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# London Luton Airport Expansion

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**7.09 Design Principles**

Application Document Ref: TR020001/APP/7.09

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**The Planning Act 2008**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure)  
Regulations 2009**

**London Luton Airport Expansion Development Consent  
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**7.09 DESIGN PRINCIPLES**

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# Contents

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	Page
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 Purpose of this document	1
<b>2 Scheme wide Design Principles</b>	<b>2</b>
2.1 Introduction	2
2.2 Design quality	2
2.3 Sustainability	3
2.4 Biodiversity	5
2.5 Landscape	7
2.6 Noise and Vibration	7
<b>3 Works Design Principles</b>	<b>8</b>
3.1 Introduction	8
3.2 Site wide works (Work No. 1)	8
3.3 Airfield works (Work No. 2)	9
3.4 Terminal works (Work No. 3)	11
3.5 Airport support facilities works (Work No. 4)	13
3.6 Highways works (Work No. 6)	15
<b>Glossary and Abbreviations</b>	<b>16</b>
<b>References</b>	<b>18</b>

## Tables

Table 2.1: Design quality design principles
Table 2.2: Sustainability design principles
Table 2.3: Biodiversity design principles
Table 2.4: Noise and vibration design principles
Table 3.1: Site wide works design principles
Table 3.2: Airfield works design principles
Table 3.3: Terminal works design principles
Table 3.4: Airport support facilities works design principles
Table 3.5: Highways works design principles

# 1 INTRODUCTION

## 1.1 Purpose of this document

1.1.1 This document sets out the design principles that will be followed at the detailed design stage (post Development Consent Order (DCO) consent). These design principles will be secured through the DCO and will provide certainty as to the principles that will be applied in designing the Proposed Development. The document provides stakeholders with assurance on how the design of the project will be developed following the grant of consent.

1.1.2 In particular, the commitments in this document are secured in the following way:

- a. Requirement 5 (detailed design) in **Schedule 2** of the draft DCO **[TR020001/APP/2.01]** requires that the details of the buildings, structures and works must be approved by the relevant planning authority and that these details must be in general accordance with this document, Design Principles.
- b. Requirement 9 (Landscaping design) requires that the landscaping scheme approved under this requirement must also reflect the principles set out in the Design Principles document.

1.1.3 This document should be read alongside the **Design and Access Statement (DAS) [TR020001/APP/7.03]** which is submitted as part of this application for development consent.

1.1.4 The design principles are grouped under two main headings and several subheadings as listed below:

### **Scheme wide design principles**

- a. design quality;
- b. sustainability;
- c. biodiversity;
- d. landscape; and
- e. noise and vibration.

### **Works design principles**

- a. site wide works;
- b. airfield works;
- c. terminal works;
- d. airport support facilities works; and
- e. highways works.

## 2 SCHEME WIDE DESIGN PRINCIPLES

### 2.1 Introduction

2.1.1 This section lists the scheme wide design principles that will apply to the whole Proposed Development.

### 2.2 Design quality

2.2.1 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 following design principles will be followed at the detailed design stage. The design principles set out in this document have been informed by variety of national and local documents such as the National Model Design Code (Ref 2.1), Airports National Policy Statement (Ref 2.2) and Luton Local Plan (2011-31) (Ref 2.3). They have been developed through the ongoing design development process and reflect responses to consultation and stakeholder engagement where appropriate.

Table 2.1: Design quality design principles

Reference	Design quality design principles
DQ.01	<p>The detailed design of the Proposed Development will be:</p> <ol style="list-style-type: none"> <li>a. visually appropriate and sensitive to place, creating an appearance that demonstrates good aesthetics as far as possible;</li> <li>b. responsive to landscape and historical character and function, landscape permeability, landform, and vegetation;</li> <li>c. sustainable, durable, adaptable and resilient;</li> <li>d. efficient in the use of natural resources and energy used in construction;</li> <li>e. operationally fit for purpose and cost effective; and</li> <li>f. compliant with all relevant safety and security standards.</li> </ol>
DQ.02	<p>The detailed design of public buildings, landscape areas, public realm and movement routes within the Proposed Development will:</p> <ol style="list-style-type: none"> <li>a. respond to the local character and identity where appropriate;</li> <li>b. respond to the local heritage and culture where appropriate;</li> <li>c. create well-designed, good quality and attractive buildings and places;</li> <li>d. create accessible and well-connected places;</li> <li>e. achieve clear distinction between public and private spaces;</li> <li>f. implement a clear wayfinding system and seek opportunities for public art installations to enhance the identity of the airport;</li> <li>g. use good quality public realm materials, furniture, and lighting; and</li> </ol>

Reference	Design quality design principles
	h. provide well-considered parking, servicing and utilities infrastructure for all users.
DQ.03	The detailed design will use good quality and robust building materials to limit the need for maintenance.
DQ.04	The detailed design will provide safe and inclusive access for all users.
DQ.05	The detailed design will provide new public spaces and routes that are attractive, safe, uncluttered and work efficiently for all airport users.
DQ.06	The detailed design will specify the appearance of the Proposed Development and how it will be appropriately maintained throughout its lifecycle.
DQ.07	The detailed design will consider provisions to account for groups with protected characteristic groups. This includes: <ul style="list-style-type: none"> <li>a. providing lifts;</li> <li>b. providing gender neutral toilets;</li> <li>c. providing adequate space for prayer rooms;</li> <li>d. making provisions for faith and culture aware eating facilities;</li> <li>e. ensuring that the location of the taxi rank is in an adequate space; and</li> <li>f. ensuring that there is step-free access to bus stops and facilities.</li> </ul>

## 2.3 Sustainability

2.3.1 The sustainability design principles are derived from the five sustainability strategy objectives (**Sustainability Statement [TR020001/APP/7.06]**):

- a. protecting and enhancing the natural environment;
- b. delivering climate resilience and business continuity;
- 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.

Table 2.2: Sustainability design principles

Reference	Sustainability design principles
SUS.01	A low energy design will generally be adopted, based on the hierarchy of minimising use, reducing waste, recycling and on-site generation.

Reference	Sustainability design principles
SUS.02	Electric charging will be provided in the passenger and staff car parks and dedicated electric charging points for taxis.
SUS.03	Zero emission electric equipment or heat pumps will replace fossil-fuel-powered fixed equipment by 2040 at the latest.
SUS.04	Detailed design will safeguard, where practicable, the ability to serve next generation (including zero emission) aircraft.
SUS.05	During design and construction, measures to reduce waste generated and resources used will be applied, including recycling of demolition waste on-site, recycling and use on-site of existing landfill material, balancing cut and fill and setting waste targets details of which can be found in Waste and Resources <b>Chapter 20</b> of the ES [TR020001/APP/5.01].
SUS.06	All buildings, surface access routes, taxiways, aprons and other airside and airfield assets will be designed for the climatic conditions forecast over the lifecycle of the building using appropriate design guidance where available; or adaptive capacity will be built into the designs.
SUS.07	Terminal 2 buildings will be designed to 'BREEAM Excellent' status' (or equivalent at the time of detailed design) to be energy efficient with appropriate installations and equipment together with thermally efficient materials and shading. Other new buildings will be designed to 'BREEAM 'Excellent' status' except where the building typology dictates that it is not practical.
SUS.08	Terminal 2 will aim to balance natural daylight to enhance the internal environment, whilst minimising solar radiation across the building's façade.
SUS.09	Terminal 2 will be designed to reduce heat loss and minimise energy use, in accordance with Building Regulations Part L (or other relevant and appropriate standards that are in place when the detailed design is being carried out).
SUS.10	Passive strategies for heating, cooling and lighting will be incorporated into building design for thermal efficiency, where appropriate, to reduce summer cooling including adequate Heating, Ventilation, and Air Conditioning (HVAC).
SUS.11	The Luton DART extension design will include a covered station (i.e. protected from the elements) to minimise possible heat loss.
SUS.12	Energy centre and new sub-stations will be in enclosed structures at ground level for ease of maintenance and equipment replacement.
SUS.13	Landscape design will take into consideration climate change in the selection of appropriate species for planting and habitat creation.
SUS.14	Shaded areas across surface access areas will be included in the design e.g. the car park, bus stops.

Reference	Sustainability design principles
SUS.15	Detailed design will minimise potable water demand from the statutory undertaker due to the Proposed Development. Rainwater harvesting solutions will be incorporated in detailed designs. Potable water efficiency measures will also be incorporated in the design of buildings.
SUS.16	Existing infrastructure will be retained where feasible to minimise the need for the demolition of components and infrastructure and the associated generation of waste material.
SUS.17	Adequate provision for internal and external waste storage will be designed to allow waste segregation during operation.
SUS.18	New underground utilities will not be laid at shallow depths to avoid damage due to temperature extremes.
SUS.19	Above ground installations, where appropriate, will be in enclosed structures which will provide the opportunity for climate/temperature control.
SUS.20	When working in the vicinity or above the existing landfill site measures such as surcharging/ground improvement techniques, flexible pavements and modified service connections will be embedded through detailed design where practicable.
SUS.21	Measures will be used during construction to prevent erosion such as compaction of soils, phased excavation, use of temporary capping and geotextile layers where feasible.
SUS.22	Sustainable Drainage Systems (SuDS) will be provided, where feasible, suitable for extreme rainfall events.
SUS.23	Where practicable, excavated material considered unsuitable for use under the aviation platform will be used elsewhere within the Proposed Development.

## 2.4 Biodiversity

- 2.4.1 The Proposed Development is designed to enhance biodiversity through the delivery of at least 10% biodiversity net gain (BNG) throughout construction and operation.
- 2.4.2 The biodiversity design principles set out below outline the measures to be undertaken to ensure that the BNG commitment is achieved through the delivery of the Proposed Development. Further design elements in relation with biodiversity can be found in **Appendix 8.2 Landscape and Biodiversity Management Plan of the ES [TR020001/APP/5.02]**.



Table 2.3: Biodiversity design principles

Reference	Biodiversity design principles
BIODV.01	The landscape design for the Proposed Development will include large areas of habitat creation which will be designed and managed to ensure their target condition exceeds that of the habitats lost and delivers at least 10% BNG <sup>1</sup> .
BIODV.02	The detailed design will incorporate a buffer of semi-natural habitats, at least 15m in width (or in accordance with Woodland Trust guidelines or equivalent at the time of detailed design), around areas of ancient woodland within or adjacent to the Proposed Development. No ground works will be permitted within this buffer so that trees within ancient woodland are protected from root damage and soil compaction.
BIODV.03	The detailed design of the Proposed Development will incorporate a root protection zone to protect the roots of retained veteran/ancient trees and potential veteran/ancient trees where such trees will be retained within or directly adjacent to the Proposed Development in accordance with BS 5837 (2012) – Trees in Relation to Design, Demolition and Construction (Ref 2.4).
BIODV.04	The detailed design of external lighting will include directional lighting to limit light spill onto adjacent habitats and neighbourhoods. The design will include baffles, cowls and hoods in appropriate areas to further reduce light spill.

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<sup>1</sup> The measures to establish, manage and monitor areas of habitat creation within the Proposed Development are detailed within the Outline Landscape and Biodiversity Management Plan Environmental Statement, Appendix 8.2. [TR020001/APP/5.02].

## 2.5 Landscape

- 2.5.1 The Proposed Development will impact on the existing landscape character and on people's visual amenity during both construction and operation. The landscape design principles provide clear guidance for the future development of the Proposed Development's detailed design relating to landscape.
- 2.5.2 The Landscape design principles can be found in the **Strategic Landscape Masterplan [TR020001/APP/5.10]** and **Appendix 8.2 Outline Landscape and Biodiversity Management Plan of the ES [TR020001/APP/5.02]**.

## 2.6 Noise and Vibration

- 2.6.1 The noise and vibration design principles listed below are set out to mitigate the effects of the Proposed Development.

Table 2.4: Noise and vibration design principles

Reference	Noise and vibration design principles
NV.01	The new Engine Run-up Bay (ERUB) will be designed to reduce engine noise levels at sensitive receptors. The design will be a three-sided enclosure designed to attenuate engine noise and associated blast at full-power velocities. The design of deflectors will be aerodynamically efficient to reduce air turbulence, which can affect ground running aircraft engines.
NV.02	The detailed design of fixed plant (including any static sources of noise, such as mechanical electrical and public health plant for terminal building infrastructure associated with the Proposed Development) will, where reasonably practicable, achieve a rating level of 5dB or more below background.  In cases where it is not reasonably practicable to achieve the above objective, the detailed design will adopt measures to ensure that sound from all fixed plant is reduced as far as is reasonably practicable, including the consideration of engineering feasibility; cost; and other design considerations such as the visual appearance of plant, equipment and any screening or structures which house the equipment.  Where it is not reasonably practicable to achieve a rating level (L <sub>Ar</sub> ,Tr) of 5dB or more below the background sound level (L <sub>A90,T</sub> ), the design (and construction and maintenance) of the fixed plant will be such that, under all reasonably foreseeable circumstances, the rating level of the fixed plant in normal operation at the worst affected residential receptor, minus the existing background level, is not more than +5dB, determined in accordance with BS 4142 (Ref 2.5).
NV.03	The design will include acoustic fences where appropriate.
NV.04	The detailed design of buildings will prioritise piling methods which reduce noise during construction.

### 3 WORKS DESIGN PRINCIPLES

#### 3.1 Introduction

3.1.1 The Proposed Development has been divided into six main Work Numbers. These are described in more detail in **Chapter 4** of the ES [TR020001/APP/5.01]:

1. site wide major works to enable development;
2. airfield works;
3. terminal and associated works;
4. airport support facilities works;
5. landscape and mitigation works; and
6. highways works.

3.1.2 This section lists the design principles that will apply to the Works.

3.1.3 Landscape and mitigations work design principles are described in **Section 2.5** above.

#### 3.2 Site wide works (Work No. 1)

3.2.1 The design principles listed below will guide the detailed design of elements which cover significant areas of Main Application Site.

Table 3.1: Site wide works design principles

Reference	Site wide works design principles
SW.01	The detailed design of earthworks will be in accordance with Design Manual for Roads and Bridges published by National Highways (Ref 3.1) or other relevant and appropriate standards that are in place when the detailed design is being carried out.
SW.02	Where fill material is required to create the landform needed to enable the development, wherever possible it will be from within the site.
SW.03	The detailed design of earthworks will provide a 5m offset between the design surface features and the top of any slope.
SW.05	The detailed design of earthwork slopes in fill areas will be limited to 1 in 3, and where they exceed 20m will include a half height berm.
SW.06	The detailed design of earthworks will maintain the landform at least 2m above the maximum design groundwater level.
SW.07	The design of extensions and/or diversions of utilities will not include overhead services.
SW.08	The design of all new or diverted below ground Low Voltage (LV) and comms utilities will include containment for ease of installation, maintenance and replacement. Containment will include suitable access chambers at regular intervals as required by any relevant design standards.

Reference	Site wide works design principles
SW.09	The detailed design of structures will be above the water table to minimise disturbance of the aquifer and flow paths.
SW.10	The detailed design of all buildings constructed over the former Eaton Green landfill will adopt gas protection measures in accordance with BS8485:2015+A1:2019 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (Ref 3.2), or equivalent at the time.
SW.11	The detailed design will include lightning protection as per latest design standards on all buildings and sensitive electrical/navigation aids/communications equipment.

### 3.3 Airfield works (Work No. 2)

- 3.3.1 Airfield works include the expansion of the airfield for airside operations. The proposed works include the provision of the aprons and taxiways and the relocation of a number of essential airfield facilities, including the Fire Training Ground and ERUB.
- 3.3.2 The design principles listed below will guide the detailed design of elements of the airfield works.

Table 3.2: Airfield works design principles

Reference	Airfield works design principles
AF.01	The detailed design of the proposed airfield will comply with International Civil Aviation Organisation (ICAO) Annex 14 (Ref. 3.5) or equivalent UK standards (or other relevant and appropriate standards that are in place when the detailed design is being carried out).
AF.02	New taxiways will be designed for Code E aircraft (as defined in ICAO Annex 14).
AF.03	Apron taxilanes will be designed for Code E or Code C (as defined in ICAO Annex 14) aircraft as necessary to provide aircraft routing to stands.
AF.04	All airfield pavements will be designed with Aeronautical Ground Lighting (AGL) appropriate for the operational requirements of the airport with respect to day and night operations, operations in low visibility, the promulgated instrument landing system category and in accordance with ICAO Annex 14 or equivalent UK standards (or other relevant and appropriate standards that are in place when the detailed design is being carried out).
AF.05	All taxiway and apron surface markings will be designed in accordance with Annex 14 or equivalent UK standards and Civil Aviation Authority publication CAP 637: Visual Aids Handbook (Ref

Reference	Airfield works design principles
	3.3) (or other relevant and appropriate standards that are in place when the detailed design is being carried out).
AF.06	New aircraft stands will be designed as rigid pavement construction (typically pavement quality concrete). Where new aircraft stands are constructed over the existing landfill a flexible pavement solution will be used to aid future maintenance due to anticipated settlement.
AF.07	New taxiways will be designed as flexible pavement construction.
AF.08	The design will include additional taxiways to provide additional runway capacity by reducing runway occupancy times. New taxiways will include apron taxilanes and rapid exit taxiways (RETs).
AF.09	All airfield pavements will be constructed with positive drainage solutions to prevent surface run-off draining to unpaved areas.
AF.10	The Terminal 2 apron will be designed to accommodate 28 Code C stands and six Code E aircraft (with Code E aircraft operating from Multiple Apron Ramp System (MARS) stands. All aircraft parking stands at Terminal 2 will be contact stands.
AF.12	Each aircraft parking stand to be used for boarding and disembarkation of passengers will be equipped with fixed electrical ground power, advanced docking guidance equipment and emergency telephone. MARS stands will be equipped for two Code C and one Code E aircraft. No equipment will be provided in the ERUB.
AF.13	Stands will be designed with a fuel hydrant system connecting to the fuel storage facility.
AF.14	Detailed design of Terminal 2 apron will include a hydrant system for fire-fighting purposes. The existing number of emergency water tanks around the runway will be retained.
AF.15	The airfield works detailed design will provide routes that provide rescue and firefighting service (RFFS) response times in compliance with ICAO Annex 14 (Ref 3.4) from the existing Fire Station, and the existing and proposed Fire Training Ground, to any part of the operational airfield.
AF.16	The ERUB will be designed with acoustic barriers on three sides and a jet blast deflector to the rear of the aircraft when positioned for engine testing. Both the acoustic fencing and jet blast deflector will be designed to be demountable so as to facilitate relocation.
AF.17	The new Fire Training Ground will be designed with a simulator suitable for all fire categories promulgated by the airport at the time of detailed design.
AF.18	The facilities at the Fire Training Ground will be designed to avoid penetrating the obstacle limitation surfaces as defined in ICAO Annex 14 or equivalent UK standards.
AF.19	The new Fire Training Ground will be designed with smoke reducing facilities.

Reference	Airfield works design principles
AF.20	The drainage system at the Fire Training Ground will be self-contained and will not discharge to surface water sewers. Paved areas will be positively drained and be of sufficient scale to ensure fire-fighting media and products of combustion do not spill into unpaved areas.
AF.21	The facilities at the new Surface Movement Radar will be designed to avoid penetrating the obstacle limitation surfaces as defined in ICAO Annex 14 or equivalent UK standards.
AF.22	The design will include new security fencing to demarcate the airfield boundary. Security fencing will be in accordance with BS 1722 Part 14 (Ref 3.5) and will comply with the requirements of Aviation Security in Airport Design (Ref 3.6) (or other relevant and appropriate standards that are in place when the detailed design is being carried out).
AF.23	The design will include jet blast deflectors to allow safe working and access at the end of apron cul-de-sacs and other locations as required.
AF.24	The detailed design will aim to minimise interference with existing airport operations and assets.
AF524	The detailed design of external lighting will be in accordance with civil aviation requirements (ICAO Annex 14 (Ref 3.4) so as to minimise glare to pilots of aircraft in flight, or on the ground, such that they will not dazzle or confuse a pilot when approaching to land, taking off or taxiing.

### 3.4 Terminal works (Work No. 3)

- 3.4.1 Terminal works include proposed work to increase the capacity of the existing Terminal 1 and the development of Terminal 2 and all the facilities and assets required to support the operation of Terminal 2.
- 3.4.2 The design principles listed below will guide the detailed design of the terminal works.

Table 3.3: Terminal works design principles

Reference	Terminal works design principles
T.01	The detailed design of the terminal buildings, and associated structures and spaces will be developed with reference to relevant industry design standards and statutory security requirements including Building Regulations, the International Air Transport Association (IATA) Airport Development Reference Manual (Ref 3.7), and Aviation Security in Airport Design (Ref 3.6) (or other relevant and appropriate standards that are in place when the detailed design is being carried out).

Reference	Terminal works design principles
T.02	The detailed design of the terminal will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.
T.03	The detailed Terminal 2 building design will provide flexibility to allow for battery storage for electricity to be accommodated in the future.
T.04	The Terminal 2 piers will be designed to future proof addition of passenger boarding bridges (PBB).
T.05	Terminal 2 and the Terminal 2 piers will be designed with minimal change in levels or ramps on each floor level.
T.06	Terminal 2 and the Terminal 2 piers will be designed to ensure that arriving and departing passengers cannot mix in airside locations within the building or on the apron.
T.07	Piers will be designed to ensure sufficient vehicle routes at apron level for the efficient operation of the airfield.
T.08	The detailed design of internal finishes will be robust, durable and with a design life to first major refurbishment of at least 20 years.
T.09	The detailed design will include consistent and intelligible wayfinding using international standards for icons with font height and colour scheme to aid visually impaired passengers.
T.10	The Coach Station will be designed to include a roof/canopy structure to provide weather protection to passengers accessing the bays.
T.11	The Coach Station design will include a building structure for provision of services such as ticketing, waiting areas and concessions.
T.12	The detailed design of the Coach Station will adopt muted and subtle architectural surface finishes on proposed elevations to reduce visual impact.
T.13	Cycle parking will be integrated as part of the detail design of the Drop Off Zone.
T.14	Dedicated footpaths and crossings will be provided on the internal road network, to provide high quality pedestrian routes and to encourage walking.
T.15	The Drop Off Zone designs will comply with Aviation Security in Airport Design (Ref 3.6) or other relevant and appropriate standards that are in place when the detailed design is being carried out).
T.16	The Terminal 2 Plaza design will ensure that surface treatments are accessible to all users and that suitable shelter is provided along principal connecting routes. The positioning of signage will also be coordinated to ensure information is clear and routes are clearly demarcated.
T.17	The Terminal 2 Plaza design will incorporate a hard and soft-landscape environment and seating areas.
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.

Reference	Terminal works design principles
T.19	The detailed design of the Luton DART Terminal 2 Station will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.
T.20	The Energy Centre building will be positioned within the vicinity of the new terminal building and its geometry and façade will be detailed to align with the Terminal 2.

### 3.5 Airport support facilities works (Work No. 4)

3.5.1 Airport support facilities works include all the facilities and assets required to support the operation of the expanded airport, including facilities such as ground operations, hangars, car parks, water treatment and fuel storage.

3.5.2 The design principles listed below will guide the detailed design of the airport support facilities works.

Table 3.4: Airport support facilities works design principles

Reference	Airport support facilities works design principles
ASF.01	The detailed design of the airport support facilities buildings, structures and spaces will be developed with reference to relevant industry design standards and statutory security requirements including Building Regulations, IATA Airport Development Reference Manual (Ref 3.7) (where appropriate), and Aviation Security in Airport Design (Ref 3.6) (or other relevant standards in place at the time the detailed design is developed).
ASF.02	The detailed design of the hotel will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.
ASF.03	The detailed design of the hangars will adopt appropriate architectural surface finishes on proposed elevations to reduce visual impact.
ASF.04	The new fuel storage facility will be designed in accordance with The Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) (Ref 3.8) and/or other relevant guidance in place at the time of the detailed design.
ASF.06	The design of the fuel storage facility will include enhanced security.
ASF.07	The new fuel pipeline spur will be buried below ground to suitable depth in accordance with relevant guidelines in place at the time of design.
ASF.08	The detailed design of the fuel spur will reinstate all landscaping finishes to the same condition as before any works take place, recognising the location within the Green Belt.
ASF.09	The detailed design of the fuel spur will include an above ground installation (AGI). The design of the AGI will include a perimeter security



<b>Reference</b>	<b>Airport support facilities works design principles</b>
	fence and a new access track from the public highway in accordance with end user requirements.
ASF.10	The detailed design of car parking bays in publicly accessible car parks will be a minimum of 4.8 x 2.4m wide. Disabled bays will be 6.0 x 3.6m minimum. Through roads will be a minimum of 6m wide.

### 3.6 Highways works (Work No. 6)

- 3.6.1 The **Surface Access Strategy [TR020001/APP/7.12]** of the Proposed Development sets out measures to enhance the quality of the travel experience, minimise traffic-related impacts, and encourage more sustainable forms of travel. A range of interventions are proposed to improve access to the airport for both passengers and people who work at the airport.
- 3.6.2 The design principles listed below will guide the detailed design of the highways works.

Table 3.5: Highways works design principles

Reference	Highways works design principles
HW.01	The detailed design of highways associated with the Proposed Development will be in accordance with the Design Manual for Roads and Bridges (DMRB) (Ref 3.1), and the Local Authority Highway Design requirements for: <ul style="list-style-type: none"> <li>• Luton Borough Council;</li> <li>• Central Bedfordshire Council; and</li> <li>• Hertfordshire County Council.</li> </ul>
HW.02	The detailed design of highways associated with the Proposed Development will include the completion of road safety audits.
HW.03	The off-site highways intervention areas will be restricted, as far as possible, to existing highway boundaries.
HW.04	The detailed design of the Airport Access Road will incorporate a low noise road surface.

## GLOSSARY AND ABBREVIATIONS

<b>Term</b>	<b>Definition</b>
AGI	Above Ground Installation
AGL	Aeronautical Ground Lighting
BNG	Biodiversity Net Gain
BREEAM	Building Research Establishment Environmental Assessment Method
BS	British Standard
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
Code C (aircraft)	Aircraft with wingspan of 24m up to but not including 36m.
Code E (aircraft)	Aircraft with wingspan of 52m up to but not including 65m.
Contact Stand	An aircraft parking stand that is suitable for walking passengers to and from an aircraft from an allocated, proximate boarding gate.
DAS	Design and Access Statement
DMRB	Design Manual for Roads and Bridges
DSEAR	Dangerous Substances and Explosive Atmospheres Regulations
ERUB	Engine Run-Up Bay
GSE	Ground Support Equipment
HV	High Voltage
HVAC	Heating, Ventilation, and Air Conditioning

IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
Luton DART	Direct Air-Rail Transit
LV	Low Voltage
MARS	Multiple Apron Ramp System
RET	Rapid Exit Taxiway
RFFS	Rescue and Firefighting Service
SuDS	Sustainable Drainage Systems
T1	Terminal 1
T2	Terminal 2
WTP	Water Treatment Plant

## REFERENCES

Ref 2.1 Ministry of Housing, Communities & Local Government (June 2021) National Model Design Code. Crown Copyright, 2021.

Ref 2.2 Department for Transport (June 2018) Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England. Crown Copyright, 2018.

Ref 2.3 Luton Borough Council (November 2017) Luton Local Plan (2011-31).

Ref 2.4 British Standards Institution. BS 5837: 2012. Trees in Relation to Design, Demolition and Construction. London, BSI, 2012.

Ref 2.5 British Standards Institution. BS 4142: 2014. Methods for Rating and Assessing Industrial and Commercial Sound. London, BSI, 2014.

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