

CSRM Assumptions

- There is a proxy within the model for capturing demand reductions from the implementation of a City Access Study - this is in the form of a time penalty placed on car users;
- The model includes ALL journeys wholly within the four districts: Cambridge City, South Cambridgeshire, East Cambridgeshire and Huntingdonshire. For the model purposes these define the Cambridge Sub Region, which is referred to as the 'Study Area';
- Trips to/from external areas (with only one trip end within the study area) are considered as part of the demand modelling process. Trips crossing the Study Area, but NOT having an origin or destination in the Study Area are NOT considered by the Transport Demand Model, but are considered as a fixed input to the Highway Assignment Model which can be varied for future years/scenarios;
- The capacity of public transport vehicles is not considered in the model; therefore, passengers are not deterred or limited by the number of seats or services as it is assumed that bus operators would normally have commercial incentives to improve capacity before crowding becomes an issue;
- Relative to inflation, the cost of bus use goes up over time and the cost of car use goes down. This is caused by bus fares rising faster than inflation over time and cars becoming more efficient over time;
- The Madingley Road P&R site will close in favour of a new site;
- No Western Orbital proposal has been modelled in these scenarios; and
- Peak periods:
 - AM Peak = 07:00 – 09:59
 - Inter Peak = 10:00 – 15:59
 - PM Peak = 16:00 – 18:59

Limitations

The model will naturally be limited in the accuracy of its forecasts due to uncertainties in the input assumptions and data. Those uncertainties can be grouped as follows:

- **Uncertainties in input assumptions:** This might include issues such as uncertainty about employment growth, car ownership and fuel costs. CSRM2 model runs make use either of client specific scenario assumptions (development growth), or accepted DfT assumptions (DfT data book, NTEM data);
- **Uncertainties in transport supply:** There are necessarily some limitations to the detail with which transport infrastructure and services can be represented, and this is often most crucial in terms of future changes to the networks; and
- **Uncertainties in transport choices:** The model represents the transport choices and trade-offs made by individuals as best they can be estimated using national and local data from 2015.

Forecasting accuracy will also be affected by the Base Year model design and data including the level of detail and accuracy of data used in the base year. This is mitigated by ensuring the model replicates observed travel patterns across the study area, including volumes of bus users, rail users, and vehicles on the road network.

City Access Study Assumptions

Atkins has undertaken a series of CSRM2 runs in relation to the Cambridge City Deal Access Study to identify a suitable modelling proxy for the yet undefined scheme. The key objective of the City Access Study is to reduce peak time traffic levels in Cambridge by 10-15% by 2031. It is recognised that there could be many forms the Access Study scheme could take, however the methodology used was based upon adequately capturing the transport response anticipated, rather than the precise mechanisms to be employed. These assumptions are included within all the Cambourne to Cambridge Better Bus Journeys CSRM2 runs.