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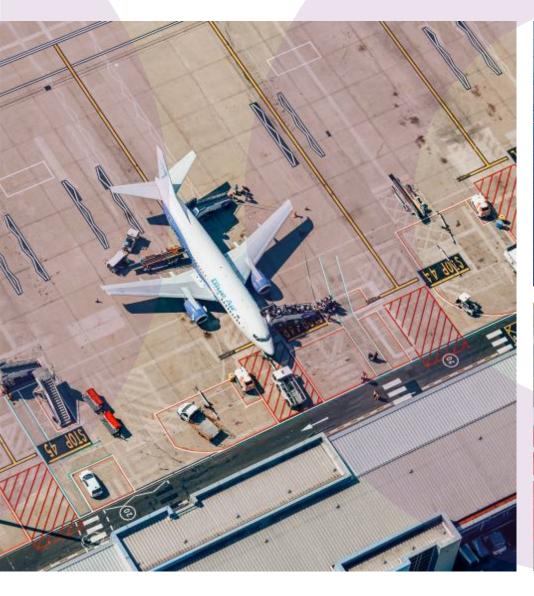
London Luton Airport Operations Ltd

London Luton Airport 19 mppa Expansion

Transport Assessment

Report for

Alejo Pérez Monsalvo
CAPEX Director
London Luton Airport
Navigation House
Airport Way
Luton
Bedfordshire
LU2 9LY

Main contributors

Miguel Plata
Monika Crouse
Chris Hanley

Issued by

....
Miguel Plata

Approved by

....
Monika Crouse

Wood

Floor 23
25 Canada Square
Canary Wharf
London E14 5LB
United Kingdom
Tel +44 (0) 203 215 1610

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Management systems

This document has been produced by Wood Environment & Infrastructure Solutions UK Limited in full compliance with our management systems, which have been certified to ISO 9001, ISO 14001 and OHSAS 18001 by LRQA.

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1	First draft	19/06/20
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3	Final Version	06/11/20
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Executive summary

This report has been produced for the purpose of assessing potential surface access traffic and transport related impacts as part of London Luton Airport Operations Limited (LLAOL) application to increase total passengers per annum from 18 million (mppa) to 19 million (mppa). This Transport Assessment (TA) follows on from the 2014 planning permission (12/01400/FUL) to allow capacity at the Airport to increase to 18 mppa; a figure that previous forecasts predicted to be reached by 2026/27. A rapid growth in passenger numbers in the following years resulted in the 18 mppa having almost been reached at the end of 2019.

Currently, the COVID-19 pandemic has brought upon many uncertainties with regards to passenger forecasts. However, the airport expects passenger volumes to return to 2019 levels (18 mppa) by 2023 in a medium recovery scenario, according to a recent analysis testing several scenarios of low, medium and high recoveries including assuming an increase to 19 mppa by 2024. Therefore, reaching 19 mppa in 2024 is deemed to be a reasonable view of future operations and was assumed to be a representation of the worst-case scenario of growth for the airport.

This report sets out the development proposals, national and local policy, existing sustainable transport networmidks and outlines current road safety considerations. Subsequently the report goes on to evaluate current and future travel demand.

2019 traffic flows for the 18 mppa scenario and 2024 forecast traffic flows for the 19 mppa scenario were established by ARUP using their approved forecasting model. The 2019 18 mppa traffic flows were established based on factual data supplied by York Aviation. The 2024 19 mppa traffic flows were established based on the 19 mppa aircraft flow forecast supplied by York Aviation. The forecast traffic flows show that the increase in traffic volumes generated by the airport between the 18 mppa and 19 mppa is minor in the AM peak period (120 vehicles in both directions) and minor in the PM peak period (93 vehicles in both directions).

The introduction of the Direct Air-Rail Transit (DART) in 2021, which was not accounted for in ARUP's forecast is likely to cause a reduction in the number of staff and passengers using private car mode of travel. Therefore, the scenarios presented in this TA represent the worst case scenario of potential increase in traffic flows between 18 mppa and 19 mppa. Based on this, as well as the feedback we have been provided with by Highways England and Luton Borough Council (LBC), it has been concluded that this level of traffic is not likely to have a significant impact on the operation of the network and does not warrant any further detailed assessment such as transport modelling for the purpose of this planning application.

The mode share targets set out in the 2018-2022 Luton Airport Surface Access (ASAS) were broadly achieved when reviewed in 2019. Key targets such as the reduction of single occupancy vehicle travel for staff and passengers were met and, in many cases, exceeded. Given this positive history of sustainable mode shift , more ambitious sustainable mode share targets have been set, as set out in detail in the Travel Plan (TP) document related to this application.

As stated in the Car Parking Management Plan accompanying this application, no new parking spaces are proposed for the 19 mppa planning application. Therefore, this transport assessment reviews the current available parking supply to LLAOL. The existing available parking is sufficient in combination with monitoring of the relevant ASAS and Travel Plan, as well as the Car Parking Management Plan for 19 mppa.

This TA has been prepared in line with the scope agreed by LBC and Highways England. It concludes that expansion can occur without causing any significant negative impacts in terms of the capacity of the existing transport network.

Contents

1.   Introduction

1.1   Background

Wood Group UK Limited (hereafter referred to as 'Wood') PLC has been commissioned by London Luton Airport Operations Ltd (LLAOL) to prepare a Transport Assessment (TA) as part of a planning application for an increase in airport capacity to serve up to 19 million passengers per annum (mppa).

This TA follows on from the 2014 planning permission (12/01400/FUL) to allow capacity at the Airport to increase to 18 mppa by 2026/27. LLAOL wish to raise the passenger cap from 18 mppa to 19 mppa as soon as possible to ensure that the airport can continue to grow over the next few years.

Currently, the COVID-19 pandemic has brought upon many uncertainties with regards to passenger forecasts. However, based on industry insight it is reasonable that Luton could realistically be back at 18m passengers sometime in 2023 and be growing beyond 18m in 2024. Therefore, the 2024 passenger forecast remains a reasonable view of future operations and was assumed to be a representation of the worst-case scenario of growth for the airport.

As part of this growth, a key component identified for further analysis is surface access and car parking, most notably demonstrating that increasing passenger numbers can be satisfactorily accommodated on the highway network (on and off airport) and through adequate sustainable transport measures. This will require investigation of highway capacity and whether additional traffic will require additional off-site highway works.

This document has been prepared in conjunction with a Travel Plan and Car Parking Management Plan which are also submitted as part of the 19 mppa application.

1.2   Structure of Report

The structure of this report is as follows:

- Chapter Two outlines the proposed development and its location;

- Chapter Three sets out the development within a national and local policy context;

- Chapter Four outlines existing sustainable transport networks;

- Chapter Five follows on to outlines existing road access and car parking arrangements;

- Chapter Six provides information on existing road network demand;

- Chapter Seven provides road accident data within the study area and gives an analysis of local road network safety;

- Chapter Eight details current and anticipated network improvements;

- Chapter Nine follows on by providing information on current airport travel demand;

- Chapter Ten outlines future airport travel demand;

- Chapter Eleven provides a summary and conclusions.

2.   Proposed Development

2.1   Development Location

Luton Airport is situated to the south-east of Luton, approximately 45km from Central London to the South and 30km from Milton Keynes to the North as the crow flies. The site sits predominantly within the Unitary Authority of Luton Borough Council (LBC), as well as partly within Central Bedfordshire Council (CBC).

The Airport primarily provides commercial flights by low-cost scheduled operators, as well as a small number of chartered flights and business and cargo trips. The site consists of a single runway which runs east to west for approximately 2.2km along the southern edge of the site boundary.

Airport facilities are all found to the North of the runway with a Central Terminal Area (CTA) located centrally within the site. The Airport lies approximately 1.5km from Luton Airport Parkway Rail Station to the south-west, with frequent shuttle services providing a connection for passengers between the station and the CTA, as shown in **Figure 2.1**.

Access into the site by road can be gained via Airport Way and Airport Approach Road. These roads pass by the Terminal Car Park, Mid-Stay Car Parks, Holiday Inn, the Ibis, and directly into the CTA which has associated public transport facilities, drop-off/pick-up zones, taxi bays and Priority Parking.

Figure 2.1   Location of Central Terminal Area (CTA) and Luton Parkway Rail Station

Source: Google Earth

Airport Way connects to the A1081 and A505 via the A1081/A505/Percival Way roundabout to the west of the site. From the A1081 access can be gained directly onto the M1 via Junction 10, as well as to Luton

Airport Parkway Rail Station via the B653 and Parkway Road. Additionally, Percival Way provides a connection through the adjoining business estate and on into Luton's eastern residential areas.

The A1081/A505/Percival Way roundabout connects to a second roundabout with the A505 Kimpton Road and A505 Vauxhall Way, approximately 500m further west. The A505 Kimpton Road serves Luton Town Centre approximately 3km away, while the A505 Vauxhall Way serves the Luton's eastern residential settlements.

2.2 Proposed Development

The planning application to support the increase of the airport's capacity to 19 mppa does not include any physical changes to the airport terminal building and surrounding infrastructure.

2.3 Site Access

Access into the site by road can be gained via Airport Way and Airport Approach Road. These roads pass by the Terminal Car Park, Mid-Stay Car Parks, Holiday Inn, the Ibis, and directly into the CTA which has associated public transport facilities, drop-off/pick-up zones, taxi bays and Priority Parking.

2.4 Study Area

A plan showing the extent of the highways impacts study area is shown in **Figure 2.2**. This has been agreed with Luton Borough Council and Highways England.

Figure 2.2   Study area

Source: Google Maps

3.   Policy Background

3.1   Introduction

This TA sets out relevant national and local transport planning policy and guidance in context to the development proposals.

3.2   National Policy

The Transport Decarbonisation Plan (TDP) - Decarbonising Transport: Setting the Challenge (2020)

Published in March 2020 by the Department for Transport, this document sets out the Government's ambitious plan to accelerate the decarbonisation of transport. The document sets out in detail what Government, business and society will need to do to deliver the significant emission reductions needed across all modes of transport. All in line with the target of achieving carbon budgets and net zero emissions across every transport mode by 2050.

In terms of aviation, the following policies included in the TDP are of relevance to this document:

- 2.47 Aviation, at present, is a relatively small contributor to domestic UK GHG emissions. Its proportional contribution is expected to increase significantly as other sectors decarbonise more quickly.

- 2.49 Airport expansion is a core part of boosting our global connectivity and levelling up across the UK. The Government takes seriously its commitments on the environment and the expansion of any airport must always be within the UK's environmental obligations.

- 2.51 Given their global nature and the absence of any international agreement on how to assign international aviation emissions to individual states, action at an international level is the Government's preferred approach for addressing aviation's international carbon emissions.

- 2.52 The UK is already a respected and influential member of the UN International Civil Aviation Organisation (ICAO). The UK has been instrumental in securing many important environmental agreements including the 2016 Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) agreement – the first worldwide scheme to address CO_2 emissions in any single sector – and the CO_2 standard.

- 2.53 ICAO has defined a basket of measures designed to achieve its medium-term goal of carbon neutral growth for the sector from 2020 (CNG2020). This consists of more efficient aircraft technologies as incentivised by the CO_2 standard, operational improvements such as more efficient flight procedures, the development and use of sustainable alternative fuels and market-based measures like CORSIA.

- 2.54 Under CORSIA, qualifying aeroplane operators are required to offset the growth in international aviation CO_2 emissions covered by the scheme above average 2019 and 2020 levels. At present, 82 states (including the UK) have volunteered to join CORSIA from the start in 2021, representing over 75% of international aviation activity. From 2027 to 2035, the scheme will become mandatory, meaning that over the entire lifecycle of the scheme (2021 to 2035), it is estimated that approximately 2.5Gt of CO_2 will be offset. Since 2012, the aviation sector has been part of the EU Emissions Trading System (ETS). According to the European Commission, this has contributed to reducing Europe's carbon footprint by more than

17MtCO2e per year. The UK committed in its 2017 Clean Growth Strategy that its future approach would be at least as ambitious as the EU ETS and provide a smooth transition for relevant sectors.

National Planning Policy Framework - Ministry of Housing, Communities and Local Government (February 2019)

The National Planning Policy Framework (NPPF) was introduced by Government in March 2012 and updated in February 2019. The NPPF brings the Governments' planning policies for England into a single document and describes how it expects these to be applied. The purpose of the planning system is to contribute to the achievement of sustainable development.

Transport elements of the document are covered in Chapter 9 – Promoting Sustainable transport. The NPPF states in paragraph 111:

'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'

In paragraph 102 of Chapter 9, the NPPF states that *'Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*

- *the potential impacts of development on transport networks can be addressed;*

- *opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*

- *opportunities to promote walking, cycling and public transport use are identified and pursued;*

- *the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*

- *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.'*

The NPPF, in paragraph 104, recognises that planning policies should:

- *'Support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;*

- *Be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;*

- *Identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;*

- *Provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);*

- *Provide for any large-scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such*

development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and

- *Recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy.'*

Paragraph 108 states that *'In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*

- *safe and suitable access to the site can be achieved for all users; and*

- *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*

Paragraph 109 states that: *'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'*

In paragraph 110, the NPPF states that in assessing sites for development, consideration should be given to the promotion of sustainable transport modes, safe and suitable access routes by all transport modes, and mitigation of any potentially significant impacts on the transport network. Applications for development should:

- *'Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

- *Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

- *Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

- *Allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

- *Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'*

National Planning Practice Guidance (NPPG) - Ministry of Housing, Communities and Local Government (2014)

On 6 March 2014, the Department for Communities and Local Government (DCGL) launched the National Planning Practice Guidance (NPPG), a web-based resource. The NPPG related to Travel Plans, Transport Assessments and Statements launched in 2014. Together with the NPPF, this sets out the Government's overall planning policy framework. With specific regard to transport assessment, the NPPG includes a section on travel plans, transport assessment and statements in decision making.

The NPPG gives details on what travel plans, transport assessments and statements are, how they are related, why they are important, and when they need to be undertaken. In relation to a transport assessment specifically, the NPPG[1] states:

'In determining whether a Transport Assessment or Statement will be needed for a proposed development, local planning authorities should take into account the following considerations:

- *The Transport Assessment and Statement policies (if any) of the Local Plan; the scale of the proposed development and its potential for additional trip generation (smaller applications with limited impacts may not need a Transport Assessment or Statement);*

- *Existing intensity of transport use and the availability of public transport;*

- *Proximity to nearby environmental designations or sensitive areas;*

- *Impact on other priorities/strategies (such as promoting walking and cycling);*

- *The cumulative impacts of multiple developments within a particular area; and*

- *Whether there are particular types of impacts around which to focus the Transport Assessment or Statement (e.g. assessing traffic generated at peak times).'*

Aviation 2050: The Future of UK Aviation (December 2018)

As part of the Governments long term development of an Aviation Strategy to 2050, the 'Aviation 2050: The Future of UK Aviation' document focuses on updating objectives from the original report following feedback received on their relevance and priority. The document aims to help deliver *'a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain'.*

The objectives are to:

- Help the aviation industry work for its customers;

- Ensure a safe and secure way to travel;

- Build a global and connected Britain;

- Encourage competitive markets;

- Support growth while tackling environmental impacts; and

- Develop innovation, technology and skills

This was a consultation document; a consultation response was issued in October 2019.

Airports National Policy Statement (2018)

The Airports National Policy Statement (ANPS) was published by the Government in 2018 to provide the Secretary of State with the primary basis to make decisions on any development consent application for a new runway at Heathrow Airport. In the context of this proposal, it is noted that the ANPS states also that the document would be a 'relevant consideration in respect of applications for new runway capacity and other airport infrastructure in London and the South East of England', and therefore, potentially, to proposed development at Luton Airport.

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[1] Paragraph 013 Reference ID: 42-013-20140306 Revision date: 06 03 2014

The landmark Appeal Court decision R (on the application of Plan B Earth and others) v Secretary of State for Transport [2020] EWCA Civ 214 of 27 February 2020 in its present form by declaring that government policy in relation to the expansion of Heathrow Airport was unlawful and removed any legal effect of the ANPS in its present form. In terms of the substantive issue in the Appeal Court decision – the failure to take into account the Government's commitment to the provisions of the Paris Agreement on climate change - the lawful remedy would require the Secretary of State to undertake a review of the ANPS in accordance with the relevant statutory provisions, including of the Planning Act 2008, and the judgement of the court.

The Court of Appeal decision has been appealed to the Supreme Court and is awaiting determination. Notwithstanding the current legal position, we would contend that given the policy scope of the ANPS (in respect of 'runway capacity and other airport infrastructure'), the Statement would not have constituted a material consideration in the determination of this planning application as the proposed measures to increase Luton Airport's passenger throughput do not seek to increase runway capacity or other airport infrastructure.

The Government's current position with regard to the UK's international obligations in respect of aviation emissions is set out in the DfT's Decarbonising Transport' (March 2020). Following the publication of the Aviation 2050 green paper in December 2018, the Government is currently preparing its Aviation Strategy to support the industry in delivering improvements for passengers and the environment. The Strategy (see below) will be aimed at achieving a safe, secure and sustainable aviation sector that meets the needs of consumers at a global level.

Aviation 2050 — the future of UK aviation (Consultation Response Document 2019)

After the document "Aviation 2050- The future of UK aviation" closed its consultation on 11 April 2019, a response document was issued by the Government in October 2019.

Based on the consultation responses, the Government, in paragraphs 15-22 of the response document, recognises that:

- *'there is an immediate challenge in the south of the UK to coordinate multiple airspace changes across different airports in order to modernise our highly congested airspace. Multiple airports across the South East, as well as NERL, are therefore preparing to bring forward the Future Airspace Strategy Implementation- South (FASI-South) Programme of airspace changes in the next few years.*

- *NERL have been commissioned by the DfT and the CAA, as co-sponsors of airspace modernisation, to create an Airspace Change Organising Group(ACOG) that will initially coordinate the FASI-South Programme. ACOG will also take on the coordination role for the FASI-North Programme in December 2019.*

- *ACOG will support NERL in creating a single coordinated implementation plan for airspace changes in the South of the UK (masterplan for short). The CAA intends to add NERL's role in creating a masterplan and in establishing and maintaining ACOG as a condition in their en-route licence, as part of Reference Period 3.*

- *The purpose of the masterplan is to set out where airspace change could be taken forward to provide benefits, to consider potential conflicts, trade-offs and interdependencies, and set out a preferred implementation plan. It will not include detail of individual airspace designs or solutions.*

- *The masterplan will identify where airspace changes are needed to deliver safety, capacity, noise reduction, improvements to air quality, fuel efficiency, and improved access to airspace for GA or the military, or to introduce new technology. The development of the masterplan will be an iterative process.*

- *While the current masterplan being developed will include changes required in the south, in future, the masterplan will be extended to cover the north of the UK.*

- *The government's intention is to use the proposed powers solely for ACPs that will deliver the CAA's strategy and plan under Air Navigation Direction 3(e). Initially, the way that the government plans to do this, is through only using the powers in respect of ACPs that have been identified as part of the airspace change masterplan (which, once accepted by the co-sponsors CAA and DfT, will be one part of the CAA's overarching strategy and plan).*

- *This means that the legislation will allow the government to use the powers to progress ACPs that were not in the masterplan, but were necessary to deliver the CAA's broader strategy and plan if it wished to do so in the future. If it decided to do so, it would make this clear.'*

Next steps to implement the new policy are stated in paragraphs 27 and 28 of the consultation response as follows:

- *'The government intends to introduce the policy in primary legislation. Aviation, including airspace, is a reserved matter and the proposed policy will apply to the whole of the UK.*

- *The CAA will develop guidance on how they would monitor the progress of the ACPs within the masterplan and therefore the basis of any advice to use the powers. This will include setting out the process that the CAA's oversight team will take before recommending the use of the powers.'*

Beyond the Horizon – the future of UK aviation: Making best use of existing runways (2018)

The Airport Commission's Final Report recognised the need for an additional runway in the South East by 2030, but it also noted that there would be a need for other airports to make more intensive use of their existing infrastructure.

On 24th October 2017 the Department for Transport (DfT) released its latest aviation forecasts. These are the first since 2013. The updated forecasts reflect the accelerated growth experienced in recent years, and that demand was 9% higher in London in 2016 than the Airports Commission Forecast. This has put pressure on existing infrastructure by airports over the past decade, and highlights that the government has a clear issue to address.

The Aviation Strategy calls for evidence set out that government agrees with the Airport Commission's recommendation and was minded to be supportive of all airports who wish to make best use of their existing runways, including those in the South East, subject to environmental issues being addressed.

Aviation Policy Framework (Department for Transport, March 2013)

The Aviation Policy Framework (APF) was published in March 2013 and fully replaced the 2003 *Air Transport White Paper* as Government policy on aviation. The framework outlines objectives and principles to guide plans and decisions on airport developments, bringing together many related and discrete policies, some of which are 'in train' – for example, the work being carried out to deliver the Airport National Policy Statement (NPS). By defining the Government's objectives and policies on the impacts of aviation, the APF sets out the framework within which decisions on aviation ought to be made to deliver a balanced approach to securing the benefits of aviation and to support economic growth.

The APF states that the "*Government wants to see the best use of existing airport capacity*" and that in the short-term, a key priority for Government is to continue to work with the aviation industry and other stakeholders to make better use of existing runways at all UK airports to improve performance, resilience and the passenger experience.

Section 5 (planning) sets out that all proposals for airport development must be accompanied by clear surface access proposals which demonstrate how the airport will ensure easy and reliable access for passengers, increase the use of public transport by passengers to access the airport, and minimise congestion and other local impacts.

3.3   Local Policy

Luton Borough Council's Climate Action Plan Support (January 2020)

This document was published in January 2020 and aims to provide an evidence base to inform the Council's Climate Action Plan. Its objectives are:

- to better understand:
  - ▶ the borough's carbon footprint using a location-based accounting approach;
  - ▶ use this information to determine the proportion of emissions that can be influenced locally without the action of regional or national actors; and
  - ▶ gaps in data where further work is needed.
- to aid LBC in the following areas:
  - ▶ providing a more informed evidence base for future action plan development which also serves to inform and direct existing local projects;
  - ▶ to encourage confidence in the mandate for climate action, thus facilitating the establishment of a robust local strategy which can deliver objectives over a long term cycle.

Section 6 of this document addresses the London Luton Airport Emissions, which represent a significant proportion of the borough's overall emissions. The document states '*it will be vital for the council to work closely with the airport and associated businesses to manage and reduce the environmental impacts of the airport's operations, passenger activity and flights.*'

The document, in chapter 6, sets out the following recommendations regarding emissions:

- *'Emissions from flights are a significant source of emissions, and if aviation emissions continue to increase as currently modelled by National Government, the airline sector will reduce the available carbon budget for Luton borough(assuming aircraft technology and efficiency remains at today's levels). As mentioned in the previous sections of this report, this finite budget is already diminishing and will require significant investment and action from all stakeholders to keep within.*

- *The majority of flights taken from Luton Airport are for leisure rather than business, suggesting that the council could look at engaging with leisure travel passengers to consider alternative low carbon options. The Citizen's Assembly could provide a good forum for engagement with the public on this topic to help highlight the impact of aviation.*

- *There is a significant contribution to emissions as a result of transport to and from the airport. This will be a key opportunity for Luton Borough Council to influence activities of Luton Airport passengers. It is anticipated that the opening of the Luton Direct Air Rail Transit (DART) will help to reduce the number of passengers arriving and leaving the airport by private vehicle, however a strong community engagement plan will be needed to support this to encourage more uptake of public transport by airport staff and passengers.*

- *67% of Luton Airport passengers arrive at the airport in private vehicles. In order to reduce emissions from surface transport, it will be imperative that passengers have access to affordable,*

regular public transport options to shift away from current high levels of private vehicle use. Infrastructure capacity improvements to support the growth in electric vehicles will also be a key enabler for emissions reduction.

- *Less than 2% (approx.)1of Luton Airport passengers surveyed by the Civil Aviation Authority (CAA) in 2018 were Luton borough residents, demonstrating that the boundary of emissions associated with the airport stretches beyond the borough boundaries.*

- *Luton Airport and several of the key airline companies situated in Luton are engaged through the Sustainable Aviation membership network to apply a framework for managing air quality, emissions, noise and clean technology in the aviation industry. This collaboration platform will be critical in ensuring the operations and activities of the associated businesses are considered in alignment and all stakeholders are involved in the commitment to reduce their impacts.*

- *Luton Borough Council has the ability to use its powers to convene key aviation businesses in the Luton area to encourage shared learning.*

- *Luton Airport reports that emissions from the airport's operations have decreased by 40% since 20152 as a result of efficiency measures put in place. There is scope to continue these reductions.*

- *Luton Airport participates in the Airport Carbon Accreditation Programme and has achieved the Mapping accreditation for measuring and reporting on their direct and indirect emissions. The next steps for the scheme are to provide evidence of carbon management and reduction measures, measure third party emissions and aim for carbon neutrality by offsetting the remaining direct and indirect emissions.'*

Luton Local Plan: 2011 - 2031 (November 2017)

The Luton Local Plan 2011 – 2031 was published in November 2017 and sets out policies, development allocations and actions for the area up to 2031. The LLP went through a public consultation between July 2016 and January 2017 to ensure the document suitably addressed issues on economic growth, social needs and environmental impacts.

The LLP sets out a series of 11 Strategic Objectives. Most notably, within the context of this development:

 'To retain and enhance Luton's important sub-regional role as a place for economic growth and opportunity including the safeguarding of London Luton Airport's existing operations and to support its sustainable growth over the Plan period based on its strategic importance.'

As part of the spatial strategy, policy LLP6 sets out the 'London Luton Airport Strategic Allocation'. This gives policy and guidance on airport safeguarding, airport expansion, airport-related car parking, and design and drainage.

As part of the sustainable transport strategy, policy LLP31 integrates the Luton Local Transport Plan 2011 – 2026 which aims to *'ensure that an integrated, safe, accessible, and more sustainable transport system supports the economic regeneration and prosperity of the town.'*

Luton Local Transport Plan 3: 2011 – 2026 (March 2011)

The Luton Local Transport Plan 3 (2011 – 2026) was produced in March 2011 and states the following:

'Our new transport strategy will help us to address local priorities, such as helping to improve the economic, social and environmental well-being of the local community and helping to improve health and reduce inequalities. It updates the policies contained within the Luton, Dunstable and Houghton Regis Local Transport Plan 2006 - 2011 published jointly by the Borough Council and the then Bedfordshire County Council and

South Bedfordshire District Council, which were respectively the highway and planning authorities for Dunstable and Houghton Regis.

Government guidance recommends that Local Transport Plans demonstrate the relationship with the wider local policy context, in particular spatial planning elements defined through the LDF and those wider community aspirations detailed within the Sustainable Community Strategy.

Luton's LTP3 has been influenced by these wider local priorities and will show how transport will play a role in their achievement. In particular, transport can:

- *Support economic growth by improving transport connections and journey reliability, making Luton more attractive for businesses*

- *Protect the environment by promoting less environmentally damaging ways of travelling*

- *Help make communities safer by reducing the number and severity of road traffic casualties*

- *Promote health by enabling people to walk or cycle more, and by reducing air pollution*

- *Support vulnerable people and reduce inequalities by improving and ensuring equitable access to key services.'*

3.4   Other Local Policies

London Luton Airport Surface Access Strategy: 2018 – 2022 (Reissue 2019)

The first ASAS was published in 2000 and has since been amended and updated. The most recent revision covers 2018 – 2022. The purpose of the ASAS is:

'To efficiently manage surface access to and from the airport in order to help minimise adverse impacts on the local community and environment, to promote and encourage sustainable surface transport and to help improve access to and from the airport for passengers, employees and service providers.'

The ASAS sets out an Action Plan which aims to reduce Single Occupancy Vehicle (SOV) car use through improvements to sustainable travel modes. The objectives on the Action Plan are:

- To promote and encourage sustainable transport options for employees and passengers; and

- To reduce the impact of surface access to the airport on the local community

Central Bedfordshire Local Transport Plan 3: 2011 – 2026 (April 2011)

The vision of the Central Bedfordshire Local Transport Plan (LTP) 3 (2011 – 2026) is to:

'Globally connected, delivering sustainable growth to ensure a green, prosperous and ambitious place for the benefit of all by creating an integrated transport system that is safe, sustainable and accessible'

The LTP identifies 'areas of intervention' that the local authority will seek to deliver. These areas are small-scale schemes with relatively easy implementation plans. Areas include:

- Land use planning e.g. embedded sustainable transport provision;

- Smarter choices e.g. integrated electronic ticketing;

- Infrastructure and service provision e.g. pedestrian and bus stop improvements;

- Network management e.g. signage, ITS; and

- Demand management e.g. park and ride, freight terminals

The LTP also addresses major schemes that are to be delivered as part of the Core Strategy. One of the relevant schemes is the M1 junction 10a improvements which aims to:

'Construct a grade separated junction at M1 Junction 10A will improve access to Luton, Luton London Airport and surrounding villages, it is being promoted jointly by Luton Borough Council (LBC) and Central Bedfordshire Council with LBC as lead authority.'

Hertfordshire Local Transport Plan 4: 2018 – 2031 (May 2018)

The Hertfordshire Local Transport Plan 4 (2018 – 2031) was published last year and sets out Hertfordshire's future vision for the county up until 2031.

The LTP highlights a transition away from car-based investment and capacity optimisation due to financial, environmental and societal costs. It also highlights a strong move towards technology focused travel, specifically focusing on the challenges and opportunities technological development can play in the future of transport planning.

The LTP aims to deliver *'nine transport objectives which contribute strongly to the Place, Prosperity and People.'* These objectives subsequently relate to a series of more specific policies and schemes.

Within the context of this transport assessment, policy 11 addresses access to airports as follows:

'The county council, working in partnership with neighbouring local authorities and airport operators, will seek improvements to surface access to Luton and Stansted Airports, and promote and where possible facilitate a modal shift of both airport passengers and employees towards sustainable modes of transport.'

Specifically, in relation Luton Airport, it states:

'The county council will work with relevant stakeholders as part of the Thameslink programme. This is a key element of plans to increase rail travel to London Luton Airport from Hertfordshire and beyond, in conjunction with the airport light rail link proposal. This includes lobbying for longer trains on the Midland Main Line and more frequent, faster services to Luton Airport Parkway, as well as improved and easier ticketing arrangements.'

4. Existing Sustainable Transport Network

4.1 Introduction

Luton Airport is well served by sustainable travel options. The public transport hub located within the CTA provides frequent shuttle services to the nearby Luton Parkway Rail Station as well as bus and coach services to a range of major cities and airports across the UK.

Access to the airport on foot can be gained by footpaths and crossing facilities along the Airport Approach Road, Airport Way and Percival Way. Passengers are less likely to cycle to the airport; however, cycling is an option for nearby staff. For cyclists, dedicated facilities are not provided into the CTA, however, shared foot/cycle ways along parts of the A505 and on-road facilities provided along the A1081 benefit local cyclists.

4.2 Rail Network

The nearest available rail station is Luton Airport Parkway which is situated 1.6km as the crow flies to the south-west of the site. The station operates Thames Link and East Midlands services to London, the south, the Midlands and the North. A summary of key destinations is shown in **Table 4.1**. Due to the COVID-19 Pandemic it is expected that services will be operating at reduced frequencies temporarily.

Table 4.1   Key rail services to/from Luton Airport Parkway Rail Station

Destination	Typical Weekday Frequency	Typical Journey Time	Operator
Bedford	6 trains per hour	28 mins	Thames Link & East Midlands
Brighton	2 trains per hour	1 hr 59 mins	Thames Link
Gatwick Airport	4 trains per hour	1 hr 36 mins	Thames Link
Leicester*	1 train per hour	57 mins	East Midlands
London St Pancras	6 trains per hour	32 mins	Thames Link & East Midlands
Nottingham	1 train per hour	1 hr 26 mins	East Midlands

Source: nationalrail.co.uk
*Leicester station and the ticket office has reduced opening hours: Monday to Saturday: 06:15 - 21:15; and on Sunday 07:15 - 21:15 (Soure: Thameslink).

DART System

Additional to the existing rail network, construction of the Luton Direct Air-Rail Transit (DART) system began in 2018. The DART will provide a connection for passengers and airport staff between Luton Airport Parkway Station and the terminal in under four minutes. The route will navigate between two purpose-built stations at Bartlett Square and the airport terminal via a bridge crossing over Airport Way road.

The transit system is driverless and will remove the element of delays via traffic congestion currently presented by the bus shuttle service. The service aims to allow passengers to reach the terminal from London St. Pancras within 30 minutes.

The DART system has funding for £225 million and is being funded and delivered by LLAOL. The system is due to open in Autumn 2021 and is expected to operate 24/7. **Figure 4.1** indicates the route.

Figure 4.1   DART system indicative plan

4.3   Coach and Bus Network

Bus and coach services can be accessed directly from the CTA with a Public Transport Hub providing dedicated bus and coach bays for services routing to staff parking, medium and long stay parking, car hire facilities, as well as connections to Luton Airport Parkway, local destinations, and major cities and airports across the UK.

Coach services

National Express coach services can be accessed via the Public Transport Hub at the CTA and afford direct routes to major cities and airports across the UK. Additionally, Arriva Bus operates a coach service to/from Dunstable. The service runs Monday to Sunday between approximately 04:00 – 24:00 and is operated by Arriva The Shires.

Frequent National Express services route directly to London connecting to key onward transport hubs include, Victoria Coach Station and Paddington Rail Station, calling at Golders Green, Finchley Road, Baker Street and Marble Arch. Services to London Paddington run Monday to Sunday between approximately 05:00 – 01:00. Services to London Victoria run Monday to Sunday 24 hours a day with a less frequent service running every hour between approximately 01:00-04:00. Other National Express services route directly to Birmingham, Cambridge, Coventry, Leicester, Milton Keynes, Northampton, Nottingham, Oxford and Sheffield, as well as Gatwick, Heathrow and Stansted Airport.

Table 4.2 shows frequency and typical journey times to key destinations for both service providers. Due to the COVID-19 Pandemic it is expected that services will be operating at reduced frequencies temporarily.

Table 4.2   Key coach services to/from Luton Airport

Destination	Typical Weekday Frequency	Typical Journey Time	Operator
Birmingham	11 services	2 hrs 40 mins	National Express
Cambridge	9 services	1 hr 30 mins	National Express
Coventry	12 services	1 hr 40 mins	National Express
Gatwick Airport	9 services	2 hr 20 mins	National Express
Heathrow Airport	24 services	1 hr 5 mins	National Express
Leicester	9 services	1 hr 45 mins	National Express
London (Paddington Rail Station)	42 services	1 hr 11 mins	National Express
London (Victoria Coach Station)	48 services	1 hr 20 mins	National Express
Milton Keynes	21 services	40 mins	National Express
Northampton	9 services	1 hr 15 mins	National Express
Nottingham	8 services	2 hr 50 mins	National Express
Oxford	8 services	2 hrs	National Express
Sheffield	3 services	4 hr 20 mins	National Express
Stansted Airport	17 services	1 hr 25 mins	National Express
Dunstable	50 services	30 mins	Arriva The Shires

Sources:
-nationalexpress.com
-arrivabus.co.uk

Bus services

Bus services can be accessed from the Public Transport Hub at the CTA. The 99 service runs hourly between Luton Airport and Milton Keynes 7 days a week. The 755/757 service runs frequently to London Victoria Coach Station 7 days a week, every 30 minutes and is operated by Greenline. The 100/101 Sapphire service operated by Arriva routes to Stevenage every 30 minutes 7 days a week. The A and 888 services provide a dedicated link to Luton Airport Parkway running frequent services 7 days a week. A summary of the key local bus services is shown in **Table 4.3.** Due to the COVID-19 Pandemic it is expected that services will be operating at reduced frequencies temporarily.

Table 4.3   Key local bus services to/from Luton Airport

Route	Key Towns Served	Typical Frequency	Operator
99	Luton Airport, Luton, Milton Keynes	1 per hour (Mon-Sun)	Stagecoach
755/757	Luton Airport, Luton, Bricket Wood, Brent Cross, Baker Street, Marble Arch, Victoria Coach Station	Every 30 mins (Mon-Sun)	Greenline

Route	Key Towns Served	Typical Frequency	Operator
100/101 Sapphire	Luton Airport, Hitchin, Stevenage	Every 30 mins (Mon-Sat) & Every 2 hours (Sun)	Arriva
888	Luton Airport, Luton Parkway	Every 20 mins (Mon-Sat) & Every 30 mins (Sun)	London General
A	Luton Airport, Luton Parkway, Dunstable	Every 15 mins (Mon-Sat) & Every 20 mins (Sun)	Arriva

Source: stagecoachbus.com, greenline.co.uk, arrivabus.co.uk

As well as the A and 888 bus services, an interchange shuttle bus services runs between the CTA and Luton Airport Parkway Station which is approximately 1.6km south-west as the crow flies. This shuttle service runs every 10 minutes, takes approximately 6 minutes, and provides access to additional bus services at Luton Parkway Bus Station, as detailed below in **Table 4.4**.

The 44/45 service routes between Stevenage and Luton Parkway running at Monday to Friday service every 2 hours. The 366 service runs between Luton Parkway, Harpenden and Hatfield within an hourly service Monday to Friday. The 610 service routes to Enfield via Harpenden and Potters Bar with an hourly service Monday to Saturday.

Table 4.4   Key local bus services to/from Luton Airport Parkway Bus Station

Route	Key Towns Served	Typical Frequency	Operator
44/45	Stevenage, Knebworth, Codicote, Kimpton, Luton Parkway Station	Every 2 hours (Mon-Fri)	Centrebus
366	Luton Parkway Station, Harpenden, Wheathampstead, Welwyn Garden City, Hatfield	1 per hour (Mon-Fri)	Centrebus
610/611/612	Luton Parkway Station, Harpenden, Hatfield, Welham Green, Potters Bar, Enfield	1 per hour (Mon-Sat)	Uno

Source: centrebus.info, unobus.info

4.4   Walking and Cycling Network

Walking facilities

Walking provisions are provided between the CTA, surrounding hotels, car parking facilities and nearby settlements. Footway provisions within the vicinity of the airport along key corridors are general in good conditions with street lighting provided.

Pedestrians can access the airport on foot from the nearby hotels, namely, the Ibis, Holiday Inn, and the Marriott. Airport Way affords access to the CTA via a footway with guard-railing along the northern side of the carriageway.

Pedestrians can additionally route on foot from the Mid-Stay and Terminal Car Parks. The Mid-Stay Car Park is located to the south of Airport Way, accessing the north-side guard-railed footway via signalised toucan crossings. For Terminal Car Park 1, a covered footbridge is provided across a series of Airport Approach Roads allowing safe passage to the CTA.

For staff or travellers accessing the site from nearby settlements to the North, footways are provided on both sides of Percival Way which connects between Airport Way and Eaton Green Road. A pelican crossing and a zebra crossing are provided along Percival Way, as well as informal crossing points with tactile paving and refuge islands located at the A505/A1081/Percival Way roundabout to enable safe crossing.

Cycling facilities

Cycle use by passengers to the airport is not usually feasible, however, cycling is a viable option for staff routing from the surrounding settlements or as part of a multi-modal journey. To the south-west of the site, National Cycle Route 6 (NCR6) runs off-road adjacent to Lower Harpenden Road, under the A1081, across the B653 Gipsy Lane and adjacent to the A1081, before routing on-road along Park Street. On approach and exit to the Luton Parkway Rail Station, advisory on-road cycle lanes with contract surfacing are provided which connect between the rail station cycle parking and the B653 including NCR6.

At a local level, NCR6 routes into Central Luton, Limbury, Marsh Farm and Houghton Regis to the north, and Harpenden to the south. At a strategic level, the NCR6 provides a cycle connection between, Leicester, Northampton, Milton Keynes, Luton, St Albans and Watford.

Additional to national cycle routes, localised cycle provisions can be found along Airport Way between Holiday Inn and the A1081/A505/Percival Way roundabout in the form of a shared foot/cycleway with associated signage and road markings. On-road mandatory cycle lanes are also provided along the A1081 between the A1018/A505/Vauxhall Way roundabout and Capability Green Business Park.

Figure 4.2   National Cycle Routes – Luton and Luton Airport

Source: Sustrans, 2019

5. Road Access and Car Parking Facilities

5.1 Introduction

Luton Airport has good connections to the existing strategic highway network. A505 connects the CTA with the A1081 which provides a direct route to the M1 J10 to the south-west, approximately 4km from the site as the crow flies. The A505 additionally extends to the east and into Luton Town Centre and beyond to the M1 J11.

5.2 Central Terminal Area

The CTA is situated within the centre of the site. The CTA provides vehicular and pedestrian access to the terminal building via Airport Approach Road. Key facilitates and services that can be accessed from the CTA include:

▶ Public Transport Hub including bus, coach and shuttle travel;

▶ Taxi rank;

▶ Priority Parking Area;

▶ Chargeable drop-off and pick-up zone;

▶ Short Term Car Parking including a Multi-Storey facility; and

▶ Employee Parking.

The current as-built masterplan showing the CTA in shown in **Appendix A,** pending review of recent modifications after its issue date.

5.3 Local Access Roads

Airport Approach Road

Airport Approach Road routes between the CTA and the Airport Approach Road/Airport Way signalised junction which affords access to the Mid-Stay Car Park. The road passes under part of Luton Airport's runway and is part of a 'Red Route' which allows no stopping at any time.

The road is a two-way dual-lane carriageway with approximately a 7 metres dual-lane width. The northbound and southbound lanes are segregated by a grass buffer and Armco barriers. The road is lit with a 30mph speed limit. A footway is provided with a pedestrian guardrail along the north-western side affording access between the CTA and nearby hotels and parking facilities.

Percival Way

Percival Way routes between the A1081/A505/Percival Way roundabout and the Percival Way/Frank Lester Way/President Way roundabout. The road affords access to parts of Luton Airport's west-side airfield facilities as well as Hangars and other aviation related buildings. In-carriageway bus stops are located for northbound trips 30 metres south of Prospect Way and 5 metres south of Provost Way, and for southbound trips 35 metres south of Provost Way and 45 metres north of Prospect Way.

wood.

The road is a two-way single carriageway approximately 6 metres in width and with a 30mph speed limit. The road is lit and facilitates footways along both sides. Two zebra crossings and a pelican crossing afford safe passage across the carriageway. Rumble strips and 'slow' road markings are in proximity to zebra crossings as a speed reduction measure.

Frank Lester Way

Frank Lester Way is a short section of carriageway that connects between Percival Way and Eaton Green Road. The road is approximately 6 metres in width, is lit and is subject to a 30mph speed limit. Frank Lester Way includes a northbound in-carriageway bus stop and footways on both sides.

Eaton Green Road

Eaton Green Road routes east to west between the Eaton Green Road/Colwell Rise roundabout and the Eaton Green Road/Vauxhall Way roundabout. The road affords access to several residential streets to the north as well as parking facilities and Percival Way via Frank Lester Way to the south.

5.4   A505 Corridor

A505 Airport Way

The A505 Airport Way routes east to west between the A1081/A505/Percival Way roundabout and the A1081/A505/Vauxhall Way roundabout accessing the Holiday Inn, the Ibis and the Marriott. The road has a down-ward gradient from east to west with a 30mph speed limit restriction.

The road is a two-way single carriageway approximately 6.7 metres in width. The road is lit with a footway provided along the northern edge affording pedestrian access to the hotels. A footway is also provided along a section of the southern flank to provide access to the Ibis hotel via an informal crossing point with central refuge.

The A505 Airport Way connects to the A505 Kimpton Road and A505 Windmill Road which route into Luton Town Centre. From here, the A505 connects to the M1 via J11 to the west and the A6 routing north to Bedford.

A505 Vauxhall Way

The A505 Vauxhall Way routes north to south between the Eaton Green Road/Vauxhall Way roundabout and the A1081/A505/Vauxhall Way roundabout. The road is a two-way single carriageway with a road width of approximately 6.3 metres and a speed limit of 40mph. Vauxhall Way is lit along its western edge and provides a footway along is western flank as well as a narrow 1 metre footway along part of its eastern flank. A northbound bus stop is provided along the western side 25 metres north of Vauxhall Access Road Gate 3.

5.5   A1081 East Luton Corridor and M1 Junction 10

A1081 New Airport Way

The A1081 New Airport Way connects the A1081/A505 Airport Way/Percival Way roundabout with the M1 to the west. Access to Luton Airport Parkway Rail Station can be gained from the A1081 via the B653. A priority lane also allows buses and taxis to bypass the B653 and directly enter the A1081 towards Luton Airport.

The A1081 is a two-way dual carriageway segregated by Armco barriers. The road is lit and is subject to a 40mph speed limit restriction. No footways are provided; however, mandatory on-road cycle lanes are

provided in both directions between the A1081/A505/Percival Way roundabout and Capability Green Industrial Estate.

M1

The M1 is a two-way motorway situated to the West of Luton Airport. It routes north to south connecting Luton with Milton Keynes and Northampton to the North, and Watford to the South, as well as the M25 around London.

Within the vicinity of the site, the motorway is lit and consists of four-lanes northbound and four lanes southbound segregated by a concrete barrier. Access onto the M1 via the A1081 can be gained via a roundabout junction (J10) with on-slips and off-slips. Further north at junction 11, the M1 routes over and connects with the A505 via a roundabout junction. The A505 routes between Luton Airport via Luton Town Centre and Leighton Buzzard.

5.6   Airport Car Parking

LLA currently has six car parks in operation, as shown in **Table 2.1** below.

Table 5.1   Car parking available at LLA

	DOZ	TCP1	TCP2	MSCP	LSCP	Car Park B	NHCP
Status	Operational	Operational	Operational	Operational	Operational	Operational	Operational
Type	Drop off	Any length	Any length	Mid-stay	Long-stay	Staff parking	Staff parking

Note: DOZ = Drop Off Zone   TCP1 = Terminal Car Park 1   TCP2= Terminal Car Park 2
            MSCP = Mid Stay Car Park   LSCP = Long Stay Car Park   NHCP = Navigation House Car Park

Table 2.2 below gives an overview of capacity, pricing and charging processes for each of these car parks. Full details of parking information can be found in the Car Parking Management Plan contained within **Appendix B.** No further parking provision is proposed as part of the 19 mppa planning application.

Table 5.2   Car parking summary

	DOZ	TCP1	TCP2	MSCP	LSCP	Car Park B	NHCP
Capacity	Not designated spaces	1,699 spaces	1,924 spaces	1,281 spaces + 120 motorcycle spaces	4,151 spaces	555 spaces + 20 car-share spaces	94 spaces + 10 motorbike spaces (no official car-share spaces but car-share space capability)
Pricing	£4 for 10mins then £1 per min thereafter	Pre-bookable From February 2020 <30mins £9	Pre-bookable From February 2020 <30mins £8	Pre-bookable From February 2020 <15mins Free	Pre-bookable From February 2020 <1hr Free	£775 per year (individual) £365 per year (car-share)	£2,315 per year (individual) £1,095 per year (car-share)

		30-45mins £11.50 45-60mins £16.50 1-2hr £20.50 2-3hr £27 3-4hr £35 4-5hr £37 5-9hr £58 9-24hr £58 Additional days £64 per day	30-45mins £10.50 45-60mins £14.50 1-2hr £18.50 2-3hr £24 3-4hr £31 4-5hr £33 5-9hr £52 9-24hr £58 Additional days £58 per day	15-25mins £3.50 25-40mins £8.50 40-60mins £12.50 1-24hr £32 Additional day £32 per day Motorcycles park free for up to 21 days	1-2hr £4.50 >2 £28 Each subsequent day £24		
Charging process	ANPR with cash/card payment. £100 PCN for unattended vehicles	Ticket entry for gate-customers. ANPR for pre-booked customers. Pay on foot machines provided. £100 PCN for unauthorised vehicles	Ticket entry for gate-customers. ANPR for pre-booked customers. Pay on foot machines provided. £100 PCN for unauthorised vehicles	Ticket entry for gate-customers. ANPR for pre-booked customers. Pay on foot machines provided. £100 PCN for unauthorised vehicles	Ticket entry for gate-customers. ANPR for pre-booked customers. Pay on foot machines provided. £100 PCN for unauthorised vehicles	Via barrier that raised automatically. Vehicles must display parking badge. £100 PCN for unauthorised vehicles	Via Staff ID card swipe. Vehicles must display parking badge. £100 PCN for unauthorised vehicles

6. Existing Road Demand

6.1 Current network performance

A high-level assessment of current network performance in the study area has been undertaken using Google Maps Traffic, where the level of traffic is presented with a scale from green (fast traffic) to red (slow traffic). The assessment looks at typical weekday traffic at the links and junctions within the study area. Typical traffic data utilises historical data including GPS data to predict an average on the network throughout the day with the AM peak taken as 08:15 (mid-way between 07:45-08:45) and 17:30 (mid-way between 17:00-18:00).

Junction 1 (J1): M1/A1081 roundabout junction

The traffic assessment shows slow moving/stationary traffic in the AM peak for traffic routing from the A1081 southbound onto the M1. All other arms appear unaffected. In the PM peak, slow moving/stationary traffic is observed for northbound traffic routing from the M1 South into the M1/A1081 roundabout junction as shown in **Figure 6.1.**

Figure 6.1   J1: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 2 (J2): London Road North/ A1081

The traffic assessment shows relatively free flowing traffic in both the AM and PM peak periods at this junction, as shown in **Figure 6.2.**

Figure 6.2 J2: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 3 (J3): London Road South/ A1081

The traffic assessment shows free flowing traffic in both the AM and PM peak periods at this junction, as shown in **Figure 6.3.**

Figure 6.3 J3: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 12 (J12): A505 Vauxhall Way/ A1081/ Airport Way

The traffic assessment shows slow moving traffic in the AM peak for traffic routing into the junction from all arms. This is similar in the PM peak, however, queue backs appear to extend further, as shown in **Figure 6.4.**

Figure 6.4   J12: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 13 (J13): A505 Vauxhall Way/Eaton Green Road

The traffic assessment shows slow traffic in the AM peak for traffic routing into the junction from all arms, with a slight pinch-point of traffic building-up on the Eaton Green Road arm. In the PM peak, slow moving is observed for traffic routing into the junction from Eaton Green Road with free-flowing traffic seen for traffic routing from Vauxhall Way south. Some slow moving/stationary traffic is seen on the exit arm for Vauxhall Way north. This appear to be a tail-back from traffic congestion at the Vauxhall Way/Crawley Road roundabout junction, however, this does not appear to be having an impact on J13's performance. AM and PM peak flows are shown in **Figure 6.5.**

Figure 6.5   J13: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 14 (J14): Eaton Green Road/ Frank Lester Way

The traffic assessment shows slightly slow-moving traffic in the AM peak for traffic routing from Eaton Green Road from the east southbound into Frank Lester Way. In the PM peak, slightly slow-moving traffic is observed on all arms routing into the junction, as shown in **Figure 6.6.**

Figure 6.6   J14: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 15 (J15): Frank Lester Way/ Percival Way/ President Way

The traffic assessment shows slightly slow-moving traffic in the AM peak for traffic routing into the roundabout from Frank Lester Way. No data is given from President Way or Airport Approach Road. In the PM peak, slightly slow-moving traffic is observed for traffic routing from Percival Way northbound onto Frank Lester Way, as shown in **Figure 6.7.**

Figure 6.7   J15: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 21 (J21): A1081/ A505/ Percival Way

The traffic assessment shows slightly slow-moving traffic in the AM peak for traffic routing into the roundabout from A505 Airport Way. In the PM peak, the junction is operating with relatively free flowing traffic, as shown in **Figure 6.8.**

Figure 6.8   J21: AM and PM peak traffic flows

Source: Google Maps Traffic

Junction 22 (J22): Airport Way/Mid-Stay Car Park

The traffic assessment shows slightly slow-moving traffic in both the AM and PM peaks for traffic taking the right-turn lane into the Mid Stay Car Park from Airport Way and the left-turn lane from the Mid Stay Car Park onto Airport Way. The right-turn lane into the Mid Stay Car Park is a short lane at a signalised junction, showing that traffic turning right may not be getting enough effective green time. Traffic routing westbound onto Airport Way from the Mid Stay Car Park utilise a give-way lane that is not signalised so may need to wait longer for a break in traffic before being able to make the manoeuvre. The AM and PM peak traffic flows are shown in **Figure 6.9.**

Figure 6.9   J22: AM and PM peak traffic flows

Source: Google Maps Traffic

7.   Road Safety Record

7.1   Introduction

Recorded Personal Injury Accident (PIA) data has been obtained from both Luton Borough Council and Central Bedfordshire Council for the periods of April 2016 - February 2019 and January 2016 - March 2019 respectively. For ease of review, this data has been combined into one data set with junctions and links within the study area classified into zones. Junction zones consist of the junction itself with a 50m set-back on each arm to capture any accidents resultant from road users approaching or exiting the junction. Only links or junctions with accidents recorded have been included within this report. Zones are shown in **Figure 7.1**.

Figure 7.1   PIA zones

7.2   Collision Records

Table 7.1 shows the recorded data for each zone within the study area that has experienced an accident within the last three years. Accidents have been classified in severity and vulnerable road users including pedestrians and cyclists have been highlighted. Where an accident rate of greater than one per annum or more than one occurrence of a vulnerable road user accident occurs in a zone more detailed accident analysis has been undertaken.

Table 7.1   Accident data by zone

Zone	Description	Accident severity			Vulnerable road user		Total	Accident rate per annum
		Slight	Serious	Fatal	Pedestrian	Cyclist		
A	Eaton Green Road/ Frank Lester Way roundabout junction	-	1	-	-	1	1	0.3
B	Eaton Green Road link between Zone A and Zone C	6	1	-	3	-	7	**2.3**
C	A505 Vauxhall Way/Eaton Green Road roundabout junction	3	-	-	-	-	3	1
D	Frank Lester Way/Percival Way/President Way mini roundabout junction	1	-	-	-	-	1	0.3
E	Percival Road link between Zone D and Zone F	4	-	-	-	-	4	**1.3**
F	A1081/A505 Airport Way/Percival Way roundabout junction	1	1	-	-	1	2	0.6
G	A505 Airport link between Zone F and Zone H	3	1	-	-	-	4	**1.3**
H	A1081/A505 Airport Way/Vauxhall Way roundabout junction	7	1	-	-	-	8	**2.6**
I	A505/St Mary's Road/Crawley Green Road gyratory roundabout junction	12		-	-	-	12	**4**
J	A505 Windmill Road link between Zone I and Zone K	4	1	-	1	-	5	**1.6**
K	A505 Windmill Road/A505 Kimpton Road mini roundabout junction	2	-	-	-	-	2	0.6
L	B653 Gipsy Lane link between Zone K and Zone M	-	1	-	1	-	1	0.3
M	B653 Gipsy Lane/B653 Lower Harpenden Road/ Parkway Road dumbbell roundabout junction	1	1	-	1	1	2	0.6
N	A1081 New Airport Way/B653 signalised junction	2	-	-	-	-	2	0.6
O	A1081 New Airport Way link road between Zone M and Zone O	3	-	-	-	-	3	1
P	A1081 New Airport Way/Capability Green Industrial Park junction	2	-	-	-	-	2	0.6
Q	A1081 New Airport Way link between Zone P and Zone S	2	-	-	-	-	2	0.6
R	A1081 New Airport Way/London Road North roundabout junction	3	-	-	-	-	3	1

Zone	Description	Accident severity			Vulnerable road user		Total	Accident rate per annum
		Slight	Serious	Fatal	Pedestrian	Cyclist		
S	A1081 New Airport Way London Road (North & South) slip roads	2	1	-	-	-	2	1
T	A1081 New Airport Way/London Road South roundabout junction	1	-	-	-	-	1	0.3
U	A1081 New Airport Way link between Zone S and Zone V	1	-	-	-	-	1	0.3
V	M1/A1081 New Airport Way roundabout junction	12	-	-	-	-	12	**4**

7.3   Detailed analysis

The following section discusses the accident zones where the recorded rate exceeds one accident per annum and/or there are more than one occurrence of an accident involving a vulnerable road user.

Zone B - Eaton Green Road link between Zone A and Zone C

A total of seven accidents, were recorded in Zone B within the three-year period assessed. Three of these involved pedestrians, all slight in severity. Of the remaining vehicular accidents, one was classified as serious with the remainder being classified as slight.

Of the three accidents involving pedestrians, two involved pedestrians walking out into the carriageway. On one count, a parked van was obstructing view of the pedestrian crossing. The remaining accident was the result of a vehicle driving into the path of a pedestrian to avoid oncoming traffic and can be attributed to driver error.

Of the remaining four vehicular accidents, three were the result of the driver not properly looking before making a turning manoeuvre onto Eaton Green Road and one the result of a knock on to another vehicle while parking.

None of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

Zone E - Percival Road link between Zone D and Zone F

A total of four accidents, all slight in severity, were recorded in Zone E within the three-year period assessed. Two accidents occurred when drivers tried to overtake another vehicle resulting in a collision. One accident occurred due to the driver not checking before making a turning manoeuvre. The final accident occurred when a driver failed to stop at a junction, colliding with the rear of another vehicle.

All four of the accidents occurred at different junctions with Percival Way and are deemed to be the result of driver error. No clustering patterns are present, and no highways design flaws are deemed to be the cause of any of the accidents within this area, therefore no physical improvements are proposed.

Zone G - A505 Airport link between Zone F and Zone H

A total of four accidents were recorded in Zone G within the three-year period assessed, one of which was classified as serious in severity. The serious accident was the result of a driver pulling out of a private

entrance into the path of other vehicles on both sides of the carriageway. Visibility out the private entrance was deemed to be adequate with a straight road alignment along Airport Way, therefore the accident can be deemed a result of driver error.

Of the remain three accidents, one was due to a minor police chase with another vehicle which resulted in reckless driving and collision with two other vehicles. The second was due to a taxi stopping in the carriageway causing another vehicle to collide with the rear. The third accident was the result of a driver pulling out into Airport Way and not properly looking.

None of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

Zone H - A1081/A505 Airport Way/Vauxhall Way roundabout junction

A total of eight accidents, were recorded in Zone H within the three-year period assessed, one of which was classified as serious in severity. The serious accident involved a hand controlled adapted vehicle for a paraplegic driver. The driver dropped the hand control and lost control of the vehicle.

Of the remaining seven accidents, five occurred on approach to the junction with vehicles unable to stop in time. In most cases this was due to harsh braking causing a knock-on collision, misjudgement of distance to the junction by the driver, and in one case due to an ambulance with sirens on routing quickly through the roundabout.

 Of the remaining two accidents, one occurred when a driver was in the wrong lane on approach and over compensated when changing lanes, colliding with a sign post. The final accident was the result of a bus and car travelling in adjacent lanes travelling too closely to each other on entry to the roundabout and consequently colliding. The three approach lanes at the A505 Vauxhall Way are deemed to be sufficient for buses and cars at 3.0m per lane, and as this accident has occurred in isolation it is not deemed significant.

None of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

Zone I - A505/St Mary's Road/Crawley Green Road gyratory roundabout junction

A total of twelve accidents, were recorded in Zone I within the three-year period assessed, all of which were classified as slight in severity. Three accidents occurred on approach/exit of Crawley Green Road, two from Windmill Road, one from St Marys Road, one from Park Viaduct, and the remaining five within the junction itself.

At Crawley Green Road, two accidents occurred when a driver failed to see the vehicle ahead stopping at traffic lights, one of these can be attributed to the driver looking in their mirror. The other accident occurred when a driver failed to look properly when changing lanes colliding with another vehicle.

At Windmill Road, one accident can be attributed to reckless driving as a driver attempted to overtake other vehicles upon exit of the junction. The second accident occurred when a vehicle turned left out of manor Road northbound to junction, manoeuvred into lane 2, stopped behind traffic and a second vehicle collided into its rear.

At St Marys Road, a driver may have misjudged the distance as it changed lanes and clipped another vehicle. At Park Viaduct, a driver did not correctly navigate the gyratory roundabout junction and collided with another vehicle.

Of the remaining five accidents, two were caused by vehicles failing to stop at traffic lights colliding with the rear of other vehicles, one was the result of reckless driving potential caused by intoxication, one the result of running a red traffic light, and one due to a motorcyclist failing to negotiate a bend and losing control of their motorcycle.

None of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

Zone J - A505 Windmill Road link between Zone I and Zone K

A total of five accidents, were recorded in Zone J within the three-year period assessed, one of which was classified as serious in severity and one involving a pedestrian. The serious accident occurred when a driver overtook on the wrong side of the road colliding with a vehicle and causing serious injury to a passenger. The accident involving a pedestrian was the result of a dispute between to drivers, passenger exits vehicle 2 and gets nudged to legs by vehicle 1 falling and hurting knees.

Of the remaining three accidents, two accidents were the result of a driver failing to look properly before turning onto Windmill Road. The final accident was the result of a driver failing to stop at traffic lights colliding with the rear of another vehicle.

None of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

Zone M - B653 Gipsy Lane/B653 Lower Harpenden Road/ Parkway Road dumbbell roundabout junction

A total of two accidents, one involving a cyclist and one involving a pedestrian, were recorded in Zone M within the three-year period assessed. The accident involving a pedestrian was classified as serious in severity and occurred when a pedestrian stood at a traffic light walked out when the lights were green and got hit by a vehicle resulting in serious injury.

The accident involving a cyclist was classified as slight in severity. The incident occurred when the cyclist was travelling along a cycle lane and got hit by a minibus. As this incident has happened in isolation there is not deemed to be a highways design risk at this location.

None of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

Zone V - M1/A1081 New Airport Way roundabout junction

A total of twelve accidents, all slight in severity, were recorded in Zone V within the three-year period assessed. As Zone V is a large roundabout junction containing entry and exit slips with the M1, each arm of the junction will be assessed separately.

Six accidents occurred at the northbound entry slip onto the M1 from the roundabout. Five of the accidents occurred when vehicles travelled within the wrong lane around the roundabout for desired exit and cut in against the traffic flow causing collision. Upon inspection of the roundabout junction, ample directional signage is provided for all arms on approach and exit of the roundabout. 50mph speed reduction signs, signalisation of the northbound M1 exit slip arm, and suitable deflection are all in place to avoid vehicles travelling at speed around the roundabout. It is likely that navigation around the roundabout in the wrong lane is down to driver error.

Of the remaining six accidents, two occurred on the northbound exit slip off the M1. Both accidents were the result of vehicles braking at the traffic signals resulting in vehicles colliding into the rear of the stationary vehicle. Suitable forward visibility is provided on approach to the junction therefore collisions are likely to be a result of sudden braking or drivers' lack of awareness.

Of the remaining accidents, two occurred on the M1 itself resulting from drivers switching lanes without carrying out sufficient mirror checks, two were on the A1081 approach caused by a knock-on and a lane change.

It has been determined that none of the above accidents can be attributed to existing design flaws within the road layout and as such no physical improvements are proposed.

7.4   Summary of Records

Following a detailed analysis of accident data for the latest three-year period within the study area, there are no inherent design flaws on the local highway network identified and thus no further assessment is required.

8. Current and Anticipated Network Improvements

8.1 Introduction

Two key transport investments are currently progressing within the Luton area to accommodate future growth both around the airport and within Luton town centre by 2021/22. These are detailed below.

8.2 DART system

Construction of London Luton Airport's Direct Air-Rail Transit (DART) system began last year. The DART will provide a connection for passengers and airport staff between Luton Airport Parkway Station and the terminal in under four minutes. The route will navigate between two purpose-built stations at Bartlett Square and the airport terminal via a bridge crossing over Airport Way road.

The transit system is driverless and will remove the element of delays via traffic congestion currently presented by the bus shuttle service. The service aims to allow passengers to reach the terminal from London St. Pancras within 30 minutes.

The DART system has funding for £225 million and is being funded and delivered by LLAOL. The system is due to open in 2021 and is expected to operate 24/7. **Figure 8.1** indicates the route.

Figure 8.1   DART system indicative plan

Source: London Luton Airport Limited Webpage, www.llal.org,uk

8.3   M1-A6 link road

As part of plans to improve connection between the M1 and A6 to the north of Luton, a new M1-A6 strategic link road is proposed to act as a northern by-pass around Luton's northern quarter. This will reduce rat-running through local villages such as Lower Sundon, Upper Sundon and Streatley and will also promote access to Houghton Regis, Leighton Linslade, Dunstable and London Luton Airport.

The proposals set out by Central Bedfordshire Council aim to make the area more attractive to businesses such as aerospace, engineering and logistics through easy connections to the M1 and A6. Additionally, the new link road aims to support proposed new homes on the northern edge of Luton.

The M1-A6 link road has been supported by South East Midlands Local Enterprise Partnership (SEMLEP) with a local growth fund allocation of £32.75 million. This development proposal has been approved by the DfT.

The new link road will be 4.4km long with a dual carriageway to a new planned rail freight interchange at Sundon Park and a single carriageway connecting to the A6. Planning application for this was granted in January 2020 and construction is expected to take approximately 2 years to complete.

9. 2019 Airport Travel Demand

9.1 Introduction

Luton Airport continued to grow in passenger numbers between 2015 and 2019. This is in part due to its proximity to London but also due to its good public transport and private transport travel options. Between 2015 and 2019 Luton Airport saw the highest growth in annual aircraft movements against other major London Airports (Gatwick, Heathrow, London City and Stansted).

Total annual passengers increased from 12.3 mppa in 2015 to 18.2 mppa in 2019, an increase of 49%. This is shown in **Figure 9.1**.

Figure 9.1   Luton Airport Total Annual Passengers 2015 – 2019

*Terminal passengers only.
Source: CAA Airport Data (Table 09).

Luton Airport serves a number of large European airlines including EasyJet, Wizz and Ryanair. The largest proportion of operator movements in 2019 was by EasyJet with 44%, followed by Wizz with 36.3% and Ryanair with 12%. The remaining 8% was made up of smaller low-cost airlines.

As of 2019, the Airport offered airline services to 141 destinations across 40 different countries. The top five destinations by aircraft movement in 2019 were all European destinations, namely Amsterdam, Bucharest, Geneva, Barcelona and Tel Aviv. Additional to Europe, Luton Airport provides direct airline services to North Africa and the Middle East.

In 2019, the Airport's highest demand was between May and October with over 414 flights per day on average. Winter months are quieter with November seeing the lowest annual average daily movements at 314 flights per day. This shown in **Figure 9.2**.

Figure 9.2   Luton Airport Average Annual Daily Aircraft Movements 2019

Source: LLA Annual Monitoring Report 2019 (p.6)

By region, the greatest proportion of passengers travelling to Luton Airport in 2019 was from the South East with 53.6%. The South East includes Greater London as well as the counties of Kent, East Sussex, West Sussex, Surrey, Hampshire, Berkshire, Oxfordshire, Buckinghamshire and the Isle of Wight. The East of England follows at 32.8%. The remaining 13.6% was made up of other regions, details of which are shown in **Table 9.1.**

This particular data is only found in the CAA Passenger Survey Report, of which the latest available data is from 2019

Table 9.1   Passenger Surface Access Travel by Region 2019 (%)

Region	Percentage
East Midlands	6.9%
East of England	32.8%
North East	0.1%
North West	0.4%
Scotland	0.1%
South East	53.6%
South West	2.0%
Wales	0.4%
West Midlands	2.8%
Yorkshire and the Humber	0.7%

Source: CAA Passenger Survey Report 2019 (Table 4.3a, p.3)

9.2   Modal Split

Passengers

According to the latest 2019 Passenger Survey Report published by the CAA, 39.8% of passengers used private cars/rental cars as their main travel mode to the Airport, whilst 16.4% used taxi/minibus, 22.3% used bus/coach, 21.2% used rail and 0.1% used the Tube/Metro/Subway or Tram.

A summary of the mode share split is shown in **Table 9.2**.

Table 9.2 Passenger Main Mode of Surface Transport 2019 (%)

Mode Share	2019 CAA Data (%)
Private Car	39.8
Taxi/Minicab	16.4
Bus/Coach	22.3
Rail	21.2
Tube/Metro/Subway/Tram	0.1
Other	0.3

Source: CAA Passenger Survey Report 2019 (Table 7a).

Staff Travel

A Staff Travel Survey (STS) was conducted by Systra on behalf of LLAOL in 2019. The survey gathered 781 responses from the approximate 8,400 employees at the time; a 9.3% response rate. The survey was conducted between January and February 2019.

The survey showed that 59.4% of staff drive alone as their main form of transport to work, followed by 23.6% by public transport, 7.9% by multi-occupancy car trips and 7.5% by active modes such as walking and cycling. **Table 9.3** shows the results.

Table 9.3   Staff Travel by Mode 2019

Mode	%
Private Car	67.3
Bus/Coach	16.0%
Rail	7.6%
Walk/Cycle	7.5%
Motorcycle	0.8%
Taxi	0.8%

Source: LLAOL Staff Travel Survey 2019

In terms of parking, the largest proportion of respondents worked for LLAOL directly, followed by TUI and easyJet. This is reflected in car parking with most respondents parking in Car Park B, followed by the easyJet staff car park and TUI training car park. The remaining respondents parked in other surrounding car parks.

9.3 Rail Patronage

Capacity and occupancy estimates have been gathered from LLAOL for July 2019, further details of which are provided in **Section 9.4**. These estimates give a maximum demand of 15,840 daily passengers using the bus shuttle from Luton Parkway Rail Station. It can be assumed that nearly all passengers on this shuttle will have alighted from rail services.

9.4 Bus and Coach Patronage

Capacity and occupancy estimates have been gathered from LLAOL for July 2019. The estimates are given for both bus and coach patronage for each service that operates within the realm of LLA.

Table 9.3 gives the 2019 existing daily passenger numbers and compares this against maximum capacity for each service. The data shows that all services have sufficient spare capacity.

Table 9.4   Bus services, capacity and demand (2019)

Service	Bus Capacity	Operator	Daily frequency	Max Pax Capacity (daily)	2019 Max Pax Demand (daily)	2019 Average Daily Spare Capacity
Mid Stay Car Park Shuttle - Every 15 Minutes 24/7 - Plus extra	80	APCOA	100	16,000	2,400	85%
Long Stay Car Park Shuttle - Every 20 minutes 24/7 + extra	80	APCOA	85	13,600	2,380	82%
Car Hire and Staff Shuttle - Every 15 Minutes - 24/7 + extra	80	APCOA	100	16,000	2,400	85%
Offsite Car Parking Company - every 20 minutes plus extra	55	Airparks	75	8,250	1,444	82%
Scheduled Bus & Coach Services - Local, London, and Regional (defined as anywhere other than London)*	n/a	National Express, Stagecoach and Arriva Greenline	n/a	20557	10,670	47%
Shuttle Service from Parkway (assumes 6 per hour for 18 hours and 4 per hour for 6)	120	Govia Thameslink	132	31,680	15,840	50%
Adhoc Bus & Coach Services - Last 12 months there were 2505	55	Various	7	757	606	20%

* Bus and coach capacities & frequencies vary by operator. More information available directly from LLA Surface Access Team, if required

10. 2024 Future Airport Travel Demand

10.1 Introduction

A 2019 18 mppa scenario was developed by ARUP based on near actual 18 mppa aircraft schedules supplied by York Aviation. The October day applied in the assessment is a typical weekday average of aircraft movements, avoiding half terms and weekends when background road traffic could be expected to be lower. The average load factor is 90% like the summer peak to ensure any individual peaks and troughs in the day are not underestimated.

A 19 mppa forecast was also provided to ARUP by York Aviation, who then carried out actual flow comparison by generating flows for a 2024 scenario for 18 mppa and 19 mppa to establish increases in flow between 18 mppa actual and 19 mppa forecast. This analysis included assessing any further public transport data and enhancements that would help improve the forecast accuracy, however it does not take into account the impact of DART. The forecast year 2024 is now estimated to be the year when 19 mppa will be reached by the airport.

10.2 Mode share

For the purposes of this analysis, 2019 data related to CAA was made available in August 2020, this data reflected passenger mode share data as shown in **Table 10.1.**

Table 10.1 CAA Data Obtained in August 2020 for modelling purposes

Mode Share	2019 CAA Data (%)
Private Car	44.25
Taxi/Minicab	17.94
Bus/Coach	16.86
Rail	20.72
Other	0.06

Since then, the CAA has made public the 2019 Passenger Survey report in which mode shares are as shown in **Table 9.2.** The traffic flows for the 18 mppa and 19 mppa scenarios involving passengers were determined using the data made available in August 2020. Some discrepancies between these two sets of data were found as a result of different interpretation of raw data and the published data, particularly in mode categories such as on and off-site private car numbers. Additionally there is an indication that bus patronage would increase further when comparing the published CAA data with the raw data used for the analysis, this could only have a further positive impact on reducing car numbers.

The 2019 data for staff mode split as summarised in **Table 9.3** was adopted to determine traffic flows for the 18 mppa and 19 mppa scenarios.

It should be noted the opening of DART, which is due in 2021, has not been considered in the 19 mppa mode share. DART is expected to result in an increase in rail patronage. Thus, the modal share in public transport is likely to increase and a reduction in car traffic will likely occur, having a positive impact on the

reduction of traffic flows. Travel plan mitigation measures are also not considered in the analysis below put will form part of the overall strategy to incentivise travel by sustainable modes.

10.3 Traffic demand forecasts

Passenger and staff trips for both the 18 mppa and 19 mppa scenarios have been estimated using mode shares as previously explained.

Currently, the COVID-19 pandemic has brought upon many uncertainties with regards to passenger forecasts. The airport expects passenger volumes to return to 2019 levels (18 mppa) by 2023 in a medium recovery scenario, according to a recent analysis testing several scenarios of low, medium and high recoveries. The analysis included assuming an increase to 19 mppa by 2024 and concluded, based on industry insight, that Luton could realistically be back at 18m passengers sometime in 2023 and be growing beyond 18m in 2024. Additionally, given the current significant uncertainties in the market, it was determined that the maximum passenger and flight volume increase would be the best approach, this means assuming that the airport will continue with the forecasted growth. As such, the future demand was analysed based on a 19 mppa scenario by 2024.

The 18 mppa passenger and staff trips in 2019 were determined using factual traffic data provided by York Aviation. Passenger and staff trips for a 19 mppa scenario in 2024 were then calculated by ARUP using these forecasts supplied by York Aviation.

The forecast traffic flows for the AM peak are summarised **in Table 10.2, Table 10.3** and **Table 10.4**.

Table 10.2 Passenger Traffic Flow Comparison for 18 mppa and 19 mppa forecasts - AM Peak

	October 2019 vs October 2024		Difference
	18 mppa (2019)	**19 mppa (2024)**	**18 mppa vs 19 mppa**
Bus/Coach*	140	146	6
Taxi Minicab*	466	487	21
Private Cars*	1264	1319	55
Inbound (All modes above)	860	897	37
Outbound (All modes above)	1010	1055	75
Total Vehicles AM Peak	**1870**	**1951**	**81**

*Two- way vehicle trips

For passengers, an overall minor increase of 4.3% two-way vehicle trips (81 vehicles, including Bus/Coach, Taxi/Minicab and Private Cars) was found between 18 mppa and 19 mppa.

Table 10.3 Staff Traffic Flow Comparison for 18 mppa and 19 mppa forecasts - AM Peak

	October 2019 vs October 2024		Difference
	18 mppa (2019)	**19 mppa (2024)**	**18 mppa vs 19 mppa**
Total Number of Staff*	**10935**	**11285**	**350**
Non-Shift Staff**	**765**	**790**	**25**
Inbound	1115	1147	32

	October 2019 vs October 2024		Difference
	18 mppa (2019)	19 mppa (2024)	18 mppa vs 19 mppa
Outbound	240	246	6
Total Vehicles AM Peak	**1355**	**1393**	**38**

A minor increase of 3.2% (350 staff and 25 non-shift staff) between 18 mppa and 19 mppa has been estimated. This is also reflected in vehicles with an overall increase of 3% in two-way vehicle trips (38 vehicles), with the highest increase in inbound trips with 32 vehicles.

Table 10.4 Traffic flow comparison for 18 mppa and 19 mppa forecasts for Passenger and Staff – AM Peak

	October 2019 vs October 2024		Difference
	18 mppa (2019)	19 mppa (2024)	18 mppa vs 19 mppa
Inbound AM Peak	1975	2044	69
Outbound AM Peak	1249	1301	52
Total Vehicles AM Peak	**3224**	**3345**	**121**

When comparing the estimated combined trips for Passengers and Staff in the AM peak for the 18 mppa scenario with the forecast 19 mppa scenario, it was found that there was an increase of 121 two-way vehicle trips, which amounts to an overall increase of 3.7%.

The forecast traffic flows for the PM peak are summarised in and **Table 10.5, Table 10.6 and Table 10.7**.

Table 10.5 Passenger Traffic Flow Comparison for 18 mppa and 10mppa forecasts - PM Peak

	October 2019 vs October 2024		Difference
	18 mppa (2019)	19 mppa (2024)	18 mppa vs 19 mppa
Bus/Coach*	140	146	6
Taxi Minicab*	405	418	13
Private Cars*	1097	1134	37
Inbound (All modes above)	860	889	29
Outbound (All modes above)	781	809	28
Total Vehicles AM Peak	**1642**	**1698**	**56**

*Two- way vehicle trips

For passengers, an overall minor increase of 3.4% two-way vehicle trips (56 vehicles, including Bus/Coach, Taxi/Minicab and Private Cars) was found between 18 mppa and 19 mppa.

Table 10.6 Staff Traffic Flow Comparison for 18 mppa and 10mppa forecasts - PM Peak

| | October 2019 vs October 2024 | | Difference |
	18 mppa (2019)	19 mppa (2024)	18 mppa vs 19 mppa
Total Number of Staff	**10935**	**11285**	**350**
Non-Shift Staff	**765**	**790**	**25**
Inbound	263	270	8
Outbound	983	1011	28
Total Vehicles AM Peak	**1246**	**1281**	**35**

Staff flows show that vehicles had an overall increase of 2.8% in two-way vehicle trips (36 vehicles), with the highest increase in outbound trips with 28 vehicles.

Table 10.7 Traffic flow comparison for 18 mppa and 19 mppa forecasts for Passenger and Staff– PM Peak

| | October 2019 vs October 2024 | | Difference |
	18 mppa (2019)	19 mppa (2024)	18 mppa vs 19 mppa
Inbound PM Peak	1123	1159	36
Outbound PM Peak	1764	1821	57
Total Vehicles PM Peak	**2887**	**2980**	**93**

When comparing the revised 18 mppa and forecast 19 mppa scenarios in the PM peak, an increase of 93 two-way vehicle trips can be observed (3.2%).

10.4 Car parking demand forecasts

At 18 mppa, there are 8,516 spaces of parking available. Increased provision has been obtained through the construction of a new multi-storey car park and extension of existing airport car parks and this has been deemed appropriate by Luton Borough Council.

As detailed in the 19 mppa Car Parking Management Plan shown in **Appendix B**, the increase to 19 mppa could translate to an average of approximately 52,000 passengers per day at the airport. The airport's official car parks collectively have capacity for just under 10,000 car spaces which is a limited number compared to the daily passenger population at the airport. The limited car parking capacity naturally encourages passengers to travel by public transport. The car parks are priced to encourage passengers to travel by public transport. It would often be more affordable for passengers to travel by public transport than by car and parking at the airport.

The financially competitive and convenient access by train (especially for advanced tickets) and bus would far outweigh the cost of travelling by car and the associated running and parking costs for many passengers, particularly in the context of the limited capacity at the airport.

Therefore, the existing 18 mppa Car Parking Management Strategy is still deemed appropriate with the increased car parking demand forecast for 19mppa and will be managed by controlling parking capacity and pricing at each car park accordingly. This will be monitored through the ASAS as well as the latest London

Luton Airport Travel Plan accompanying this application which sets out a series of objectives around reducing private vehicle travel and promoting sustainable travel alternatives for the airport.

11. Conclusions

Current forecasts indicate that passenger demand will reach 19 mppa in 2024, taking into consideration the impact of COVID-19 on passenger demand.

The forecast 2024 traffic volumes resulting from the increase in passenger numbers were estimated based on York Aviation actual (2019) and forecast (2024) aircraft schedules. These estimates show a worse-case minor increase in traffic flows of 3.7% in the AM peak and 3.2% in PM peak between the 2019 18 mppa and 2024 19 mppa scenarios. In addition to this, the Travel Plan sets out targets which include a commitment to increase percentages of Public Transport use, which will offset these percentages. Based on our assessment of the network and discussions held with Highways England and Luton Borough Council, it was established that this level of flow increase is unlikely to have a significant impact on the operation of the network and as such does not warrant any further detailed transport modelling analysis at this stage.

It should also be noted that CAA data shows a continuous increase in public transport modal share and as such the volumes of car borne traffic are likely to be significantly less going forward. This is further substantiated by the DART which is expected to come into operation in 2021. This is likely to result in an increased rail patronage than that adopted in ARUP's forecasts.

The airport has already met the key surface access targets on sustainable transport for 2022 stated in the 2018-2022 ASAS for both staff and passengers. Therefore, more ambitious targets have been set in agreement with the airport in the travel plan that accompanies this report.

The existing 18 mppa Car Parking Management Strategy has been deemed appropriate for the 19 mppa scenario in combination with controlled capacity and pricing, monitored through the ASAS and latest Travel Plan[2] accompanying this application.

This report has been prepared in line with the scope agreed by LBC and Highways England. It concludes that the increase in passengers from 18 mppa to 19 mppa is unlikely to have a significant impact on the operation of the existing transport network, due to a very modest increase in traffic flows generated by the proposed expansion.

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[2] Document Reference: 41431-WOOD-XX-XX-RP-OT-0001_S3_P02

Appendix A
As-built Masterplan of Central Terminal Area

Key

	Existing terminal buildings
	New terminal buildings
	Remarking of existing aircraft stands
	New aircraft stands
	Taxiway extensions
	Future taxiway extensions
	CTA road layout
	Existing car park
	Car park extension
	Regrading and grassing of existing hard standing areas
	FBO buildings, hangar & apron
	Mixed commercial\FBO apron use
	Relocated cargo compound
	Indicates extent of site boundary
	Indicates other lands owned and or under the control of the applicant

CAR PARK 'B'

NEW HANGAR

Cargo Centre

HANGAR

STAND 71 AREA

HANGAR

STAND 80 AREA

HANGAR

STAND 82 AREA

WIGMORE VALLEY PLAYING FIELDS

NORTH APRON

TAXIWAY DELTA

MAIN APRON

PIER 'A'

TERMINAL BUILDING

EAST APRON

LONG TERM CAR PARK 'E'

FIRE TRAINING GROUND

PIER 'B'

DROP OFF ZONE (DOZ)

EXTENSION TO LTCP 'E'

HANGAR 69 EASYJET MAINTENANCE

MULTI STOREY CAR PARK

MULTI STOREY CAR PARK

TAXIWAY DELTA

ENGINE RUN UP BAY (ERUB)

TAXIWAY GOLF

TAXIWAY ALPHA

TAXIWAY ALPHA

TAXIWAY CHARLIE

SOUTH APRON

TAXIWAY ALPHA

CAR PARK C MID TERM CAR PARK

EXTENSION TO MTCP

TAXIWAY BRAVO

RUNWAY

Scale 1:4000 @ A1

0 m — 200 m

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Client:

London Luton Airport

London Luton Airport

As-Built Master Plan

March 2019

wood.

Appendix B
Car Parking Management Plan

Car Parking Management Plan
London Luton Airport 19 mppa

Introduction

London Luton Airport (LLA) received planning permission in June 2014 to physically expand the airport facilities to handle up to 18 million passengers per annum (mppa). LLA now wishes to increase the passenger cap from 18 mppa to 19 mppa without any further physical airport expansion.

LLA anticipates that the growth to 19 mppa could be accommodated without any new on-airport infrastructure, including that which is already permitted and not yet built, and that which could be built under permitted development rights.

Condition 24 of the planning permission for 18 mppa required a Car Parking Management Plan, this was approved in January 2016 (ref: 15/00659/DOC). As such, a new Car Parking Management Plan is hereby produced to accompany the 19 mppa application. No new parking spaces are proposed specifically in connection with this application. The purpose of this document is to set out what available parking supply will be available to London Luton Airport Operations Ltd (LLAOL) for 19 mppa.

LLA currently has the following car parks in operation, shown in Table 1 below. This management plan explains how the car parks would be managed if the airport were to operate at 19 mppa.

Table 0   Car parking available at LLA

	DOZ	TCP1	TCP2	MSCP	LSCP	Car Park B	NHCP
Status	Operational	Operational	Operational	Operational	Operational	Operational	Operational
Type	Drop off	Any length	Any length	Mid-term	Long-term	Staff parking	Staff parking

Note: DOZ (= Drop Off Zone)   TCP1 (= Terminal Car Park 1)   TCP2 (= Terminal Car Park 2)
           MSCP (= Mid Stay Car Park)   LSCP (= Long Stay Car Park)   NHCP (= Navigation House Car Park)

Car parking demand will be managed by controlling parking capacity and pricing each car park accordingly, and the effectiveness of the pricing will be monitored through the Airport Surface Access Strategy together with the 19 mppa Travel Plan. Variable message signs are in place to assist in managing the use and capacity of the car parks.

Drop Off Zone (DOZ)

The airport will continue to offer a drop off / pick up parking area in close proximity to the terminal. The DOZ is a runway format with capacity for around 120 vehicles. The DOZ is priced accordingly to encourage visitors to park for a short amount of time, which is 13 minutes or less. The airport charges £4.00 for up to 10 minutes and then £1.00 per minute thereafter. Currently the airport sees approximately 95% of the vehicles leaving the DOZ within less than 10 minutes.

The DOZ has a barrier-free entrance with vehicles recognised by Automatic Number Plate Recognition (ANPR). The vehicles will need to pay (by cash or card) at the exit barrier to be able to leave the DOZ. No vehicles within the DOZ are to be left unattended. Unattended vehicles are issued with a Penalty Charge Notice (PCN) for £100.00.

The airport will not permit drop off / pick up of passengers on the approach roads, roundabouts or bus lanes leading up to the airport terminal. The airport will continue to encourage drop off / pick up of passengers in the MSCP by offering free parking up to 15 minutes and a free bus ride to/from the terminal building. The free bus service normally transfers passengers in 5 minutes and operates every 12 minutes. The airport also encourages longer drop off / pick up periods to take place at the LSCP by offering free parking up to 60 minutes and a free bus ride to/from the terminal building. The free bus service normally transfers passengers in 10 minutes and operates every 15 minutes. These measures are to incentivise visitors to use the MSCP and the LSCP, and to minimise the potential for congestion in the central terminal area.

Terminal Car Park 1

The TCP1 is the nearest passenger car park to the terminal building and it technically accommodates any length of stay. The TCP1 has a total of 1,699 car spaces and motorbikes are not allowed entry.

The gate pricing at the TCP1 are as follows:

- Up to 30 minutes: £9.00

- Up to 45 minutes: £11.50

- Up to 60 minutes: £16.50

- Up to 2 hours: £20.50

- Up to 3 hours: £27.00

- Up to 4 hours: £35.00

- Up to 5 hours: £37.00

- Up to 9 hours: £58.00

- Up to 24 hours: £58.00

- Each additional day, or part of a day: £64.00

The online pre-booked pricing can vary between 5% to 80% lower than the gate prices according to demand and availability. It is evident from the pricing schedule that, whilst the TCP1 can technically accommodate any length of stay, it is aimed at encouraging short-term car parking. This is supported by the fact that the airport currently sees an average length of under 3 hours stay in the TCP1.

The TCP1 has a barrier entrance with a ticket for gate customers and via ANPR for pre-booked customers. Pre-booked customers pay at the time of booking. Gate customers pay before exit either via cash at Pay on Foot Machines or at the exit barrier by card. Vehicles parked in unauthorised spaces are issued with a PCN for £100.00.

According to the Airport Surface Access Strategy, reissued in 2019, the airport has introduced an "electric vehicle drop-off tariff" in Terminal Car Park 1. This allows access for 30 minutes at a significantly reduced rate of £2.0, with the intention of encouraging the use of 100% electric vehicles for passengers at the airport.

Terminal Car Park 2

The TCP2 is located adjacent to the TCP1 and it accommodates any length of stay. The TCP2 has have a total of 1,924 car spaces and motorbikes will not be allowed entry.

The gate pricing at the TCP1 are as follows:

- Up to 30 minutes: £8.00
- Up to 45 minutes: £10.50
- Up to 60 minutes: £14.50
- Up to 2 hours: £18.50
- Up to 3 hours: £24.00
- Up to 4 hours: £31.00
- Up to 5 hours: £33.00
- Up to 9 hours: £52.00
- Up to 24 hours: £58.00
- Each additional day, or part of a day: £58.00

The online pre-booked pricing can vary between 5% to 80% lower than the gate prices according to demand and availability.

Access will be controlled by a Skidata access barrier and payment is made at pay on foot machines

Mid Stay Car Park

The MSCP is located 5 minutes away from the terminal by free bus transfer service. The MSCP has a total of 1,281 car spaces and 120 motorbike spaces.

The gate pricing for cars at the MSCP are as follows:

- Up to 15 minutes: Free
- Up to 25 minutes: £3.50
- Up to 40 minutes: £8.50
- Up to 60 minutes: £12.50
- Up to 24 hours: £32.00
- Each additional day, or part of a day: £32.00

The MSCP offers free parking for motorbikes in the 120 designated motorbike parking bays for a maximum of 21 days. After 21 days, charges apply at the normal daily rate.

The online pre-booked pricing can vary between 5% to 80% lower than the gate prices according to demand and availability. It is evident from the pricing schedule that the MSCP is more financially competitive than the TCP1 and TCP2. This pricing structure encourages those wanting to stay over 4 hours to stay at the MSCP rather than the TCP1 or TCP2. The capacity at the MSCP is also larger than the TCP1 or TCP2.

The MSCP has a barrier entrance with a ticket for gate customers and via ANPR for pre-booked customers. Pre-booked customers pay at the time of booking. Gate customers pay before exit either via cash at Pay on Foot Machines or at the exit barrier by card. Vehicles parked in unauthorised spaces are issued with a PCN for £100.00.

Long Stay Car Park

The LSCP is located 10 minutes away from the terminal by free bus transfer service. The LSCP has a total of 4,151 car spaces and motorbikes are not allowed entry.

The gate pricing for cars at the LSCP are as follows:

- Up to 1 hour: Free

- Up to 2 hours: £4.50

- First day: £28.00

- Each subsequent day, or part of a day: £24.00

The online pre-booked pricing can vary between 5% to 80% lower than the gate prices according to demand and availability. It is evident from the pricing schedule that the LSCP is more financially competitive than the MSCP for those wanting to stay for a day or longer. The capacity at the LSCP is also larger than the MSCP.

The MSCP has a barrier entrance with a ticket for gate customers and via ANPR for pre-booked customers. Pre-booked customers pay at the time of booking. Gate customers pay before exit either via cash at Pay on Foot Machines or at the exit barrier by card. Vehicles parked in unauthorised spaces are issued with a PCN for £100.00.

Car Park B

Car Park B is used for staff parking and is located 10 minutes away from the terminal by free bus transfer service that runs every 15 minutes. The Car Park B has 555 car spaces and 20 car share spaces, making a total of 612 spaces. Motorbikes are not allowed entry.

Those members of staff who wish to park at Car Park B would need to purchase a car parking badge which is £775.00 per year per individual. However, the price is reduced to £365.00 per year per individual for car shares.

At present, no staff has applied for a car share scheme since it launched in 2015 so the cost of a car share permit could be reviewed as part of 19 mppa. Therefore, the monitoring of the 20 car share spaces in Car Park B has been unnecessary so far and the spaces have been used for regular car parking. However, if there is anyone utilising the car share scheme in the future, the airport will monitor the 20 car share spaces to ensure that the required spaces are available for car share users. The airport is currently in the process of developing a new mobile phone app that can be used by staff to advertise lifts or the need for lifts with a view to encouraging staff to make use of the car share scheme benefits.

The entrance barrier at the Car Park B raises automatically so entrance is gained without restriction, but the vehicles must display a car parking badge when parked. Vehicles not displaying a car parking badge or parked in unauthorised areas are issued with a PCN for £100.00.

Navigation House Car Park

The NHCP is used for staff parking which is located in front of the Navigation House. It is the nearest car park to the terminal building, and it has a total of 94 car spaces as well as 10 motorbike spaces. There is also a free bicycle shed for staff in the NHCP which utilises a passcode access, this is the only official bike shed for staff and accommodates approximately 20 bicycles.

Staff that wish to park at the NHCP would need to purchase a car parking badge which is £2,315.00 per year per individual. However, the price is reduced to £1,095.00 per year per individual for car shares. The NHCP does not have any designated car share spaces which means that all available spaces are shared for both regular car parking and car share parking.

The NHCP is the more premium staff parking area than the Car Park B due to its proximity to the terminal building. It is also smaller than the Car Park B in size and located within the central terminal area where the airport seeks to minimise congestion. Therefore, the car parking badges for the NHCP are significantly more expensive (circa 3 times) than the Car Park B to promote the use of the Car Park B instead.

The entrance barrier at the NHCP requires a staff ID card for entry and vehicles must display a car parking badge when parked. Vehicles not displaying a car parking badge or parked in unauthorised areas are issued with a PCN for £100.00.

Priority Parking Services

The airport operates a 'Meet & Greet' Priority Parking Services, using the closest car park to the terminal (i.e. MSCP1). This is a meet and greet valet parking service for passengers and it is the airport's most premium parking product. Passengers have the assurance that the vehicle will be parked at the airport by the official airport parking company, unlike other off-airport competitors.

Customers are required to pre-book this service online. Customers with a booking are invited to Level 2 of the MSCP1 to drop off their vehicles at the Priority Parking reception which is based there. Vehicles then stop at the barrier where they are photographed 360 degrees by a damage limitation system with the details assigned to the booking references and vehicle registration numbers. Customers are then met by a valet who welcomes the customers and informs them that their vehicles have been checked for damage. The valet then parks their vehicles in one of the airport's official car parks and the keys are securely stored. The location and capacity for priority parking depend on availability of each official car park.

Vehicles are returned to the Priority Parking reception on Level 2 of the MSCP1 and parked nearby before the customers return to the airport. When customers return to the airport, they go to the Priority Parking reception. If they return on time, they are provided with their keys and taken to their vehicles parked nearby. If they return late, they are required to pay additional charges before their keys are released. Lastly, customers are given a ticket which they can place into the exit barrier to leave the MSCP1. The exit machine also checks the registration number as an extra control designed to prevent theft.

The pricing for Priority Parking Services varies as a yield management system is used, similar to flight tickets. The prices will depend on customer demand, seasonality and availability of car parking spaces.

Strategic Management

The airport's car parks are strategically managed to encourage staff and passengers to travel more sustainably in accordance with the aims and provisions of Airport Surface Access Strategy and Travel Plan.

<u>Staff</u>

There are over 10,000 members of staff that work at the airport. Car Park B and NHCP collectively have capacity for just over 700 car spaces which is a significantly limited number compared to the working population at the airport. The limited car parking capacity naturally encourages staff to travel by public transport. Furthermore, Car Park B is located away from the terminal by approximately 10 minutes by bus and this location further encourages members of staff to look for ways to travel other than driving whilst the NHCP charges a high premium. The airport does not intend to increase staff parking capacity with the 19 mppa application.

There are further incentives provided to those who choose to travel by public transport through a number of public transport discounts available for staff. Principally, staff can benefit from a significant 50% discount on their season tickets on Thameslink and East Midlands Trains. This 50% discount applies to those that travel to Luton Airport Parkway station from any Thameslink or East Midlands Trains station between, and including, Leicester to the north and Brighton to the south. These include major stations such as Leicester, Bedford, Luton, St Albans, London St Pancras, London Blackfriars, London Bridge, Wimbledon, Sutton, Croydon, Gatwick, Brighton and more. Staff can also take advantage of the free shuttle service between Luton Airport Parkway and the airport terminal building, and this connection will be further improved through the Luton Direct Air Rail Transit that is currently under construction.

For staff that choose to travel by bus would also benefit from the following bus ticket discounts, and these bus services comprehensively connect the town of Luton and surrounding settlements including London, Hitchin, Stevenage, Aylesbury, St Albans, Watford and more to Luton Airport Parkway and the airport:

- 15% off Centrebus singles and returns;

- 30% off Arriva Outer Zone / All-Zone weekly and monthly season tickets;

- 30% off Greenline 757 '10 Trips';

- 10% off Greenline 757 singles;

- 25% off Greenline 757 returns; and

- 30% off National Express when a discount card is purchased for £5.

The financially competitive and convenient access by train and bus would far outweigh the cost of travelling by car and the associated running and parking costs for most members of staff, particularly in the context of the very limited capacity and inconvenient location for staff parking at the airport. As such, the airport is managing its car parks strategically to encourage members of staff to travel more sustainably.

Passengers

The 19 million passengers per annum at the airport could translate to approximately 52,000 passengers per day at the airport on average. The airport's official car parks collectively have capacity for just under 10,000 car spaces which is a limited number compared to the daily passenger population at the airport. The limited car parking capacity naturally encourages passengers to travel by public transport. Furthermore, some car parks such as MSCP and LSCP are located away from the terminal and these relatively inconvenient locations further encourage passengers to consider other ways to travel other than driving, whilst the MSCP1 and MSCP2 are premium with high tariffs. The airport does not intend to increase passenger parking capacity any further with the 19 mppa application.

The car parks are priced to encourage passengers to travel by public transport. It would often be more affordable for passengers to travel by public transport than by car and parking at the airport. Many train services connecting the South East region would also be more affordable than parking at LSCP for over a couple of days for instance, particularly through advanced booking online.

The financially competitive and convenient access by train (especially for advanced tickets) and bus would far outweigh the cost of travelling by car and the associated running and parking costs for many passengers,

particularly in the context of the limited capacity at the airport. As such, the airport is managing its car parks strategically to encourage passengers to travel more sustainably.

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