

**TRANSPORT FOR LONDON**

**SURFACE TRANSPORT PANEL**

**SUBJECT: BLACKWALL TUNNEL NORTHBOUND REFURBISHMENT**

**DATE: 30 JUNE 2010**

---

**1 PURPOSE AND DECISION REQUIRED**

- 1.1 The purpose of this paper is to update the Panel on TfL's work to refurbish the Northbound Blackwall Tunnel, the impact the recent full weekend closure had on road users and the actions being taken to mitigate this further going forward.

**2 BACKGROUND**

- 2.1 The Northbound Blackwall Tunnel, built in 1897, is a key east London river crossing, carrying up to 50,000 vehicles a day. The tunnel was last modernised in 1992, although some equipment, such as the tunnel ventilation system, dates from the 1960s. The tunnel now needs a thorough refurbishment to install new generation safety systems and ensure it is serviceable for many more years of heavy use.
- 2.2 The £70 million refurbishment project, being undertaken by TfL's contractor BAM Nuttall, commenced on 7 February 2010 and is due to complete in December 2012. The main works will be complete before the start of the London 2012 Olympic and Paralympic Games. The remaining works will cease during the Games and the tunnel will be put back into 'full-time use' for their duration.
- 2.3 The scheme will introduce new fire, communication and incident detection systems, better access for emergency services, and a new CCTV camera system. Lighting and ventilation will also be improved. The improvements to the tunnel will increase TfL's capacity to detect accidents, control fires and remove smoke from the tunnel, and evacuate motorists safely in the event of an incident. The works will also improve the resilience of the tunnel's equipment, reducing the number of future closures required to undertake repairs and maintenance works.

**3 TRAFFIC MANAGEMENT FOR THE REFURBISHMENT WORKS**

- 3.1 The implementation of the project is complex and demanding. Following extensive stakeholder engagement and consideration of various traffic management options, in order to minimise disruption to the travelling public, it was agreed that the majority of the works would be undertaken during weekday overnight closures (21:00 - 05:00 Sunday to Thursday nights). During these closures, the northbound tunnel is closed and northbound traffic is diverted through the southbound bore. The tunnel is therefore closed to southbound traffic, which needs to divert to alternative river crossings, including the Rotherhithe Tunnel and Dartford Crossing.

- 3.2 The decision to run northbound traffic through the southbound tunnel and to divert southbound traffic was taken for a number of reasons, including:
- (a) the average northbound traffic flows during the overnight works closure period (21:00 - 05:00) are up to 13.4 per cent higher than southbound flows;
  - (b) the extensive high capacity road network on the northern side of the tunnel makes it easier to divert southbound traffic in a safe and coordinated manner;
  - (c) no major road junctions exist near the southern side of the tunnel meaning that northbound traffic would need to travel along local roads to get to alternative river crossings;
  - (d) the London Borough of Greenwich would not be able to cope with the additional volumes of traffic and has a 7.5 tonnes HGV limit on some of its roads; and
  - (e) the current traffic management arrangement enables patrons of the O2 to travel southbound across the river to attend evening events and return northbound after events. Restricting northbound traffic in the evening would create significant local traffic problems across a wide area of south London.
- 3.3 TfL has also co-ordinated the work in the tunnel with other essential work that must take place on the network in order to mitigate disruption as far as is possible. For example, the weekly maintenance closures of the Rotherhithe Tunnel have been rescheduled to take place in the early hours of Saturday morning when traffic is low and when the Blackwall Tunnel is open.
- 3.4 The Blackwall Tunnel closes at 21:00, but the Dartford Tunnel does not become toll-free until 22:00. Therefore, to ensure that there is always a toll-free route across the river for HGVs and general traffic, TfL has extended the operating hours of the Woolwich Ferry from 20:00 to 22:00 on Monday to Thursdays.

## **4 REACTION TO THE OVERNIGHT CLOSURES**

- 4.1 Following the start of the works in February, there were some delays observed during the first week of the overnight closures but these have now generally dissipated. However, journey times have increased for Blackwall Tunnel users because of the need to divert to Rotherhithe Tunnel.
- 4.2 There has also been a degree of adverse press and public reaction to the overnight closures. Driver concerns have centred on the extra time and petrol costs involved in having to make regular longer return journeys to south London via the alternative river crossings. The possibility of TfL banning HGVs overnight and instigating a 20mph contra-flow operation in the southbound tunnel, as an alternative to the current traffic management arrangement, has also been raised.
- 4.3 This arrangement was considered by TfL, however, the Blackwall Tunnel is a significant route for freight deliveries into central London and the only night-time HGV river crossing available in London, east of Kew (the Woolwich Ferry closes at 22:00). In addition, TfL would not be able to impose a temporary restriction on HGV movements through the tunnel without the introduction of costly and

time consuming physical enforcement measures. The introduction of such temporary measures would reduce the available working window in which works could be undertaken, increasing the overall duration of the programme by approximately six months and adding an additional cost to the project of approximately £13 million.

## **5 WEEKEND CLOSURES**

5.1 Although the vast majority of the works can be completed during the overnight closures, there are certain operations (e.g. lifting heavy equipment into and out of the ventilation shafts, and pouring and curing new concrete platforms in the ventilation shafts above the running lanes) that cannot be completed in the limited working window provided by the overnight closures. It has always been the case that full weekend closures would be required, in addition to the regular overnight closures, with a total of ten weekend closures then programmed.

5.2 Following discussions with customer and stakeholder groups, including the London Boroughs of Greenwich and Tower Hamlets, London TravelWatch, the O2 and the Metropolitan Police Service, five weekends were selected where disruption and impact would have the least inconvenience to the travelling public. Particular considerations included avoiding planned Jubilee Line closures and major O2 area events. It was agreed with stakeholders that the tunnel would be closed over the following weekends in 2010:

21:00 Friday, 4 June – 05:00 Monday, 7 June

21:00 Friday, 9 July – 05:00 Monday, 12 July

21:00 Friday, 16 July – 05:00 Monday, 19 July

21:00 Friday, 10 September – 05:00 Monday, 13 September

21:00 Friday, 1 October – 05:00 Monday, 4 October

5.3 The remaining five weekend closures will take place in 2011 and 2012, and dates will be determined later in the project as work progresses. The weekend closures operate in the same way as the overnight closures, with the tunnel remaining open all weekend to northbound traffic and southbound traffic diverting to other river crossings.

## **6 ACTIONS TO MITIGATE THE IMPACT OF TUNNEL CLOSURES**

6.1 Publicity for the overnight closure regime and details of the refurbishment works were released by TfL in January 2010 and details made available on the TfL website. In late January 2010, letters were also sent to 15,000 residents and businesses within approximately one kilometre of both tunnel entrances, advising of the works and the need for weekend closures. Key stakeholders were also sent emails providing information on the closure regime.

6.2 TfL announced the dates of the five weekend closures in May and held two public meetings at Canary Wharf and the O2 on 14 and 15 May, to explain the need for them and why the five particular weekends had been chosen. A detailed information leaflet was also produced for use at these events and for subsequent wider distribution (e.g. through local borough council offices).

6.3 Roadside Variable Message Signs (VMS) were set well in advance on all possible routes to the tunnel to warn drivers about the planned closures. TfL has also worked with the Highways Agency to ensure that messages were

displayed on their VMS.

- 6.4 An extensive media campaign to warn drivers of the closures was also undertaken, including newspaper advertisements in the Evening Standard and Metro, and extensive traffic information broadcasting. TfL issued a final press release at the beginning of June, which generated significant coverage on local TV and radio news programming.
- 6.5 In addition, extra Woolwich Ferry services were scheduled over the first weekend closure - an additional boat ran on 5 June from 09:00 to 17:00 and an additional boat on 6 June from 11:30 to 19:30.

## **7 IMPACT OF THE FIRST PLANNED WEEKEND CLOSURE**

- 7.1 The tunnel was closed southbound for the first scheduled weekend closure, from 21:00 on Friday, 4 June until 05:00 Monday, 7 June. Despite the extensive advanced publicity outlined above, there was significant congestion on all approaches as a result of the closure.
- 7.2 Traffic was very slow moving through the Rotherhithe Tunnel and on the diversion routes on the south side of the river on Jamaica Road, Evelyn Street, Creek Road and the A2. In addition, there were significant queues on the north side of the river for the Woolwich Ferry service.
- 7.3 To help reduce congestion, the London Streets Traffic Control Centre (LSTCC) implemented Urban Traffic Control contingency plans and ensured maximum publicity via media travel broadcasts. BBC radio ran an additional broadcast first thing Saturday morning prior to their normal traffic bulletins.
- 7.4 Six additional mobile VMS were also sourced and put in place from 08:00 on Sunday 6 June to supplement fixed signs. The Woolwich Ferry terminal car park was opened on the north side of the river to help ease traffic queues on the approach roads.

## **8 GOING FORWARD**

- 8.1 A number of lessons have been identified for future weekend closures. Further actions will be taken to help mitigate the impact of the next closure, which is scheduled for 9-12 July, including:
  - (a) Further improvements to advanced public information about the closures, including the provision of additional mobile variable message signs;
  - (b) Alterations to the hours of operation of the second Woolwich Ferry boat to allow a two boat operation to be maintained until later on the Saturday evening;
  - (c) A review of the current traffic diversion measures, including traffic management arrangements at the southern exit of the Rotherhithe Tunnel, with a view to helping smooth traffic flow;
  - (d) Opening the Woolwich Ferry north side car park during future weekend closures to help with the stacking of queuing traffic; and
  - (e) Working with the Metropolitan Police Service to ensure the best levels of

Road Response Team in support of these closures.

- 8.2 TfL will continue to assess the impact of both the overnight and weekend closures with a view to determining whether alternative traffic management arrangements or mitigation measures may be deployed to minimise further the impact on road users.

## **9 RECOMMENDATION**

- 9.1 The Panel is asked to NOTE the paper.

## **10 CONTACT**

- 10.1 Contact: Garrett Emmerson, Chief Operating Officer – London Streets  
Number: 020 3054 0189  
Email: [GarrettEmmerson@tfl.gov.uk](mailto:GarrettEmmerson@tfl.gov.uk)