Manchester Piccadilly and Oxford Road Capacity Scheme

**Key Issues –**
Oxford Road Station is located immediately adjacent to the River Medlock, a ‘main river’ running through central Manchester. Part of the Project requires the replacement of the pedestrian footbridge between platforms at the station. The design initially proposed the support structures (or piers) for the footbridge to be located in the River Medlock on a small foundation wall. The construction of this aspect of the project would have required substantial works within the channel of the River Medlock, which could have led to an increase in flood risk to the surrounding area during construction. There would also be a small increase in flood risk associated with the presence of new structures in the river channel during operation. There was therefore a requirement for detailed hydrological modelling to be undertaken, firstly, to determine the extent of change in flood risk and, secondly, to inform the development of mitigation measures. Consultation with the Environment Agency (EA) was undertaken throughout project design.

**Purpose of the project**
The project is part of Network Rail’s Northern Hub programme to improve the capacity of rail infrastructure throughout the North of England. The project will allow additional train movements along the Castlefield Corridor, increase the number of platforms at Manchester Piccadilly Station and reconfigure the layout of track, platforms and station facilities at Oxford Road Station, enabling larger and more frequent train services across Manchester.

**Description of the project**
The project is located in central Manchester along the existing railway and viaduct of the Castlefield Corridor, including Deansgate Station, Oxford Road Station and Manchester Piccadilly. Construction will take place from 2016 and the project will become operational in 2018. Receptors include residential buildings, commercial premises, historic buildings, the University of Manchester campus and the Macdonald Hotel, in addition to rail passengers and station users.
Lessons learnt
Baseline studies during preparation of the Environmental Statement showed that there were areas of higher flood risk associated with the River Medlock. Consultation was undertaken with the Environment Agency as part of the EIA process. Discussions about the design of the footbridge support arrangements brought to light their concerns regarding an increase in flood risk as a result of placing piers in the river channel. Detailed hydrological modelling would be required to establish the change in flood risk as a result of the piers and to inform mitigation measures.

As an alternative, options were explored that would avoid or mitigate likely significant effects. Options considered included both construction methods to reduce flood risk and design solutions that would avoid the need for a permanent bridge support to be placed in the river channel.

Lessons learnt cont.
The preferred solution was to introduce a cantilever on which the footbridge could be supported, thereby avoiding the need for a permanent structure in the river channel.

It is therefore important that the identification and assessment of likely significant effects is undertaken whilst project designs are still able to be influenced. Whilst modelling could have been undertaken to quantify effects and inform appropriate mitigation, action was able to be taken that avoided likely significant effects altogether.

Contact details
For further details, contact:
- Sally Walker
- Parsons Brinckerhoff
  Sally.Walker@pbworld.co
  m: 0161 200 5000.

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