

Executive Summary

- E1. Rother Valley Railway (RVR) Limited is seeking to reconstruct a section of railway between Bodiam and Robertsbridge in East Sussex. This section is the final missing link in the Kent and East Sussex Railway (KESR).
- E2. The reconstructed railway line will enable the direct interchange of passengers between KESR and the mainline railway network at the new Robertsbridge Junction Station. Once complete this will enable visitors to use the country's public transport system to access the KESR and to use the line as a leisure transport corridor serving popular attractions such as the National Trust's Bodiam Castle and the historic town of Tenterden.
- E3. In order to complete the restoration, RVR is proposing to construct a level crossing on the A21 Robertsbridge Bypass.
- E4. As part of this assessment work, following consultation between RVR and East Sussex County Council (ESCC), Mott MacDonald has been commissioned to: -

"Review this (A27 Southerham to Beddingham Improvements – POPE One Year After Study – May 2010; Highways Agency) and compare frequencies, closure times, road traffic movements etc. in an annex to demonstrate that the Beddingham level crossing was a totally different case".

and

"Investigate the delays to traffic at Flimwell traffic lights on the A21, these delay traffic far more than a level crossing would (and they also "break up" the flow of traffic already). Produce an annex with results".

and

"Major delays also appear at other points on the A21, e.g. both north of Flimwell where the dual carriageway narrows to single lanes and the B2162 joins it, and to the south of Robertsbridge further down the A21 where the B2089 joins. It appears that these delays are far greater than those which would be caused by the RVR level crossing. Produce an annex with the results".

- E5. This report uses data sourced from the A27 Southerham to Beddingham Improvements May 2010 – POPE One Year After Study, historical operational information from Network Rail of the now removed railway level crossing of the A27 at Beddingham and the Highways Agency Traffic Information System (HATRIS) which contains information on traffic flow and journey times on the motorway and trunk road network.

- E6. A comparison of the characteristics between the now removed A27 railway level crossing at Beddingham and the proposed RVR railway level crossing at Robertsbridge can be summarised as follows: -

Table X -1: Comparison of Characteristics between A27 Beddingham and A21 Robertsbridge Railway Level Crossings

Characteristics of A27 Beddingham and A21 Robertsbridge Railway Level Crossings	A27 Beddingham (now removed)	A21 Robertsbridge (RVR proposed)
No. of Closure per Hour (No.)	8	2
Average Time of Each Closure (seconds)	160	51
Approximate Total Time Closed per Day (mins)	399	17

- E7. In respect of the A21 investigations traffic flows and journey times have also been derived for the following locations: -

- The traffic signal controlled junction on the A21 at Flimwell;
- Two additional locations on the A21 where the highway layout is considered to contribute to vehicle delay. These two locations being south of Robertsbridge at the roundabout junction with the A2100 (near Battle) and at Pembury between the A228 and the A262 where the carriageway cross-section changes from 4-lane, 2-way to 2-lane, 2-way); and
- For the section/link of the A21 at Robertsbridge where the RVR railway level crossing is proposed. These have then been assessed and delays calculated from differences in off-peak and peak journey times.

- E8. These locations have been analysed and delays calculated from differences in off-peak and peak journey times. A summary of these findings is set out in Table X-2 overleaf.

Table X -2: Comparison of AM and PM journey times between alternative A21 locations and the site of the proposed RVR level crossing

Location	Basis of Delay	AM Peak		PM Peak	
		Average delay (seconds per vehicle)	Associated total hourly delay (veh. hrs)	Average delay (seconds per vehicle)	Associated total hourly delay (veh. hrs)
A21 Flimwell junction (s/b)	Traffic Signal Operation	106	14.66	86	23.36
A21 Flimwell junction (n/b)	Traffic Signal Operation	51	10.99	46	5.47
A21 junction with A2100 (s/b)	Roundabout junction	52	5.86	47	11.25
A21 junction with A2100 (n/b)	Roundabout junction	49	8.81	65	8.78
A21 Kipping's Cross (s/b)	Change in carriageway cross-section	48	9.64	67	24.88
A21 Kipping's Cross (n/b)	Change in carriageway cross-section	122	44.29	61	14.89
A21 Proposed RVR crossing	One crossing/hr (Closure time = 51 seconds)	0	0	0.37	0.09
	Two crossings/hr (Closure time = 112 seconds)	0	0	3.51	0.84

- E9. It can be seen from the table above that the potential delays calculated for the RVR railway level crossing at Robertsbridge are almost insignificant when compared with the delays at the three other locations investigated.