

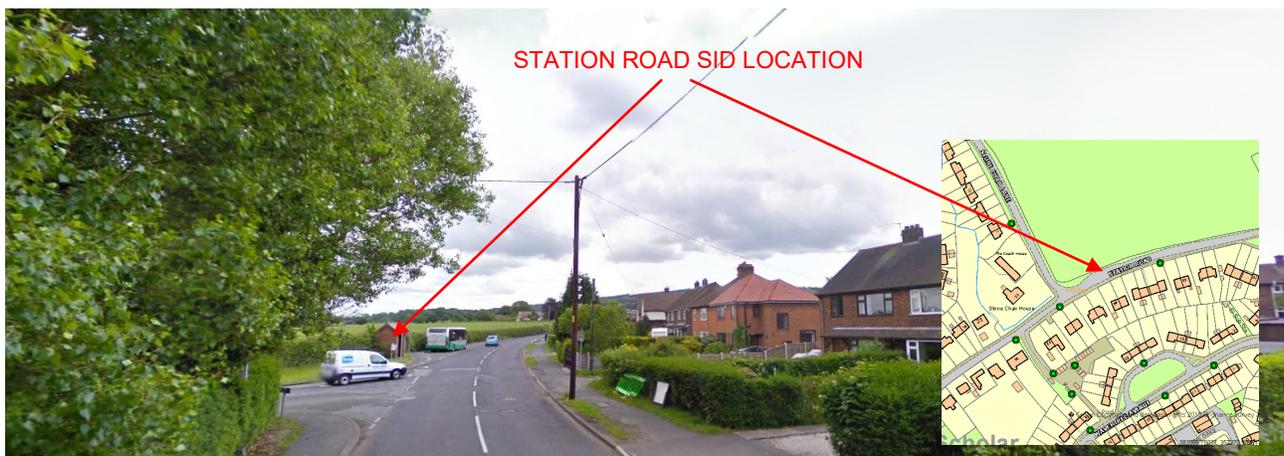
## CLERK'S REPORT ON SPEED INDICATOR DEVICES

### EXISTING SITUATION

The Council has 2 SIDs which flash up the speed followed by "Thank you" or "Slow down" ( both are capable of recording vehicle speeds and times). One SID is battery powered and the other is solar powered. There is a third SID (battery powered) which is inoperable (the cost of repair will be in the hundreds of pounds as the radar no longer works). The Council is also in possession of a mobile SID (sandwich board type) which used to belong to Cheshire County Council.

The battery operated SIDs need to have the battery changed every fortnight (swapping for a recharged battery belonging to the Council). The solar powered model does not usually need a battery swap. As well as swapping the battery, the SID is moved from site to site on the fortnightly visit. The solar powered SID remains in place on the A34 (Barnbridge Close). Both are cleaned & checked fortnightly. The Council pays £100 per visit (£2,600 pa).

There are five sites where SIDS can be operated (agreed with Highways) all with the appropriate pole. They are: Sandbach Road (Rode Heath), Station Rd (Scholar Green), A34 by Little Moss Lane (Scholar Green), A34 at Barnbridge Close (Scholar Green) and Mount Pleasant Road, just before the village (Mount Pleasant).





The A34 Little Moss Lane site has not been used to date. Since the post was put in, a new street light has been erected which obscures it from traffic on that side of the road. A new flashing roundel has been erected on the other side of the lamp as part of the speed reduction measures on the A34.

Since the SID locations were agreed, the A34 has been reduced from 40 mph to 30mph and the A50 from 50 mph to 40 mph.



## OPTIONS FOR THE FUTURE

The Council could replace the battery operated SID with solar operated SIDs (solar operated are not suitable for regular moving so the Council would need more SIDs). This would reduce the maintenance costs considerably (to an annual service & repairs as necessary).

The following are indicative prices (recent prices from Unipart Dorman):

Battery powered with no data lagging facility £1,995

Battery powered with data lagging facility £2,345

Solar powered with no data lagging facility £2,645

Solar powered with data lagging facility £2,995

The other option would be to replace the battery SIDs with solar powered flashing roundels (as used on the A34). They don't show the speed not have the capacity for data logging but do flash the speed limit and a "slow down" message. These are approximately £900 each (priced from SID Sign UK Ltd). The battery powered SID could be retained in storage and brought out if data collection were needed.

There is also an option (with Highways' agreement) to install SIDs/flashing roundels on the A50 now that it is 40 mph (they are not allowed on roads over 40 mph).. There has long been concern over the speed of vehicles and junctions (particularly Poolside/Chapel Lane junction). However, an interactive warning road sign may be more appropriate here?



*Flashing warning road sign*



*Mobile SID*



*Fixed solar powered SID*



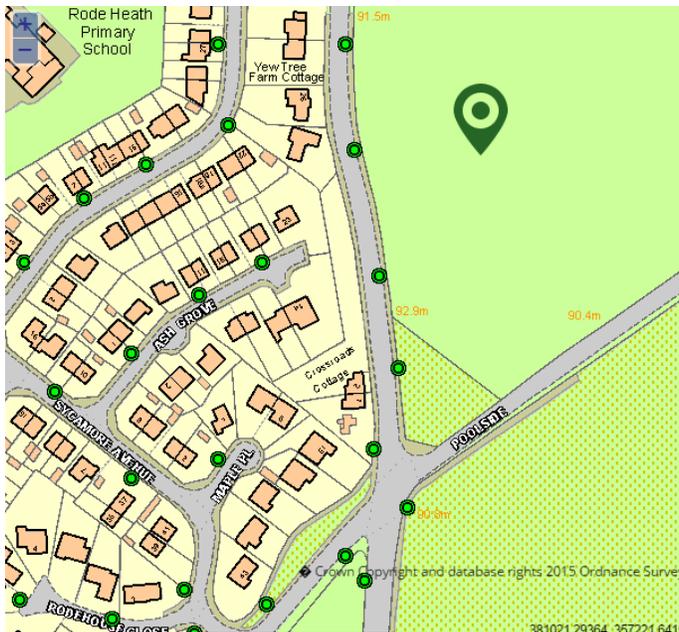
*Flashing roundel*

There may be other sites that are in need of consideration. Any new sites would have to be subject to a survey (see last page) and Highway's agreement.

**The Clerk will obtain quotations and ascertain what the Highways requirements are once a decision in principle is reached on a speed reduction strategy.**

# THE A50

Future speed reduction target? The road is now 40 mph and suitable for SIDs, etc. Any SIDs/flashing roundels would need to be far enough from road junctions so as not to cause a distraction.





## OTHER POSSIBLE RODE HEATH SITES

There are limited areas to site an additional SID in Rode Heath. However, Mill Mead/Sandbach Road does provide such an opportunity.

Sandbach Road is a busy through route and may be worth further consideration.



The effectiveness of SIDs has been shown by the Transport Research Laboratory reports “Vehicle-activated signs – a large scale evaluation Prepared for Road Safety Division, Department for Transport TRL Report TRL548 2002” and “PPR 314 Effectiveness of Speed Indicator Devices on reducing vehicle speeds in London” 2008.

The first report states the value of SIDs:

- Clearly, drivers can be influenced to reduce speed when they are specifically targeted, with fixed signs alone likely to have less effect.
- Vehicle-activated signs appear to be very effective in reducing speeds; in particular, they are capable of reducing the number of drivers who exceed the speed limit and who contribute disproportionately to the accident risk, without the need for enforcement such as safety cameras.
- Vehicle-activated signs can be operated at thresholds well below normal police enforcement levels.
- There is no evidence that in time, drivers become less responsive to the signs, even over three years.
- Operating costs are also low.
- In this study, a substantial accident reduction has been demonstrated.

Vehicle speeds recorded in the parish before and after the Council first installed SIDs showed that the SIDs reduced speed levels.

The second study makes the following suggestions:

- SIDs should preferably be mains powered, especially if they are permanent or return regularly to the same sites,
- Highways Departments have specific policies which governs where SIDs can be placed. In general they are placed: at or near sites where the speed limit changes, particularly at the beginning of 20mph zones; at sites with a high collision rate; at sites on relatively straight roads, not obscured by vegetation and away from junctions and pedestrian crossings; and at sites with a known speeding problem or public concern over vehicle speeds exists.
- The SID should detect vehicle speeds at around 100m before the vehicle reaches the sign. This gives the driver sufficient time to react to the sign, but is short enough to be obvious to the driver that they are the one who has activated the sign.
- A study of five sites in Royal Borough of Kingston found that SIDs had a ‘novelty’ effect. In the initial period of operation, all drivers reduce their speeds, whether they are driving above or within the speed limit. As drivers become accustomed to the sign, only those driving above the speed limit tend to reduce their speed (Poulter and McKenna, 2005). The ‘novelty’ effect was found to last about a week and then speeds slowly increased in the second week of observation. Currently, SIDs in RBK remain in place for no longer than three weeks and are then moved to another site.
- Vehicle speed data are collected periodically at fixed and temporary locations in RBK and are analysed to inform their speed management strategy. They have found that radar vehicle classifiers record speed data more reliably than automated traffic counters (ATC): data from ATCs have sometimes been unreliable or missing due to mechanical failure of the ATC or vandalism. ATCs are the strips across road surfaces.

SIDs should comply with the advice in the Department of Transport’s Traffic Advisory Leaflet 1/03 “Vehicle Activated Signs” March 2003:

Before the decision to install vehicle activated signs is made, it is important to undertake an audit of existing furniture, fixed signs, road condition and road markings to assess their standard and condition. It is not recommended that vehicle activated signs are deployed unless it is clear that the problem cannot be remedied by improving the fixed signing. It should also be noted that vehicle activated signs are not a substitute for conventional signs and they should therefore only be used sparingly. Detailed accident investigation should also be undertaken to identify the dominant accident patterns and confirm that vehicle activated signs are an appropriate remedial measure. Site selection should also take into consideration the number of speed-related accidents and particularly inappropriate speed for the conditions, for example, on the approaches to bends and junctions. Monitoring of traffic speeds should be undertaken to establish that a problem with inappropriate speed exists.

The collection of speed data prior to the installation of the vehicle activated sign should enable the estimation of a suitable threshold speed for the sign to display the message. Speed thresholds for warning signs should be set at the 50th percentile speed measured before installation. For speed limit signs the threshold should be set depending on road conditions. (A reasonable benchmark would be the ACPO guidelines on enforcement of 10% + 2mph; ie in a 30mph speed limit the threshold would be set at 35mph). It is crucial that the speed monitoring detectors are installed as accurately as possible to minimise errors in speed measurement. The cost of running mains power to the installation should be investigated at an early stage of planning in order to make contingencies for an alternative power source (solar panels/wind powered generators) if the costs are too high. However, it is important that alternative energy sources are assessed for their impact on the visual environment and increased susceptibility to vandalism and theft.