



Herefordshire Core Strategy

Park and Ride Review

Report



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JMP Consultants Limited
85-89 Colmore Row
Birmingham
B3 2BB

T 0121 230 6010
F 0121 230 6011
E birmingham@jmp.co.uk

www.jmp.co.uk

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Contents

1	INTRODUCTION	1
2	ASSUMPTIONS.....	3
	Inflation	3
	Patronage Related.....	4
	Site and Service Related	4
3	VIABILITY ASSESSMENT	6
	Site Operating Costs	6
	Bus Service Operating Costs	6
	Income	6
	Cash-flow.....	7
4	OBSERVATIONS AND CONCLUSIONS	8
	Observations.....	8
	Conclusion	9

Tables and Figures

Table 1.1	Core Strategy Park and Ride Sites	1
Table 2.1	HMT Inflation	3
Table 2.2	Inflation indices 2013 -2032	3
Table 3.1	Site Operating Costs 2032	6
Table 3.2	Park and Ride Bus Service Costs	6
Table 3.3	Income 2032.....	6
Table 3.4	Cash-flow 2032	7

1 Introduction

Context of this work

- 1.1 As part of its work to develop the evidence base for the Herefordshire Core Strategy and assess the transport implication for the Hereford urban area of the spatial choices proposed JMP has been instructed to review the policy for the provision of Park and Ride in Hereford.

The current draft Core Strategy sets out a strategy of intensive Park and Ride provision for dealing with the traffic growth created by the proposed level of growth – Policies SS4, SD1, MT1. In addition to traditional Park and Ride operation the sites would also cater for Park and Share and Park and Cycle.

- 1.2 Three sites are proposed; all linked to strategic development sites identified in the Core Strategy.

Table 1.1 Core Strategy Park and Ride Sites

Location	Spaces
Southern: A49 / Rotherwas Access Road	350
Western: A4103 / A4110 Three Elms Road	150
Northern: A49 / Western Relief Road	350

- 1.3 Each would be linked to the City Centre by a fifteen minute frequency bus service. At this stage links to other bus services remain to be determined so a stand-alone operation has been considered for each site, terminating at the TESCO bus stand (Edgar Street roundabout).
- 1.4 Our report sets out the assumptions made to assess the financial viability of each site using the current (and updated) Hereford transport model which assesses transport impacts in the City in 2012 and those created by development in 2032. The transport model considers above inflation increases in parking charges and a significant level of bus priority on the radial routes which would be served by Park and Ride services.

Park and Ride Observations

- 1.5 The basis on which Park and Ride options for Hereford have developed is in response to development traffic impacts. The proposals for Park and Ride offer potential decongestion and environmental benefits.
- 1.6 In order for Park and Ride located at or near the urban fringe to be successful there would appear to be a number of key factors for success. In our view Park and Ride is primarily a parking measure, demand being sensitive to supply and cost at the destination as would be expected for town centre parking.
- 1.7 Research by TAS¹ and others into what makes Park and Ride work has led to the development of a range of guidelines describing the type of facilities that should be provided for Bus Based Park & Ride to achieve success. Although site location is influenced by many factors and often the result of compromise, the principles below are commonly critical factors in delivering success and form a strategic checklist for potential new schemes or sites.
- 1.8 Car parks should ideally:

¹ *Bus – Based Park & Ride: A Good Practice Guide, 2nd Edition, English Historic Towns Forum (EHTF), 2000*

- be located close to the strategic highway network
- have safe and easy access and egress
- be sited outside the congested area to maximise the potential advantage
- have sufficient adjacent land to allow expansion to meet growth in demand
- fit in keeping with surrounding land uses and meet planning requirements, in particular, Green Belt.

1.9 The 'ride' element should:

- be frequent (more than 4 per hour minimum) and reliable. To offer reassurance, it is always useful to have a vehicle at the stop all the time (i.e. as one departs the next one arrives)
- should provide a journey time that is competitive with the alternative car journey (and ideally no more than 15-20 minutes in length)

Charges should be set to be competitive with city centre car parking to ensure an attractive option to off-set the interchange time penalty associated with Park and Ride.

Our view is that the Park and Ride proposals are suitably located in close proximity to the A49(T) and A438 radial roads for maximum interception of cars from outside the Hereford urban area.

2 Assumptions

Inflation

- 2.1 HM Treasury provide monthly inflation figures. For the previous 10 years to August 2013 inflation has average 2.58% as shown below.

Table 2.1 HMT Inflation

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	
2013	2.70%	2.80%	2.80%	2.40%	2.70%	2.90%	2.80%	2.70%						
2012	3.60%	3.40%	3.50%	3.00%	2.80%	2.40%	2.60%	2.50%	2.20%	2.60%	2.60%	2.70%	2.80%	
2011	4.00%	4.30%	4.10%	4.50%	4.50%	4.20%	4.50%	4.50%	5.20%	5.00%	4.80%	4.20%	4.50%	
2010	3.40%	3.00%	3.40%	3.70%	3.30%	3.20%	3.10%	3.10%	3.00%	3.10%	3.20%	3.70%	3.30%	
2009	3.00%	3.10%	2.90%	2.30%	2.20%	1.80%	1.70%	1.50%	1.10%	1.50%	1.90%	2.80%	2.20%	
2008	2.20%	2.50%	2.40%	3.00%	3.30%	3.80%	4.40%	4.80%	5.20%	4.50%	4.10%	3.10%	3.60%	
2007	2.70%	2.80%	3.10%	2.80%	2.50%	2.40%	1.90%	1.70%	1.70%	2.00%	2.10%	2.10%	2.30%	
2006	1.90%	2.10%	1.80%	2.00%	2.20%	2.50%	2.40%	2.50%	2.40%	2.50%	2.70%	3.00%	2.30%	
2005	1.60%	1.60%	2.00%	1.90%	1.90%	1.90%	2.40%	2.30%	2.40%	2.30%	2.10%	1.90%	2.00%	
2004	1.40%	1.30%	1.10%	1.10%	1.40%	1.70%	1.30%	1.30%	1.10%	1.20%	1.40%	1.60%	1.30%	AVE
2003	1.40%	1.60%	1.50%	1.50%	1.30%	1.00%	1.40%	1.40%	1.50%	1.40%	1.40%	1.20%	1.40%	2.58%

HMT

- 2.2 To factor this to 2032 an index of 1 in 2013 is inflated each year until 2032 as set out below.

Table 2.2 Inflation indices 2013 -2032

Year	Index
2013	1.000
2014	1.026
2015	1.052
2016	1.079
2017	1.107
2018	1.136
2019	1.165
2020	1.195
2021	1.226
2022	1.258
2023	1.290
2024	1.323
2025	1.358
2026	1.393
2027	1.429
2028	1.465
2029	1.503
2030	1.542

2031	1.582
2032	1.623

HMT

Patronage Related

- 2.3 The AMEY multi-modal transport model for the Hereford urban area has identified daily Park and Ride patronage as 530 return journeys across all three sites.
- 2.4 It should be noted that this model at the time of use incorporated significant bus priority measures on the A49(T) and A438 radial roads into the City Centre. This level of bus priority has been lowered in subsequent modelling so the modelled patronage which is sensitive to relative journey times for Park and Ride bus and car is considered to be at the higher end of the scale likely to be achieved.

Site and Service Related

Site

- 2.5 The sites have been assumed to have the following characteristics:
- Sites of 350 spaces x2 and 150 spaces x1
 - A small facilities building and passenger waiting accommodation at each site
 - The sites are liable for business rates
 - The sites will be required to cover the cost of utilities, maintenance and cleaning.
 - The Council's accounting function will require an annual allowance for renewals to be made. These will be 40 years for general items and 60 years for buildings in accordance with standard local government accounting requirements
- 2.6 We have benchmarked the costs incurred for site operations against similar sites that JMP has assessed in recent years.

Bus Service

- 2.7 The minimum level of acceptable Park and Ride bus service as defined by best practice is a 15 minute headway. We have assumed this headway and the following operating hours:
- Monday to Friday 07:30 to 18:30
 - Saturday 08:15 to 18:15
- 2.8 We have assumed that the service is operated by single decker buses and that they are refurbished every five years.
- 2.9 Our assessment takes an average speed for bus of 15 mph due to the bus priority measures in place and assumes that three stops on each round trip occur with each of the three routes terminating at the TESCO stops (Edgar Street roundabout) in the town centre. Route distances are:
- Southern 7.67 km
 - Western 6.38 km

- Northern 5.83 km

2.10 Our bus costing model assumes the service attracts BSOG or similar and the Park and Ride operation makes a contribution to operator fixed costs and that the operator receives an industry standard rate of return.

2.11 For bus fares we have assumed that the current £3.00 day ticket for the Hereford area remains in place and is subject to the agreed level of inflation and forms the basis for the Park and Ride ticketing strategy.

3 Viability Assessment

Site Operating Costs

3.1 The site operating costs for the three sites are set out below

Table 3.1 Site Operating Costs 2032

	Southern	Western	Northern
Spaces	350	150	350
Site Costs 2032 (£ p.a.)			
Building Maintenance	8,115	5,645	8,115
Security	8,115	5,645	8,115
Rates / UBR	39,982	17,135	39,982
Water	1,623	1,129	1,623
Refuse	3,246	2,258	3,246
Electricity	6,492	4,516	6,492
Site Maintenance	3,246	2,258	3,246
Publicity / marketing	812	564	812
Renewals General (40 year cycle)	35,534	15,229	35,534
Renewals Building (60 year cycle)	5,410	2,319	5,410
TOTAL (2032 PRICES)	112,574	56,696	112,574

Bus Service Operating Costs

3.2 The bus service operating costs are set out below.

Table 3.2 Park and Ride Bus Service Costs

Route	Cost 2013 (£ p.a.)	Peak Vehicles	Cost 2032 (£ p.a.)
Southern Route	250,433.01	2	406,452.77
Western Route	231,095.41	2	375,067.85
Northern Route	222,850.70	2	361,686.69

Income

3.3 The income anticipated from bus ticket sales based on the modelled demand of 530 daily users of Park and Ride is shown below. We also consider that a nominal income from other sources is possible. Examples of this may include on-site advertising, vending machine operation and use of the Park and Ride site for coach parking / tour pick-up.

Table 3.3 Income 2032

Income 2032	£ p.a.
All sites £4.87 fare	£789,654

Incidental Income	£10,000
TOTAL	£799,654

Cash-flow

- 3.4 The cash-flow position represents the operating loss/ profit on operating the Park and Ride in 2032. As can be seen a substantial loss is anticipated

Table 3.4 Cash-flow 2032

Cashflow 2032	£ p.a.
Income	£799,654
Incurring costs	31,425,052
Cash-flow	-£625,398

- 3.5 To assist in the cash-flow assessment we have calculated the patronage required to give a breakeven operational position in 2032. To achieve this position an additional 420 return journeys per day would be required. This is a 79% increase in use above that shown by the Hereford transport model in 2032.

4 Observations and Conclusions

Observations

Transport Model

- 4.1 The Hereford transport model analysis of Park and Ride was based on the provision of significant bus priority measures on the A49(T) and A438 roads. It assumed that services would be stand-alone i.e. not picking up passengers en route to the city. The model also assumes that city centre parking charges would rise at inflation + 10% over the plan period and that increase in general bus fares would capped at inflation -10% over the plan period. We understand that no changes in parking supply were assessed by the transport model.
- 4.2 In our view the modelled conditions represent the optimal conditions for park and ride operation. The usage of park and ride in the conditions modelled therefore represents the 'best' case for Park and Ride. We understand that further changes to the transport model have reduced the level of bus priority and that the transport strategy assumptions in relation to parking management are under reconsideration. As part of this strategy review the deliverability of bus priority measures is also to be reconsidered given the limited road-space available.
- 4.3 The usage figure obtained from the modelling contained no breakdown by site and as such the picture presented in the previous section represents an overall view rather than a site specific commentary. Experience elsewhere in the UK suggests that sites larger than 150 spaces would be necessary to ensure viability of a stand-alone Park and Ride scheme so the dynamic of individual sites may warrant further consideration in the LDF phasing study.

Service and Site

- 4.4 The service and site specifications set in this analysis are suggested by best practice to be the minimum tenable specification for a fully functioning Park and Ride offer.
- 4.5 The specification does not include linking the services with existing bus services. This would appear to a relevant way of increasing patronage and spreading operating costs. Again, the specification of a stand-alone 150 space site appears to be more amenable to a micro-park and ride operation supported by a passing bus service.

Core Strategy

- 4.6 The Park and Ride sites are currently proposed to be provided by the developers of the three strategic housing sites promoted through the LDF Core Strategy. Given the operating losses envisaged this may not be the most appropriate delivery mechanism. Whilst the locations promoted in Core Strategy for Park and Ride are appropriate in terms of attracting traffic they may not be in optimal locations for Park and Ride sites served by existing bus services.
- 4.7 The western strategic housing location's provision of a Park and Ride site for 150 spaces should be reconsidered on the basis that a stand-alone site of this size is likely to be unsustainable. Options for a micro Park and Ride served by existing /new bus services, e.g. by extending / re-routing of the current 72 group of services.
- 4.8 Given the uncertainty over the viability of Park and Ride the collection of financial contributions to sustainable and public transport measures in general would appear to be a relevant strategy approach provided that appropriate land is made available for suitable Park and Ride proposals to be brought forward in the lifespan of the Core Strategy.

- 4.9 Alternatively, if the Core Strategy does not recognise Park and Ride as a strategic measures but rather as trip swapping vehicle to allow development to come forward then the developers should contribute to or take the financial risk on the operation of Park and Ride which has allowed their development to proceed. This would require a fundamental change in stance in respect of Park and Ride in the Core Strategy's transport policies.
- 4.10 The role of CIL and s106 contributions in supporting Park and Ride operation in lieu of other sustainable transport interventions needs consideration.
- 4.11 Park and Ride should be explicitly considered in the Core Strategy as a parking management measure and reference made to the effect of Park and Ride as an agent of trip swapping i.e. allowing development on to the network in lieu of longer distance trips using the car to access the city centre. Linkages to City Centre parking charges and the quantum of City Centre parking should also be established.
- 4.12 Overall the soundness of this element of the Core Strategy as a viable transport intervention in the form currently set out needs to be reconsidered. In our view the National Planning Policy framework paragraph 182 tests could be met as Park and Ride provision is a positive, sustainable intervention but the issue of viability and the context within the Core Strategy refers to Park and Ride need further consideration.
- 4.13 We would recommend that the wording of the Core Strategy reflects a more flexible approach to Park and Ride provision.

Conclusion

- 4.14 The usage information provided by the Hereford transport model and developed costs model represent the costs of, and income from, Park and Ride in Hereford at the end of the Core Strategy period (2032). The model in our view represents the 'best' case for Park and Ride – above inflation parking tariff increases, stand-alone Park and Ride bus services and extensive bus priority being assessed.
- 4.15 The operation of three sites proposed in the Core Strategy incurs a substantial financial loss for the Council if it became responsible for the operation.
- 4.16 Given the financial loss our view is that the provision of Park and Ride through the Core Strategy process needs to be reviewed. Links to parking management and delivery of development need to be strengthened and more flexible approach to Park and Ride provision and funding established.