useful either: as a way of testing assumptions or models of local air quality at the baselining stage; or as a way of monitoring and promoting the success of the scheme. Participation in a programme such as [Breathe London](#), for example, would enable access to reliable data, support boroughs in air pollution monitoring, and demonstrate a willingness to be transparent about a development's impact on local air quality.

- A2.5.3 Measures proposed as part of the air quality positive approach are expected to be tangible, specific and measurable. Wherever possible, the AQP Statement should set out how success will be measured, but this will not always be in terms of direct ambient pollution monitoring. For instance, a proposal to incentivise bike ownership and reduce reliance on private cars is more directly measured by counting how often the incentive is accessed than by measuring ambient air quality

## **A2.6 Other assessments**

- A2.6.1 EIA developments and masterplans are often subject to a variety of analyses which may contribute to understanding how the proposals affect local air pollution. For example, wind comfort assessments can provide important information about air flows and, where significant changes to traffic flows are expected, detailed traffic modelling can provide information about congestion and queueing.
- A2.6.2 The outcomes of these analyses are unlikely to yield quantitative information about air quality and air quality professionals should consider how best to interpret them qualitatively.
- A2.6.3 EIA developments are likely to contain a variety of information useful to understanding how the development interacts with air pollution. In particular, the “cumulative impacts” section of an EIA can indicate where there are specific issues that need to be dealt with in terms of air quality.

