

GNLRT ADVISORY COMMITTEE

23rd March 2004

REPORT OF THE EXECUTIVE DIRECTOR – NET

DAVID LANE CROSSING

At the last meeting of the GNLRT Advisory Committee on the 23rd September 2004 concerns were raised about the safety of the road junction with the tramway and railway at Vernon Road / David Lane / Southwark Street. This report has been prepared in response to this concern.

Regulatory Status of the Level Crossing

The David Lane level crossing at Basford is located at the junction of Vernon Road, David Lane and Southwark Street. Vernon Road is a significant radial route between Bulwell and Nottingham while David Lane and Southwark Street provides a long established route across the north west of the City. In addition, the crossing provides an important local link within the Basford Area. The alternative routes are by the Ring Road / Church Street to the south or through Bulwell to the north. The road layout in this vicinity is constrained within a tight highway boundary and the nature of the operation of the crossing is a significant factor in limiting the capacity for traffic movements due to the clearance times required for railway operations to safely raise and lower the barriers. There have been longstanding concerns associated with the former layout of the railway crossing arising from the close proximity of Vernon Road alongside the railway. In addition, the railway crossing was controlled using only the traffic light control without the standard barriers and flashing wig wag signals combination. A signal box located at the site formerly controlled the Level Crossing.

The current highway layout was designed by the Bombardier Carillion Consortium on behalf of Arrow to accommodate tram movements. The layout has been the subject of an order promoted by Network Rail (formerly by Railtrack) under the Level Crossings Act 1983. This was amended on the 3rd July 2003 to make provisions for a yellow box marking on the crossing. These Statutory Orders are considered by the H.M. Railway Inspectorate of the Health and Safety Executive and authorised by the Secretary of State. Any proposal to change the operation of the Railway Crossing is subject to this statutory procedure.

The proposals were subject to scrutiny to examine computer modelling of traffic flows and safety audit procedures as part of the design approval process under the Greater Nottingham Light Rapid Transit (GNLRT) Act.

The current crossing layout complies with the statutory Level Crossing Order and has addressed the following:

- Accommodates the latest railway crossing safety standards and control.
- Provides additional improved crossing facilities across Vernon Road to assist pedestrians already using this location and those likely to be generated by the Basford tram stop.
- Maintains the most significant traffic movements by using the traffic link between Vernon Road and Southwark Street.
- Provides for frequent tram movements across David Lane without causing significant delays to trams or traffic.
- Provides for levels of traffic movement comparable to the former situation.

Restricted Turning Movements

This junction relies on a number of banned turns for its operation. Some of these have always been present in the traffic signal junction layout. Further banned turns were introduced as detailed below:

- Prohibited left turn from David Lane to Vernon Road north (towards Bulwell). This permits the use of a green man crossing on this northern arm of the junction. The alternative route is to proceed ahead and follow the gyratory.
- Lincoln Street one way towards David Lane (except for cycles). This permits a simplification of the Lincoln Street / David Lane junction and provides space for pedestrian movement around the tram alignment.
- Prohibited left turn from Vernon Road to David Lane. This is necessary to maintain traffic capacity on the road network and the requirement for flashing wig wag signals on the crossing. If traffic on Vernon Road northbound were permitted to turn left across the level crossing the wig wags would have to control this approach. Because there is insufficient space to have signals for separate left and ahead movement on this approach, this would prevent the flow of the Vernon Road traffic when the railway barriers were down causing major delays. In the present arrangement only David Lane and Southwark Street have to be stopped by wig wags when the railway crossing operates allowing Vernon Road traffic to continue moving when the barriers are down. Tram movements cross David Lane while the Vernon Road Traffic movements take place. The alternative route is accommodated via the Vernon Road / Southwark Street link road.

The signing of the restrictions has been reviewed as part of the construction works and is now in place. The signing used makes clear the nature of the restrictions (no right turn / no left turn) which are readily understood by drivers and the signs themselves are mounted on yellow backing boards as a proven method of highlighting presence to drivers. In addition, the traffic signals include ahead green arrows for traffic movements that can only make ahead

movements and these are supported by further ahead only arrows on these signal heads.

Accident Record

All injury accidents reported through the Police are co-ordinated in a database available to the City Council to monitor safety on the highway network. This information is also used to prioritise action to address specific accident types found to be occurring across the highway network. Prioritised schemes are funded as part of the Local Transport Plan (LTP) programme. These contribute to Key Best Value Indicators for the City monitored by the Department for Transport.

The accident numbers at the David Lane Level Crossing are indicated in the table below:

1998	1
1999	3
2000	5
2001	8
2002	5
2003	1 (to June)

The new junction arrangements were introduced in November 2001. Accident records are not yet available for the period that trams have been using the junction, but members may be aware that there was a recent accident reported in the press involving a collision between a van and a tram at this location. This is the only personal injury accident involving the tram at this location. All incidents are investigated by Nottingham Tram Company. There are regular meetings involving the Tram Operator, the Police and the Highway Authority to review safety issues. This location has been considered as part of this process but no remedial actions have been identified that could improve safety.

A survey of traffic violations by vehicles has been undertaken between 7.00 and 18.00 on the 21st January 2004. The results are shown in the table below:

David Ln left to Vernon Rd (P)	40 of total 5120 movements from David Ln
David Ln right to Vernon Rd (P)	9 of total 5120 movements from David Ln
David Ln to Lincoln St	12 movements
Vernon Rd right to Southwark St (P)	27 of a total of 5052 movements from Vernon Rd south

Vernon Rd left to David Ln (T)	12 of a total of 5052 movements from Vernon Rd south
Vernon Rd right to David Ln (T)	3 of a total of 4922 movements from Vernon Rd north
Vernon Rd left to Southwark St (P)	2 of a total of 4922 movements from Vernon Rd north
Southwark St right to Vernon Road (P)	26 movements from a total of 5221 from Southwark St

While the numbers of vehicles making violations is very few in comparison to all movements there is particular concern about movements that bring violating vehicles into conflict with pedestrian crossings that could be showing green to pedestrians crossing (marked P above) and the left and right turn from Vernon Road to David Lane which could bring this vehicle into conflict with trams (marked T above). Comparisons to earlier surveys of violations has shown a general increase in some of these movements to the present levels. This suggests that drivers are making movements in the knowledge they are violating as the number of strangers to the area is unlikely to have increased and the level of signing has been improved over this period. It therefore appears that there is a residual small percentage of errant motorists who flout the law and deliberately ignore the traffic signs and road markings.

Enforcement / Other Options

In terms of enforcement, the Police have very limited resources, but nevertheless they have deployed traffic wardens in this area and have used a mobile camera van and it is understood this has resulted in several intended prosecution notices. The Police have advised that enforcement will continue at this location but have expressed concern about resources involved. They would like to see a more permanent solution to address this situation.

At the present time, there are no fixed enforcement cameras for turning violations that have been authorised by the Department for Transport for use on the highway. This would be necessary for prosecutions to be made and several cameras would be required to address the number of banned movements of concern as they could not all be viewed by the same installation.

The Government is currently carrying out consultation on the new Traffic Management Bill, which is hoped will enable Highway Authorities to enforce certain traffic offences, of which this would be one. This would then allow City Council enforcement resources to be systematically targeted at problem locations such as this to help alleviate the problem.

Other options have been examined to alleviate the need for the banned turn movements at this location. However, the constrained highway layout dictates the nature of the traffic management. Junction improvements could be made if the alignment of Vernon Road could be moved further from the railway

crossing. This option would be extremely costly and would require land acquisition. In the present circumstances, funding could not be justified on the level of accidents observed at the junction in relation to other sites with greater potential to reduce accidents, therefore this would only be feasible as part of a comprehensive land development plan. A planning brief has been developed for the land on the south side of Southwark Street up to Vernon Road, however, it is understood that any significant changes to the highway layout are not practical in planning terms.

Summary

Overall, the junction has worked reasonably well. The accident history does not show any significant trend to indicate there is an increase in injury accidents, although a longer period of time is required to be conclusive, due to variations in the number of accidents at any location over time. Signing has been provided to a prominent level and it is difficult to accept that drivers are confused by the requirement to proceed ahead only, which suggests violations for the most part are deliberate. The option of restricting movements across the railway crossing / tramway would be a benefit for tram operation, however, this would cause significant disruption to crossing users that observe the current restrictions, especially the communities on either side of the level crossing. In addition there would be significant impacts on the alternative routes and would be difficult to justify given the current safety record.

It is recommended that the current enforcement actions of the Police should be supported and encouraged along with longer term extension of enforcement powers for the City Council.

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