

Appendix 2 – more detailed information concerning the modal split for phase I of the development.

Achieving a 60% non-car modal share for Phase I

Background

A key objective of the Cambridge East Transport Strategy study was to achieve a 60% non-car modal share. Modelling showed that when all the transport infrastructure and services are in place and the development is fully built-out, this modal split is achieved.

However, it is questionable whether this modal split will be achieved for Phase I of the development (1750 houses north of Newmarket Road) because:

- The level of community facilities that will be developed in association with Phase I will be much more limited than the whole development and so there will not be as much potential for self-containment;
- Many of the key transport infrastructure and service interventions require Phases II and III to be built before they can be delivered (e.g. fully segregated busway to Cambridge city centre, segregated bus route to the Southern Fringe).

The impact of Cambridge East was modelled using the Cambridge Sub-Regional Land Use and Transport Model held by Atkins. This is a strategic model and it is difficult to use it to focus very specifically on individual Phases of the development. The modelling years currently used (2006/2011/2016/2021) make assumptions about the build up of development in Cambridge East that do not directly relate to each individual phase. Therefore, it is not possible to quote precise figures from the model for the mode share from Phase I. However, for the modelling scenario where High Quality Public Transport is introduced by 2011:

- modelling for 2011 shows 1550 dwellings and a non-car mode share of 51%;
- modelling for 2016 shows 4550 dwellings and a non-car mode share of 57%.

The modelling does show a slight reduction in trip-making to external destinations outside Cambridge from 2011 (16%) to 2016 (13%), which supports the hypothesis that it becomes more self-contained as time goes on. It should be pointed out that the achievement of the 60/40 modal split is (perhaps) not quite as important for Phase I as for the whole development, since the level of housing will be significantly less (one sixth of the total Cambridge East development) and hence the level of trip-making significantly lower.

Currently, the Transport Strategy made recommendations on the phasing of transport infrastructure and services in relation to the different Phases of the development. The relevant extract from the report is provided overleaf.

Phasing

- 1.1 The Area Action Plan identifies that the development of Cambridge East will occur in three distinct sectors, delivered over different timescales, North of Newmarket Road (Phase I), North of Cherry Hinton (Phase II) and the main airport site (Phase III). Extensions to Phases I and II will occur once the airport has been decommissioned and Phase III is underway.
- 1.2 Table 3.1 below provides an illustration of how 11,500 dwellings may be delivered:

TABLE 3.1 ANTICIPATED PHASING OF HOUSING IN CAMBRIDGE EAST

	By 2011	By 2016	By 2021	After 2021	Total
Phase I: North of Newmarket Rd	850	900			1,750
					3,500
Phase Ib: North of Newmarket Rd.			1,750		1,750
Phase II: North of Cherry Hinton	250	1,200			1,450
					2,600
Phase IIb: North of Cherry Hinton			1,150		1,150
Phase III: Main Airport Site			2,700	2,700	5,400
<i>Total</i>	1,100	2,100	5,600	2,700	11,500

- 1.3 The phasing of the development and the size of the different development components throws up some challenges for the implementation of the Cambridge East sustainable transport strategy.
- 1.4 Most fundamentally, Cambridge East will be built 'from the outside in', with the main District Centre being at the heart of the Phase III development, which comes on-stream in the later stages of the development due to this sector being reliant on the airport decommissioning.
- 1.5 This also means that the construction of transport links that rely on this part of the development will have to be developed at later stages. This specifically affects any link from Phase II (Cherry Hinton) northwards, towards Phase I or onto the proposed Coldham's Common link towards the City Centre / Northern Fringe.

Transport requirements for Phase I

- 1.6 For the initial development of Phase I, (1,750 households to 2016), we now make recommendations on transport improvements that should be implemented alongside this first phase. This first phase will not justify the full implementation of all the transport measures proposed above and, as such, it is unlikely that the first phase development will achieve the 60% non-car modal share anticipated for the overall development once fully delivered.

Bus services

- 1.7 City centre: either support for a dedicated service to link the development and the City Centre via Newmarket Road, or extension of the existing Park & Ride service to provide a simple loop around the development. The planning conditions will specify quality of vehicle / service and an adequate capacity / frequency to be provided from the inception of the development (if a Park & Ride extension is chosen, this will require an increase in Park & Ride service capacity).
- Southern Fringe: none (travel via City Centre)
 - Northern Fringe: none (travel via City Centre).

Bus infrastructure:

- Newmarket Road: modest improvements to bus priorities on the eastern section of Newmarket Road (between Abbey Stadium and the site access), including in-bound priority and junction enhancements at Barnwell Road junction;.
- Within the site: new junction between the existing car showrooms and Park & Ride site and traffic management to provide unhindered access on-road through site, looping back to Park & Ride site. New bus gate and minor layout changes to Park & Ride to allow the bus back into the Park & Ride car park from the north and through to the current terminus;
- Technology: provision of real time information (RTI) at Park & Ride site and at bus stops within site and on service along Newmarket Road. Fitting of buses with RTI equipment;
- Relocation of the Park & Ride site to the new site east of Airport Way: this should be required of Phase I of the development, but implemented towards the end of this Phase, when the existing Park & Ride site is to be turned over to an urban park. Ideally, this would be the point at which the Park & Ride service could run via its segregated route through Phase III of the development. The Phase I should be sufficiently large and have enjoyed a sufficiently high standard of public transport provision over a number of years that a high frequency dedicated service to the City Centre can be commercially provided;
- Initial works on infrastructure for services towards Southern Fringe: depending upon the option selected, it could be appropriate to initiate infrastructure measures for the link to the Southern Fringe so that this service can come on-stream at the earliest opportunity in Phase II.

Cycling infrastructure:

- City centre: Upgrading of Jubilee Route to City Centre, as specified in Section 2;
- Northern Fringe: Provision of new route to Northern Fringe via Jubilee Route and new bridge crossing over River Cam (as specified in Section 2);
- Southern Fringe: no proposals (option of using existing cycle routes via Airport Way or Outer Ring Road);
- Provision of connection onto long distance cycle network NCN route 51 towards Newmarket and onto leisure route towards Wicken Fen (see Section 2).

Highways infrastructure:

Access to A14:

- If the Quy Interchange and Newmarket Road dualling is preferred, given current capacity constraints here, it would be appropriate to implement this scheme.
- If the Fen Ditton link road is preferred, there will not be sufficient traffic volumes at this stage to justify its construction and it would seem excessive to make intermediate improvements to Quy interchange / the Newmarket Road approach to Quy. However, if the Highways Agency considered that the development was having an impact on an already capacity-constrained junction, it could require junction enhancements to be made.
- Traffic calming measures in Fen Ditton to ensure that excessive traffic is discouraged from routeing through the village to join the A14 at the Fen Ditton junction should be initiated.

Local Access:

- Provision of general traffic junction between the existing car showrooms and Park & Ride site. This junction to be built with sufficient capacity for full site occupation and to provide segregated bus and cycle access from the development onto Newmarket Road and to allow, at a future point, segregated bus and cycle access across the junction into the Phase III Airport site. (This could, for example, be accomplished via a large signalised roundabout providing bus and cycle access across the roundabout);
- Provision of general traffic distributor road connecting to Airport Way/Newmarket Road roundabout and modifications to this roundabout to accommodate it.

Other transport requirements

- Development and implementation of a Residential Travel Plan, as outlined in Section 2 above;
- Support to further works to enhance bus capacity and cycling capacity in the City Centre and at other key destinations.