

Maximising opportunities for the next East Midlands rail franchise

Benefits from increasing Express Services to London Luton Airport



"Surface access to airports is critically important. These proposals must be seriously considered to enable Luton Airport to continue to attract a growing number of passengers."

Louise Ellman MP
Chair, Transport Select Committee

"Improving the rail connections to our airports is key to growing passenger numbers and getting as many airline passengers as possible to leave their cars at home. The East Midlands refranchising is a big opportunity for Luton that should be looked at closely."

Andy McDonald MP
Shadow Secretary of State for Transport

"The future of Luton Airport is vital to small businesses across Bedfordshire, Cambridgeshire and Hertfordshire. Getting this right will boost our visitor economy and make it easier for us to export and import to new markets – success here is critical as we approach Brexit.

To make this work, FSB members want to see improved transport links. It's time to back these proposals to upgrade Luton Airport Parkway Express Services."

Graham Buck
Regional Chairman for the Federation of Small Businesses

"London Luton Airport has an important role to play in developing and expanding the UK's air capacity. Fast, regular rail services would make a real difference to millions of visitors and business travellers, and investing in our airports and their connections is the right step to take."

David Leam
Infrastructure Director at London First

Report Production

This report was commissioned by London Luton Airport (LLA) and produced by North Star Consultancy Ltd.

Acknowledgements

We wish to thank East Midlands Trains for their support and providing access to their industry data.

Endorsements

This report, its findings and conclusions have the support of:



It's hard to imagine any issue that affects each and every one of our lives as profoundly as our transport system



Nick Barton
CEO, London Luton Airport

Foreword

It is no exaggeration to say that the UK's road, rail and aviation networks underpin every aspect of our lives. Whether it is getting goods to our supermarkets, creating jobs or allowing people to make the most of their holidays, effective and efficient transport networks have a hugely positive economic and social impact. That means long-term, integrated transport planning is essential.

In May 2016, the Department for Transport set out its future rail franchise schedule and programme of activities for each of its 16 rail franchises. The process for the upcoming East Midlands rail (EM) franchise that serves Luton Airport Parkway is due to start in December this year.

This is a huge opportunity not only for London Luton Airport (LLA), but for the entire region. Luton sits at the intersection of two strategically important economic corridors: from North to South along the Midland Mainline, and from East to West between Cambridge and Oxford. It is also a point where the UK's transport system comes together. LLA is the fifth largest and fastest-growing airport. The M1 motorway is a vital road artery for the whole country and the rail line connects Brighton in the South with Derby, Leicester and Nottingham to the North.

Yet the economic and social potential of such connectivity is not being realised. LLA commissioned North Star Consultancy to review the existing EM rail franchise and examine opportunities to improve rail services serving Luton Airport Parkway. Its conclusion is clear. An Express Service with four fast trains per hour is technically feasible, financially sensible and economically, socially and environmentally beneficial.

The proposals represent a prime example of how long-term, integrated transport planning could be achieved at minimum cost yet deliver the greatest possible positive impact for all stakeholders. We hope this report will make a significant contribution to the future East Midlands franchise specification.



Research highlights:

- Achieve four fast trains per hour through timetable change alone
- Create one of the best connected London airports with journey times less than 30 minutes from central London
- Up to £110 million additional revenue for the rail industry
- Delivered at nil marginal cost
- A transformative effect on Luton town and surrounding region
- 70,000 fewer cars on the road

Contents

pg. **04**

Executive summary

pg. **32**

The financial costs and benefits of introducing an Express rail service

pg. **08**

Introduction and scope

pg. **38**

The social, environmental and policy impact of introducing an Express rail service

pg. **12**

The context to the EM franchising process

pg. **44**

Conclusion

pg. **26**

How to deliver an Express rail service at Luton Airport Parkway

pg. **48**

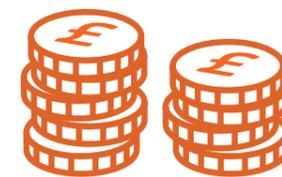
Appendices

1

Executive summary

1.1 The key findings

- An increase from one to four fast East Midlands trains services per hour stopping at Luton Airport Parkway is possible on the existing network infrastructure through timetable change.
- There is a positive business case for the introduction of four fast EM rail services per hour for the Department for Transport (DfT) and Train Operating Companies (TOCs):
 - ♦ over the 10 year lifetime of the franchise, an Express Service with four fast trains per hour stopping at Luton Airport Parkway would net £13.9 million in additional revenue as a base (set at 15.6% rail mode share).
 - ♦ the net positive revenue impact could reach £110 million if the number of people using rail to access the airport increases to 21.6%.
- Achieving this new service level can be delivered at negligible marginal cost through the planned refranchising process.
- LLA is delivering a £110 million transformation programme which will:
 - ♦ increase its economic contribution to the UK by £1 billion to £2.3 billion per year by 2030.
 - ♦ create an additional 10,500 jobs by 2030 (source: Oxford Economics).
- Luton Borough Council (LBC) has begun a £1.5 billion investment programme to regenerate the town. Central to LBC's plans are a new Government-sponsored Enterprise Zone and a £200 million passenger link connecting Luton Airport Parkway station with the airport terminal.
- The increase in fast services will maximise the impact of these two existing development schemes, supporting the economy at a regional and national level.
- Creating a rail hub at Luton Airport Parkway will provide an end-to-end journey with all transport modes to provide an integrated, accessible transport system. LLA is just two miles from the M1, making it perfectly placed to integrate connectivity across the air, road and rail transport networks.
- The introduction of an Express Service with four fast trains per hour will result in 70,000 fewer car journeys on the M1 and save over 500 tonnes of CO₂ per year.



**Net financial benefit
of up to £110m**



1.2 Recommendations

1.2.1 Department for Transport

- Ensure the option for four fast trains at Luton Airport Parkway is included in its public consultation documentation.
- Require future rail franchise bidders to provide four fast EM rail services per hour calling at Luton Airport Parkway as part of the future base specification.
- Ensure the new EM rail franchise has the flexibility to incorporate adjustments to accommodate future fast services.

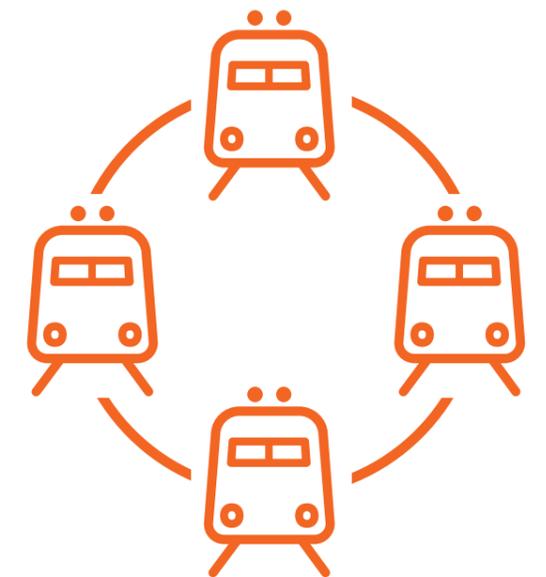
1.2.2 Shortlisted EM franchise bidders

- Timetable four fast services per hour to Luton Airport Parkway as part of the franchise requirements to grow their business.
- Work with LLA and its partners to create a strategic partnership agreement which delivers an optimal passenger experience and drives significant additional revenues.

1.2.3 Other interested stakeholders – airlines, neighbouring businesses

- Vocalise support for the aspiration to see significant increase in fast services to Luton Airport Parkway extended and developed.

LLA would work with shortlisted bidders to develop and support the introduction of four fast trains per hour from the franchise start date





Introduction and scope

LLA is the fifth busiest airport in the UK and the fastest growing of London's five airports

2.1 Introduction

This year sees the start of the refranchising process for the East Midlands (EM) rail franchise. Franchises typically last 7-10 years, meaning that it is vital that the refranchising process properly examines both the current and future needs of rail users.

At the same time, the Government is also developing its new aviation strategy. London's airport system is nearly at capacity, yet demand for air travel is increasing rapidly. The Government faces a delicate balancing act between creating new aviation capacity, maintaining a highly competitive market between airports and minimising both the environmental impact and the cost to the public purse.

LLA is the fifth busiest airport in the UK and the fastest growing of London's five airports. It is currently investing £110m to transform the airport, improving the passenger experience and increasing capacity by 50% from 12 million to 18 million passengers per year by 2020. In partnership with the airport, Luton Borough Council is developing a new £200 million Mass Passenger Transit (MPT) link to connect the airport terminal with Luton Airport Parkway station by 2020.

Luton is the fourth fastest growing town / city (Source: Centre for Cities) in the UK, yet it also suffers from high rates of deprivation. Luton has good road links via the M1, has been designated an Enterprise Zone by the Government and the council has recently begun a £1.5 billion investment programme.

The new EM franchise therefore represents a significant opportunity to take an integrated, long-term view of public transport policy. This report will examine how the EM franchise could better integrate the road, rail and air transport network at Luton, while also supporting the ongoing economic and social development of the town.

Table 1_ London's fastest growing major airport (number of passengers)

Airport	2014	2015	Growth
Luton	10.5m	12.3m	+17%
Stansted	19.9m	22.5m	+13%
Gatwick	38.1m	40.3m	+5.8%
Heathrow	73.3m	74.9m	+2.2%



2.2 Current rail services

LLA is served by Luton Airport Parkway station, located on the Midland Mainline between St Pancras International and Bedford. Luton Airport Parkway is currently served by two Train Operating Companies (TOCs).

The Thameslink service is operated by Govia Thameslink Railway (GTR). This suburban service links LLA to Bedford to the North and London St Pancras and Farringdon through to the Brighton Mainline to the South. LLA has a strategic partnership with GTR to deliver service improvements for airport passengers, including better signage, ticketing and timetabling. The franchise is scheduled to run until 2021.

The EM franchise is an intercity service that connects London St Pancras with Leicester, Derby and Nottingham (Appendix A shows the current route network of the EM franchise to Luton Airport Parkway). East Midlands Trains operates five trains per hour in each direction to/from St Pancras International. The typical journey time to Luton Airport Parkway from London St Pancras is 20 minutes. However, just one service per hour calls at Luton Airport Parkway.

That makes LLA the only London airport without an Express rail service. The inferior rail link and perception that Luton is difficult to get to by rail from central London compared to Heathrow, Gatwick and Stansted is the overriding reason why LLA has the lowest modal share of passengers using rail to access the airport, at just 14%. Our research shows that a typical passenger travelling to a flight destination common to Luton, Stansted, Gatwick and Heathrow is less likely to use rail to get to LLA than the other three airports.

2.3 Scope of this report

This paper examines LLA's rail connectivity in light of the forthcoming renewal of the East Midlands rail franchise. Specifically, it explores the opportunity to increase the number of 'fast' train services to/from London from one per hour to four per hour.

We will argue that more fast services to Luton Airport Parkway station are technically feasible through modifications to the timetable, that they would generate significant extra revenue for the Department for Transport and the TOCs, and that they would have positive political, social and environmental impact:

- allowing Luton Airport Parkway to become a rail hub to better connect North and South
- accelerating economic growth in the UK and the Three Counties area
- supporting the regeneration of one of the UK's most deprived areas, building on the plans already being delivered by LLA and LBC
- improving access to a world class airport to meet growing passenger demand
- encouraging greater use of public transport, thereby reducing local congestion and CO₂ emissions.



3

The context to the EM refranchising process

Aviation is responsible for 3.4% of the whole UK economy*. Demand for air travel is rapidly outstripping capacity; the Department for Transport (DfT) predicts demand will more than double by 2050

*(Source: Airport Operators' Association)



¹ Oxford Economics
The Economic Impact
of London Luton Airport
November 2015

² Oxford Economics
Economic Benefits from
Air Transport in the UK
2014

3.1 Introduction

The link between transport infrastructure and economic growth is well-established. Central and local Government have six major policy reports and plans that are relevant to any dialogue around improved transport links to LLA:

- the UK's aviation policy framework
- the Airports Commission Report
- the Transport Select Committee's report into surface connectivity to airports
- the National Infrastructure Commission, specifically their planned report into developing the economic potential of the Oxford-Cambridge corridor
- the local transport plan for the Luton area
- the Rail Executive's Objectives.

In addition, there are two major projects ongoing: LLA's £110 million scheme to transform and expand the airport and LBC's £1.5 billion local investment plan, including the proposed £200 million MPT link. The economic impact of LLA's investment programme has already been examined in an independent report by Oxford Economics¹. In addition, the contribution of aviation to the UK economy has been analysed in a recent report commissioned by the Airport Operators' Association².

We have examined these policy plans, proposals and reports in detail. This section will highlight the key factors that are relevant for stakeholders with an interest in the potential impact of the new EM franchise and the anticipated benefits of integrated transport planning around LLA.

3.2 Demand for air travel and London's airport capacity crunch

London's airports are approaching capacity. Yet demand for air travel is continuing to rise. The DfT's own forecasts estimate that UK demand will more than double from 219 million passengers per year in 2011 to 445 million passengers per year by 2050³.

London Luton is the capital's fastest growing airport, with passenger numbers up by 17% in 2015. Early 2016 marked two years of consecutive monthly passenger growth. The £110 million plans to transform the airport will increase capacity to 18 million by 2020.

In 2012 the Government convened the Airports Commission to report on options for meeting the need for greater aviation capacity. In their report, the Commission said it is "imperative" all airports fulfil their potential to grow domestic and international connectivity in the near-term.

A key barrier preventing airports such as LLA from fulfilling their potential is surface transport access. In February 2016, the Transport Select Committee (TSC) published a report⁴ which identified rail links in particular as a major limiting factor. The report highlighted lower capacity, unsatisfactory passenger experiences and avoidable environmental impacts as consequences of poor connectivity.

Therefore, it is clear that better transport connections could accelerate LLA's capacity growth, helping the London airport system meet growing demand.

³ Department for Transport
UK Aviation Forecasts
January 2013

⁴ House of Commons Transport Select
Committee Surface Transport to Airports
2015-16

⁵ HM Treasury and Infrastructure
and Projects Authority
National Infrastructure Pipeline 2016
23 March 2016

3.3 Wider transport planning

3.3.1 The national picture

The Government has placed a priority on developing infrastructure in recent years in recognition of its impact on supporting economic growth and productivity. As of Spring 2016, the National Infrastructure Pipeline included over 600 projects worth over £425 billion⁵.

However, this focus on infrastructure coincides with a period of strong pressure on public finances. There is also political desire to ensure that the regions benefit from new infrastructure investments. Therefore, while infrastructure development is important, it is also vital that any additional proposals are highly cost-effective and benefit regional growth centres.

London Luton is the capital's fastest growing airport, with passenger numbers up by 17% in 2015



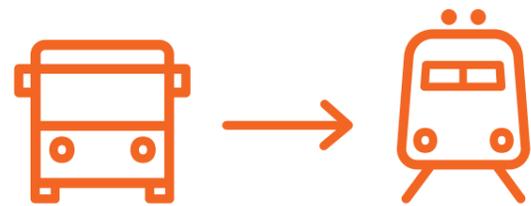
3.3.2 Local priorities

Local objectives

The Luton Local Transport Plan 3 (LTP) was published in March 2011. It includes a long-term strategy for the period up to 2026.

The LTP's long-term strategy is to provide an integrated, safe, accessible and more sustainable transport system which supports economic regeneration, prosperity and planned growth in the Luton conurbation.

This correlates with the Rail Executive's objectives as set out in the 'InterCity West Coast Overview and Vision', published in December 2015. The vision calls for a world-class railway that creates opportunity for people and businesses. This includes having a passenger-centric and market-led approach, developing long-term, open and honest relationships and working collaboratively with public and private industry stakeholders, in order to seek and implement innovative solutions and explore commercial opportunities.



Local progress

Both LBC and LLA have made great strides towards these objectives through an impressive track record of infrastructure investment.

On the road network, LBC has already delivered the transformation of Junction 10 of the M1 (March 2015) and the construction of the guided busway serving the Luton-Dunstable conurbation. The airport has supported this by investing in improvements to its local road network, including the construction of a new dual carriageway access road and multi-storey car park as well as a new bus and coach terminal.

On the rail side, LLA has already agreed and begun the implementation of a strategic partnership agreement with GTR. LLA is also working in partnership with the airport owner and LBC to deliver a new £200 million MPT system (illustrated) to link the airport terminal with Luton Airport Parkway station.

Replacing the existing shuttle buses with a fast, efficient MPT link will enable a potential journey time of under 30 minutes between the airport and central London. This is faster than the journeys to both Stansted and Gatwick, provided passengers have access to a fast train service.

Despite these improvements however, LLA still has the lowest modal share of passengers using public transport of any London airport.



LBC / LLA's Committed Plans:

A £200 million MPT link connecting Luton Airport Parkway to the airport terminal

Plans for a state-of-the-art £200 million mass passenger transit (MPT) system linking LLA with Luton Airport Parkway were announced on 15th April 2016 by Luton Borough Council.

The news was a highlight at the launch of Luton's ambitious and wide-ranging £1.5 billion inward investment programme. The programme outlines a 20-year plan for a major transformation of the town and signals how the borough will achieve strong, sustainable and balanced growth and create jobs for local people.

Construction is already well under way on the airport's separate £110 million redevelopment plans. Together, the combined investment will transform the passenger experience and enable LLA to increase its capacity by 50% to 18 million passengers per year by 2020 (Table 2).

The MPT system will be a fully automated, two-way, 24-hour, guided light rail people mover based on latest system technology and design innovation. When complete, it will enable the quickest direct journey time between London St Pancras and the airport terminal of under 30 minutes including a seamless five-minute transfer time between Parkway station and the airport terminal.

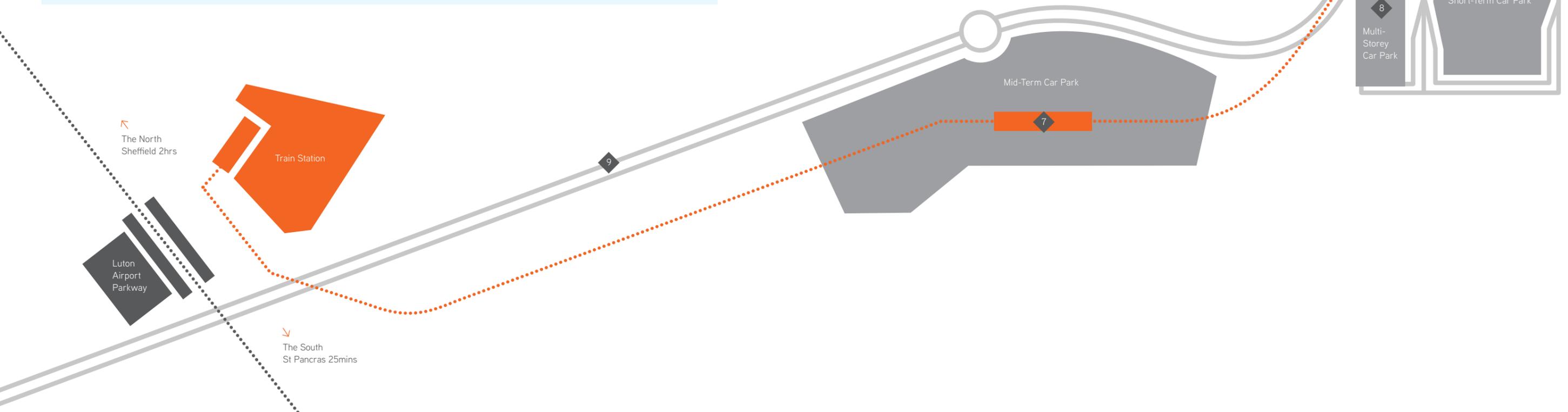
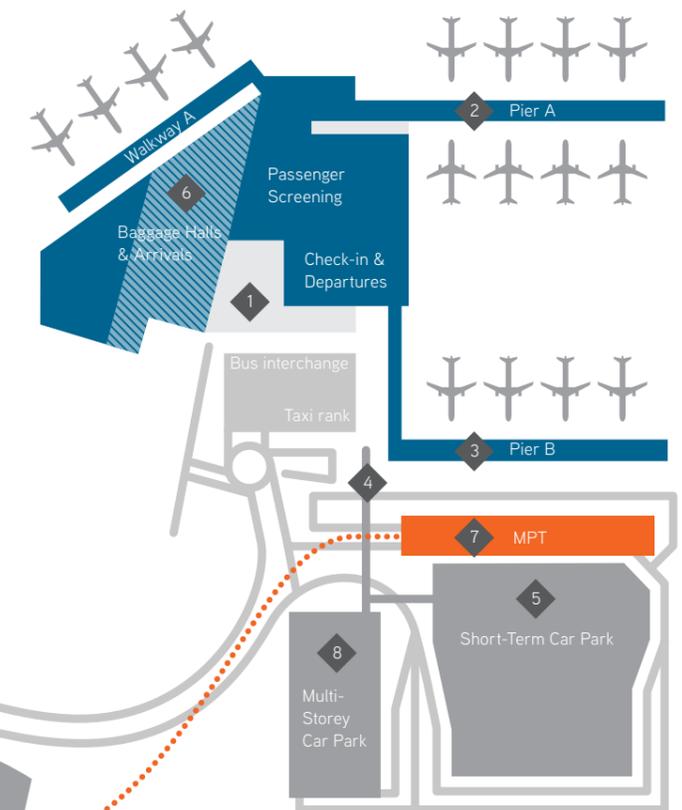
The identified preferred 2.2km route runs between two purpose-built stations, heading out from Stirling Place where a new commercial development and multi-storey car park is also planned.

The creation of a mass passenger transit link between Luton Airport Parkway and the terminal is a milestone in the airport's transformation and the first step towards creating a world-class air-rail service.

It will open in 2020.

Table 2_ Development timetable

Area	Start date	Completion date
1. Main Terminal Extension	January 2016	Summer 2017
2. Pier A Extension	April 2016	Autumn 2016
3. New Pier	June 2016	End of 2017
4. Pedestrian Walkway	November 2015	Summer 2016
5. Short-Term Car Park	July 2015	Autumn 2016
6. Baggage Reclaim	April 2017	End of 2017
7. Mass Passenger Transit	TBC	End of 2020
8. Multi-Storey Car Park	January 2016	Autumn 2016
9. Dual Carriageway	January 2016	Autumn 2016





**When complete,
the MPT system will
enable a quickest
direct journey time
between London
St Pancras and the
airport terminal of
under 30 minutes**

3.4 Economic development

3.4.1 The national and regional context

We have already noted that demand for air travel is rapidly outstripping capacity; the Department for Transport (DfT) predicts that demand will more than double by 2050. This has a significant economic impact. Nationally, aviation is responsible for 3.4% of the whole UK economy⁶.

At a regional level, the National Infrastructure Commission, chaired by Lord Adonis, has been tasked to ensure the country's infrastructure helps maintain the UK's economic competitiveness and assess the economic case for the improvements that deliver the most economic growth.

Two key areas of focus are how to better link the North and South and how to maximise the economic potential of the high-skilled, high-employment Oxford-Cambridge corridor.

Geographically, Luton lies on the North-South Midland Mainline. It also forms part of the proposed East West Rail (EWR) link, which is an opportunity to establish a strategic railway connecting East Anglia with Central, Southern and Western England along the Oxford-Cambridge corridor.

As the intersection point of these two strategically important economic corridors, there is a strong economic case for boosting Luton's transport connectivity. By linking the road, rail and air networks across the two economic corridors, better connectivity would act as a vital enabler of economic growth.

3.4.2 Local growth and development

Regeneration of Luton Town

Following the decline of industry in the town in the 1990s, Luton has considerably higher levels of deprivation than its neighbours in Bedfordshire, Hertfordshire and Buckinghamshire⁷. However, the town has a number of distinct advantages that indicate its future growth potential:

- a strategic location in the UK road network: Luton is only 30 miles from London, 10 miles from the M25 and located on the M1. It is estimated that 23 million people are within a two-hour drive of the town.
- attractive to new residents: Luton is one of the five most affordable towns for commuting to London. It has the second highest forecast level of property price growth in the country.
- social indicators: the catchment area around Luton has the fourth highest level of retail spend in the UK⁷ and 92% of children attend 'Good' or 'Outstanding' schools as rated by Ofsted.
- business development: in 2015 the Government announced that Luton would become a new national Enterprise Zone.



⁶ Oxford Economics
Economic Benefits from
Air Transport in the UK
2014

⁷ LBC
2015 Indices of Multiple
Deprivation, Luton
November 2015



LBC is seeking to capitalise on this potential with an ambitious and credible £1.5 billion inward investment programme. The plans are attracting international property developers and investors with the aims of transforming the town and creating tens of thousands of jobs.

More than 1,000 construction workers are currently on various sites across Luton. Schemes coming forward over the next 18 months include retail and leisure development, new hotels and housing opportunities as well as large sites for engineering, technology, creative and aviation-linked employment.

LLA as an economic catalyst

The growth and development of LLA in recent years is a primary factor in Luton's current phase of growth and regeneration.

We have already noted that LLA is the fastest growing London airport, with passenger numbers increasing by 17% in 2015. A report from independent consultancy Oxford Economics, published in November 2015, illustrates the economic impact of the growth of LLA on Luton, the Three Counties region and the UK:

- a 1% increase in passenger numbers, based on 2013 data, is worth c. £13m GDP for the region in Direct, Indirect and Induced benefits⁸.
- in 2013, the economic activity created by LLA contributed some £1.3 billion to UK GDP. For every pound LLA contributes to GDP itself, it creates another £2 elsewhere in the UK economy.

- within the Three Counties region, the airport supported a £732 million contribution to GDP and sustained 16,000 jobs in 2013.
- the total tax revenue for the UK exchequer associated with LLA is £648 million.
- the average wage of employees at LLA is £38,000 compared to a national average of £27,000.

The report went on to model the impact of the airport's current £110 million investment plans. As a result of the proposed transformation, which will increase capacity by 50% to 18 million passengers per year, Oxford Economics forecast that:

- the airport's GDP contribution to the UK is expected to reach £2.3 billion per year in 2030, a 77% increase on the figure of £1.3bn from 2013.
- the airport would create an additional 10,500 new jobs by 2030, in addition to the 27,200 currently supported. In total the airport is expected to directly support 37,700 jobs.
- the airport's value in the Three Counties is expected to almost double during the same period from £732m to £1.4bn.

⁸ The direct impact is generated by the immediate activities of the airport itself. The indirect impact encapsulates the economic activity supported in the airport's UK supply chain as a result of its procurement of goods and services. The induced impact comprises the benefits arising as the workforce (including that in the supply chain) spends its wages generating further rounds of economic activity.

3.5 Insights from the current aviation, transport and economic context

This analysis of the context surrounding the tendering process for the new EM franchise prompts several conclusions.

Firstly, there is a clear demand for increased airport capacity around London. LLA is well-placed to meet this demand, but transport connectivity is a significant limiting factor preventing a higher utilisation of the airport's runway capacity.

Secondly, LLA and Luton Borough Council have a strong track record of planning, investing and delivering incremental upgrades to local transport infrastructure. A fast rail link to Luton Airport Parkway station is the remaining missing link that needs to be addressed. The new EM franchise is the only feasible way to deliver a suitable fast train service in line with those serving other London airports.

Thirdly, LLA has a prime strategic position as both the nexus of the UK's road, rail and air infrastructure and the intersection point of the national strategic economic corridors between the North and South of England and between Oxford and Cambridge.

Finally, LLA's recent history is an exemplar of how infrastructure development can catalyse economic growth and regeneration.

Improving the rail service to Luton Airport Parkway station through a greater provision of fast train services would be a notable example of integrated transport planning and will have a significant positive economic impact.



The airport's GDP contribution to the UK is expected to reach £2.3 billion per year in 2030, a 77% increase from 2013

4

How to deliver an Express rail service at Luton Airport Parkway

4.1 Introduction

Our analysis shows there is a clear rationale to improving rail connectivity through increasing the number of fast trains serving Luton Airport Parkway station.

However, given the ongoing pressure on the public finances, changes will need to have minimal cost implications for Government. Timetable change through the EM refranchising process is therefore the optimal way of achieving a service with four fast trains per hour, in line with other London airports.

Any proposed change to existing service patterns requires a robust technical assessment of the existing infrastructure. In this section we explore how the existing East Midlands Trains (EMT) timetable could be modified without materially impacting other rail stakeholders.

Timetable change through the EM refranchising process is therefore the optimal way of achieving a service with four fast trains per hour, in line with other London airports



4.2 The current EMT timetable

We have produced a report ('Technical assessment to identify the required timetable enhancements to deliver four fast trains per hour to London Luton Airport') which identifies the required timetable alterations to deliver four express trains per hour to Luton Airport Parkway. This is summarised below.

Currently, 80 East Midlands Trains services in each direction pass through Luton Airport Parkway each weekday. However only 18 stop there.

The current EMT schedule involves two pairs of departures per hour from St Pancras International, 3 minutes apart, and a fifth train, shown graphically in Figure 1 and summarised as follows:

- fast service to Sheffield (operating non-stop to Leicester)
- semi-fast service to Sheffield (operating non-stop to Leicester and stopping thereafter)
- semi-fast service to Nottingham
- stopping service to Nottingham, calling at Luton Airport Parkway
- stopping service to Corby.

The limiting factors influencing possible change include the presence of Thameslink trains on the fast lines north of London at 15 minute intervals and a mixture of fast and slower East Midlands Trains on the same lines to and from Leicester.

Figure 1_ EM December 2015 Standard Hour Timetable



4.3 Proposed timetable amendments to allow four fast trains to stop at Luton Airport Parkway

The inclusion of a sixth train per hour to Corby (mirroring the semi-fast Nottingham service half an hour later) has already been proposed as part of the specification of the next EM franchise. This service would mirror the 'fifth train', with departures half an hour apart. Provision of a sixth train and inserting calls at Luton Airport Parkway in the fast Nottingham service and two Corby services would enable four fast trains per hour to call at Luton Airport Parkway, as shown in Figure 2.

Such a change would have minimal knock-on effects. Delivering the change would only require retiming a small number of other trains (by no more than 3 minutes). The proposed timetable delivers the following service:

- four fast trains per hour calling at Luton Airport Parkway, at approximately 15 minute intervals from London (14/16/14/16 minutes), with a slightly less even spacing for departures from Luton Airport Parkway towards London (17/12/21/10 minute intervals).
- a 3 minute journey time penalty for through passengers on one of the semi-fast Nottingham services each hour, as a result of the additional call at Luton Airport Parkway.
- there is no journey time impact for the slow Nottingham service (which retains a Luton Airport Parkway stop), and the Corby service (which calls at Luton Airport Parkway instead of Luton Town).
- these changes would result in departures from St Pancras International to Luton Airport Parkway at xx.01, xx.15, xx.31 and xx.45 and from Luton Airport Parkway to St Pancras International at xx.03, xx.20, xx.32 and xx.53.

For further details of the proposed timetable adjustments to accommodate four fast trains per hour to Luton Airport Parkway, please see Appendix B.

Figure 2_ Proposed Standard Hour Timetable Proposal with 4tph at LAP





4.4 The refranchising process

The current DfT EM refranchising timetable is set out in Table 3 below.

Based on the economic, technical and environmental appraisal in this report, there is a strong case for ensuring additional fast train services are included as part of the Invitation To Tender (ITT) stage of the refranchising process. This would enable LLA to work with shortlisted bidders to develop and support the introduction of four fast trains per hour from the franchise start date.

LLA will work with shortlisted bidders to develop and support the introduction of four fast trains per hour from the franchise start date

Table 3_ Key dates currently planned for the EM franchise

Activity	2016				2017				2018				
	1	2	3	4	1	2	3	4	1	2	3	4	
Proposed issue of EOI to the market				↑									
Proposed issue of ITT to the shortlisted bidders								↑					
Proposed contract award													↑
Proposed franchise start date													↑

5

The financial costs and benefits of introducing an Express rail service

5.1 Introduction

The current context indicates a compelling case for introducing four fast trains per hour to Luton Airport Parkway station. Analysis of the EMT timetable demonstrates that it is technically feasible to deliver. The next key issue is to model the financial impact of introducing these new services to examine the impact on fare revenues.

The analysis in this section draws heavily on a report from design, engineering and project management consultancy Atkins, which included a cost-benefit analysis of the proposed new timetable providing four express trains per hour at Luton Airport Parkway. For more details on Atkins's Report, including assumptions and forecasting methodologies, please see Appendix E.

5.2 Modelling future demand

5.2.1 Current trend: Airport underpins rapid footfall

Before assessing likely costs and benefits, it is important to understand current trends in rail usage and how these might develop over the coming years.

Firstly, station footfall at Luton Airport Parkway has been growing faster than the national average. Last year footfall grew by 7% compared with 5% nationally. It is also growing significantly faster than Luton Town station. Some 44% of the combined Luton station's footfall now passes through Luton Airport Parkway and there has been a 6% swing in usage to Luton Airport Parkway away from Luton Town station over the ten years since 2004/5.

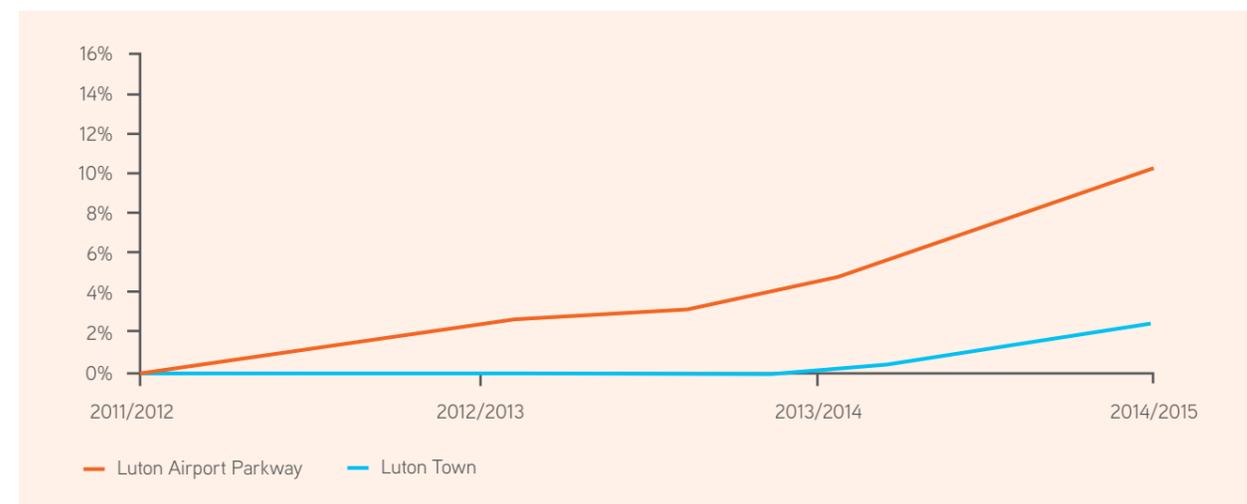
This is underpinned by continued airport growth.

5.2.2 Future forecast: Passengers using rail could easily triple over the next 10 years

When forecast airport growth is considered along with the increasing trend of using rail, with the prospect of the significant uplift in rail service provision, the estimated demand looks dramatic.

1.3 million passengers travelled to the airport by rail in 2014, and 1.6 million came by train in 2015 (Figure 3). This number is set to rise to 2.1m in 2016 thanks to incremental changes delivered through the Strategic Partnership Agreement between LLA and GTR.

Figure 3_ Station footfall growth since 2011/12



Airport passenger numbers are expected to reach 18 million passengers per annum (mppa) by 2020 according to LLA data. It could reasonably be expected to exceed this number in the future given the rapid growth in demand and need for additional capacity in the South East.

We also expect ongoing growth in non-airport passenger demand as a result of GDP growth and the ongoing £1.5 billion investment plans for Luton. Anticipating this future growth, our research suggests that the provision of an Express service with four fast trains per hour, in line with other London airports, would increase rail journeys to Luton Airport Parkway by 50% from 3.7m to 5.5m by 2026 (Table 4).

5.3 Costs of implementing timetable changes

5.3.1 Costs to the Department for Transport

The Department for Transport will not incur any additional costs as a result of implementing the timetable change. Administrative costs would be marginal and assessing possible timetable changes is already a natural part of the franchising process.

5.3.2 Costs to TOCs

Based on feedback from EMT the Atkins report assumes that there will be no increase in operating costs as a result of the additional station calls.



5.4 Additional revenues as a result of implementing timetable changes

5.4.1 Lowest estimate: Base case

Our modelling indicates that implementing timetable change so that four fast trains per hour stop at Luton Airport Parkway will deliver a minimum of £1.15 million in extra revenue per year. This gives a total revenue increase of £13.9 million through the 10-year lifetime of the franchise (Table 5).

This base case scenario envisages additional economic benefits as a result of the improved train service. As a result, the total economic impact (extra revenue plus economic benefits) would be £1.66 million per year or £18.9 million in total.

Table 5_ Financial and economic assessment of 4tph at LAP⁹ compared with Revised Base (2014/15 prices)

£000s, 2014/15 price base, discounted	Annual impact (2018/19)	10-year appraisal (2018/19 – 2027/28)
NR Revenue Uplift	1,151	13,881
Total Benefit	510	4,976
Total Economic Impact	1,661	18,857

⁹ This has been calculated by subtracting the revenues, benefits and costs of the Revised Base (assumes a sixth train per hour is in place) from the results of four calling express trains per hour at Luton Airport Parkway. The results presented above therefore show the impact of the additional stops at Luton Airport Parkway only, hence no operating cost is incurred. The net annual impacts of the four trains per hour timetable at Luton Airport Parkway compared with the Revised Base timetable have been presented for the assumed start year of 2018/19, as well as a 10-year net total for 2018/19-2027/28 (2014/15 prices).

Table 4_ Estimated rail mode increases 2014-2026

	2014	2015	2016	2017	2018	2019
LLA Passengers (m)	10.5	12.3	14.8	15.8	16.6	17.4
Rail mode share – no service improvement	12.0%	12.9%	14.1%	15.2%	15.2%	15.2%
Rail mode share – 4 fast tph (from Dec 2018 TT)	12.0%	12.9%	14.1%	15.2%	15.2%	22.8%
Derived rail journeys – no service improvement	1.3	1.6	2.1	2.4	2.5	2.6
Derived rail journeys – 4 fast tph (from Dec 2018 TT)	1.3	1.6	2.1	2.4	2.5	4.0
Assumptions						
Uplift in rail mode share for four fast tph (from Dec 2018 TT)	50.0%					
Forecast LLA CAGA from 2020	5.0%					

2020	2021	2022	2023	2024	2025	2026
18.0	18.9	19.8	20.8	21.9	23.0	24.1
15.2%	15.2%	15.2%	15.2%	15.2%	15.2%	15.2%
22.8%	22.8%	22.8%	22.8%	22.8%	22.8%	22.8%
2.7	2.9	3.0	3.2	3.3	3.5	3.7
4.1	4.3	4.5	4.8	5.0	5.2	5.5
				Actual	Estimated	Forecast

Introducing four fast trains per hour could give a total revenue increase of £110 million through the 10-year lifetime of the franchise

5.4.2 Higher estimate: increased modal share

The base case applies a very conservative increase in the proportion of passengers choosing to access LLA by rail as a result of the new fast train services. In reality, however, the example of Vienna which introduced both S-Bahn and CAT services, shows that the modal share of rail passengers can be expected to increase significantly. For more detail of this example, please see Appendix C.

Applying a sensitivity test and increasing the base case modal share by six percentage points reveals that the introduction of four fast trains per hour could generate a total revenue increase of £110 million through the 10-year lifetime of the franchise.



5.4.3 The opportunity for premium fares

Both the base case scenario and increased rail mode share example above assumes that there is no further product differentiation between Thameslink and EM trains following the proposed timetable amendment. In reality however, both Heathrow and Gatwick have shown the potential of establishing a two tier rail service proposition. At both airports a premium 'Express' product complements a mainstream service, with each one serving different user segments.

Following a timetable change, we would anticipate EM rail services to provide fast connectivity with Central London with pricing consistent with a premium product offer. Whilst it has not been modelled, the premium fare would create a further significant uplift in revenue. An uplift similar to that of the Gatwick Express is expected to deliver several millions of pounds in additional revenue each year in addition to that stated in this report. The potential opportunity for a premium fare uplift is shown in the table below.

Table 6_ Railfare uplift for premium rail services

Uplift for premium rail fares	Regular service	Express	Premium uplift
London Heathrow	£10.20	£22.00	116%
London Gatwick	£15.50	£19.90	28%
London Luton	£15.50	£15.50	0%

To complement the premium EM rail service, the Thameslink service would maintain a mainstream product positioning. It would offer a cheaper option for passengers, while also offering attractive local services for passengers, airport staff and other daily users who could be protected through the existing price mechanisms.



6

The social, environmental and policy impact of introducing an Express rail service

6.1 Introduction

Introducing four fast trains per hour to Luton Airport Parkway station could generate up to £110 million in additional rail revenue.

However, as well as assessing the strength of the economic business case, it is important to evaluate the social, environmental and policy impact of any change.

Four non-stop London to Luton Airport Parkway services every hour will complement, not cannibalise, the existing Thameslink operation



6.2 Social impact

6.2.1 Impacts and capacity

Intermediate stations to the South

The Thameslink train service between London and Luton Airport Parkway currently makes at least two stops and some trains call at all nine stations on the route. It connects with a number of larger centres of population on the route, such as St Albans. In addition, these services offer interchange nodes with other public transport options, such as at West Hampstead where there are good links with both London Overground and Underground services.

In addition, Thameslink services continue through central London, including connections in the city. This means that they offer the option to interchange with the forthcoming Elizabeth Line at Farringdon, as well as the Underground and additional national rail routes via Blackfriars and London Bridge.

This local and regional connectivity is beneficial to airport operations by allowing convenient travel from across its catchment area for both passengers and staff. A step change in service provision to four non-stop London to Luton Airport Parkway services every hour by the EM franchise will complement, not cannibalise, the existing Thameslink operation.

6.2.2 LLA demand fits well with 'contra peak' capacity

A natural concern for all rail stakeholders would be whether additional users would increase passenger congestion on board rail services. In this context, it is important to note that the vast majority of LLA's demand is 'contra peak', falling outside commuter times to London.

Many of the airport's early morning departures require passengers to arrive before 07:00, and a majority of the airport's arrivals present passengers into the rail system well after the 'off-peak' has begun. 89% of passengers from the airport arrive in London after 09:00. 80% of passengers departing St Pancras for LLA do so outside the evening peak of 16:00-19:00.

Figure 4_ LLA Typical busy day – St Pancras indicative arrival and departure profile (15 minute increments)



Figure 5_ EMT typical busy weekday – St Pancras indicative arrival and departure profile



6.3 Environmental impact

A critical component in justifying additional fast train services at Luton Airport Parkway is a robust environmental impact assessment. The analysis in this section draws on an initial assessment undertaken by WSP/ Parsons Brinckerhoff.

6.3.1 Consideration of the 'Rail Sustainable Development Principles'

In May 2016 Claire Perry MP, Parliamentary Under Secretary of State at the Department for Transport, set out the 'Rail Sustainable Development Principles'. The principles aim to become an integral part of the industry's culture, policy and decision making processes.

This report has already identified the direct economic and user benefits that additional fast train services at Luton Airport Parkway will bring. This economic impact, meeting the needs of a diverse customer base and enabling ever-increasing numbers of connections, aligns with the aims of the Rail Sustainable Development Principles.

The additional element required is therefore an examination of the non-user benefits of the proposals, particularly those associated with the removal of car journeys and resultant CO₂.

Table 7_ Appraisal results

Appraisal Benefits	First Year	10 Year Appraisal
Non-user Benefits		
From reduced congestion	£1.64m	£25.82m
Environmental Impact		
Car Journeys Removed (Cars)	69,122	955,657
CO ₂ Removed (Tonnes)	523	5,971

6.3.2 Impact on road congestion and CO₂ emissions

WSP/Parsons Brinckerhoff's analysis indicates that there will be significant non-user environmental benefits as a result of an improved fast rail service. Reduced road congestion delivered by improved rail links would have a net benefit of £25.82 million over the 10-year lifetime of the franchise.

Almost one million car journeys will be avoided, easing pressure on the M1 and improving the resilience of the local road network.

Reduced car emissions will save 5,971 tonnes of CO₂.

In undertaking their appraisal, WSP/Parsons Brinckerhoff assumed the additional fast train services will begin operations in 2018. The analysis was undertaken for ten years to align with the economic assessment already discussed. All prices are shown in 2014/15 terms, with future years having been discounted at 3.5% per annum. The full non-user appraisal methodology is summarised in Appendix D.

6.4 Policy impact

6.4.1 National priorities

At a national level, improved rail services will:

- free up much-needed latent airport capacity
- increase North-South connectivity through improved air-rail connections
- increase revenue for the DfT at negligible marginal cost
- help to develop the economic potential of the Oxford-Cambridge corridor in line with the National Infrastructure Commission's mandate
- align with the Sustainable Rail Principles.

6.4.2 Local improvements

By creating a service with four fast trains per hour, Luton Airport Parkway station would become a regional 'rail-head' and a strategic transport hub that integrates the road, air and rail networks. This would provide a major boost to the strategic priorities of Luton Borough Council and unlock further economic growth for the town and the region by:

- boosting LBC's own £1.5 billion investment programme through:
 - ◆ providing excellent connectivity for the 55-acre Napier Park mixed development site (Augur Group).
 - ◆ providing new connectivity for the 106-acre Century Park site.
- accelerating the expected £1 billion a year economic boost delivered by LLA's current £110 million transformation project.
- dramatically increasing the returns to LBC in the form of concession payments from LLA, which are linked to passenger numbers (NB – LBC has already publicly stated its support for calls to introduce four fast trains per hour to Luton Airport Parkway).
- supporting the objectives of the Luton Local Transport Plan 3 (LTP).

15 minute intervals from London free up much-needed latent airport capacity



7 Conclusion



An Express Service would accelerate economic growth and employment opportunities, better connect North and South, and reduce congestion and emissions on the M1

7.1 Introduction

Using industry standard analysis tools, our assessment is that in the current context, achieving an Express Service with four fast trains per hour at Luton Airport Parkway is technically feasible through timetable change, can be achieved at negligible marginal cost, and would have significant economic, social and environmental benefits that are consistent with local, regional and national policy objectives.

An Express Service would accelerate economic growth and employment opportunities across the entire region, create a new UK rail hub to better connect North and South, reduce traffic congestion and emissions on the M1 and help meet rising demand for air travel.

Our clear recommendation is that the DfT and its partners undertake the necessary consultation with a view to mandating the inclusion of an Express Service with four fast trains per hour to Luton Airport Parkway as part of the new EM franchise.

7.2 Key target and timescales

Dec 16

Include question on additional fast trains into public consultation documentation

May 17

Include requirement for bidders to deliver four fast trains per hour as part of ITT award

July 18

Increase fast trains to/from LAP to four per hour as part of commencement of next EM franchise

7.3 Key actions

DfT

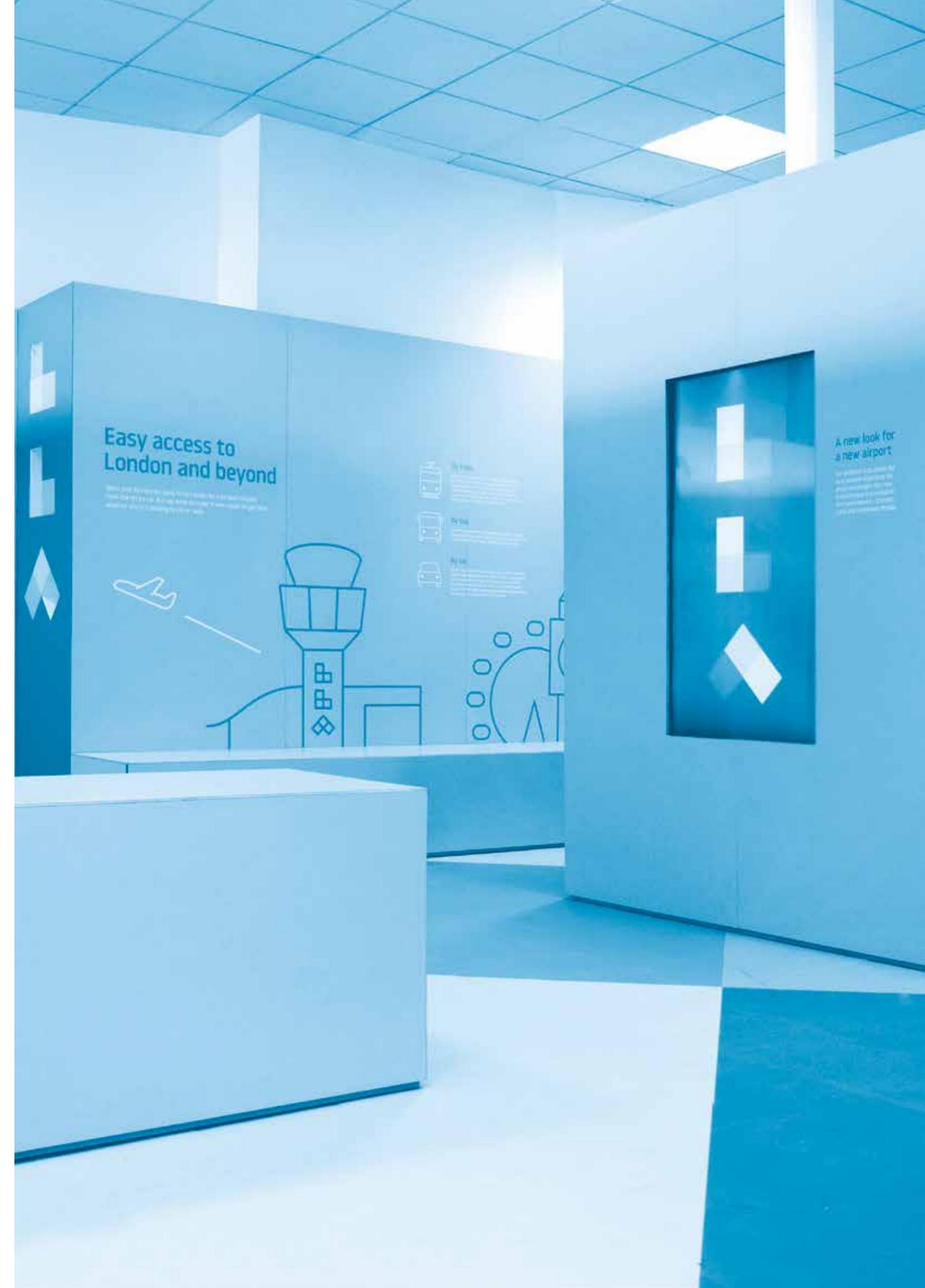
- Ensure the option for four fast trains at Luton Airport Parkway is included into its public consultation documentation.
- Require future rail franchise bidders to provide four fast East Midlands services per hour calling at Luton Airport Parkway as part of the future base specification.
- Ensure the new East Midlands franchise has the flexibility to incorporate adjustments to accommodate future fast services.

Shortlisted EM franchise bidders

- Timetable four fast services per hour to Luton Airport Parkway as part of the franchise requirements to grow their business.
- Work with LLA and its partners to create a strategic partnership agreement which delivers an optimal passenger experience and drives significant additional revenues.

Other interested stakeholders

- Vocalise support for the aspiration to see significant increase in fast services to Luton Airport Parkway extended and developed.



Appendix B_ Timetable alterations

Table 8_ Timetable adjustments to accommodate four fast trains per hour to Luton Airport Parkway

Train	Impact
12:01 St Pancras to Corby and 11:16 Corby to St Pancras	Remove Luton Town stop and add Luton Airport Parkway stop. Note: Minimal turnaround time at Corby does not permit stopping at both Luton stations.
12:15 St Pancras to Nottingham	Add stop at Luton Airport Parkway (requires schedule to Leicester 3 minutes later)
12:26 St Pancras to Sheffield and 12:29 St Pancras to Nottingham	Retime 2 minutes later to mirror 11:58 and 12:01 paths to Harpenden and margins behind retimed 12:15 at Leicester. Note: 12:29 already stops at Luton Airport Parkway.
11:45 (additional) from St Pancras to Corby	To call at Luton Airport Parkway, Luton (vice 12:01) then run fast to Kettering ahead of 11:58 St Pancras to Sheffield.
10:32 Nottingham to St Pancras	To stop additionally at Luton Airport Parkway and run 3 minutes later to St Pancras arrive 12:16. Note: Requires 11:44 stopping train from Luton to run 2 minutes earlier from Luton to St Albans so that 11:24 from Bedford can cross to fast line at Radlett Jn instead of Harpenden Jn.
11:37 (additional) from Corby to St Pancras	To call Kettering, Luton (vice 11:16 Corby), Luton Airport Parkway. Note: Requires 11:54 from Bedford to remain on slow line from Luton North Jn and cross to fast line at Harpenden Jn.

Table 9_ East Midlands Trains Timetable with stops at Luton Airport Parkway (Amendments in blue) – Northbound

To	6th Train	Sheffield	Corby	Nottingham	Sheffield	Nottingham
St Pancras International	11:45	11:58	12:01	12:15	12:28	13:31
	FL	FL	FL	FL	FL	FL
Luton Airport Parkway	12:08		12:22	12:38		12:52
Luton	12:12	12:17	12:23	12:39	12:47	12:53
Bedford South Jn	FL	FL	FL	FL	FL	FL
Bedford	12:23	12:28	12:37	12:50	12:58	13:07
Wellingborough	12:32	12:37	12:49	12:59	13:07	13:19
	FL	FL	SL	FL	FL	FL
Kettering South Jn	12:36 SL		12:56			
Kettering	12:39	12:41	13:00	13:03	13:11	13:26
Corby	12:49		13:09			
Market Harborough		12:47		13:13	13:18	13:36
Leicester		13:00		13:27	13:30	13:48

Table 10_ East Midlands Trains Timetable with stops at Luton Airport Parkway (Amendments in blue) – Southbound

From	Nottingham	Corby	Sheffield	6th Train	Nottingham	Sheffield
Leicester	11:01		11:24		11:32	11:53
Market Harborough	11:15		11:35		11:46	12:04
Corby		11:16		11:37		
Kettering	11:24	11:26	11:43	11:47	11:56	12:11
Kettering South Jn	FL	FL	FL	FL	FL	FL
Wellingborough	11:28	11:34	11:47	11:53	12:03	12:15
Bedford North Jn	11:38	11:45	11:57	12:03	12:14	12:25
	FL	DSL	FL	FL	USL	FL
Bedford		11:48			12:17	
Bedford South Jn	11:39	11:49	11:58	12:04	12:18	12:26
	FL	FL	FL	FL	FL	FL
Luton	11:50	12:00	12:08	12:17	12:29	12:36
Luton Airport Parkway	11:53	12:03		12:20	12:32	
	FL	FL	FL	FL	FL	FL
St Pancras International	12:16	12:25	12:29	12:43	12:54	12:57

Appendix C_ Case study: Vienna S-Bahn/CAT

Vienna Airport

This example gives a positive case of what happens when an Express service complements an RER (S-Bahn suburban) service. It is clear from this case that the extensive marketing and awareness of utility of the premium service (albeit on a 30 minute headway) had a generative effect on the RER-type service.

In 1977, an S-Bahn service opened with hourly stopping trains connecting two main-line stations in the city (Nord and Mitte) and the airport. It was operated by the State Railways, ÖBB, and took 35 minutes. In 1996, ÖBB started an express bus service between the city and airport, running every 20 minutes. The fare was twice that charged for the S-Bahn. In 1997, work started on the upgrade of the line used by the S-Bahn, which was on a constricted formation with some single-track sections. It was limited to 50 km/h. At times during the work, trains ran infrequently and passengers were encouraged to catch the express bus.

In December 2003, a premium Airport Express – CAT, City Airport Train – started service. At the same time, because of the upgraded infrastructure, the S-Bahn journey time went down to 28 minutes and frequencies were standardised at 2 tph. CAT ran half-hourly: the line speed was increased to 120 km/h and trains took 16 minutes to run non-stop to a modernised area of Mitte station. Table 11 shows the relative market shares.

The figure for car plus taxi remains constant in the early years at around 75%: it then drops steadily each year from 2004 – the first full year of CAT – to just over 64% in 2007. The bus mode share climbs steadily in the early years as the S-Bahn figure declines, presumably with the impact of the major engineering work on the line.

A positive case of what happens when an Express service complements an RER (S-Bahn suburban) service

It then drops away again with a slight upturn in 2007. Following the line speed improvements, and the addition of a premium Express service the S-Bahn share climbs again, and stays at or above the Airport Express. (Source: IARO)

Table 11_ Market Shares (%) Vienna Airport-City Services

Year	Car	Taxi	Bus	S-Bahn	CAT
2000	43	32	17	7	-
2001	43	32	20	5	-
2002	45	28	23	3	
2003	41.7	31.8	18.5	6.2	
2004	41	29	14.3	7.6	7
2005	42.5	26	11	9.3	9.9
2006	40.4	25.1	10.8	13.2	9.9
2007	20.2	23.9	12.5	13.9	9.1

Figures relate to air passengers only. Source: Vienna International Airport.

Appendix D_ Non-user benefits

The appraisal modelling undertaken for non-user benefits uses inputs from the timetabling study already undertaken using MOIRA. Non-user benefits are the benefits experienced by those not using the rail network through reduced car miles travelled on the road network by new users identified on the rail network.

The Value of Time Matrix was extracted for the Do Nothing Timetable against the Do Something. This matrix provides a breakdown of the change in journeys at Origin and Destination level. The matrix also includes details of ticket type and the change in passenger miles as a result of the change in the journeys.

These are calculated using standard Marginal External Costs (MECs), which are assumed costs borne by an individual traveller. For car use, these external costs include:

- congestion
- air pollution
- noise
- infrastructure
- accident costs
- indirect taxation (the impact of more/less taxes paid on fares/fuel duty)

The change in passenger miles is used to determine the number of car miles removed from the road for a given number of rail miles, using the standard WebTAG rail diversion factor of 26%. The calculated car miles are converted into car km so as all parameters are in the same unit.

MECs are provided at a national and regional level. Because of LLA's location, and its assumed catchment, a blended MEC between London and the South East of England (50% of each) has been used to determine MECs for removed car km.

Further environmental benefits

In addition to monetised non-user benefits, removed CO₂ and removed car journeys have also been calculated.

CO₂ reduction has been calculated using the deduced reduction in road km travelled as part of the non-user benefits appraisal and an emission assumption based on European Union industry regulation requirements. The assumed average emission used is 123g/km up to 2020 and 95g/km from 2021 onwards. These values represent the maximum average CO₂ emission by new cars registered in the EU, the former of which is the present standard, and is superseded by the latter in 2021.

Removed car journeys have been calculated based on the deduced new rail journeys using the MOIRA Value of Time matrix and the same rail diversion factor used in calculating passenger miles.

Demand growth

The Value of Time matrix was used to determine and differentiate between the change in journeys (and therefore passenger miles) associated specifically with LLA and those made within the wider network and deemed to not be related to air travel.

Full and Leisure trips to Luton Airport Parkway Station have been assumed to be related to air travel, and so their forecasts have been grown using LLA passenger growth projections. This has been calculated as approximately 8% per annum.

Season trips to Luton Airport Parkway Station, and all remaining trips, have been assumed to not be related to air travel and a conservative 1% growth per annum has been assumed for these journeys.

Appendix E_ Atkins Report: Methodology, Assumptions and Modelling Approach

Estimates of rail demand and benefits from MOIRA for 2014/15 have been forecast for future years to provide a 10 year appraisal between the assumed start year of 2018/19 and 2027/28, using a separate approach for airport and non-airport passengers.

Non-airport passenger demand has been grown using Atkins' existing templates for exogenous rail growth for the EM franchise, using the standard PDFH approach based on the latest forecasts of GDP, population, rail fares, and the cost of alternative modes such as car, bus and air.

Atkins used the industry standard MOIRA demand forecasting tool to estimate the impact of the proposed service improvements. Forecast revenue and benefits have been combined with operating cost forecasts to conduct an appraisal of the timetable improvements over 10 years.

MOIRA is a timetable-based tool which forecasts the impact of changes to the base timetable on passenger ticket revenue, in two separate stages:

- prediction of the overall rail market size (total National Rail passenger revenue), using a standard approach recommended in the Passenger Demand Forecasting Handbook (PDFH), combining the effects of journey time, service frequency and the need for passengers to interchange;
- approximation of the allocation of revenue between TOCs used in the rail industry, for example at Luton Airport Parkway. MOIRA is able to report the revenue for EMT separately.

MOIRA is therefore a suitable tool to forecast the net increase in total National Rail revenue and EMT revenue, as well as economic benefits, resulting from the improved frequency and journey times for Luton Airport Parkway passengers accessing London, as well as stations north of the airport towards the East Midlands.

The analysis also takes account of any reduction in revenue and disbenefits arising from increased journey times for through passengers travelling between stations north of the airport and London.

The analysis concludes that the timetable has a positive net impact on passenger benefits and rail industry revenues after the inclusion of disbenefits for through passengers.

Contact

Richard Brown
Managing Director
North Star Consultancy Ltd
T 020 7692 0936
E enquiries@northstarconsultancy.com

North Star Consultancy Ltd
78 York Street
London, W1H 1DP



