

**East Sussex Road Safety Programme – Speed Management Project**  
**Procedure for the assessment of A and B class roads**

The Speed Management Project forms part of the wider aims of the East Sussex Road Safety Programme to reduce the number of killed and serious injuries (KSI) sustained on the County's road network. The assessment is based upon nationally accepted procedures and mirrors the process that was followed in 2008 as part of our rural speed limit review on A and B class roads. The 2008 review was instigated following the Department for Transport's revised national guidance (Circular 01/2006) on the setting of local speed limits.

As part of the previous review, all of the A and B class roads were split into smaller lengths which typically range between 600 metres (the recommended minimum length for a speed limit) and 1km. The section lengths usually correspond with existing speed limits, built up areas, or sections between major junctions. The review lengths represent sections of the network that would be viewed by a driver as being distinct and would therefore indicate any treatment identified as providing a consistent message that could be understood by a driver, thereby producing the maximum impact in terms of how an individual driver would assess the conditions of the route. We have retained these identified lengths for the latest review.

For each section, the number of fatal, serious and slight crashes was identified from the Sussex Police crash database for the latest available three year period (01/09/2013 to 31/08/2016). The Annual Average Daily Traffic (AADT\*) flows were also added using data from 2015 (*\*the AADT flow is the total volume of vehicle traffic of a highway or road for a year divided by 365 days*).

As per the previous assessments, for the crash score per 100 million vehicle kilometres was calculated for each section using the following formula:

$$\text{Crash score} = \frac{\text{Total number of crashes for section} \times 100,000,000}{3 \times \text{AADT flow} \times 365 \times \text{section length}}$$

Any sections above 35 crashes per 100 million vehicle kilometres were highlighted in red. This is the threshold recommended in Department for Transport Circular 01/06 on setting local speed limits.

In order to tailor the assessment to highlight killed or seriously injured crashes, the KSI crash score was established using the amended formula:

$$\text{KSI Crash score} = \frac{\text{Total number of KSI crashes for section} \times 100,000,000}{3 \times \text{AADT flow} \times 365 \times \text{section length}}$$

For each road, the total KSI crash score and average KSI crash score were established. Typically, the average KSI crash score was slightly higher than the total score, as this was less influenced by those sections of road with no KSI crashes.

Subsequently, the roads were ranked according to their *average KSI crash score*. The average KSI crash score across the County was established to be 8.8 KSI's per 100 million vehicle kilometres. The 24 sections with crash scores above the County average were highlighted and taken forward for further investigation.

The priority list is attached.

## **1. Detailed analysis of crash record**

For each route, intermediate crash reports were produced which contain a summary of the individual circumstances, including the causation factors, for each of the KSI crashes that occurred along the identified route.

At sites where several KSI crashes have occurred at a single location, such as on a specific bend or junction, the circumstances of the crashes were examined to determine whether there were any treatable crash patterns (for example, loss of control).

The priority list featured several shorter lengths of A and B class road which achieved a high KSI crash score as a result of a single KSI crash occurring within a relatively short distance. In these circumstances, it was not possible to identify a crash pattern that could be treated by speed management or route study work, although an assessment of the circumstances was carried out in each case.

## **2. Obtain existing speed data**

The Transport Monitoring team were consulted to determine whether any speed surveys have been carried out on the identified routes within the latest five years, to ascertain what the existing vehicle speeds are along the route, and pinpoint locations where additional speed surveys may be required to supplement or update the available data.

## **3. Site visit**

All sites were driven in both directions to identify possible treatments, which include:

- A review of the intermediate crash reports, to examine the sections of the route with a high KSI crash rate and consider possible remedial measures.
- A review of the existing speed limits along the route, and the identification of sections of route with sufficient character and appearance to support a lower speed limit. This may incorporate sections of road with higher levels of frontage of development, or containing a sequence of hazards such as bends or junctions, with a treatable crash pattern. Where such sections were established, suitable sites were identified for speed measuring equipment to be installed for a period of seven days.
- Identification of suitable lengths for route treatment, to ensure that all of the existing signs and road markings throughout the route are of a consistent standard and in good condition. This may incorporate additional minor measures to improve road safety, for example, the introduction of improved warning signage and hazard marker posts on bends where drivers have lost control.
- Minor signing and lining improvements targeted at specific sites, including those routes or route sections where single KSI crashes had been recorded.
- Identification of sites which have recently been subject to reduced speed limits, route study treatment, or other schemes, or where upcoming schemes are proposed. Consideration was given to carrying out 'after' speed surveys to determine the effectiveness of recent schemes.

## **4. Commission new speed surveys**

For those sections where the speed management work was identified, including potential speed limit reductions or additional measures to support the existing speed limits, speed surveys will be commissioned at locations that would give a representative indication of vehicle speeds on a particular section of road.

The analysis of the reported mean speed and 85th percentile speed (the speed at or below which 85% of vehicles are travelling) may then be used as the basis for determining whether a reduction speed limit might be appropriate, to ensure that the proposed reduction would be relatively self-enforcing and would be supported by Sussex Police.

#### **5. Discuss with Sussex Police**

Once the speed surveys have been carried out, members of the Road Safety team will hold a meeting with a representative from Sussex Police to confirm that the proposed interventions would be supported by Sussex Police (who would be responsible for the enforcement of any proposed speed management work) before it is progressed further.

Road Name	Length (km)	Crash Total	Crash Score	Avg Crash Score	KSI Total	KSI Score	Avg KSI Score	Rank	KSI/km	Rank2
B2087 Ticehurst to Flimwell	3.22	5	37.5	36.8	4	30.0	31.7	1	1.2	6
B2239 Mayfield Flat	1.3	2	59.8	59.8	1	29.9	29.9	2	0.8	17
B2165 Cripps Corner to Clay Hill	8.07	5	28.7	29.3	4	23.0	23.5	3	0.5	25
A295 A271 Hailsham to A22 Hailsham	3.83	23	59.2	49.7	6	15.4	17.6	4	1.6	3
B2238 A26T Beddingham Road to A259 The Drove	1.11	5	38.5	39.9	2	15.4	16.3	5	1.8	2
B2191 Shinewater to Westham	4.49	15	35.4	39.6	6	14.2	15.8	6	1.3	5
A229 Hurst Green to County Boundary	1.23	3	41.5	41.5	1	13.8	13.8	7	0.8	16
A264 East Grinstead to Ashurst	9.7	17	25.8	23.6	8	12.2	12.3	8	0.8	15
A259 Saltdean to Hastings Boundary (East)	47.87	432	49.9	60.4	89	10.3	12.3	9	1.9	1
A28 Westfield to Northiam	16.54	35	31.0	39.1	7	6.2	11.8	10	0.4	30
B2157 Green Lane to Eridge Road, Crowborough	1.87	2	20.6	25.3	1	10.3	11.5	11	0.5	24
B2204 Ninfield to A271 Junction	4.7	12	22.9	27.7	5	9.5	10.7	12	1.1	8
B2026 County Boundary to Lampool roundabout	15.5	19	23.7	25.3	7	8.7	10.5	13	0.5	27
B2116 Keymer to A275 Offham	9.62	10	26.5	25.8	2	5.3	10.3	14	0.2	39
B2112 Ditchling to Wivelsfield	8.09	39	52.7	54.7	8	10.8	10.3	15	1.0	9
B2169 Tunbridge Wells to Bayham Abbey	5.7	7	22.9	27.9	2	6.6	10.2	16	0.4	34
B2102 Uckfield to Blackboys	11.2	26	42.0	58.2	7	11.3	10.2	17	0.6	18
B2203 Horam to Heathfield	4.78	8	28.7	28.0	2	7.2	10.1	18	0.4	31
B2188 Groombridge to B2026	8.97	11	29.9	39.1	3	8.2	10.1	19	0.3	35
B2244 Hawkhurst to A21 Seddlescombe	11.58	13	19.6	22.3	5	7.5	9.4	20	0.4	29
B2124 Ringmer to A22 Golden Cross	7.2	18	40.2	50.4	4	8.9	9.3	21	0.6	22
B2104 Hellingly to Eastbourne	12.2	49	33.6	40.6	11	7.5	9.3	22	0.9	10
B2096 Heathfield to A271 Battle	17.3	33	43.6	41.7	7	9.2	8.6	23	0.4	32
B2110 Forest Row to Groombridge	12.87	29	38.4	129.8	7	9.3	7.7	24	0.5	23
B2123 Sussex University to County Boundary	2.14	13	29.1	35.9	3	6.7	7.6	25	1.4	4
B2099 Frant to A21 (T) Swiftsden	16	18	16.4	21.7	7	6.4	7.5	26	0.4	28
B2095 A269 Ninfield to A259 (T)	6	5	22.4	26.6	1	4.5	7.3	27	0.2	42
A2100 St Johns Cross to A21 Hastings	12.31	41	25.4	28.1	11	6.8	7.3	28	0.9	11
A265 Cross In Hand to A21 Hurst Green	25.65	44	20.1	28.8	10	4.6	7.2	29	0.4	33
A271 Cross In Hand to Hurst Green	22.07	58	29.7	35.5	13	6.7	6.9	30	0.6	20
A275 Wych Cross to A27 (T) Lewes	25.3	42	20.3	21.6	12	5.8	6.7	31	0.5	26
A2270 Polegate Crossroads to A259 The Goffs	6.09	41	33.5	32.4	7	5.7	6.7	32	1.1	7
A267 Tunbridge Wells to Boship Roundabout	31.7	98	23.3	24.0	28	6.7	6.4	33	0.9	12
A269 Hazards Green to Bexhill	11.64	54	40.2	45.8	7	5.2	5.8	34	0.6	19
A22 Lewes Road to Lottridge Drove	45.09	164	20.9	21.5	38	4.8	5.6	35	0.8	14
A26 Tunbridge Wells to A27 (T)	34.80	123	21.0	23.1	30	5.1	5.4	36	0.9	13
A268 Newenden to Rye & Flimwell to County Boundary	19.38	23	24.6	28.0	4	4.3	4.9	37	0.2	40
B2247 Cophall Roundabout to Stone Cross	4.15	11	22.1	31.5	1	2.0	4.3	38	0.2	37
B2089 A21 Vinehall Street to A268 Rye	17.94	17	20.8	24.1	3	3.7	4.0	39	0.2	41
A272 Scaynes Hill to Five Ashes	21.2	45	18.7	21.2	12	5.0	3.9	40	0.6	21
B2100 Crowborough to Lamberhurst	17.33	29	30.9	22.6	4	4.3	3.6	41	0.2	38
B2192 Earwig Corner to Cross In Hand	15.16	28	21.5	23.3	5	3.8	3.3	42	0.3	36
B2082 A268 Rye to County Boundary	3.77	0	0.0	0.0	0	0.0	0.0	43	0.0	43
B2088 Northiam to A268 Four Oaks	3.65	1	12.9	11.0	0	0.0	0.0	44	0.0	44
B2101 Rotherfield to A267	2.4	0	0.0	0.0	0	0.0	0.0	45	0.0	45
B2109 Drove Road to Norton Road	0.45	1	0.0	0.0	0	0.0	0.0	46	0.0	46
B2183 Beggars Wood Road Chailey	1.41	5	100.6	100.6	0	0.0	0.0	47	0.0	47
B2193 Southover High Street	1.5	0	0.0	0.0	0	0.0	0.0	48	0.0	48
<b>Average</b>	<b>12.0</b>	<b>35.0</b>	<b>29.3</b>	<b>33.8</b>	<b>8.2</b>	<b>8.0</b>	<b>8.9</b>		<b>0.6</b>	