

Paper submitted by Greater Manchester THSG in 2018 to Transport for Greater Manchester

WHAT IS A HOTWAY?

Hotway stands for high occupancy toll way.

It is a road with narrow lanes, fitted with electronic guidance and charging equipment and with tramways. If it is intended that it should be used by heavy rail trains it would also have moving block rail signalling linked to the highway guidance equipment. The highway guidance equipment should control speed as well as direction so the hotway would be an automated highway.

WHO SHOULD BE ABLE TO USE A HOTWAY?

1. Trams
2. Trains if the hotway is fitted with moving block signalling linked to the highway guidance equipment
3. Buses fitted with appropriate guidance equipment
4. Emergency vehicles fitted with appropriate guidance equipment

Subject to being fitted with appropriate guidance and charging equipment, and paying the charges:-

5. Goods vehicles which fit the loading gauge (off peak only)
6. Private cars or taxis which satisfy at least one of the following criteria off peak, at least two of them at the shoulders of the peak and all three at the height of the peak
 - (i) lowest category for emissions
 - (ii) at least two occupants, excluding the driver of a taxi
 - (iii) carrying a public transport season ticket holder or owned by a recognised car club or insured on a low mileage basis of 6,000 miles per annum or less or a taxi

WHAT PUBLIC TRANSPORT SERVICES SHOULD OPERATE ON HOTWAYS?

1. A train service or express tram service running express serving the centres of boroughs and also serving other significant stations on a rotational basis.
2. A tram service or express bus service with stations at Metrolink frequency.
3. A bus service with bus stops at conventional frequency

Service 1 may be omitted on routes which do not link major centres.

WHY HOTWAYS?

There is a political reluctance to use road charging as part of the funding package for public transport. Hotways might square this circle.

The additional revenue from road charges may help fund schemes.

Government is looking for pilot schemes for road charging and the hotways could serve that purpose.

DOES THE TECHNOLOGY EXIST?

Electronic guidance equipment – yes

Automated highway equipment – yes since it is just a different application of current systems of intelligent cruise control.

Charging technology – yes

Moving block signalling – yes as part of ETCS (European Train Control System)

Linkage between moving block signalling and automated highways – no but I don't see any conceptual difficulty.

WHERE SHOULD HOTWAYS BE BUILT?

1. Where new road schemes would otherwise be built
2. Where the additional revenue would help finance a tram, rail or guided bus scheme
3. Where the additional revenue would help finance electrification, resignalling and conversion to heavy rail/light rail mixed running on an existing rail route
4. Where a hotway is a more politically acceptable way to reserve road space for public transport
5. Where it would be useful for traffic management to be able to route hotway-eligible traffic along a railway
6. Where short lengths of hotway at pinchpoints make it possible to reserve through use of a road to hotway-eligible traffic whilst still permitting other traffic for access