

Setting Local Speed Limits

Surrey County Council's Policy



1. Introduction

The aim of Surrey County Council is to set speed limits that are successful in managing vehicle speeds and are appropriate for the main use of the road. Reducing speeds successfully may reduce the likelihood and severity of collisions, and can help to encourage more walking and cycling. This can help to make communities more pleasant places to live, and can help sustain local shops and businesses. The desire for lower speeds has to be balanced against the need for reasonable journey times and the position of the road within the county council's Strategic Priority Network.

The purpose of this policy is to explain the roles, responsibilities and the procedure that will be followed by Surrey County Council when deciding whether to change a speed limit. The policy also provides advice and guidance on the factors and additional supporting measures that may be needed to ensure successful management of vehicle speeds.

This policy has been developed with reference to national policy issued by central government "Setting Local Speed Limits, Department for Transport Circular 01/2013" and national policy issued by the Association of Chief Police Officers, "Speed Enforcement Policy Guidelines 2011 to 2015: Joining Forces for Safer Roads". This policy was approved by the county council's cabinet on 24 June 2014 and became effective on 3 July 2014.

2. Key Principles

National speed limits

The three national speed limits are:

- the 30 mph speed limit on roads with street lighting (sometimes referred to as Restricted Roads)
- the national speed limit of 60 mph on single carriageway roads
- the national speed limit of 70 mph on dual carriageways and motorways.

These national speed limits are not, however, appropriate for all roads. The speed limit regime enables traffic authorities like Surrey County Council to set local speed limits in situations where local needs and conditions suggest a need for a speed limit which is different from the national speed limit. For example while higher speed limits are appropriate for strategic roads between main towns, lower speed limits will usually apply within towns and villages. A limit of 20 mph may be appropriate in residential areas, busy shopping streets and near schools where the needs and safety of pedestrians and cyclists should have greater priority. Changing from the national speed limit on a road will require that speed limit repeater signs are provided along the route to indicate the new speed limit.

Decision making and responsibilities

Within Surrey decisions over most highway matters including setting speed limits are delegated to local committees of elected county council and borough/district

councillors. There is a local committee in each of the 11 boroughs and districts within Surrey. Each local committee is provided with an annual budget from Surrey County Council for highway improvements throughout their area, and then the local committee decides where best to invest their budget in response to local concerns to tackle congestion, improve accessibility, improve safety and support the local economy. Therefore any proposals for changing speed limits including the signing, legal speed limit order and supporting highway measures would require agreement and allocation of funding by the local committee from their budget for highway improvements.

The county council's Area Highways Team, who report to the local committee, will lead the process to assess a potential change in speed limit. The Area Highways Team will be assisted by the county council's central Road Safety Team and will consult with Surrey Police's Road Safety and Traffic Management Team. The output would be a report and recommendations (in accordance with this policy) for consideration by the local committee, who will then decide whether to allocate funding for a scheme to change the existing speed limit or not.

Speed limits and speed management

Experience shows that changing to a lower speed limit on its own will not necessarily be successful in reducing the speed of traffic by very much if the prevailing mean speeds are much higher than the proposed lower speed limit. If a speed limit is set too low and is ignored then this could result in the majority of drivers criminalising themselves and could bring the system of speed limits into disrepute. There should be no expectation that the police would be able to provide regular enforcement if a speed limit is set too low as this could result in an unreasonable additional demand on police resources. It is also important to set reasonable speed limits to ensure consistency across the country.

Therefore speed limits should be considered as part of a package of measures to manage vehicle speeds and improve road safety. Changes to the highway (for example through narrowing, providing vertical traffic calming or re-aligning the road) may be required to encourage lower speeds in addition to any change in speed limit. Though these may be more expensive, they are more likely to be successful in the long term in achieving lower speeds without the need for increased police enforcement to penalise substantial numbers of motorists.

20 mph speed limits and zones

Within the latest central government guidance issued by the Department for Transport (Circular 01/2013) there is greater encouragement for local authorities to introduce more 20 mph schemes (limits and zones) in urban areas and built-up village streets that are primarily residential, to ensure greater safety for pedestrians and cyclists.

Circular 01/2013 emphasises that research into signed-only 20 mph speed limits shows that they generally lead to only small reductions in traffic speeds. Signed-only 20 mph speed limits are therefore most appropriate for areas where vehicle speeds are already low. If the mean speed is already at or below 24 mph on a road, introducing a 20 mph speed limit through signing alone is likely to lead to

general compliance with the new speed limit. Table 2 shows the likely reduction in mean vehicle speeds following the implementation of a signed-only 20 mph speed limit.

Where the existing mean speeds are above 24 mph then a 20 mph scheme with traffic calming measures (known as a 20 mph zone) will be required. Research has shown that 20 mph zones with traffic calming measures have been very effective in reducing speeds and casualties, may encourage modal shift towards more walking and cycling and may result reductions in traffic flow on the road as vehicles choose alternative routes. However traffic calming measures are more expensive and are not always universally popular. Table 1 shows the likely reduction in mean vehicle speeds following the implementation of a 20 mph zone with traffic calming.

It is possible to implement 20 mph schemes that consist of a combination of physical features (where existing speeds are high), and signs alone (where speeds are already low) on different sections of the same road.

Research has shown that mandatory variable 20 mph speed limits that apply only at certain times of day (using an electronic sign) are not very effective at managing vehicle speeds. Surrey police do not support 20 mph speed limits that are not generally self enforcing. The electronic variable message signage that would be required for a mandatory variable 20 mph speed limit would also place an additional maintenance burden on the county council for little benefit. Therefore Surrey County Council will not support the use of new mandatory variable 20 mph speed limits.

Speed limits outside schools

Requests are often made for lower speed limits outside schools as a result of concerns over the safety of children outside schools. It is the policy of Surrey County Council that there should always be an overall assessment of the safety issues outside a school to investigate and define the problem rather than consideration of the speed limit in isolation. For example the problems may be associated with inconsiderate parking or difficulties in crossing a road that will not be solved through a change in speed limit on its own. Therefore the county council have published a separate policy “Road Safety Outside Schools” that describes how concerns over road safety outside schools will be investigated.

School leadership and parents also have a vital role to play in ensuring the safety of children on the journey to school. Therefore an assessment of the road safety education provided within the school and the school’s travel plan will always be undertaken alongside an assessment of the road safety situation outside the school gate.

Department for Transport regulations now allow the use of advisory “20 when lights show” with amber flashing lights on the approach to schools. However the influence of these signs on vehicle speeds is likely to be minimal and is not enforceable as it is an advisory sign, not a compulsory change in the speed limit. Regulations do not permit amber flashing lights to be used on the approach to signal controlled crossings or zebra crossings.

3. Procedure to decide whether to change a speed limit

Step 1: Request to change a speed limit is received

Any requests to change speed limits should be submitted to Surrey Highways via www.surreycc.gov.uk or by calling 0300 200 1003. The Area Highways Team will then consider the request and if necessary will consult with the local member and local committee to decide whether to proceed with a full speed limit assessment. Reference will be made to the position of the road on the county council's Strategic Priority Network. If necessary the local committee may need to allocate funding for the speed limit assessment to be completed (to pay for speed surveys for example).

The Area Highway Team will determine the extent of the road to be assessed. The length of road over which a speed limit change is being considered should be at least 600m. This should ensure against too many speed limit changes that could be confusing to the motorist within a short space of road. However in some cases a slightly shorter length may be suitable where existing highway or roadside features provide a natural threshold which may complement a change in speed limit.

Step 2: Measure existing speeds and analyse road casualty data

The Area Highways Team will commission one week automatic surveys of vehicle speeds (in both directions) in order to gather comprehensive data on existing mean vehicle speeds on the road. Several different speed survey locations may be required for longer stretches of road. If automatic surveys of vehicle speeds are not possible then a sample of speeds will be undertaken using a hand held speed measuring device at different times of the day to ensure the sample is representative.

Research has shown that reduced vehicle speeds reduce the risk of collision and also reduce the consequences and severity of any injuries, irrespective of the primary cause. Therefore the Road Safety Team will assess the number and pattern of road casualties along any route where a new speed limit is proposed, with particular attention given to vulnerable road casualties such as pedestrians, cyclists, children and older people. This analysis will help inform the need for any speed management measures to reduce the risk of collisions and to reduce the severity of road casualties, especially vulnerable road users.

Step 3: Compare the existing speeds with the suggested new speed limit

National policy issued by the Department for Transport (Circular 01/2013) provides formulas derived from real examples of speed limit changes to predict the likely impact on traffic speeds of a change in speed limit. Table 2 shows the predicted reductions in mean vehicle speeds following a change to a new lower speed limit using the Department for Transport formulas.

For each speed limit change scenario within Table 2, a threshold is shown by a vertical line. If the measured existing mean speeds are below the threshold then the council will allow a change to a signed-only lower speed limit without supporting measures. If this is the case then proceed to STEP 5.

If the measured existing mean vehicle speeds are above the threshold, then the county council will not allow a lower speed limit without consideration of supporting engineering measures. In this case proceed to STEP 4.

It is anticipated that Table 2 presents data for the vast majority of speed limit change scenarios. However if there happens to be a scenario not covered by the table, then the Area Highways Manager will choose the example in the table that in their opinion provides the closest match to the case in question.

If more than one speed survey has been completed on a longer stretch of road, then it is possible that supporting engineering measures may be required on one part of the road, but not the other. Another option may be to introduce the proposed new lower speed limit on only one part of the road. Caution should be taken in cases where the proposed lower limit is above the existing measured mean speeds as this could have the effect of increasing mean speeds if drivers treat the new speed limit as a target.

Nearly all requests received in relation to speed limits are for a reduction in a speed limit. However though it is likely to be rare, it is also possible to consider a request for an increase in a speed limit. In these cases it should be assumed that this would have the effect which is the exact reverse of the effect of the equivalent speed limit reduction described within Table 2. Extreme care should be taken in any decision to increase a speed limit as this could result in increased speeds and increased risk and severity of collisions.

Step 4: Conduct feasibility of supporting engineering measures

Where it is found that the existing measured mean vehicle speeds are too great for a signed-only change to a lower speed limit to be successful, then consideration of supporting engineering measures will be required.

The Area Highways Team will commission feasibility work on what measures may be possible. These may include traffic calming such as narrowing the road, chicanes, priority give-way arrangements, central islands, gateways, or vertical traffic calming. Speed reducing features could also form part of improved facilities for vulnerable road users such as pedestrians, cyclists, children and older people. However some forms of traffic calming will not be appropriate on major routes with large traffic flows and heavy vehicles, and it may be the case that speed reducing features and a reduction in speed limit is not always viable or desirable for some strategically important roads. For example vertical traffic calming cannot be used on roads that are 40 mph or greater. Accordingly the feasibility work and decision to change a speed limit will need to take into account the position of the road within the county's Strategic Priority Network.

Step 5: Consult with Surrey Police Road Safety and Traffic Management Team

As Surrey police are responsible for the enforcement of speed limits it is essential that they are consulted on any proposals to change a speed limit and consideration of supporting engineering measures. Surrey police have a specialist Road Safety and Traffic Management Team who will be presented with the proposals for the new lower speed limit and any supporting engineering measures along with evidence of existing and predicted mean speeds and road casualty analysis. The views of the police Road Safety and Traffic Management Team will be recorded in writing and included within the subsequent report to the local committee. It may also be helpful to seek the views of local parish council's for inclusion within the report to the local committee too.

Step 6: Local committee decision and allocation of funding

A report describing the outcome of the speed limit assessment and recommendations will be submitted to the local committee for consideration and decision at one of their public meetings. The report will include:

- a description of the position of the road within Surrey's Strategic Priority Network
- a summary of existing speed survey results
- a summary of the history and pattern of road collisions resulting in injury reported to the police, highlighting especially any vulnerable road users such as pedestrians, cyclists, children and older people
- the predicted speeds following a change in speed limit
- recommendations for a new speed limit and supporting engineering measures if required
- estimated costs of the scheme
- the views of Surrey Police Road Safety and Traffic Management Team

The local committee will then decide whether to proceed with the change in speed limit or not, along with supporting engineering measures (where also recommended). If the committee decide to proceed, then the committee will need to allocate money from their budget to fund the scheme. Alternatively the committee may decide not to proceed because the scheme is not warranted, or because they may have other priorities for investment of their budget at that time.

If the local committee disagree with the recommendations presented to them by the Area Highways Manager and wish to proceed with an alternative option, then the issue must be submitted for decision by the Cabinet Member responsible for road safety.

Step 7: Advertisement of legal speed limit order and implementation

If the local committee decide to proceed with a speed limit change, then in accordance with the Road Traffic Regulation Act 1984, a legal speed limit order will be advertised so that people have the opportunity to comment on the

proposals if they wish to. Any objections will be considered in line with the county council's constitution. Following advertisement, and after any objections are resolved or over-ruled, then the scheme will be implemented by the county council's highway contractors. Alternatively if the objections are upheld, then the scheme will not proceed.

Step 8: Monitoring of success of scheme

After at least three months following implementation of the scheme, a one week automatic speed survey will be commissioned by the Area Highways Team. The "after" surveys will be undertaken using the same method as the "before" surveys to allow for a direct comparison to check whether the scheme has been successful in reducing vehicle speeds towards compliance with the new lower speed limit. The county council's Road Safety Team will compile data on before and after speed monitoring following speed limit changes so as to inform the need for any updates to this policy.

If the scheme has not been successful in reducing speeds to a level below the threshold contained within Table 2, then the Area Highway Manager will submit a further report to the local committee for consideration and decision at one of their public meetings. The report will include a summary of the before and after speed surveys and consideration of any further engineering measures that may be possible to encourage greater compliance with the new speed limit. An alternative could be to remove the new lower speed limit and return to the original or different, higher speed limit.

The views of the police Road Safety and Traffic Management team will be sought, recorded in writing and included within the report to the local committee. This will include an explanation of whether any additional police enforcement would be possible to encourage compliance with the new lower speed limit.

If the local committee disagree with the recommendations presented to them by the Area Highways Manager and wish to proceed with an alternative option, then the issue must be submitted for decision by the Cabinet Member responsible for road safety.

Tables to Show Predicted Change in Mean Speeds Following a Change in Speed Limit

The following definitions are used in the tables below and are the same as those used nationally by the Department for Transport in relation to setting speed limits. The formulas used to generate the values within the tables are taken from Annex A of "Setting Local Speed Limits", Department for Transport Circular 01/2013.

- Urban – roads with a system of street lighting (three or more lamps throwing light on the carriageway and placed not more than 183 metres apart).
- Rural – roads without a system of street lighting described above.
- Rural Village – roads without a system of street lighting described above but with 20 or more houses (on one or both sides of the road); and a minimum length of 600 metres; and an average density of at least 3 houses per 100 metres, for each 100 metres.

Table 1 – Predicted change in mean speeds following a reduction to a 20 mph speed limit (with traffic calming)

Table 1: Predicted change in mean speeds following a reduction to a 20 mph speed limit (with traffic calming)

Measured mean speed before (mph)	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Predicted mean speed after (mph)	14.9	15.1	15.3	15.5	15.8	16.0	16.2	16.5	16.7	16.9	17.1	17.4	17.6	17.8	18.1	18.3	18.5	18.7	19.0	19.2	19.4

Tables 2-11 – Predicted change in mean speeds following a signed-only reduction in speed limit

Table 2: Change from urban and rural 30 mph speed limit to 20 mph speed limit (without traffic calming)

	New lower speed limit allowed					New lower speed limit only allowed with supporting highway measures															
Measured mean speed before (mph)	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Predicted mean speed after (mph)	19.9	20.6	21.4	22.2	23.0	23.7	24.5	25.3	26.1	26.8	27.6	28.4	29.2	29.9	30.7	31.5	32.2	33.0	33.8	34.6	35.3

Table 3: Change from urban 40 mph speed limit to 30 mph speed limit

	New lower speed limit allowed						New lower speed limit only allowed with supporting highway measures														
Measured mean speed before (mph)	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Predicted mean speed after (mph)	30.5	30.7	30.9	31.2	31.4	31.7	31.9	32.2	32.4	32.7	32.9	33.2	33.4	33.7	33.9	34.1	34.4	34.6	34.9	35.1	35.4

Table 4: Change from rural village 40 mph speed limit to 30mph speed limit

	New lower speed limit allowed						New lower speed limit only allowed with supporting highway measures														
Measured mean speed before (mph)	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Predicted mean speed after (mph)	29.3	30.1	30.9	31.6	32.4	33.2	33.9	34.7	35.4	36.2	37.0	37.7	38.5	39.3	40.0	40.8	41.6	42.3	43.1	43.8	44.6

Table 5: Change from rural village 50 mph or 60 mph speed limit to 30 mph speed limit

	New lower speed limit allowed						New lower speed limit only allowed with supporting highway measures														
Measured mean speed before (mph)	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Predicted mean speed after (mph)	29.2	29.9	30.7	31.4	32.1	32.8	33.5	34.2	35.0	35.7	36.4	37.1	37.8	38.6	39.3	40.0	40.7	41.4	42.2	42.9	43.6

Table 6: Change from rural village 50 mph or 60 mph speed limit to 40 mph speed limit

	New lower speed limit allowed							New lower speed limit only allowed with supporting highway measures													
Measured mean speed before (mph)	40	42	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Predicted mean speed after (mph)	37.5	38.1	38.8	39.4	40.1	40.8	41.4	42.1	42.8	43.4	44.1	44.8	45.4	46.1	46.7	47.4	48.1	48.7	49.4	50.1	50.7

Table 7: Change from rural single carriageway 50 mph speed limit to 40 mph speed limit

	New lower speed limit allowed							New lower speed limit only allowed with supporting highway measures													
Measured mean speed before (mph)	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Predicted mean speed after (mph)	37.5	38.1	38.8	39.4	40.1	40.8	41.4	42.1	42.8	43.4	44.1	44.8	45.4	48.1	46.7	47.4	48.1	48.7	49.4	50.1	50.7

Table 8: Change from rural single carriageway 60 mph speed limit to 40 mph speed limit

	New lower speed limit allowed							New lower speed limit only allowed with supporting highway measures													
Measured mean speed before (mph)	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Predicted mean speed after (mph)	38.7	39.4	40.1	40.9	41.6	42.3	43.0	43.7	44.5	45.2	45.9	46.6	47.4	48.1	48.8	49.5	50.2	51.0	51.7	52.4	53.1

Table 9: Change from rural single carriageway 60 mph speed limit to 50 mph speed limit

	New lower speed limit allowed								New lower speed limit only allowed with supporting highway measures												
Measured mean speed before (mph)	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Predicted mean speed after (mph)	47.6	48.3	49.1	49.9	50.6	51.4	52.2	53.0	53.7	54.4	55.3	56.0	56.8	57.6	58.4	59.1	59.9	60.7	61.5	62.2	63.0

Table 10: Changes on rural dual carriageways from 70 mph, 60 mph, or 50 mph to a lower limit (part 1)

	New lower 40 mph speed limit allowed							New lower 50 mph speed limit allowed												New lower 60 mph speed limit allowed	
Measured mean speed before (mph)	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Predicted mean speed after (mph)	42.8	43.3	43.8	44.4	44.9	45.4	45.9	46.5	47.0	47.5	48.0	48.6	49.1	49.6	50.1	50.7	51.2	51.7	52.2	52.8	53.3

Table 11: Changes on rural dual carriageways from 70 mph, 60 mph, or 50 mph to a lower limit (part 2)

	New lower 60 mph speed limit allowed																			
Measured mean speed before (mph)	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Predicted mean speed after (mph)	53.8	54.4	54.9	55.4	55.9	56.5	57.0	57.5	58.0	58.6	59.1	59.6	60.1	60.7	61.2	61.7	62.2	62.8	63.3	63.8