BUSINESS CASE

Project Name *Leicester Park and Ride*
(Ongoing bus service operation – Enderby service)

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Document History

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01/02/2007	1	Final Draft (pre-board approval)
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Purpose

To document the justification for the undertaking of the project, based on the estimated cost of development and implementation against the risks and anticipated business benefits and savings to be gained.

Contents

This Business Case contains the following topics:

Reasons

Park and Ride is identified in the Central Leicestershire Local Transport Plan 2006-2011 as the "single most effective way to tackle congestion in Central Leicestershire".

Park and Ride will:

- Provide a fast and high quality public transport service facilitating access to Leicester City centre, offering a sustainable alternative to car drivers and encouraging significant modal shift towards public transport;
- Reduce the volume of traffic entering the City centre from the junction 21 area;
- Assist regeneration of the City centre by facilitating the increase in the number of person trips into the city.

Baseline Information and Assumptions

The following key information has informed the preparation of the business case (this information is detailed in Annex 1):

- Park and ride site patronage modelling, completed by MVA as part of the Transport Assessment accompanying the planning application for the park and ride site.
- Bus route journey time surveys completed in 2006 for the preferred bus route corridor and City centre routing options.
- Subsequent peak vehicle requirement (PVR) calculations to identify the size of bus fleet required to operate on these routes.
- Recorded patronage growth data for Meynells Gorse (Leicester Forest East) park and ride and other UK sites.

The following general assumptions have been made:

- The park and ride service will operate between the park and ride site at Enderby and a City centre terminus at St Nicholas Place.
- The preferred bus route for this service is via the A563 Lubbesthorpe Way and the A47 Hinckley Road.
- Subsequent additional financial appraisal will be completed to consider the extension of the proposed park and ride bus service to make connections to the Royal Infirmary and other city destinations.
- Subsequent additional financial appraisal will be completed to consider the implications of the City centre terminus design and the impact upon the car park at St Nicholas Place.

The assumptions made in respect to the options considered are discussed below.

Options

The following options have been considered in the preparation of this business case:

1. Bus fleet:

   The size of the anticipated demand means either (a) double deck or (b) bendi-buses will be required.

2. Fare charging regime:

   Four options for fare charging have been considered:

   a. Base – £2.20 return fare (including car parking) based upon the 2007 price per person for use of the existing Meynells Gorse site;

   b. Low – £2.50 return fare charge (including car parking) based upon the 2007 price per person for a comparable local bus journey of similar distance;

   c. Moderate - £2.75 return fare charge (including car parking) (2007 price).

   d. High - £3.00 return fare charge (including car parking) (2007 price).

3. Bus Routing Strategy and stops within the City centre:

   For the purposes of this business case, only operation of the service between the site and St Nicholas Place terminus is considered. Consultation and development of the City routing/stopping strategy, to complement the proposed terminus is under development, and a further assessment of service extension options together with the financial implications of each will be presented at a later date.

4. Patronage growth options:

   Two options were considered:

   a. Low growth, based solely on modeled growth in the Transport Assessment;

   b. High growth, based upon experience from other UK park and ride schemes allowing for promotions, marketing and other external forces to accelerate the level of patronage growth.

The combination of options modeled in this business case are set out in Investment Strategy and Financial Appraisal below.

Procurement Strategy (if applicable)	Project management of the construction project is carried out by City and County Council officers using the PRINCE2 methodology. The park and ride scheme consists of several different workstreams, some specialist in their nature, which are spread over the County and City areas. The procurement strategy is therefore likely to use a combination of different contracts. It is anticipated that a core project contract would be let covering the park and ride site, the corridor works and potentially the City centre terminus. A range of options exist for procurement, including use of term contractors within one of the existing or proposed framework contracts managed by the County or City Councils. Alternatively, a project specific contract could be let. A risk assessment of procurement options will be completed before a recommendation is made on the preferred strategy. This will be consider achieving best value (in quality and cost), ensuring minimal disruption upon the wider higher network through coordination of works and making allowances for the framework contracts likely to be in place at the time. Where specialist contracts are required, (eg. traffic signals and variable message signs) it may be necessary for these to be let separately, but again on the basis of quality and cost. The bus service and car park management are likely to be procured through a quality and price provider selection process, as required by the 1985 Transport Act. The bus service will be contract managed by Leicestershire County Council Passenger Transport Unit.
Benefits expected	• 10 minute frequency park and ride service between the site at Enderby and Leicester city centre. • 1000 space car park • Increase in person trips to Leicester city centre. • Reduction in car traffic along Narborough Rd (A5460) and Aylestone Road (A426). • Corresponding improvement in roadside air quality on the same routes. • Improved public transport access for City residents to employment sites in the Junction 21 area, including Grove Park commercial estate. • Improved reliability of journey times on Meynells Gorse park and ride bus service. • Improved reliability for non-park and ride bus services to the city centre through availability of additional bus priority measures (A563/A47) and reduced congestion (A5460 and A426).

Risks	**Project Development and Programme Risks** Failure to obtain Secretary of State approval following local planning permission for proposed site at a Public Inquiry. Failure to complete right of way diversion process (at proposed site). Failure to complete statutory procedures for delivery of City terminus. Political division arising due to joint working nature of project. **Construction Risks** Identification of significant archaeological deposits requiring substantial excavations (at site or City terminus) would incur delay to the construction programme. Increased construction costs due to unforeseen statutory utilities diversions or other accommodation works. Coordination with other City centre construction and development projects, including Shires West and Waterside projects. **Bus Service Operation Risks** The risks associated with the operation of the bus service have been considered within the various options assessed in the preparation of this business case. The risks relate primarily to changes in the costs and income levels for the service. These risks have been inherently managed through the selection of a realistic and conservative option upon which this business case is based. The assumptions made for the preferred option are set out in Investment Strategy and Financial Appraisal below.
Cost	As identified below.
Timescales	The project is being developed for completion during LTP2 (2006-2011). It is anticipated that the park and ride service will be in operation in 2010, with the earliest operational start for the bus service in autumn 2009. The operational business case for the park and ride service has been prepared based upon the earliest opening year scenario.

Investment appraisal and financial strategy

This business case considers the operation of the park and ride site and service, in order to demonstrate that the service will not require ongoing subsidy to operate.

A realistic and conservative selection of options has been selected within this business case.

The preferred option selected includes:

- Bus fleet: Bendi-buses
  The use of a bendi-bus fleet will provide a high quality "brand" for the service and ensure that the highest cost option is evaluated. Whilst double-deck buses could accommodate the required number of passengers, the boarding times for passengers will be significantly reduced using bendi-buses.
- Charging regime: Moderate (£2.75 at 2007 prices)
  Whilst this is a higher charge than the Meynells Gorse service, the Enderby site will incur greater operating costs. Further, this level of fare should discourage abstraction from local bus services, as it is higher than the cost of a comparable day return ticket.
- Patronage growth: Low
  By demonstrating that the service will be viable without aggressive marketing or promotion, the business case is more robust.

Based upon this preferred option, Table 1 below shows a summary of the anticipated costs and income for the initial years of operation. Annex 1 sets out the details of the calculations completed and assumptions made in full.

As Table 1 below shows, the service will generate revenue after the third full financial year of operation: Year 4, 2012/13. (Year 1 contains a period of only 6 months from the proposed opening in September 2009).

During years 1 to 3, annual subsidy will be required from each of the partner authorities to operate the service. The level of this subsidy is also identified in Table 1.

The following key assumptions have been made in preparing the business case, based upon the preferred option:

1. Site operating costs are as identified in Annex 2.
2. Cost implications to the project to offset revenue generated by car park at St Nicholas Place not considered.
3. Bus operating costs will be £520K per annum (2007 prices).
4. A moderate fare charge is applied equivalent to the cost of a local bus journey; £2.75 per day (2007 prices).
5. Low patronage growth is applied assuming:
    - Patronage levels will reach the modeled "year of opening" level after 5 years, with growth to this level following a pattern identified from other UK park and ride sites.
    - Patronage will subsequently grow to the level modeled for 2021, and beyond in a predictable ("straight-line") way until the site capacity is reached.

Continues

Investment appraisal and financial strategy (continued)

6. Site will open in autumn 2009, with all income and costs for the first year pro-rated to 6 months.
7. A 3% per annum rate of inflation has been applied to all costs.

Table 1: Revenue Costs for Operation of Enderby Park and Ride Service

Calendar Year	Operational Year	Outgoings			Incomings			Balance	Revenue Subsidy	
		Site Costs	Bus Operating Costs	TOTAL	Patronage	Fare	Total	£ NET	City	County
2009/10	1	£ 99,489	£284,109	£383,598	93,312	£3.00	£280,402	-£103,196	£51,598	£51,598
2010/11	2	£205,421	£585,265	£790,686	210,158	£3.10	£650,470	-£140,216	£70,108	£70,108
2011/12	3	£211,125	£602,823	£813,948	234,930	£3.19	£748,958	-£ 64,990	£32,495	£32,495
2012/13	4	£214,986	£620,907	£835,893	271,349	£3.28	£891,014	£ 55,121	£0	£0
2013/14	5	£219,891	£639,534	£859,425	288,888	£3.38	£977,063	£117,638	£0	£0
2014/15	6	£226,880	£658,720	£885,600	296,140	£3.48	£1,031,637	£146,037	£0	£0

Note: Year 1 includes 6 months from end September 2009 (opening) to end March 2010. Operating costs and patronage have been appropriately pro-rated for this period.

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Revenue Cost for Operation of Enderby Park and Ride Service
Calculation Notes

1. **Site Costs**
   Site Costs determined through use of comparables and quotes where possible.
   Site costs set out in detail in ANNEX 2 "Site Costs" sheet.

2. **Bus Costs**
   Bus costs provided by LCC Public Transport unit, and based upon journey time surveys completed for the route options.
   The following "per bus" costs have been used as the basis of calculations

Fleet type	Per bus costs (2007 prices)	Route	PVR	Total
Double deck bus	£110000	Terminus only	4	£440000
Double deck bus	£110000	Infirmary	6	£660000
Double deck bus	£110000	Full City Circular	7	£770000
FtR Bendi-bus	£130000	Terminus only	4	£520000
FtR Bendi-bus	£130000	Infirmary	6	£780000
FtR Bendi-bus	£130000	Full City Circular	7	£910000

3. **Fare Charges**
   The following fare table shows the three levels used in calculations
   Fares increase at 3% in line with inflation

Operational Year	Year	Fare Regime			
		Base	Low	**Moderate**	High
	2007	£ 2.20	£ 2.50	**£ 2.75**	£ 3.00
	2008	£ 2.27	£ 2.58	**£ 2.83**	£ 3.09
1	2009	£ 2.34	£ 2.65	**£ 2.92**	£ 3.18
2	2010	£ 2.41	£ 2.73	**£ 3.00**	£ 3.28
3	2011	£ 2.48	£ 2.81	**£ 3.10**	£ 3.38
4	2012	£ 2.56	£ 2.90	**£ 3.19**	£ 3.48
5	2013	£ 2.63	£ 2.99	**£ 3.28**	£ 3.58
6	2014	£ 2.71	£ 3.07	**£3.38**	£ 3.69
7	2015	£ 2.79	£ 3.17	**£ 3.48**	£ 3.80
8	2016	£ 2.88	£ 3.26	**£ 3.59**	£ 3.91
9	2017	£ 2.96	£ 3.36	**£ 3.70**	£ 4.03
10	2018	£ 3.05	£ 3.46	**£ 3.81**	£ 4.15
11	2019	£ 3.14	£ 3.56	**£ 3.92**	£ 4.28
12	2020	£ 3.24	£ 3.67	**£ 4.04**	£ 4.41
13	2021	£ 3.33	£ 3.78	**£ 4.16**	£ 4.54
14	2022	£ 3.43	£ 3.89	**£ 4.28**	£ 4.67
15	2023	£ 3.54	£ 4.01	**£ 4.41**	£ 4.81
16	2024	£ 3.64	£ 4.13	**£ 4.55**	£ 4.96
17	2025	£ 3.75	£ 4.26	**£ 4.68**	£ 5.11
18	2026	£ 3.87	£ 4.38	**£ 4.82**	£ 5.26
19	2027	£ 3.98	£ 4.52	**£ 4.97**	£ 5.42
20	2028	£ 4.10	£ 4.65	**£ 5.12**	£ 5.58

Notes on fares selected:

Base	Per person cost at Meynells Gorse (£2.06 ave) inflated for 2007 at 7% based on fare rises on contract services.
Moderate	Per person cost of £2.50 selected in line with current day fares on comparable local bus services
High	Per person cost set at £3.00

4. Patronage

Patronage levels for the three route options at "opening year" and 2021 were identified by MVA in the Transport Assessment for the P&R site.

	Opening Year		2021	
Route	Vehicles (peak hour)	Annual patronage	Vehicles (peak hour)	Annual patronage
Terminus	249	288888	299	346898
Infirmary	297	344578	347	402587
City Circular	389	473359	439	509325

Annual patronage calculated from peak hour using occupancy figures for existing park and ride sites (including Meynells Gorse) across a day cf. peak hour vehicles and factored up for annual patronage.
Cross checks then performed by reversing the formulae on known patronage examples to obtain daily totals and peak hour vehicles.

5. Patronage growth

"Take-up" by patrons was modelled using examples of P&R sites opened in comparable dates in other locations (including Canterbury).
Each of the first 5 years could then be expressed as a fraction of the 5th year patronage:
Year 5 “target” established using MVA figure for "opening year" and applying growth to reach
this value over 5 years:

YEAR	Factor	Example Peak Vehicles	Annual Patronage
1	0.32	80	93312
2	0.73	182	210158
3	0.81	202	234930
4	0.94	234	271349
5	1	249	288888

…then linear growth to modelled 2021 figure (based on traffic growth only) and extrapolated at the same growth level beyond until site capacity reached.

This provides the following patronage growth model:

Operational Year	Year	Annual Patronage
1	2009	93312
2	2010	210158
3	2011	234930
4	2012	271349
5	2013	288888
6	2014	296140
7	2015	303391
8	2016	310642
9	2017	317893
10	2018	325144
11	2019	332396
12	2020	339647
13	2021	346898
14	2022	351539
15	2023	361981
16	2024	368942
17	2025	375903
18	2026	382864
19	2027	390985
20	2028	397947

6. Opening Date

Park and ride to open in Autumn 2009.
2009/10 patronage (year 1) prorated as 0.5 for 6 months.
Operating costs similarly prorated at 0.5 for yr1.

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ANNEX 2

Revenue Cost for Operation of Enderby Park and Ride Service (to year 20)
Site Costs

YEAR	1	2	3	4	5	6	7	8	9	10
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Building Overheads										
Electricity	£10,609	£10,927	£11,255	£11,593	£11,941	£12,299	£12,668	£13,048	£13,439	£13,842
Heating	£5,305	£5,464	£5,628	£5,796	£5,970	£6,149	£6,334	£6,524	£6,720	£6,921
Wireless Internet and Telephone	£5,305	£5,464	£5,628	£5,796	£5,970	£6,149	£6,334	£6,524	£6,720	£6,921
Cleaning	£10,609	£10,927	£11,255	£11,593	£11,941	£12,299	£12,668	£13,048	£13,439	£13,842
CCTV & Security Equipment	£2,122	£2,185	£2,251	£2,319	£2,388	£2,460	£2,534	£2,610	£2,688	£2,768
Business Rates	£67,150	£69,165	£71,240	£73,377	£75,578	£77,846	£80,181	£82,587	£85,064	£87,616
Security	£63,654	£65,564	£67,531	£69,556	£71,643	£73,792	£76,006	£78,286	£80,635	£83,054
Forestry/Landscape maintenance	£13,812	£10,513	£10,198	£8,031	£6,727	£7,321	£7,541	£7,767	£8,000	£8,240
Car Park Control System	£9,803	£14,285	£14,886	£15,332	£15,792	£16,266	£16,754	£17,257	£17,774	£18,307
Other site maintenance costs	£10,609	£10,927	£11,255	£11,593	£11,941	£12,299	£12,668	£13,048	£13,439	£13,842
	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
TOTAL	**£198,977**	**£205,421**	**£211,125**	**£214,986**	**£219,891**	**£226,880**	**£233,686**	**£240,697**	**£247,918**	**£255,355**
1st Year pro-rated for 6 mos:	***£99,489***									

YEAR	11	12	13	14	15	16	17	18	19	20
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Building Overheads										
Electricity	£14,258	£14,685	£15,126	£15,580	£16,047	£16,528	£17,024	£17,535	£18,061	£18,603
Heating	£7,129	£7,343	£7,563	£7,790	£8,024	£8,264	£8,512	£8,768	£9,031	£9,301
Wireless Internet and Telephone	£7,129	£7,343	£7,563	£7,790	£8,024	£8,264	£8,512	£8,768	£9,031	£9,301
Cleaning	£14,258	£14,685	£15,126	£15,580	£16,047	£16,528	£17,024	£17,535	£18,061	£18,603
CCTV & Security Equipment	£2,852	£2,937	£3,025	£3,116	£3,209	£3,306	£3,405	£3,507	£3,612	£3,721
Business Rates	£90,245	£92,952	£95,740	£98,613	£101,571	£104,618	£107,757	£110,989	£114,319	£117,749
Security	£85,546	£88,112	£90,755	£93,478	£96,282	£99,171	£102,146	£105,210	£108,367	£111,618
Forestry/Landscape maintenance	£8,487	£8,742	£9,004	£9,274	£9,552	£9,839	£10,134	£10,438	£10,751	£11,074
Car Park Control System	£18,857	£19,422	£20,005	£20,605	£21,223	£21,860	£22,516	£23,191	£23,887	£24,604
Other site maintenance costs	£14,258	£14,685	£15,126	£15,580	£16,047	£16,528	£17,024	£17,535	£18,061	£18,603
	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
TOTAL	**£263,016**	**£270,906**	**£279,034**	**£287,405**	**£296,027**	**£304,908**	**£314,055**	**£323,476**	**£333,181**	**£343,176**