Learning legacy

Lessons learned from the London 2012 Games construction project

Logistics – Construction workforce travel planning

To ensure that the Olympic Park would be delivered on time, the Park needed to be a place where people wanted to travel to. The Olympic Delivery Authority (ODA) also needed to ensure that the 19,000 peak workforce generated by the work on the Park and the adjoining Athletes' Village and Stratford City could be accommodated on the transport networks. The combination of the forecasting, implementation of measures, monitoring and re-forecasting enabled suitable measures to be introduced and the Park to be delivered on-time and on-budget.

Planning Application Transport Assessment

The planning application for the development of the Park included a number of Environmental Statement Annexes, of which Volume 13A was the transport assessment. This assessment included an appraisal of the numbers and mode share for workers on the Park.

The maximum number of workers on the Park was assumed to be up to 8,000 workers during the peak construction phase. In addition to the Park, the Athletes' Village and Stratford City were under development at the same time and it was therefore considered necessary to identify the total impact of all workers on the public transport network taking the total assumed workforce number to 19,000.

An Olympic Park Travel Planning (OPTRAP) Group was set up to bring together the relevant parties to oversee workforce travel planning.

Workforce distribution

Assessment work was commissioned to examine the distribution of the workforce using public transport within a one-hour travel time (it was considered that one hour would be robust, as travel beyond one hour would have little change on overall distribution and assignment).

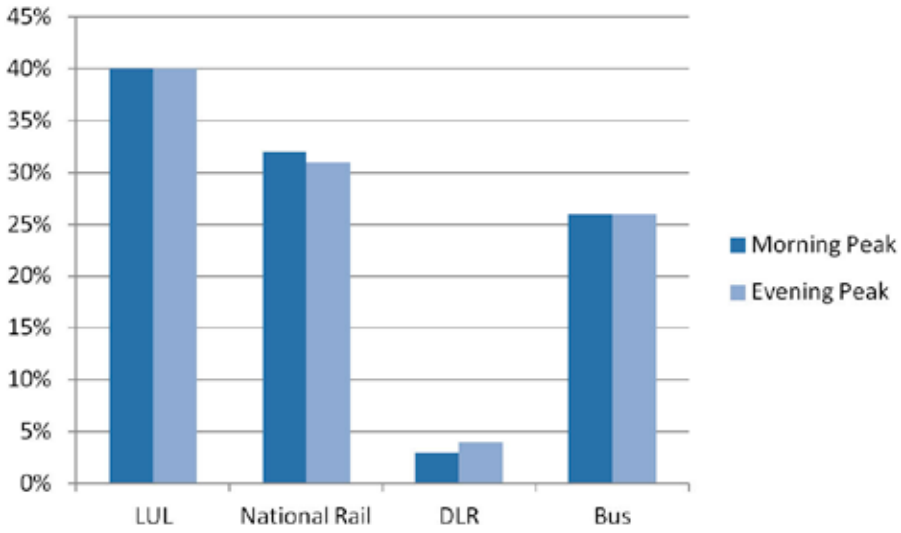

Figure 1: The assessment of workforce was undertaken for the morning and evening peak periods using TfL's Railplan model

The modelling assessment assumed that many of the Underground users would alight earlier than Stratford and seek to complete their journey by bus, for example at Mile End station on the Central Line.

The level of capacity was then assessed for the 8,000 and 19,000 workforces respectively. This suggested that at these robust levels of demand, there could be capacity issues on the North London Line, with services either just under or just over capacity, and on eastbound Great Eastern services, which are just under capacity between 5pm and 6pm. In addition, there would be a significant lack of bussing capacity on routes to/from Hackney Wick and on buses travelling along Stratford High Street in both the morning peak (to the Park) and afternoon peak (from the Park), without intervention.

The ODA therefore committed to the following actions in its first Construction Management Transport Plan:

- Validate the results of the modelling as soon as practicable, so that measures could be put in place to avoid the scenarios suggested by the preliminary assessment work.
- Monitor the travel patterns of the construction workforce through travel-to-work surveys.
- Establish OPTRAP Group to manage the development and delivery of solutions.

- Commit to providing necessary infrastructure and services to move the Park workforce.
- Maximise walking and cycling for workforce travel.
- Examine the need for additional bus services at peak periods, which may include the provision of coaches between remote rail stations and the Park.
- Commission detailed modelling of Stratford Regional Station to examine the impacts of the workforce on the station.

Travel surveys

The first full travel-to-work survey was carried out in 2008 on approximately 2,500 people on site, of which 788 (32 per cent) undertook the survey, which was generally done using face-to-face interviews in the various works canteens on the Park or by paper copies distributed within design or management offices. Subsequent surveys were undertaken on a six-monthly basis and these are summarised in Figure 2.

Travel plan

The results of the various forecasts were presented within a travel plan. This identified the range of schemes which had been, or could be, delivered to manage the Park workforce.

The travel plan noted that the nature of the Park construction meant that it was different to workplace travel plans in that it needed to reflect the need for the on-time delivery of the Park and the nature of the workforce engaged in construction. Specifically, the travel plan noted that, compared to a traditional plan, it needed to be:

- *more dynamic*: necessitating frequent travel-to-work surveys and the evaluation and delivery of fairly short-term solutions based on projections;
- *more focused*: reducing the overall travel demand would not be tackled (construction workers had to be at work on the Park), but improving access and travel choice would be promoted; and
- *less target-driven*: within the context of the planning permission which restricted on-site car parking, all other workers would need to travel to work by other means, so that specific mode-share targets were not considered appropriate.

The travel plan set out the range of initiatives implemented, planned for introduction or which were being considered as longer-term contingency. Some initiatives included:

- Stratford Regional Station layby built for workforce buses to travel between the station and the Park.
- Bow flyover – a new U-turn was constructed to minimise the travel time for buses to the south plaza and reduce impact at the A12 Bow roundabout.
- Docklands Light Railway (DLR) platform access provided at Stratford Regional Station which was usually only available for emergency evacuation.
- Provision of cycle and motorcycle parking.
- Improved walking routes.
- Travel to work maps for both cycling networks and public transport routes around the Park site.
- DLR capacity – early morning frequency increased between Stratford Regional Station and Pudding Mill Lane station.
- Pudding Mill Lane station staffed so that any issues of station overcrowding or transport delays could be managed.

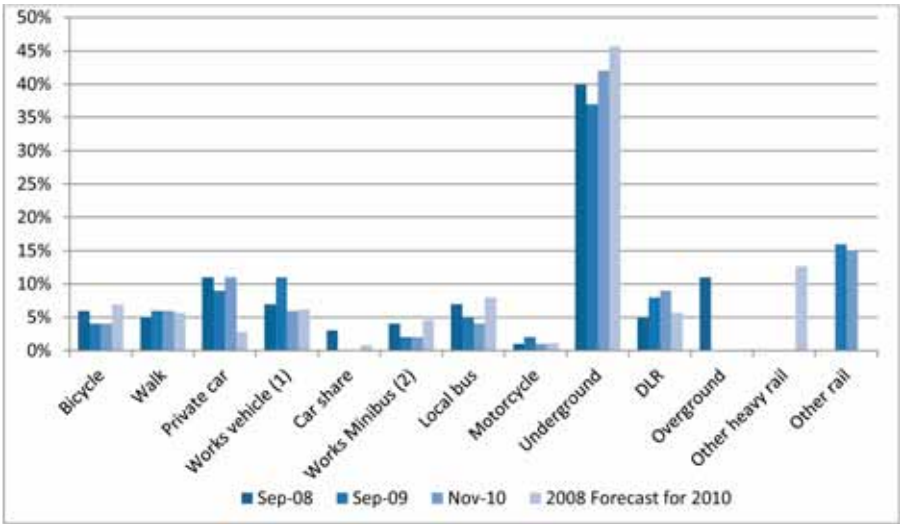

Figure 2: The mode share throughout the build up to the maximum workforce was found to be relatively stable

Project

Logistics

Supplier

CLM

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