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London Luton Airport Expansion

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**8.111 Applicant's Response to Issue Specific Hearing 6,
Action 33: Principles of Good Design**

Infrastructure Planning (Examination Procedure) Rules 2010

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The Infrastructure Planning (Examination Procedure) Rules 2010

**London Luton Airport Expansion Development Consent
Order 202x**

**8.111 APPLICANT'S RESPONSE TO ISSUE SPECIFIC HEARING 6,
ACTION 33: PRINCIPLES OF GOOD DESIGN**

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1 POLICY COMPLIANCE TABLES

1.1 Introduction

1.1.1 This document has been prepared by Luton Rising (a trading name of London Luton Airport Limited ('the Applicant')) for submission to the Examining Authority ('ExA'). It provides the Applicant's response to the ExA's Action Point 33 from Issue Specific Hearing 6 (ISH6) held on 29 September 2023:

“Demonstrate further how the principles of good design have been met through the proposals, including how aspects of the proposal have addressed design policies, such as Luton Borough Council Policy LLP6 part F(ii) in respect of height and design of buildings and justification for the landform and how it relates to landscape character.”

1.1.2 In addition to consideration of policy requirements it is noted that as Luton Airport is an existing certified aerodrome then there are several National and International Standards which must be adhered to and these also influence the design. Section 6 of the **Design and Access Statement (DAS) (Volume II) [AS-124]** includes several references to such documents and these are listed in the references. The principal documents referenced are:

- a. International Civil Aviation Organisation, International Standards and Recommended Practices, Annex 14 to the Convention on International Civil Aviation, Volume 1 Aerodrome Design and Operation, Ninth Edition, July 2022. (Ref 5.1, DAS Volume II). This document covers a wide range of topics including aerodrome certification, safety management systems, physical characteristics of runways, taxiways and aprons, obstacle restrictions and removal and visual aids.
- b. UK Certification Specification & Guidance Material for Aerodrome Design CS-ADR-DSN For Regulation (EU) No. 139/2014 as retained (and amended in UK domestic law) under the European Union. (Withdrawal) Act 2018 (Ref 5.2 in DAS Volume II). This document is the UK equivalent of ICAO Annex 14.
- c. International Air Transport Association, & Airports Council International (ACI). Airport Development Reference Manual, 11th Edition. (Ref 5.3 in DAS Volume II). This document provides best practice guidance for the development of airport infrastructure that balances capacity with demand. It is particularly relevant to the design of airport terminal buildings.
- d. UK Department for Transport (DfT) policy 'Aviation Security in Airport Development' (ASIAD). Government policy document intended to guide those in the planning, design and development of new airports and airport terminals, as well as those who have responsibility for management, maintenance and refurbishment of existing airport facilities. Its scope includes all airport infrastructure, with a particular focus on security requirements.

1.1.3 This document is a guide that shows how the proposed Luton Airport Expansion responds to the relevant national and local policy with respect to the principles of good design and should be read as an addendum to the **DAS [AS-049 and**

AS-124] and in conjunction with **Design Principles [APP-225]**, draft **DCO [REP4-003]** both to be reissued at Deadline 5 and **Planning Statement [AS-122]** Section 7.6 Criteria for ‘Good Design’ for Airports. For full planning policy compliance tables, refer to **Appendix E – Policy Compliance Tables [APP-199]** of the **Planning Statement**.

1.1.4 From the outset the Proposed Development has been informed by the design principles in the following policies:

- a. Airport National Policy Statement (ANPS) (Ref 1.1) ;
- b. National Planning Policy Framework (NPPF) (Ref 1.2);
- c. Luton Local Plan (LLP) (Ref 1.3);
- d. Central Bedfordshire Local Plan (Ref 1.4);
- e. North Hertfordshire Local Plan (Ref 1.5);
- f. Dacorum Local Plan Core Strategy (Ref 1.9);
- g. Beyond the Horizon: The future of UK aviation – Making best use of existing runways (Ref 1.6); and.
- h. Airports Commission: Appraisal Framework (Ref 1.7).

1.2 ANPS (Airports National Policy Statement)

1.2.1 The ANPS (Ref 1.1) establishes criteria for ‘good design’ for airports infrastructure. These criteria are drawn out below together with our commentary on how each has been addressed to demonstrate how the policy objectives have been embedded into the design of the Proposed Development.

Table 1.1: ANPS policy compliance

Policy	General approach	Design outcomes (showing policy compliance)
<p>“The Applicant should include design as an integral consideration from the outset of a proposal.” (para 4.29)</p>	<p>From the outset, the design process has been led by a core design team with extensive inputs from a comprehensive multi-disciplinary technical team with all the relevant expertise needed to inform design development.</p>	<p>The multi-disciplinary team has worked in an integrated way from the early stages of the project to develop a design that responds to the need case as explained in section 2 of the DAS Volume 1 [AS-049]. The following steps were taken to achieve this:</p> <ul style="list-style-type: none"> - Undertake baseline assessments for each topic; - Develop alternative strategic options for the expansion of the airport

Policy	General approach	Design outcomes (showing policy compliance)
		<p>and appraise these through the Sift process;</p> <ul style="list-style-type: none"> - Prepare Preliminary Environmental Impact Reports (PEIR) to inform design development; - Engage extensively with stakeholders and carefully consider the feedback from three rounds of public engagement as described in section 4 of the DAS Volume 1 [AS-049]; - Develop the design of the preferred option which establishes the spatial parameters for the Proposed Development; - Prepare the EIA submitted as part of the DCO; and - Consider how the necessary mitigation measures can be secured including through the Design Principles Document. <p>Whilst the detailed design will not be developed until after DCO consent, the Proposed Development must be in accordance with the Design Principles [APP-225]. These provide a framework for future detailed design.</p>
<p>“Visual appearance should be an important factor in considering the scheme design, as well as functionality, fitness for purpose, sustainability and cost.” (para. 4.30)</p>	<p>The visual appearance of the Proposed Development in the landscape was an important consideration in appraising alternative strategic options. Sift criteria number 14 from the</p>	<p>Visual appearance</p> <p>Whilst the detailed design is not fully developed the Proposed Development must be in accordance with the Design Principles [APP-225]. These provide a framework for future detailed design and include the following relating to Design</p>

Policy	General approach	Design outcomes (showing policy compliance)
	<p>Sift 2 Report¹ [APP-210] focused on this issue and is broken down into the following sub criteria:</p> <ul style="list-style-type: none"> - Does this option impact, protect or enhance designated landscapes or townscapes; - Does this option affect the visual amenity of potentially sensitive visual receptors; and - To what extent can effects on landscape or visual amenity be managed or mitigated. 	<p>Quality (Design Principles reference DQ.01):</p> <ul style="list-style-type: none"> - Visually appropriate and sensitive to place, creating an appearance that demonstrates good aesthetics as far as possible. - Responsive to landscape and historical character and function, landscape permeability, landform, and vegetation. <p>Furthermore, the Environmental Statement Chapter 4 [AS-074] helps support a good visual appearance through the inclusion of both hard and soft landscaped areas, signage, and surface treatments accessible to a wide range of users. Soft landscape treatments would be formal in appearance (i.e. mown grass, ornamental shrub and hedgerow planting and street trees).</p>
<p>“Visual appearance should be an important factor in considering the scheme design, as well as functionality, fitness for purpose, sustainability and cost.” (para. 4.30)</p>	<p>Within the DCO, the design is defined in outline terms only and the Proposed Development would be located within certain parameters, or ‘envelopes’, employing a Rochdale (Design) Envelope approach. This supports the long-term nature of the Proposed Development, planned over a long build out programme. The Design and Access Statement (DAS) provides further information on the context</p>	<p>Functionality and fitness for purpose</p> <p>One of the scheme wide design principles is that the airport will be 'operationally fit for purpose and cost effective' and this is supported by the Environmental Statement Chapter 4 [AS-074] which states that the T2 Plaza would help to support the functionality and uses of the terminal itself, including:</p> <ul style="list-style-type: none"> - Provision for passengers and visitors to wait, prior to checking-in or collecting those arriving at the airport

¹ Design and Access Statement Appendix B – Sift Reports – Part 2 of 4

Policy	General approach	Design outcomes (showing policy compliance)
	<p>and the approach in developing the Proposed Development [AS-049, AS-124]. The parameter-based approach at this stage places emphasis on functionality, fitness for purpose, sustainability, and cost, ahead of setting out the more detailed design.</p>	<p>(with seating or perching areas);</p> <ul style="list-style-type: none"> - Provision of sheltered areas for smokers and for use during inclement weather; - Provision for luggage trolley parking and other air travel facilities; - Cycle parking provision; - Other street furniture and security measures; - Break-out areas for airport staff and visitors; - Muster points; and - Other land uses (e.g. retail or café/restaurant). <p>Sustainability The sustainability design principles are derived from the five sustainability strategy objectives (Sustainability Statement [APP-216]):</p> <ul style="list-style-type: none"> - Protecting and enhancing the natural environment; - Delivering climate resilience and business continuity; - Leading the transition to Carbon Net Zero; - Becoming a national hub for green technology, finance, and innovation; and - Creating a place to thrive. <p>Cost To manage the development costs, the final strategic objective considered during the Sift 2 [APP-210] process was an initial and indicative appraisal of the relative cost benefit relationship</p>

Policy	General approach	Design outcomes (showing policy compliance)
		<p>of the proposed options, given the information available at that stage incorporating:</p> <ul style="list-style-type: none"> - The likely relative level of investment required; - Impact of each option family on operational costs; and - The likely comparative derived qualitative and quantitative benefit.
<p>“Applying ‘good design’ to airports projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction, and matched by an appearance that demonstrates good aesthetics as far as possible” (para. 4.30).</p>	<p>A key element of the project vision has been achieving defined targets for sustainable infrastructure.</p> <p>The siting of the main elements of the proposed development was informed by an appreciation of the topography and landscape sensitivity. See, for example, the LVIA, analysis maps in GIS as shown in DAS Volume 1 [AS-049].</p> <p>The DCO submission adopts a parameters based approach with the detailed design to follow post consent. Therefore the approach to the aesthetic design has not been developed beyond the conceptual designs shown as part of the statutory consultation and included in the DAS [AS-049, AS-124].</p>	<p>The key elements embedded into the design of the Proposed Development include:</p> <ul style="list-style-type: none"> - Facilities for greater public transport usage; - Improved thermal efficiency; - Electric vehicle charging; - On-site energy generation and storage; - New aircraft fuel pipeline connection and storage facilities; and - Sustainable surface and foul water management installations. <p>The consideration of landscape and surrounding context has informed the development of landscape, lighting, noise and other strategies which seek to mitigate impacts.</p> <p>While the detailed design is not fully developed yet, the Proposed Development must be in accordance with Requirement 5 (‘Detailed design, phasing and implementation’), set out in the draft DCO [REP4-003], as well as Design Principles [APP-</p>

Policy	General approach	Design outcomes (showing policy compliance)
<p>“A good design should meet the principal objectives of the scheme by eliminating or substantially mitigating the adverse impacts of the development, for example by improving operational conditions. It should also mitigate any existing adverse impacts wherever possible, for example in relation to safety or the environment.” (Paragraph 4.31)</p>	<p>The opportunity to mitigate and minimise the adverse impacts of the Proposed Development was paramount throughout the design process. The technical team advised on the Strategic Objectives for the Proposed Development to ensure alignment with the Airport Commission Appraisal Framework and the Applicant’s Vision for the project in the initial sifting of strategic options at Sift Report 1² [APP-209]. The preferred options were then assessed in more detail at Sift 2 [APP-210] and Sift 3 [APP-211] using an eight-level distinction of Red, Amber, Green (RAG) appraisal framework.</p>	<p>225]. These provide a framework for future detailed design.</p> <p>The RAG assessment against 12 Strategic Objectives and 28 Sift criteria [APP-210] included reviews by the technical team including all EIA disciplines. These assessments enabled the identification of the preferred strategic options and informed design and mitigation strategies to avoid or substantially mitigate adverse impacts of the Proposed Development. This approach has been effective in meeting this criterion for good design.</p> <p>Each of the technical mitigation strategies are set out within the Environmental Statement chapters.</p> <p>The expansion of the taxiway network will improve operational conditions with more direct and efficient routing of aircraft from Terminals to the runway ends with a reduction in congestion and reduced fuel burn.</p> <p>T2 will provide a more efficient operational conditions to the benefit of passengers, staff and airlines.</p> <p>The proposed connection to the national fuel pipeline and the use of fuel hydrants on the apron will reduce movements of HGVs on the public highways and within the airport.</p>

² Design and Access Statement – Appendix B – Sift Reports – Part 1 of 4

Policy	General approach	Design outcomes (showing policy compliance)
		<p>The extension of the Luton DART will enhance operational conditions for passengers using public transport and promote a shift on Modal share.</p>
<p>“Scheme design will be an important and relevant consideration in decision making. The Secretary of State will need to be satisfied that projects are sustainable and as aesthetically sensitive, durable, adaptable and resilient as they can reasonably be, having regard to regulatory and other constraints and including accounting for natural hazards such as flooding.” (Paragraph 4.32)</p>	<p>Context The DAS Volume 1 [AS-049] (Section 2) describes the context for the design of the Proposed Development in terms of the need case, planning and design policy and the analysis of the physical context of the site and surrounding area that has informed the design.</p> <p>Regulatory requirements and resilience The design of the Proposed Development has included careful consideration of regulatory requirements. This has been addressed in several ways across the DAS and Sift reports. Operational effectiveness (S23) and System resilience (S24) were both Sift criteria [AAP-210] seeking to ensure a pleasant experience for passengers, protect the environment and maximise attractiveness for airline operators.</p>	<p>Context The Proposed Development was designed to take all the site elements and constraints into consideration and followed an approach which sought to minimise the impact of the airport's expansion on the environment, landscape and surrounding neighbourhoods (DAS Volume II Section 5) [AS-124].</p> <p>Regulatory requirements and resilience The Main Application Site is at low risk of fluvial flooding. The key flood risk consideration arising from the Proposed Development in terms of flood risk is related to the management of surface water, as described in the Flood Risk Assessment [AS-046].</p> <p>The proposed drainage solution is described in Drainage Design Statement which is Appendix 20.4 of the ES [REP4-031].</p> <p>Major Accidents and Disasters (MADS) have been assessed within the Proposed Development and mitigated through the design, construction, operation and maintenance as documented within Chapter 15 Major Accidents and Disasters of the ES [APP-041].</p>

Policy	General approach	Design outcomes (showing policy compliance)
<p>“The Secretary of State will also need to be satisfied that extant security, customs and immigration measures are maintained or reprovided.” (Paragraph 4.32)</p>	<p>Security, customs, and immigration have been incorporated into the proposals in alignment with government mandated policies, for example, the separation of departing and arriving functions, the provision of sufficient functional space within each processing areas, and the provision of customs and immigration areas.</p>	<p>The outline design is at the appropriate level of accordance with the principles of ASIAD (Aviation Security in Airport Development) for the maturity of the design, and all of the relevant government agencies have been consulted.</p> <p>The DAS [AS-049, AS-124] highlights the following design outcomes:</p> <p>T1 Expansion</p> <ul style="list-style-type: none"> - T1 immigration extension: An extension of the current terminal building to the north is proposed to increase the area dedicated to the immigration process for arriving passengers. - T1 New Pier C and external canopy: The pier will provide segregation in accordance with DfT security policies. <p>T2 Design</p> <ul style="list-style-type: none"> - First Floor – Passenger Operations: central security located to the east of the plan. Immigration and baggage reclaim to the west. - The design meets the requirements of the IATA Airport Design Reference Manual 11 (passenger security and segregation in section 3.4). - Passenger routing through the terminal discourages dwell near the landside facades which increases security and majority of

Policy	General approach	Design outcomes (showing policy compliance)
		<p>passenger facilities are located after security.</p> <ul style="list-style-type: none"> - Sufficient space is provided for a modern, efficient, automated baggage handling system with allowance for necessary security features. - The plaza would be designed to significantly reduce opportunities for hostile vehicles. - Design Principles within this document [APP-225] require detailed designs to adhere to latest DfT security requirements. - The parameters established in the DCO allow flexibility to accommodate future changes to security requirements.
<p>“The scheme should take into account, as far as possible, both functionality, including fitness for purpose and sustainability, and aesthetics, including the scheme’s contribution to the quality of the area in which it would be located.” (Paragraph 4.33)</p>	<p>The opportunity to mitigate the adverse environmental impacts on the area are highlighted in Sift [APP-210] criteria numbers 8, 10, and 16 which highlight the intention to minimise the impact of the Proposed Development on the atmosphere.</p> <p>From the outset, the maximisation of wider benefits to the surrounding area has been a key part of the Proposed Development. The Sift Criteria [APP-210] such as, ‘To promote quality of life and minimise adverse impacts on communities’</p>	<p>Whilst the detailed design is not fully developed, the Proposed Development must be in accordance with the Design Principles [APP-225]. The sustainability design principles are derived from the five sustainability strategy objectives (Sustainability Statement [APP-216]):</p> <ul style="list-style-type: none"> - Protecting and enhancing the natural environment; - Delivering climate resilience and business continuity; - Leading the transition to Carbon Net Zero; - Becoming a national hub for green

Policy	General approach	Design outcomes (showing policy compliance)
	<p>and 'Landscape and visual impact and environmental land use', highlighted in table 3.1 has supported this as well as the overall function of the airport design.</p>	<p>technology, finance, and innovation; and</p> <ul style="list-style-type: none"> - Creating a place to thrive. <p>The outcome of the 4 stage Sift process, shown in Sift 3 and 4³ [APP-211, APP-212] was that Option 1a performed better against the majority of the sift criteria than the other options and was considered the most preferred and presented as such during the consultation. This was because the option performed most strongly in relation to strategic fit, economic benefits, deliverability (within the context of the current concession, attractiveness to future concessionaires and not requiring additional land beyond current LLAL holdings), operational viability and cost benefit.</p>
<p>"The Applicant will want to consider the role of technology in delivering new airports projects. Professional, independent advice on the design aspects of a proposal should be undertaken to ensure good design principles are embedded into infrastructure proposals." (Paragraph 4.33)</p>	<p>The role of technology has been considered with regard to the present and to the future. Technological advances are likely to occur over the next decade, whether for aviation, for building operations, for energy. Therefore, considering future adaptability alongside the current technological requirements was important to ensure the longevity of the proposal.</p>	<p>The Applicant sought specialist advice from various consultants. All of which were experts in this field and applied appropriate, necessary, and required judgement.</p> <p>The technology in the Proposed Development that will be used to achieve sustainable outcomes can be found in the DAS [AS-049, AS-124] withing '5.22 Fuel storage facilities' and '5.24 Energy'. These proposals include:</p> <ul style="list-style-type: none"> - A 33kV substation would be provided in the north of

³ Design and Access Statement – Appendix B – Sift Reports – Part 3 and 4 of 4

Policy	General approach	Design outcomes (showing policy compliance)
		<p>the site within car park P9 to satisfy the increased demand for EV charging.</p> <ul style="list-style-type: none"> - Solar Battery Storage provided to collect energy generated by the long stay car park photovoltaic canopies and roofs and connect it into the airport network. - Due to the intermittent nature of renewable generation, battery storage would be used to smooth the load which enables excess generation to be captured. - The proposed terminal and associated buildings will not include connection to the natural gas network and existing buildings which rely on gas for heating or services will transition to other sources of heat and power as part of asset renewals programme. - Where opportunities arise, the Proposed Development has been designed to accommodate the potential uptake of Sustainable aviation fuel, or transition to, these technologies as and when they come forward.
<p>“There may be opportunities for the Applicant to demonstrate good design in terms of siting and design measures relative to existing landscape and historical character</p>	<p>The Proposed Development has been designed as far as practical, to avoid negative effects on biodiversity through option identification, appraisal, selection and refinement.</p>	<p>The Strategic Landscape Masterplan [APP-172] and the Landscape principles within the Design Principles [AAP-225] include extensive landscape treatments to mitigate and enhance landscape features including:</p>

Policy	General approach	Design outcomes (showing policy compliance)
<p>and function, landscape permeability, landform, and vegetation.” (Paragraph 4.34)</p>	<p>The design of the Proposed Development and the planned approach to its construction have been developed with an overarching principle of avoidance where possible.</p>	<ul style="list-style-type: none"> - Proposed woodland planting; - Retained existing woodland; - Hedgerow restoration; - Neutral meadow grassland; - Amenity grassland; - Proposed scrub; and - Enhanced surfacing and facilities including improved skate park, play facilities and Wigmore Pavilion. <p>As well as integrating operational requirements, the T2 Plaza would also incorporate a hard and soft-landscape environment and seating areas. The landscape design for the Proposed Development will include large areas of habitat creation to mitigate the loss of habitats from construction of the Proposed Development. This includes the planting of hedgerows and trees that are in keeping with the historic landscape of the area.</p>
<p>“The Applicant should be able to demonstrate in its application how the design process was conducted and how the proposed design evolved. Where several different designs were considered, the Applicant should set out the reasons why the favoured choice has been selected. The Examining Authority and</p>	<p>The evolution of the design of the Proposed Development is set out in detail in the DAS [AS-049, AS-124] submitted in support of the DCO.</p> <p>The technical team advised on the Strategic Objectives for the Proposed Development to ensure alignment with the Airport Commission Appraisal Framework and</p>	<p>A range of alternative strategic options have been explored as part of the design process. These options are discussed within the DAS Section 5.4 [AS-124] and the Sift Reports [APP-209, APP-210, APP-211, APP-212]. This included a four-stage sift process to arrive at a preferred concept option and then the more detailed design of this preferred approach for the DCO submission.</p>

Policy	General approach	Design outcomes (showing policy compliance)
<p>Secretary of State will consider the ultimate purpose of the infrastructure and bear in mind the operational, safety and security standards which the design must satisfy.” (Paragraph 4.34)</p>	<p>the Applicant’s Vision for the project in the initial sifting of strategic options at Sift 1 [APP-209]. The preferred options were then assessed in more detail at Sift 2 [APP-210] and Sift 3 [APP-211] using an eight-level distinction of Red, Amber, Green (RAG) appraisal framework.</p>	<p>Option 1a performed better against the majority of the sift criteria than the other options and was considered the most preferred and presented as such during the consultation. This was because the option performed most strongly in relation to strategic fit, economic benefits, deliverability (within the context of the current concession, attractiveness to future concessionaires and not requiring additional land beyond current LLAL holdings), operational viability and cost benefit. Please refer to the Sift 4 report [APP-212] for the summary of the full process and why the favoured choice has been selected.</p>

1.3 NPPF (National Planning Policy Framework)

1.3.1 The National Planning Policy Framework (Ref 1.2) sets out the Government’s planning policies for England and how these should be applied. The policies tabled below (from Paragraph 130) are geared towards achieving well-designed places and the design outcomes show how this has been a key consideration throughout the project development.

Table 1.2: NPPF policy compliance

Policy - 130 Planning policies and decisions should ensure that developments:	General approach	Design outcomes (showing policy compliance)
<p>(a) will function well and add to the overall quality of the area, not just for the</p>	<p>From the outset, the maximisation of wider benefits to the surrounding area has been a key part of the proposed development.</p>	<p>The outcome of the 4 stage Sift process [APP-209, APP-210, APP-211, APP-212] was that Option 1a performed better against the majority of the sift criteria than the other options and was considered the most preferred and presented as such during the</p>

<p>Policy - 130 Planning policies and decisions should ensure that developments:</p>	<p>General approach</p>	<p>Design outcomes (showing policy compliance)</p>
<p>short term but over the lifetime of the development;</p>	<p>The Sift Criteria such as, 'To promote quality of life and minimise adverse impacts on communities' and 'Landscape and visual impact and environmental land use', highlighted in table 3.1 has supported this as well as the overall function of the airport design.</p>	<p>consultation. This was because the option performed most strongly in relation to strategic fit, economic benefits, deliverability (within the context of the current concession, attractiveness to future concessionaires and not requiring additional land beyond current LLAL holdings), operational viability and cost benefit.</p>
<p>(b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;</p>	<p>The visual appearance of the Proposed Development in the landscape was an important consideration in appraising alternative strategic options. Sift criteria number 14 [APP-210] focused on this issue and was broken down into the following sub criteria:</p> <ul style="list-style-type: none"> - Does this option impact, protect or enhance designated landscapes or townscapes; - Does this option affect the visual amenity of potentially sensitive visual receptors; and - To what extent can effects on landscape or 	<p>While the detailed design is not fully developed, the Proposed Development must a be in accordance with the Design Principles [APP-225]. These provide a framework for future detailed design and include the following relating to Design Quality (Design Principle reference DQ.01):</p> <ul style="list-style-type: none"> - Visually appropriate and sensitive to place, creating an appearance that demonstrates good aesthetics as far as possible. - Responsive to landscape and historical character and function, landscape permeability, landform, and vegetation. <p>Furthermore, the Environmental Statement Chapter 4 [AS-074] helps support a good visual appearance through the inclusion of both hard and soft landscaped areas, signage, and surface treatments accessible to a wide range of users. Soft landscape treatments would be formal in appearance (i.e. mown grass, ornamental shrub and hedgerow planting and street trees).</p>

<p>Policy - 130 Planning policies and decisions should ensure that developments:</p>	<p>General approach</p>	<p>Design outcomes (showing policy compliance)</p>
	<p>visual amenity be managed or mitigated.</p>	
<p>(c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);</p>	<p>The design of the Proposed Development seeks to enhance the historic landscape by including provision for the planting of hedgerows and hedgerow trees that are in keeping with the historic landscape character of the area.</p>	<p>The Landscape Character Areas (LCAs) that surround the development site have and will inform the landscape proposals associated with the development, which will be subject to detailed design. The illustrative proposals contained within the Environmental Statement Strategic Landscape Masterplan [APP-172] have been informed by the guidelines for managing landscape change in the various Landscape Character Areas, these typically inform broad landscape principles with regards hedgerows, woodland planting and management (LBLCA 14 Luton Airport, HLCA Area 200 – Peters Green Plateau and HLCA Area 201 Kimpton and Whiteway Bottom). Landscape proposals will be cognisant of the existing landscape typologies and will be informed by these characteristics.</p> <p>Strategic planting has been proposed to screen and direct views away from the airport buildings.</p> <p>The design of Proposed Development has evolved to take into consideration the heritage assets within the Order Limits and to minimise any impacts on the historic environment.</p> <p>The landscaping of the terminal approach will contribute to a strong sense of place and be sympathetic to the surroundings.</p>
<p>(d) establish or maintain a</p>	<p>The design process has been led by a core</p>	<p>The terminal approach landscape area adjoins the AAR (Airport Access Road),</p>

<p>Policy - 130 Planning policies and decisions should ensure that developments:</p>	<p>General approach</p>	<p>Design outcomes (showing policy compliance)</p>
<p>strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;</p>	<p>design team with extensive inputs from a comprehensive multi-disciplinary technical team. This has allowed for the development of design principles that provide security that new spaces in the airport area are attractive and welcoming with a strong sense of place.</p>	<p>proposed hotel, offices and support buildings, and the entrance to the proposed terminal building. This would create the setting and public face of the airport expansion. These areas would be functional, easily maintained, and safe but would also be visually attractive and contribute to the quality of the area into which they are located. As much as possible they would contribute to a strong sense of place and be sympathetic to their surroundings. The landscape design for the proposed terminal approach is shown on Figure 5.36 within the DAS [AS-124].</p> <p>Furthermore, the Environmental Statement Chapter 4 [AS-074] states that the T2 Plaza would also incorporate a hard and soft-landscape environment and seating areas.</p> <p>The landscape design for the Proposed Development will include large areas of habitat creation to mitigate the loss of habitats from construction of the Proposed Development. This includes the planting of hedgerows and trees that are in keeping with the historic landscape of the area.</p>
<p>e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local</p>	<p>The proposed growth in passenger numbers for the airport has been considered in conjunction with supporting infrastructure requirements and ancillary uses that will enhance the use and functioning of the airport for users and staff such as transport connections.</p>	<p>The Proposed Development includes a 400 bedroom hotel adjacent to T2 to meet the anticipated future airport growth to 32 mppa.</p> <p>There is a proposed extension of the Luton Direct Rail-Air Transit (DART) with a station serving the new passenger terminal and a new coach station that will enhance public transport accessibility and some modal shift.</p> <p>The design retains the existing entrance and eastern part of Wigmore Valley Park and integrates it into a new area of replacement</p>

<p>Policy - 130 Planning policies and decisions should ensure that developments:</p>	<p>General approach</p>	<p>Design outcomes (showing policy compliance)</p>
<p>facilities and transport networks; and</p>		<p>open space, to be provided over a larger area to the east of the existing park. The Eaton Green Civic Amenity Site will also be retained.</p>
<p>(f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.</p>	<p>From the outset, the Proposed Development has sought to create a place that is inclusive and accessible for all. This is highlighted in Sift 2 [APP-210] under strategic objective 6 'To maintain and where possible improve the quality of life for Luton's residents and the wider population'.</p>	<p>Sift 2 [APP-210] found that there is a need to balance the access to employment with the negative externalities with the airport development. Given this the improvements in public transport to allow more people to access jobs at the airport could also improve access between communities and to wider community facilities within Luton.</p> <p>Key measures particularly relevant to health and community effects are summarised in Section 13.8 of Volume 5: Environmental Statement - Chapter 13: Health and Community [AS-078]. Whilst the detailed design is not fully developed, the Proposed Development must be in accordance with the detailed design requirement within Requirement 5, set out in the draft DCO [REP4-003], as well as the Design Principles [APP-225]. The two below principles show how the scheme is accessible while promoting health and well-being:</p> <p>T.14 - Dedicated footpaths and crossings will be provided on the internal road network, to provide high quality pedestrian routes and to encourage walking.</p> <p>T.18 - The Luton DART T2 Station will provide lifts and escalators, as well as wide station platforms to provide access for passengers with reduced or impaired mobility.</p>

Policy - 130 Planning policies and decisions should ensure that developments:	General approach	Design outcomes (showing policy compliance)
		<p>Cycle parking will be integrated as part of the detailed design of the Drop off Zone.</p> <p>The Applicant has made provision for a new police station and areas within T2 to enhance security.</p> <p>The latest DfT aviation security requirements are considered within the Design Principles [APP-225] document.</p>

1.4 Luton Local Plan (LLP)

1.4.1 The Luton Local Plan (2011 – 2031) (Ref 1.3) sets out policies, development allocations and actions to meet the environmental, social and economic challenges facing the area over the 20-year period. The Local Plan acknowledges that the airport has the capacity to grow and bring benefits to the surrounding area. This is supported by Policy LLP6, which includes the criteria to allow additional proposals to be considered with the most up to date masterplan. The 'Design and Drainage' policies are evaluated against the Proposed Development in Table 1.3 below as well as the response to Policy LLP25 on High Quality Design.

Table 1.3: LLP (LLP6) policy compliance

Policy – LLP6 (Design and Drainage)	General approach	Design outcomes (showing policy compliance)
<p>LLP6(F) Development proposals for the London Luton Airport Strategic Allocation will ensure: i) appropriate strategic</p>	<p>The opportunity to mitigate or improve the landscape setting of the Proposed Development was identified at Sift 2 [APP-210] and has been an important design consideration</p>	<p>The Environmental Statement Chapter 4 [AS-074] highlights the design outcomes of the Proposed Development:</p> <ul style="list-style-type: none"> - Landscape treatments proposed within the replacement open space have been selected in response to existing site conditions and local character guidance and have been positioned strategically to improve

Policy – LLP6 (Design and Drainage)	General approach	Design outcomes (showing policy compliance)
<p>landscaping to be provided both on and off-site, which shall have regard to the potential for significant visual prominence within the wider area of built development at Century Park and which does not increase risk to aviation operations arising from structures, lighting, bird strike or open water and having regard to operational and national security considerations;</p>	<p>throughout the process of design development.</p>	<p>habitat connectivity, provide visual screening, and frame people’s views away from the airport and Proposed Development.</p> <ul style="list-style-type: none"> - Localised land raising and the construction of an earth bund is proposed to the south west of the existing Wigmore Valley Park entrance for screening purposes north and east of the Work No. 6a(02). - Approximately 650m of mixed-species hedgerows with hedgerow trees would be delivered as strategic landscape mitigation planting, adjoining Winch Hill Road and on the eastern boundary of the field to the east of Winch Hill Road, for screening purposes in assessment Phase 1. - Over 4.4ha of woodland planting is proposed on areas of raised land east of the junction between Winch Hill Road and Darley Road, and on the eastern and northern boundary of this Work, to provide screening from bridleway Kings Walden 052. - The drainage design has removed open water courses that would attract bird in accordance with the Bird Strike Risk Assessment. The detailed design will adopt tanks as opposed to open waters to further avoid the risk of bird attraction. - The design includes maintaining and extending the security fencing, additional security posts and the required security provisions as is set out in Design Principle AF.22 [APP-225].
<p>LLP6 F ii. the height and</p>	<p>Whilst it is on the rural fringe, the Proposed</p>	<p>The terminal and airport support buildings are defined as maximum parameters within</p>

<p>Policy – LLP6 (Design and Drainage)</p>	<p>General approach</p>	<p>Design outcomes (showing policy compliance)</p>
<p>design of buildings will reflect the site's rural fringe setting, its high visibility from surrounding countryside and its proximity to London Luton Airport</p>	<p>Development is also the expansion of an existing airport. The Applicant has sought to minimise land take and the proposed building heights are broadly consistent with the existing airport buildings and are constrained in height by CAA standards.</p> <p>T2 A Terminal Planning Model was created to develop spatial parameters for the sizing of T2. As such the height of the building is a function of the internal space requirements, including busy departures hall, departure lounges and the vertical separation of passenger operations and back of house with flexibility built in to the height parameter for future proofing delivery in 10 years.</p> <p>Hotel The Proposed Development includes a 400 bedroom hotel adjacent to T2 to meet the anticipated future airport growth to 32 mppa. The indicative elevation (DAS Fig.</p>	<p>which detailed design will be undertaken. The landscape, lighting, noise and other strategies have been developed with a view to minimise impacts as envisaged by LLP6.</p> <p>While the detailed design is not fully developed yet, the Proposed Development must be in accordance with the Design Principles [APP-225]. These provide a framework for future detailed design and include the following specific principles that ensure that visual impacts on the surrounding countryside are minimised:</p> <p>T.02 - The detailed design of the terminal will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.</p> <p>T.12 - The detailed design of the Coach Station will adopt muted and subtle architectural surface finishes on proposed elevations to reduce visual impact.</p> <p>T.19 - The detailed design of the Luton DART T2 Station will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.</p> <p>ASF.02 - The detailed design of the hotel will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.</p> <p>ASF.03 - The detailed design of the hangars will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.</p>

Policy – LLP6 (Design and Drainage)	General approach	Design outcomes (showing policy compliance)
	<p>5.15) [AS-124] shows a 5 storey building.</p> <p>Airport operations and maintenance building</p> <p>The Airport operations and maintenance building (Work No. 3i) includes the allowance for a high bay workshop where ground service equipment can be maintained with office accommodation sited above this workshop for staff and operations.</p>	
<p>LLP6 iii. provision is made for sustainable drainage and the disposal of surface water in order to ensure protection of the underlying aquifer and prevent any harm occurring to neighbouring and lower land</p>	<p>Drainage Strategy (DDS) Phase 1</p> <p>The proposed drainage strategy aims to expand the existing T1 infrastructure through the introduction of a rainwater harvesting system along with a series of diversions. The strategy includes the installation of storage tanks below proposed aprons to attenuate discharge rates and to monitor contaminants to safeguard the existing soakaways. Combined with the incorporation of landside storage, the strategy aims to enhance the water</p>	<p>Chapter 20 of the ES [REP4-009] highlights the design outcomes of the Proposed Development:</p> <ul style="list-style-type: none"> - The drainage design for the Main Application Site includes measures to maximise water reuse such as surface water treatment and reuse and rainwater harvesting. A rainwater harvesting system would be introduced to allow roof water from Terminal 1 to be used as a non-potable water source. - The preliminary drainage design (see DDS Appendix 20.4 of the ES [REP4-031]) outlines the principles to be carried forward into the detailed design to minimise the risks to the aquifer. This includes in line passive treatment systems for surface water runoff, live monitoring of surface water to enable diversion of wastewater to a WTP to treat both contaminated surface water runoff and foul water from Terminal 2.

Policy – LLP6 (Design and Drainage)	General approach	Design outcomes (showing policy compliance)
	<p>efficiency measures to reduce the total water consumption.</p> <p>DDS - Drainage Strategy Phase 2 The main drainage infrastructure would include the installation of the new WTP, attenuation tanks and infiltration basins. The Proposed Development would replace the existing Central Soakaway with new infiltration tanks.</p> <p>DDS The limitation of the construction works to above the water table (with the exception of some foundations which require a separate risk assessment) would result in minimal disturbance of the aquifer and flow paths below the water table during operation.</p>	<p>The DDS solution is predicated on the fundamental core principles of SuDS, specifically large scale attenuation aligned with infiltration to manage water quality and quantity at source and thus prevent downstream flooding and/or contamination. These principles include:</p> <ul style="list-style-type: none"> a. To control the quantity of runoff to support the management of flood risk and maintain and protect the natural water cycle. b. Manage the quality of the runoff to prevent pollution. <p>These objectives align with two of the four core principles of SuDS design and the Proposed Development incorporates a number of components as described in the SuDS manual (Ref 1.8) including pervious pavements, attenuation/retention, filter medium, treatment and infiltration. The Applicant is unable to consider the third and fourth SUDS principles due to the airport site and associated risks.</p>
<p>LLP6 iv. that development proposals, where applicable /appropriate will fully assess the impacts upon heritage assets and their setting, and should be designed to</p>	<p>The general approach is to minimise impacts to heritage assets during construction activities including impacts arising from changes to the setting of heritage assets. These measures include minimising noise, dust and vibration during</p>	<p>Chapter 10 of the ES [AS-077] on Cultural Heritage highlights the design outcomes of the Proposed Development:</p> <ul style="list-style-type: none"> - The Proposed Development has evolved to take into consideration the heritage assets within the Order Limits and to minimise any impacts on the historic environment. A number of mitigation measures have been incorporated into the design of the Proposed Development. These included alternative locations of the

Policy – LLP6 (Design and Drainage)	General approach	Design outcomes (showing policy compliance)
<p>avoid harm to the setting of any heritage assets. Proposals will be considered in line with Policy LLP30 (historic environment)</p>	<p>construction and the use of directional construction lighting that minimises light spill.</p> <p>During the preparation of the design proposals, a number of different options were assessed. These included alternative locations of the proposed buildings, car parks and other hard standing areas as well as variations in height of the new buildings.</p>	<p>proposed buildings, car parks and other hard standing areas as well as variations in height of the new buildings.</p> <ul style="list-style-type: none"> - The Proposed Development design also seeks to enhance the historic landscape by including provision for the planting of hedgerows and hedgerow trees that are in-keeping with the landscape character of the area. - The Proposed Development will utilise previously disturbed land for multi-storey, block, and surface parking car parking, offices and hotel facilities, expansion of Terminal 2, and for extensions to the existing airfield. Utilising previously disturbed areas such as the landfill site and previously landscaped area avoids the risk of physically impacting buried archaeological remains.

Table 1.4: LLP (LLP25) policy compliance

Policy LLP25 ‘High Quality Design’	General approach	Design outcomes (showing policy compliance)
<p>Buildings and spaces will be of high quality design with distinctive character and be safe and easily accessed by all members of the community. Proposals will need to</p>	<p>Mobility and accessibility considerations have been factored into the design of the Proposed Development from the outset as a strategic design consideration, see DAS Section 3 [APP-211], to ensure that the airport is providing equal access for all potential users.</p>	<p>Whilst the detailed design is not fully developed the Proposed Development must be in accordance with the Design Principles [APP-225]. These provide a framework for future detailed design and include the following relating to Design Quality:</p> <p>DQ.04 - The detailed design will provide safe and inclusive access for all users. DQ.07 - The detailed design will consider provisions to account for groups with</p>

Policy LLP25 'High Quality Design'	General approach	Design outcomes (showing policy compliance)
<p>demonstrate adherence to the best practice principles of urban design to help create quality places in the Borough.</p>	<p>These are further embedded in the Design Principles [APP-225] which govern future detailed design.</p> <p>The masterplan for the Proposed Development has responded to the context of the landscape, neighbouring land and property uses, and has considered the need to minimise impact. The best practice principles of urban design will be delivered at the detailed design stage in accordance with the Design Principles [APP-225].</p>	<p>protected characteristic groups. This includes;</p> <ul style="list-style-type: none"> a. Providing lifts; b. Providing gender neutral toilets; c. Providing adequate space for prayer rooms; d. Making provisions for faith and culture aware eating facilities; e. Ensuring that the location of the taxi rank is in an adequate space; and f. Ensure that there is step-free access to bus stops and facilities. <p>DQ. 02 - The detailed design of public buildings, landscape areas, public realm and movement routes within the Proposed Development will:</p> <ul style="list-style-type: none"> a. Respond to the local character and identity where appropriate; b. Respond to the local heritage and culture where appropriate; c. Create well-designed, good quality and attractive buildings and places; d. Create accessible and well-connected places; e. Achieve clear distinction between public and private spaces; f. Implement a clear wayfinding system and seek opportunities for public art installations to enhance the identity of the airport; g. Use good quality public realm materials, furniture, and lighting; and h. Provide well-considered parking, servicing and utilities infrastructure for all users.

1.5 Central Bedfordshire Local Plan (good design policy)

1.5.1 A small part of the main application site, including some off site planting, and highways interventions are located within Central Bedfordshire. As such the proposals, particularly the landscape mitigation measures relating to the overall

scheme and landscaping associated with highways schemes pay due regard to local policy.

- 1.5.2 The Central Bedfordshire Local Plan (2015 – 2035) (Ref 1.4) sets out policies, development allocations and actions to meet the environmental, social and economic challenges facing the area over the 20-year period. The design-based policies that are relevant and therefore addressed by the Proposed Development are highlighted below.

Table 1.5: Central Bedfordshire Local Plan policy compliance

Policy	General approach	Design outcomes (showing policy compliance)
<p>Policy HQ1 - High Quality Development See full policy in Section 17.1 of Central Bedfordshire Local Plan (2015-2035) (Ref 1.4)</p>	<p>The proposed off-site planting locations have been agreed with LBC, NHDC, HCC and Central Bedfordshire District Council (CDBC) as works are proposed in these districts.</p> <p>The detailed design of highways associated with the Proposed Development will be in accordance with the Design Manual for Roads and Bridges (DMRB), and the Local Authority Highway Design requirements for: Luton Borough Council; Central Bedfordshire Council; and Hertfordshire County Council.</p>	<p>The best practice principles of urban design will be delivered at the detailed design stage in accordance with the Design Principles [APP-225].</p> <p>DQ. 02 - The detailed design of public buildings, landscape areas, public realm and movement routes within the Proposed Development will:</p> <ul style="list-style-type: none"> a. Respond to the local character and identity where appropriate; b. Respond to the local heritage and culture where appropriate; c. Create well-designed, good quality and attractive buildings and places; d. Create accessible and well-connected places; e. Achieve clear distinction between public and private spaces; f. Implement a clear wayfinding system and seek opportunities for public art installations to enhance the identity of the airport; g. Use good quality public realm materials, furniture, and lighting; and h. Provide well-considered parking, servicing and utilities infrastructure for all users.
<p>Policy CC5 – Sustainable Drainage</p>	<p>The drainage design for the Proposed Development has applied a hierarchical approach to drainage design that promotes a sustainable approach</p>	<p>The drainage design and changes to the current surface water regime are described in the Drainage Design Statement (DDS) [REP4-031] and will be delivered at the detailed design stage in accordance with the Design Principles [APP-225] which include:</p>

Policy	General approach	Design outcomes (showing policy compliance)
	<p>and includes the use of infiltration tanks and rainwater recycling</p>	<p>SUS.22 - Sustainable Drainage Systems (SuDS) will be provided, where feasible, suitable for extreme rainfall events.</p> <p>DDS.23 - The detailed design will apply the SuDS hierarchy following the guidance in CIRIA SuDS Manual C753 (Ref. 5.4), or equivalent at the time.</p> <p>DDS.36 - The design of drainage assets in landside areas will be in accordance with the DMRB (Ref. 3.1), CIRIA SuDS Manual C753 (Ref. 5.4) or other relevant and appropriate standards that are in place when the detailed design is being carried out.</p>
<p>EE4 – Trees, Woodlands and Hedgerows</p>	<p>The opportunity to mitigate or improve the landscape setting of the Proposed Development was identified at Sift 2 [APP-210] and has been an important design consideration throughout the process of design development</p>	<p>The Environmental Statement Chapter 4 [AS-074] highlights the design outcomes of the Proposed Development:</p> <ul style="list-style-type: none"> - Landscape treatments proposed within the replacement open space have been selected in response to existing site conditions and local character guidance and have been positioned strategically to improve habitat connectivity, provide visual screening, and frame people’s views away from the airport and Proposed Development. - Approximately 650m of mixed-species hedgerows with hedgerow trees would be delivered as strategic landscape mitigation planting, adjoining Winch Hill Road and on the eastern boundary of the field to the east of Winch Hill Road, for screening purposes in assessment Phase 1. - Over 4.4ha of woodland planting is proposed on areas of raised land east of the junction between Winch Hill Road and Darley Road, and on the eastern and northern boundary of this Work, to provide screening from bridleway Kings Walden 052. - Landscape treatments proposed within the replacement open space would reflect the principles described in the Outline LBMP provided as Appendix 8.2 of

Policy	General approach	Design outcomes (showing policy compliance)
		the ES [AS-029] and Strategic Landscape Masterplan [APP-172] ,

1.6 North Hertfordshire Local Plan (good design policy)

1.6.1 The North Hertfordshire Local Plan (2011 – 2031) (Ref 1.5) sets out policies, development allocations and actions to meet the environmental, social and economic challenges facing the area over the 20-year period. The design-based policies that are relevant and therefore addressed by the Proposed Development are highlighted below.

Table 1.6: North Hertfordshire Local Plan policy compliance

Policy	General approach	Design outcomes (showing policy compliance)
<p>Policy D1 - Sustainable Design See full policy in Chapter 9 of the North Hertfordshire Local Plan (2011-2031) (Ref 1.5)</p>	<p>In terms of the wider context, Landscaping Treatments have been agreed with LBC, North Hertfordshire District Council (NHDC) and Hertfordshire County Council (HCC), as part of the works are proposed in each of these council areas, and would be secured as part of the Proposed Development and Requirement of the DCO.</p> <p>The public facing areas of the scheme will require the application of good urban design principles.</p>	<p>Landscape treatments proposed within the replacement open space would reflect the principles described in the Outline LBMP provided as Appendix 8.2 of the ES [AS-029] and Strategic Landscape Masterplan [APP-172], have been selected in response to existing site conditions and local character guidance and have been positioned strategically to improve habitat connectivity, provide visual screening, and frame people’s views away from the airport and Proposed Development.</p> <p>Furthermore, the best practice principles of urban design will be delivered at the detailed design stage in accordance with the Design Principles [APP-225].</p> <p>DQ. 02 - The detailed design of public buildings, landscape areas, public realm and movement routes within the Proposed Development will:</p> <ul style="list-style-type: none"> a. Respond to the local character and identity where appropriate; b. Respond to the local heritage and culture where appropriate; c. Create well-designed, good quality and attractive buildings and places;

Policy	General approach	Design outcomes (showing policy compliance)
		<p>d. Create accessible and well-connected places; e. Achieve clear distinction between public and private spaces. f. Implement a clear wayfinding system and seek opportunities for public art installations to enhance the identity of the airport. g. Use good quality public realm materials, furniture, and lighting; and h. Provide well-considered parking, servicing and utilities infrastructure for all users.</p> <p>Furthermore, a comprehensive set of principles for sustainable design and construction, to be delivered at the detailed design stage, are set out in the Design Principles [APP-225]. See Sustainability design principles SUS.01-SUS.23</p>
<p>Policy SP9 - Design & Sustainability</p>	<p>A strategic masterplan for the airport was developed in line with this policy and underpins the proposals.</p> <p>The public facing areas of the scheme will require the application of good urban design principles.</p>	<p>The best practice principles of urban design will be delivered at the detailed design stage in accordance with the Design Principles [APP-225]. DQ. 02 - The detailed design of public buildings, landscape areas, public realm and movement routes within the Proposed Development will:</p> <p>a. Respond to the local character and identity where appropriate; b. Respond to the local heritage and culture where appropriate; c. Create well-designed, good quality and attractive buildings and places; d. Create accessible and well-connected places; e. Achieve clear distinction between public and private spaces. f. Implement a clear wayfinding system and seek opportunities for public art installations to enhance the identity of the airport. g. Use good quality public realm materials, furniture, and lighting; and h. Provide well-considered parking,</p>

Policy	General approach	Design outcomes (showing policy compliance)
		servicing and utilities infrastructure for all users.

1.7 Dacorum Local Plan Core Strategy (good design policy)

1.7.1 The Dacorum Local Plan Core Strategy (2006-2031) (Ref 1.9) sets out the strategic vision, objectives and spatial strategy for the borough for 20 years. It contains core policies on 'Securing High Quality Design' in Chapter 10. How these design-based policies are addressed by the Proposed Development is set out in Table 1.7 below.

Table 1.7: Dacorum Local Plan Core Strategy policy compliance

Policy	General approach	Design outcomes (showing policy compliance)
CS12 – Quality of Site Design	The masterplan for the Proposed Development has responded to the context of the landscape, neighbouring land and property uses, and has considered the need to minimise impact.	The best practice principles of urban design will be delivered at the detailed design stage in accordance with the Design Principles [APP-225] . See DQ. 01-07 - Design quality design principles
CS13 – Quality of the Public Realm	The public facing areas of the scheme will require the application of good urban design principles.	The best practice principles of urban design will be delivered at the detailed design stage in accordance with the Design Principles [APP-225] . See DQ. 01-07 - Design quality design principles
CS29 - Sustainable Design and Construction	The sustainability design principles are derived from the five sustainability strategy objectives (Sustainability Statement [APP-215]): a. Protecting and enhancing the natural environment; b. Delivering climate resilience and business continuity;	Measures to increase the resilience of the Proposed Development to climate change are set out in Section 9.8 and Table 9.29 and Table 9.30 of ES Chapter 9 [TR020001/APP5.01] . Furthermore, a comprehensive set of principles for sustainable design and construction, to be delivered at the detailed design stage, are set out in the Design Principles [APP-225] . See Sustainability design principles SUS.01- SUS.23.

Policy	General approach	Design outcomes (showing policy compliance)
	c. Leading the transition to Carbon Net Zero; d. Becoming a national hub for green technology, finance, and innovation; and e. Creating a place to thrive.	

1.8 Beyond the Horizon: The future of UK aviation – Making Best Use of Existing Runways

1.8.1 As a result of the Aviation Strategy call for evidence and further analysis, government has set out its support of airports beyond Heathrow making best use of their existing runways (Ref 1.6), subject to related economic and environmental considerations being considered.

Table 1.8: Making Best Use of Existing Runways policy compliance

Policy	General approach	Design outcomes (showing policy compliance)
Making Best Use of Existing Runways (MBU)	A set of strategic objectives for design were identified for the Sift 1 [APP-209] process to enable the Applicant’s vision to be achieved. This policy MBU has been used as a Strategic Objective: SO1 Compliance with Government Aviation Policy for the design, see Section 3 of DAS [AS-049] .	The Strategic Objectives provided the framework for the sifting of alternative options for the expansion of the airport and for selecting the preferred option for further design development. Sift 1 [APP-210] rules out the Option 3 family, which proposed a realigned (3a); extended (3b); or additional (3c) runway - options not consistent with the preferred design approach of making the best use of the existing runway at Luton Airport. The sift process is described in Section 4: Design Evolution of the DAS [AS-049] .

1.9 Airports Commission: Appraisal Framework

1.9.1 The Airports Appraisal Framework (Ref 1.7) sets out in detail how the Commission expects scheme designs to be developed, and how the schemes

will be appraised to achieve the best economic, social, and environmental outcomes. The table below shows how the relevant criteria has been addressed by the Proposed Development.

Table 1.9: Airports Commission: Appraisal Framework policy compliance

Policy	General approach	Design outcomes (showing policy compliance)
<p>Surface Access To maximise the number of passengers and workforce accessing the airport via sustainable modes of transport.</p>	<p>Throughout the Sift process it was assumed that the Airport Access Road (AAR) would be constructed in advance of the application for development consent under existing planning consent. The Proposed Development would provide a vehicular route along the northern edge of the airport boundary to the land east of the existing T1. This alongside the Luton DART extension ensure that the overall proposed development is contextually responsive and capitalises on the existing airport infrastructure.</p>	<p>Chapter 4 of the Environmental Statement [AS-074] states that there will be an enhancement of the existing surface access network, including a new dual carriageway road accessed via a new junction on the existing New Airport Way (A1081) to the new passenger terminal along with the provision of forecourt and car parking facilities.</p> <p>As well as this there is the proposed extension of the Luton DART with a second station serving the new passenger terminal.</p>
<p>Noise To minimise and where possible reduce noise impacts.</p>	<p>In line with the Applicant's vision and strategic objectives it is particularly important that the Proposed Development minimises the potential impacts on surrounding neighbourhoods. Given this, 'noise'</p>	<p>The proposed engine run up bay is orientated with the open side facing approximately south, away from receptors sensitive to noise to the north and on the apron. This would include a noise attenuation barrier of up to 13.2m in height on the other three sides of the bay.</p>

Policy	General approach	Design outcomes (showing policy compliance)
	<p>impacts from the options was scrutinised during the Sift process try to minimise the number of people exposed to the adverse impacts of noise.</p>	
<p>Air Quality To improve air quality consistent with EU standards and local planning policy requirements.</p>	<p>Part of the Applicant's vision for London Luton Airport is to 'manage environmental impacts at the local and wider levels in line with our commitment to responsible and sustainable development'. This statement is supported by the Sift Criteria 8 [APP-210] which is geared towards mitigating the affects on air quality from the airport and the Strategic Landscape Masterplan [APP-172] which proposes at least 10% biodiversity net gain.</p>	<p>The improvements in public transport surrounding the airport will reduce the dominance of cars in the area, resulting in lower levels of carbon emissions. As well as this, less cars reduces the space that the proposed car park land take and the overall footprint of the proposed scheme.</p> <p>The landscape interventions such as proposed woodland planting and hedgerow restoration will also lead to carbon sequestration.</p> <p>EV charging and emerging sustainable aviation fuels will also contribute to lower levels of carbon emissions. As well as this the proposed terminal and associated buildings will not include connection to the natural gas network.</p>
<p>Biodiversity To protect and maintain natural habitats and biodiversity.</p>	<p>Airports have wildlife management strategies to reduce risks to aircrafts. Given this, the Proposed Development has been designed as far as practical, to avoid negative effects on biodiversity through option identification, appraisal, selection and refinement. The design of the</p>	<p>The Strategic Landscape Masterplan [APP-172] and the Landscape Design Principles [APP-225] include extensive landscape treatments to mitigate and enhance including:</p> <ul style="list-style-type: none"> - Proposed woodland planting; - Retained existing woodland; - Hedgerow restoration; - Neutral meadow grassland; - Amenity grassland; - Proposed scrub; and

Policy	General approach	Design outcomes (showing policy compliance)
	<p>Proposed Development and the planned approach to its construction have been developed with an overarching principle of avoidance where possible.</p>	<ul style="list-style-type: none"> - Enhanced surfacing and facilities including improved skate park, play facilities and Wigmore Pavilion. <p>As well as integrating operational requirements, the T2 Plaza would also incorporate a hard and soft-landscape environment and seating areas. The landscape design for the Proposed Development will include large areas of habitat creation to mitigate the loss of habitats from construction of the Proposed Development. This includes the planting of hedgerows and trees that are in keeping with the historic landscape of the area.</p>
<p>Carbon To minimise carbon emissions in airport construction and operation.</p>	<p>Part of the Applicant's vision for London Luton Airport is to 'manage environmental impacts at the local and wider levels in line with our commitment to responsible and sustainable development'. This statement is supported by the Sift Criteria 10 [APP-210] which is geared towards mitigating the carbon emissions from the airport.</p>	<p>The improvements in public transport surrounding the airport, the extension of the DART and improvement of bus and coach facilities will reduce the dominance of cars in the area, resulting in lower levels of carbon emissions. As well as this, less cars reduces the space that the proposed car park land take and the overall footprint of the proposed scheme.</p> <p>The landscape interventions such as proposed woodland planting and hedgerow restoration will also lead to carbon sequestration.</p> <p>EV charging and emerging sustainable aviation fuels will also contribute to lower levels of carbon emissions. As well as this the proposed terminal and associated buildings will not include connection to the natural gas network.</p>
<p>Water and Flood Risk To protect the quality of surface and ground waters, use water</p>	<p>The main application site is at low risk of fluvial flooding but there is a risk related to the management of surface water, as described in the Flood Risk Assessment</p>	<p>The surface water drainage will be designed, where possible, as a gravity system. Two infiltration tanks are proposed below ground to reduce the risk of bird strikes and to lessen visual impact:</p> <ul style="list-style-type: none"> - Tank 2 - located to southeast of the airport, would be 75,000m3 and

Policy	General approach	Design outcomes (showing policy compliance)
<p>resources efficiently and minimise flood risk.</p>	<p>[AS-046]. The proposed surface water management strategy has been designed so that the infrastructure provided is able to collect and convey a 1 in 100 year rainfall event with a 40% uplift in rainfall intensity to account for predicted changes in rainfall pattern caused by climate change, from each area of hardstanding to the infiltration tanks.</p>	<p>would contain uncontaminated surface water discharge from the airside and the landside, approximately 5m below ground level. The area above the tank would allow for containment of localised flooding in extreme storm events. It has been sized such that it would remain mostly dry, apart from severe storm events; and</p> <ul style="list-style-type: none"> - Tank 3 - located north of the WTP (described in Work No. 4d), would be 15,590m³ and would be located approximately 10m below the existing ground level, under a long stay car park. It would drain the overflow of the recycled surface water from the WTP.
<p>Quality of Life To maintain and where possible improve the quality of life for local residents and the wider population.</p>	<p>The Proposed Development's commitment to this policy is highlighted in Sift 2 [APP-210] under strategic objective 6 'To maintain and where possible improve the quality of life for Luton's residents and the wider population'.</p>	<p>Sift 2 [APP-210] found that there is a need to balance the access to employment with the negative externalities with the airport development. Given this the improvements in public transport to allow more people to access jobs at the airport could also improve access between communities and to wider community facilities within Luton.</p> <p>Section 13.8 of ES Chapter 13 [AS-078] on Health and Community shows the good practice mitigation for health and community that has been incorporated into the Proposed Development design or assumed to be in place before undertaking the assessment. Examples include measures to manage dust and a framework transport plan aimed to minimise the impact of transport on local roads from workers and passengers.</p>
<p>Operational efficiency To build flexibility into scheme designs. To meet present industry safety</p>	<p>The enhancement of system efficiency and resilience has been a Strategic Objective for the project from the outset. This Strategic Objective was then</p>	<p>The proposed extensions to T1 have been sized in relation to the existing constraints to minimise any disruption to the terminal operations. The specific areas of expansion include:</p> <ul style="list-style-type: none"> - New Check in facilities;

Policy	General approach	Design outcomes (showing policy compliance)
<p>and security standards. To maintain and where possible enhance current safety performance with a view to future changes and potential improvements in standards.</p>	<p>broken down into the following Sift Criteria [APP-210] ensuring more focused consideration of:</p> <ul style="list-style-type: none"> - Operational effectiveness; - System resilience; - Attractiveness to airline operators; - Safeguarding for expansion; - Safeguarding existing levels of MRO, business, aviation and cargo activity; and - Consistent with making the best use of existing runways. <p>By increasing the capacity in a sustainable manner the Applicant is maximising the operational efficiency of the runway.</p>	<ul style="list-style-type: none"> - Larger departure lounge to meet the new peak capacity; - Four new departure gates are required to service additional aircraft in the peak; - Outbound baggage handling: additional Hold Baggage Screening X-rays are required to cater for the increased peak hour throughput together with associated changes to conveyer lines which feed-in/out to the x-rays which requires additional floor areas; and - Immigration: the existing facility has sufficient space for border control check-points, however, additional space is required for the increased numbers of queuing passengers to meet service levels. - The Need Case [AS-125] states that the runway has been assessed as having a sustainable capacity of at least 50 aircraft movements an hour with the additional taxiway links proposed, which is sufficient to accommodate 32 mppa envisaged under the Proposed Development. Thereby the Applicant delivering additional capacity through the Proposed Development is maximising the operational efficiency of the existing runway.

GLOSSARY AND ABBREVIATIONS

Term	Definition
ANPS	Airports National Policy Statement
AAR	Airport Access Road
ASIAD	Aviation Security in Airport Developments
DAS	Design and Access Statement
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
EV	Electric Vehicle
GIS	Geographic Information System
HLCA	Hertfordshire Landscape Character Assessment
LBLCA	Luton Borough Landscape Character Assessment
LCA	Landscape Character Areas
LLAL	London Luton Airport Limited
LLP	Luton Local Plan
LVIA	Landscape and Visual Impact Assessment
MADS	Major Accidents and Disasters
MBU	Making Best Use
mppa	Million Passengers Per Annum
MRO	Maintenance, Repair, and Overhaul
NPPF	National Planning Policy Framework
T1	Terminal 1
T2	Terminal 2
WTP	Water Treatment Plant

REFERENCES

Ref 1.1 Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England (2018). Department for Transport. Online.

Ref 1.2 National Planning Policy Framework (2021), MHCLG. Online.

Ref 1.3 Luton Local Plan (2011-2031) (2017), Luton Borough Council. Online.

Ref 1.4 Central Bedfordshire Local Plan (2015-2035) (2021), Central Bedfordshire Council. Online.

Ref 1.5 North Hertfordshire Local Plan (2011-2031) (2022), North Hertfordshire Council. Online.

Ref 1.6 The future of UK aviation: Making best use of existing runways (2018) HM Government. Online.

Ref 1.7 Airports Commission: Appraisal Framework (2014), Airports Commission, Gov. Online.

Ref 1.8 Construction Industry Research and Information Association. The SuDS Manual (C753). London. CIRIA. 2015

Ref 1.9 Dacorum Local Plan Core Strategy (2006-2031), Dacorum Borough Council. Online.