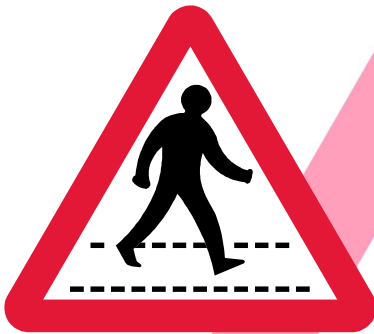


# New Highway Works Requests Information Pack



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# New Highway Works Requests

## A. Introduction

There is a range of different highway improvements that Members/Parish Council's may wish to fund/part fund or request. A number of information sheets have been produced detailing some of the more commonly requested items.

Prices for the construction costs are given which are indicative only and are a 'starting from' cost. In most cases there are a range of factors that can increase costs. These figures do not include fees and costs for the design and consultation which need to be assessed on a case by case basis. KCC staff within the Schemes Planning & Delivery Team can assist with providing advice. Email [traffic.schemes@kent.gov.uk](mailto:traffic.schemes@kent.gov.uk)

## B. Notes on Timescales

For all projects delivered by the Schemes Planning and Delivery Team, our contractor has 3 months to start the work once it has been handed over for delivery however there is typically a 3 to 9 month lead-in depending on the nature of the work for them to allocate resources and procure the required materials.


Traffic Regulation Orders or consultations requiring a report to the Joint Transportation Board (JTB) may also delay a project depending on the timing of the next available Board Meeting.

Works involving new electrical connections or utility service diversions may also be delayed if the relevant utility company cannot carry out the work to our timescale.

## C. Kent Lane Rental

Kent operate a Lane Rental scheme that imposes a charge on works carried out on the identified traffic sensitive roads where traffic lanes are restricted or the road is closed.

The Lane Rental roads are typically, but not exclusively, A or B class roads and are more likely to be in urban environments although some rural roads are included when they carry significant levels of traffic.

Lane Rental roads can be viewed on the [roadworks.org](http://roadworks.org) website (to view the layer select the Map layer icon  on the left then select *Operational info* and finally the *Lane Rental Scheme network* layer).

The charges can be applied 24 hours a day, 7am to 7pm or during the morning and afternoon peak hours and may also apply Monday to Friday, Monday to Saturday or every day depending on the local traffic conditions.

The charges themselves are levied per day or part thereof and can range between £300 and £800 per day for lane closures and £1600 and £2000 for full road closures if the work is done during the restricted hours.

We aim to complete works as quickly as possible and in a way that minimises these charges, however they can significantly increase the cost of a project if they are unavoidable.

See the KCC website: <http://www.kent.gov.uk/roads-and-travel/highway-permits-and-licences/kent-lane-rental-scheme> or search for "Kent Lane Rental" in google.

## D. Highway Improvement Plan - example

HIGHWAY IMPROVEMENT PLAN – Stage 1		ACTION PLAN – Stage 2				
Priority	Location	Problem & Potential solution (if known)	Action/Programme (Who/When)	Cost Estimate	Funding Source	KCC Comments
1.	EXAMPLE: High Street between Post office and last property to the west of the garage	Speeding off peak. Reduce speed limit to 30mph	1. Traffic survey required to establish existing speeds by end of June 18. KCC to arrange 2. Review report and agree whether the site is suitable without further traffic calming measures. KCC by mid July. 3. If suitable then discuss with PC and give early advice on potential costs. Mid July 4. Agree the way forward – outline design/estimate including staff fees. Mid July	1. £500 2. £0 3. £0 4. £?	1. Parish Council 4. Parish Council	
2.						
3.						
4.						

KCC is also requesting Parish Councils to adopt a Highway Improvement Plan (see proforma above). This document is intended to bring together all the requests for new highway improvements (not maintenance issues – these can be requested via <https://www.kent.gov.uk/roads-and-travel/report-a-problem>) from a Parish, prioritise the ideas and identify who is to fund the improvements should there be mutual agreement between KCC and the Parish that there is merit in taking forward an idea. This should be a live document with the Parish and KCC working closely together to achieve a programme of work.

20mph zones are often used in residential areas to keep traffic speeds low and suitable for pedestrians and children out and about in these areas.

The zones should be designed to be "self-enforcing" so that the traffic naturally keeps to the speed limit. This can sometimes be achieved



without additional measures due to the physical layout of the road, on-street parking etc. otherwise physical traffic calming measures will be needed to go along with the introduction of the change in the speed limit. This can include gateway treatments, speed humps, chicanes, road narrowing, and other measures to both physically and visually reinforce the reduced speed limit. It is worth noting that while residents may



support a 20mph zone in principle they often object to traffic calming measures near their home and design requirements often give little scope to adjust the location.

Where existing measured traffic speeds are at or below 28 mph it may not be necessary to install physical calming features however

signing alone is unlikely to have a significant effect on traffic speeds (typically around a 2mph reduction to the mean speeds is all that is likely). Kent will consider requests on a case by case basis, with the whole environment and context being assessed.

### Site Requirements

- Physical traffic calming measures have to be carefully considered against the needs of the public transport services and emergency services as well as high flows of HGV's especially on A or B classified roads.
- Traffic speed surveys will need to be carried out to identify current traffic speeds and to enable the design of traffic calming measures.
- Most physical traffic calming measures need to be lit at night and so 20mph zones are usually in areas with street lighting.
- No point within a 20mph zone should be more than 50m from a traffic calming feature (this can be a natural feature such as a tight bend or an installed measure).
- A Traffic Regulation Order (TRO) for the new speed limit will need to be advertised and if there are sufficient valid objections the County Council may decide not to allow the new limit to be implemented.
- Consultation will need to be carried out in relation to the speed limit change and traffic calming measures and a report to the Joint Transportation Board may be needed.

- There needs to be suitable locations to install the speed limit signing on all the entry points into the zone.

### **Potential Additional Costs**

- The carriageway may need to be resurfaced to provide a sound, even surface for the entry treatment if provided.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the physical measures safely.
- A Public Notice will need to be published if road humps are to be installed
- Utility services in the verges may need to be relocated in order to install gates or enhanced signing. (This can be very expensive, especially if there are fibre optic cables)
- Amendments to the existing TROs (parking etc.) may be needed to accommodate the changes.
- Drainage alterations
- Enhanced construction materials
- Provision or enhancement of street lighting which can be a substantial cost
- Restricted working hours charges
- Road safety audits giving independent safety advice on planned changes

### **Future Maintenance**

KCC will only maintain the regulatory/safety elements of this installation. The scheme promoter will need to secure funding for maintenance of the other elements when required.

### **Typical Costs**

The cost of 20mph zones can vary significantly and will depend on the number of roads affected, the number of entry points into the zone and the type and amount of traffic calming required.

Typical starting costs for the installation of a 20mph zone are:

- Traffic Regulation Order from £2385 (required for all 20 Zones)
- Zone entry treatment (2x pairs of signs on new posts plus carriageway roundel) from £880 each which will be needed for each entry point into the zone
- Road safety audits £4050

The overall cost can increase significantly if some of the above additional costs are incurred.

## Timescale

Timescales for this type of work are typically around 20 weeks (concept and detailed design/consultation/installation).

*For costs of traffic surveys and information on the typical traffic calming measures and their costs, please see the relevant information sheet.*

Traffic calming is used to manage traffic speeds and can also have an effect on the volume of traffic as drivers may use alternative routes to avoid calmed streets. There are many different forms of traffic calming which can include gateway treatments, speed humps, chicanes, and road narrowings.



The type of measure which is most appropriate will vary from site to site and careful consideration will be needed to ensure the most appropriate type of calming is used.



It is worth noting that there are unfavourable side effects to most types of calming. Speed humps and cushions for example can cause unwanted vibration and noise for nearby residents, Chicanes and narrowings may result in the loss of on-street parking and can increase noise levels, cause congestion and in extreme cases lead to road rage incidents.

### Site Requirements

- Physical traffic calming measures is not normally appropriate on A or B class roads.
- Traffic speed surveys will need to be carried out to identify current traffic speeds and to enable the design of traffic calming measures.
- Most physical traffic calming measures need to be lit at night and so street lighting will need to be present or provided by the scheme.
- The traffic calming features must be provided at regular intervals to properly manage traffic speeds. For large areas, this can become very expensive.
- Consultation will need to be carried out in relation to a speed limit change and the traffic calming measures.
- For coloured carriageway surfacing, the road surface needs to be in good condition without ruts, crack or potholes. The material needs to be laid in reasonably warm, dry conditions and so will only be laid from mid-spring through to mid-autumn.

### Potential Additional Costs

- The carriageway may need to be resurfaced to provide a sound, even surface for



a coloured surface treatment if provided.

- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the physical measures.
- A Public Notice will need to be published if road humps are to be installed.
- Utility services may need to be relocated in order to accommodate some types of calming features. (This can be very expensive, especially if there are fibre optic cables).
- Amendments to the existing TROs (parking etc) may be needed to accommodate the changes.
- Drainage alterations.
- Enhanced construction materials.
- Provision or enhancement of street lighting.
- A Traffic Regulation Order (TRO) will be needed if the speed limit is to be changed.
- Restricted working hours charges.

## **Future Maintenance**

KCC will only maintain the regulatory/safety elements of this installation. The scheme promoter will need to secure funding for maintenance of the other elements when required.

## **Typical Costs**

The cost of traffic calming can vary significantly and will depend on the number of roads affected and the type and amount of traffic calming required.

Typical starting costs for the installation of some of the more commonly used traffic calming measures are:

- Traffic Regulation Order from £2,385 (required for a speed limit change or if changes are needed to on-street parking provision for example)
- blacktop speed hump from £1,350 each. Preformed bolt-down humps may be a cheaper option if the existing carriageway surface is suitable to accept them.
- pre-cast concrete speed cushions from £7,250 per pair. Preformed bolt-down cushions may be a cheaper option if the existing carriageway surface is suitable to accept them.
- carriageway speed limit roundel £160 per pair.
- road narrowing from £1,400 each.
- chicane from £3,000 each.
- Road safety audits £4050.

In addition to the above costs, additional site costs such as traffic management, restricted hours charges etc. will need to be added and will be calculated based on site requirements.

The overall cost can increase significantly if some of the above additional costs are

incurred.

## Timescale

Timescales for this type of work can vary considerably depending on the nature of the work although as most traffic calming requires consultation and therefore a typical timescale is around 20 weeks.

### **Additional Information:**

#### **Community Speedwatch:**

Community Speedwatch enables groups of concerned citizens to reduce excessive vehicle speeds on their roads. Operating at the roadside in 20, 30, and 40 miles per hour (mph) limits, Speedwatch practitioners monitor the speeds of passing vehicles using portable speed indication devices. They record and report the speed and identifying details of vehicles travelling at or above nationally-specified speed thresholds (25, 35, and 46mph respectively).

The registered keepers of vehicles seen repeatedly or excessively speeding anywhere in Kent in the previous 12 months are then sent a warning letter and advice by Kent Police.

Community Speedwatch (CSW) helps:

- increase the awareness of speeding and encourage drivers to address their behaviour without being penalised
- reduce deaths, injuries and collisions on local roads
- improve the safety and quality of life for local communities

Who runs a Community Speedwatch Scheme?

A CSW scheme is 'owned' and operated by the community group that runs it - for example, the local parish council or a residents' association.

For contact details, useful information, or to set up a group please visit [www.kent.police.uk/speedwatch](http://www.kent.police.uk/speedwatch) or contact the team by email at [csw@kent.pnn.police.uk](mailto:csw@kent.pnn.police.uk) or via Twitter at [@kentspeedwatch](https://twitter.com/kentspeedwatch)

#### **Kent and Medway Safety Camera Partnership**

Kent & Medway Safety Camera Partnership was formed in July 2002 and is committed to influencing, educating and encouraging motorists to slow down, stay within the speed limit and help reduce the number of crashes and casualties through the combination of education, publicity and enforcement.

Fixed safety camera sites are located where three or more people have been killed or seriously injured in speed-related crashes, over a 1.5km stretch of road, in the three years prior to installation.

Where you see the black and white camera signs but no fixed camera, the signs are warning you that a safety camera van may be enforcing along that stretch of road. The vans operate where at least one person has been killed or seriously injured in a speed-related crash/es, over a 5km stretch of road, in the three years prior to installation. For contact details and useful information please visit: <http://www.kmscp.org/index.aspx>

In some situations, the existing speed limit may be considered to be inappropriate and there may be a wish to change it. The speed limit on a road should reflect the local environment, nature of the road and its use. The Department for Transport sets out how speed limits should be set and KCC will follow this guidance with any new requests. Speed limits should not be used to warn of single hazards but relate to the whole road environment.

A change in the posted speed limit alone will rarely make a significant change to the actual speeds of vehicles being driven along a road. Typically a reduction of only 2-3mph is achieved through signing alone.

A Traffic Regulation Order (TRO) is needed to change a speed limit and if there are significant objections, KCC may decide not to proceed with the change. In particular, Kent Police should not have objections to the speed limit when they are consulted.



### Site Requirements

- The proposed speed limit must comply with the Department for Transport's guidance document Circular 01/2013 - Setting Local Speed Limits.
- Traffic speed surveys will be needed to provide evidence of existing speeds for use in the assessment. The number of surveys required will depend on the extent of the speed limit change.
- The minimum length of a speed limit should generally be not less than 600 metres to avoid too many changes of speed limit along the route
- There must be a suitable location to install the signs at each end of the limit as well as any repeater signs. (i.e. sufficient highway land, good visibility of the signs, clear of obscuring vegetation etc).
- A Traffic Regulation Order (TRO) will need to be advertised. Objections to the proposal may result in KCC deciding not to proceed with the new restriction. Costs up to this point will need to be paid by the applicant.

### Potential Additional Costs

- In certain circumstances the signs may need to be lit requiring lighting units and new power supplies.
- Vegetation may need to be cleared to provide sufficient advance visibility of the

signs.

- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the signs safely.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Removal and disposal of existing speed limit signs.
- Restricted working hours charges.

## Future Maintenance

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of this installation however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

## Typical Costs

The cost of new speed limits will vary and will depend on the number of entry points into the limit.

Typical starting costs for the provision of a new speed limit are:

- Traffic Regulation Order from £2,385 (required for virtually all changes to the speed limit)
- Speed limit entry signing (2x pairs of non-illuminated signs on new posts) from £540 each which will be needed for each entry point into the zone.
- Painted carriageway roundels can be added from £85 each
- Speed limit repeater signs (not permitted for 30mph limits with street lighting) from £235 each

The overall cost can increase significantly if some of the above additional costs are incurred.

## Timescale

Timescales for this type of work are typically around 20 weeks (concept and detailed design/consultation/installation).

*For costs of traffic surveys please refer to the relevant information sheet.*

In some locations, there is a desire to draw drivers' attention to the fact that they are entering a lower speed limit or a village environment.

A variety of measures can be installed which will increase the prominence of the speed limit change or entry to the village. These can include a speed limit roundel on the carriageway, village nameplates and white 'gates' in the verges.



A mix and match approach can be used to select elements appropriate for the location.

### Site Requirements

- These gateway treatments will need to be put in where there is an existing speed limit change or at a suitable point at the entry to a village. Please note that village gateways should be sited as close as possible to the start of the main centre of a village in order to achieve the maximum effect.
- For the coloured carriageway patch, the road surface needs to be in good condition without ruts, crack or potholes. The material needs to be laid in reasonably warm, dry conditions and so will only be laid from mid-spring through to mid-autumn.
- The white 'gates' will require at least 1.5m of clear verge in which to install them as the smallest gate is about 1m wide and they need to be set back at least 0.5m from the edge of the carriageway for clearance.

### Potential Additional Costs

- The carriageway may need to be resurfaced to provide a sound, even surface for the carriageway patch.
- Vegetation may need to be cleared to provide sufficient improved visibility of the gateway.
- Existing speed limit signs may need to be changed or relocated to suit the new layout.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the gateway safely.

- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Utility services in the verges may need to be relocated in order to install gates or enhanced signing. (This can be very expensive, especially if there are fibre optic cables).
- Restricted working hours charges.

## **Future Maintenance**

KCC will only maintain the regulatory/safety elements of this installation. The scheme promoter will need to secure funding for maintenance of the other elements when required such as the red surface treatments and gates.

## **Typical Costs**

The starting costs for the gateway element installation are:

- Village nameplate from £330 each including posts although the cost will vary depending on the length of the village name, additional information included and speed of approaching traffic which determines the sign size.
- Speed limit carriageway roundel from £85 each.
- White gates from £900 each.

The overall cost can increase significantly if some of the above additional costs are incurred.

## **Timescale**

Timescales for this type of work are typically around 12 – 20 weeks (concept and detailed design/consultation/installation).



In some locations, excessive numbers of large vehicles using a road can be very disruptive to local people. Where these large vehicles are using a road as a through route (rather than those going to local farms, businesses etc.) and there is a more appropriate route, a weight limit could be considered.

A traffic survey would usually be needed to assess the extent of the problem and would act as a guide for the best course of action.

Environmental weight limits are usually set at 7.5 tonnes which allows smaller twin axle lorries, horseboxes etc. to use the roads but excludes anything larger.

Please note that for environmental weight limits we will always include an exemption for vehicles gaining access to properties within the restricted area.

Any restriction should be largely self-enforcing and its reason should be obvious to drivers and not cause them significant inconvenience or cost. Only Kent Police have the power to enforce such restrictions but may not be willing for its officers to spend significant time on this.

### Site Requirements

- The entry point to the restriction must be sited at a point where oversized vehicles can turn away or advance warning must be provided.
- There must be suitable locations to install the signs on the entry points to the restriction (i.e. sufficient highway land, good visibility of the signs, clear of obscuring vegetation etc).
- A traffic survey will be needed to provide evidence of existing traffic for use in the assessment.
- There must be a suitable alternative route for vehicles to use to avoid the restriction
- A Traffic Regulation Order (TRO) will need to be advertised. Objections to the proposal may result in KCC deciding not to proceed with the new restriction. Costs up to this point will need to be paid by the applicant.

### Potential Additional Costs

- In certain circumstances the signs may need to be lit requiring lighting units and new power supplies.
- Vegetation may need to be cleared to provide sufficient advance visibility of the

signs.

- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the signs safely.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Additional signs will be needed if there are any side roads not included in the TRO.
- Advance warning signs may be required.
- Restricted working hours charges.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of this installation however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The cost of new width or weight limits will vary and will depend on the number of entry points into the restriction.

Typical starting costs for the provision of a new width or weight limit are:

- Traffic Regulation Order from £2,385
- Restriction entry signing (2x pairs of non-illuminated signs on new posts) from £500 each for width restrictions and £645 for weight limits which will be needed for each entry point into the zone.

The cost can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 20 weeks due to the consultation requirements for the TRO.

*For costs of traffic surveys please refer to the relevant information sheet.*





Where pedestrians are having difficulty crossing a road, a new zebra crossing may be a suitable solution to deal with this issue. They consist of dropped kerbs, tactile paving, belisha beacons on posts and sometimes high friction surfacing on the approaches to help vehicles stop quickly.

These are only suitable where traffic speeds are reasonably low and pedestrian flows are medium to high

throughout the day (a signal controlled crossing is usually preferable for high or very high pedestrian flows to reduce delays to traffic by grouping pedestrians and where traffic speeds are higher).

### Site Requirements

- Existing 20/30mph speed limit. The measured 85%ile speed (the speed at, or below 85% of traffic travels) must be below 35mph for a zebra crossing to be safe.
- Street lighting must be in place to illuminate the crossing at night. If missing or insufficient it will need to be provided or upgraded.
- Footways on both sides of the road, usually at least 1.8m wide.
- Nearby power supply for the belisha beacons.
- Good visibility for drivers and pedestrians (i.e. not on or near a bend, obscured by trees etc).
- Away from junctions (absolute minimum 5m from side roads and well away from signal junctions) and clear of private driveways.
- Pedestrian and traffic speed surveys may be required to justify the need for the crossing and to assess the safety and operation of this type of crossing.

### Potential Additional Costs

- Resurfacing of the carriageway if the existing is unsuitable.
- Additional street lighting.
- Enhanced belisha beacons.
- Widened or extended footways.
- Pedestrian guardrail.
- Additional electrical costs if there is no nearby suitable supply.
- Kerb build-out to narrow the road at the crossing point.
- Drainage alterations.

- Enhanced construction materials.
- Traffic Regulation Orders (TRO) for changes to the speed limit, waiting restrictions etc.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the crossing safely.
- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Pedestrian count and traffic speed survey (Circa £635 - £750 for each location).
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of the crossing however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The cost for a basic zebra crossing typically starts from about £17,000 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 12 weeks.

*For costs of traffic surveys please refer to the relevant information sheet.*

Puffin crossings have replaced pelican crossings and are much more responsive to pedestrians' needs. They consist of dropped kerbs, tactile paving for people with vision impairments, traffic signals to control traffic flow and sometimes high friction surfacing on the approaches.

Puffin crossings are used to help pedestrians cross the road where traffic speeds are higher and a zebra crossing would not be safe. In addition, they are used at sites with high pedestrian flows to reduce delays to traffic by grouping pedestrians.



### Site Requirements

- Street lighting
- Footways on both sides of the road, usually at least 1.8m wide.
- Nearby power supply for the traffic signals.
- Good visibility for drivers and pedestrians (i.e. not on or near a bend, obscured by trees etc.).
- Away from junctions (absolute minimum 20m from side roads and well away from signal junctions) and clear of private driveways.
- On dual carriageway roads, the central reservation needs to be wide enough to accommodate waiting area for pedestrians and effectively two crossings will be provided, one for each carriageway to minimise delays to vehicular traffic.
- A pedestrian count and traffic speed survey will be required to justify the need for the crossing and to assess the safety and operation of this type of crossing.

### Potential Additional Costs

- Resurfacing of the carriageway if the existing is unsuitable.
- Additional street lighting.
- Widened or extended footways.
- Pedestrian guardrail.
- Additional electrical costs if there is no nearby suitable supply.
- Kerb build-out to narrow the road at the crossing point.
- Drainage alterations.

- Enhanced construction materials.
- Traffic Regulation Orders (TRO) for changes to the waiting restrictions etc.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the crossing safely.
- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Vegetation/tree clearance to ensure visibility of the signals.
- Alternative vehicle detection equipment if microwave detectors are not suitable for the site.
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of the crossing however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The works cost for a basic puffin crossing typically starts from about £38,200 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 30 weeks due to the consultation requirements and lead-in time for the signal equipment.

*For costs of traffic surveys please refer to the relevant information sheet.*



Toucan crossings are similar to puffin or pelican crossings but they are also designed to be used by cyclists. They consist of dropped kerbs, tactile paving, traffic signals to control flow and sometimes high friction surfacing on the approaches.

A Toucan crossing is only to be used if there is an existing or planned cycle route on both sides of the road that needed to be linked.

### Site Requirements

- Street lighting.
- Footways and cycleways on both sides of the road.
- Nearby power supply for the traffic signals.
- Good visibility for drivers and pedestrians (i.e. not on or near a bend, obscured by trees etc.).
- Away from junctions (absolute minimum 20m from side roads and well away from signal junctions) and clear of private driveways.
- On dual carriageway roads, the central reservation needs to be wide enough to accommodate waiting area for pedestrians/cycles and effectively two crossings will be provided, one for each carriageway to minimise delays to vehicular traffic.
- A pedestrian count and traffic speed survey will be required to justify the need for the crossing and to assess the safety and operation of this type of crossing. In addition, a cycle count will be needed unless this is part of a new cycle route.

### Potential Additional Costs

- Resurfacing of the carriageway if the existing is unsuitable.
- Additional street lighting.
- Widened or extended footways.
- Pedestrian guardrail.
- Additional electrical costs if there is no nearby suitable supply.
- Kerb build-out to narrow the road at the crossing point.
- Drainage alterations.
- Enhanced construction materials
- Traffic Regulation Orders (TRO) for changes to the speed limit, waiting restrictions etc.

- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the crossing safely.
- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Vegetation/tree clearance to ensure visibility of the signals.
- Alternative vehicle detection equipment if microwave detectors are not suitable for the site.
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of the crossing however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The works cost for a basic toucan crossing typically starts from about £41,200 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 30 weeks due to the consultation requirements and lead-in time for the signal equipment.

*For costs of traffic surveys please refer to the relevant information sheet.*



Where pedestrians are having difficulties crossing the road, an alternative to a formal pedestrian crossing is a refuge island. This allows pedestrians to cross the road in two halves and is particularly useful on busier roads where getting a gap in traffic in both directions at the same time is difficult and where a zebra or puffin crossing is not warranted.

## Site Requirements

- There must be sufficient carriageway width within which to construct the island. A minimum of an 8.8m wide road is needed to avoid the need to widen the road.
- There needs to be sufficient visibility of the crossing and pedestrians for approaching traffic.
- The crossing should ideally be sited where it is not hidden in a dip in the road or just over the crest of a hill as drivers will not be able to see it or any pedestrians using it.
- There needs to be a suitable footway on either side of the road for pedestrians to use. If the kerbs are not dropped and tactile paving (to assist blind or partially sighted pedestrians) in place, this will need to be included in the project work.
- The island should be on, or close to the 'desire line' for pedestrians wishing to cross the road.
- The island must be sited so that it doesn't obstruct the turn in and out of junctions or private accesses.

## Potential Additional Costs

- Widening of the carriageway to provide sufficient space to install the island.
- Drainage provision or alterations.
- Enhanced construction materials.
- Relocation of street furniture (bollards, signs, streetlights etc.).
- Alterations or additions to the street lighting to ensure the crossing and users are visible in the dark.
- Illuminated bollards or a high level beacon.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the island safely.
- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive

roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.

- Alterations to the parking restrictions may be required to ensure the crossing point is kept clear.
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of this installation however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The cost for a pedestrian refuge island with new dropped kerbs on either side of the road starts from about £7,500 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 20 weeks due to the consultation requirements.





Where pedestrians currently have to walk in the verge or carriageway, there may be a wish to provide a footway for them to use. Consideration needs to be given to the number of pedestrians walking along a road against the practicalities and cost of providing a footway.

New footways typically consist of a new kerb (if not already present) with a 1.8m wide blacktop pavement behind. The footway width may be reduced to

1.2m minimum at pinch points if necessary or widened if there is expected to be a high pedestrian flow or other special access requirements. If the verge is particularly wide, it may be preferable to leave a grass strip between the footway and carriageway.

### Site Requirements

- There must be sufficient highway land on which to construct the footway (at least 1.8m wide).
- The land on which the footway is to be constructed should be reasonably level as an embankment or cutting may require retaining structures to be built at additional cost.
- Existing trees that need to be removed must not have a Tree Preservation Order.
- Obstructions such as signs or lamp columns that need to be relocated must have a suitable location for them to be moved to.
- A new footway would usually connect into the existing network at either end or lead to a particular destination such as shops, a school etc.
- Dropped kerbs with tactile paving will need to be provided as a minimum at all road crossing points.

### Potential Additional Costs

- If the verge is not level, a retaining structure may be needed.
- Drainage provision or alterations.
- Enhanced construction materials.
- Relocation of street furniture (bollards, signs, streetlights etc.).
- Additional construction costs at private vehicle accesses.
- Drop kerbs/tactile paving at crossing points.
- Vegetation/tree clearance.

- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the footway safely.
- Temporary TRO and additional signing for a road closure for the works.
- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Land acquisition costs if insufficient highway land is available.
- Accommodation works such as new fences or planting.
- Ecology/environmental surveys and resulting additional works.
- Restricted working hours due to traffic sensitive streets, local schools etc. will add to time and cost.
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of this installation however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The cost for a basic blacktop footway with kerbing typically starts from about £95 per linear metre based on a length of 100m length of footway This could increase significantly if some of the above additional costs are incurred or lengths short lengths of footway are required.

### **Timescale**

Timescales for this type of work are typically around 12 weeks.



Off-carriageway cycleways encourage people to cycle rather than use their cars and can reduce traffic, improve air quality and give health benefits. A new cycleway would usually connect into the existing network at either end or lead to a particular destination such as shops, a school etc.

Cycleways can either run alongside the carriageway or can be away from the road crossing fields, parks etc. Unless there is

a suitable alternative nearby, cycleways are usually shared with pedestrians. KCC will usually only consider new cycleways on land that forms part of the Public Highway or is in the ownership of KCC/the applicant.

Cycleways are usually constructed with a tarmac surface as this is the best surface for cyclists to ride on and is also a good surface for pedestrians, particularly those with mobility issues.

## Site Requirements

- There must be sufficient highway land on which to construct the cycleway otherwise land will need to be obtained.
- The land on which the cycleway is to be constructed should ideally be reasonably level as an embankment or cutting may require retaining structures to be built which can be very costly.
- Cycleways should ideally be constructed on flat or gently sloping ground as steep gradients will discourage cyclists.
- Existing trees that need to be removed must not have a Tree Preservation Order.
- Obstructions such as signs or lamp columns that need to be relocated must have a suitable location for them to be moved to.

## Potential Additional Costs

- If the verge is not level, a retaining structure may be needed.
- Drainage provision or alterations.
- Enhanced construction materials.
- Relocation of street furniture (bollards, signs, streetlights etc.).
- Additional construction costs at private vehicle accesses.
- Road crossing treatments.
- Vegetation/tree clearance.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO)

to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the cycleway safely.

- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Land acquisition costs if insufficient highway land is available.
- Accommodation works such as new fences or planting.
- Ecology/environmental surveys.
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes

## **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of this installation if it is on KCC/Highway land. If enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

## **Typical Costs**

The cost for a basic blacktop cycleway with kerbing typically starts from about £125 per linear metre based on a length of 100m being constructed. This can increase significantly if some of the above additional costs are incurred or if short lengths of cycle path are requested. Any required signs or road markings will be in addition to this cost.

## **Timescale**

Timescales for this type of work are typically around 12 weeks.

There is a large range of different traffic signs that may be used on the highway. KCC will provide warning signs when there is an identified safety issue however other signs can be installed where there is a perceived issue. Other signs such as HGV or other information signs can also be provided.

Scheme promoters should consider the potential visual intrusion of new signage, particularly as many parts of the County fall within the Kent Downs AONB or conservation areas. In

addition, too many signs can lead to “sign blindness” where drivers start to ignore signs because there are too many of them and they lose their impact.



### Site Requirements

- There must be suitable locations to install the signs (i.e. sufficient highway land, good visibility of the signs, clear of obscuring vegetation etc).
- The size and siting of warning signs should comply with Chapter 4 of the Traffic Signs Manual, which also sets out which signs must be mounted alone rather than with other signs.
- The proposed sign must be an authorised highway sign as defined in the Traffic Signs Regulations and General Directions 2016.
- Consideration should be given to minimising sign clutter and the visual intrusion of any new installation.
- Grey backing boards are not usually used and yellow backing boards are only used at crash cluster sites.

### Potential Additional Costs

- In certain circumstances the signs may need to be lit requiring lighting units and new power supplies.
- Vegetation may need to be cleared to provide sufficient advance visibility of the signs.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the signs safely.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and

can range from £300 to £2,000 per day.

- The size of traffic signs depends on the information being displayed and speed of traffic. As the size increases, so does the cost of the sign and supporting post.
- On roads where traffic speeds are over 40mph, the sign assembly needs to be “passively safe” which means that special deformable posts may be needed to minimise the risk of injury in the event of a vehicle crashing into a sign. These special posts can significantly increase the cost of providing a sign.
- Restricted working hours charges.

### **Future Maintenance**

KCC will only maintain the regulatory/safety elements of this installation. The scheme promoter will need to secure funding for maintenance of the other elements when required.

### **Typical Costs**

The cost for a basic warning sign and post typically starts from about £216 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 8 weeks.

Direction signs can be provided to guide pedestrians, cyclists or motor traffic to their destination. They are becoming less important to a large group of the travelling public who use satellite navigation to guide them however they are still invaluable to people without access to these systems.



Scheme promoters should consider the potential visual intrusion of new signage, particularly as many parts of the County fall within the Kent Downs AONB or conservation areas.

*Please note that there is a separate process for brown tourism/leisure direction signs.*

### **Site Requirements**

- There must be suitable locations to install the signs (i.e. sufficient highway land, good visibility of the signs, clear of obscuring vegetation etc).
- The size of direction signs should comply with Chapter 2 of the Traffic Signs Manual, the national design standard.
- The proposed sign must be an authorised highway sign as defined in the Traffic Signs Regulations and General Directions 2016.
- Consideration should be given to minimising sign clutter and the visual intrusion of any new installation.
- There must be continuity in signing to a destination i.e. at each junction (except minor side roads) there should be signing between the first direction sign and the destination.
- Generally, non-strategic destinations should only be signed from the point where you leave the nearest A or B class road.

### **Potential Additional Costs**

- Vegetation may need to be cleared to provide sufficient advance visibility of the signs.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the signs safely.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and

can range from £300 to £2,000 per day.

- The size of traffic signs depends on the information being displayed and speed of traffic. As the size increases, so does the cost of the sign and supporting post(s).
- On roads where traffic speeds are over 40mph, the sign assembly needs to be “passively safe” which means that special deformable posts may be needed to minimise the risk of injury in the event of a vehicle crashing into a sign. These special posts can significantly increase the cost of providing a sign.
- Additional signs may be needed for route continuity.
- Decorative fingerpost signs can be very expensive when compared to standard highway signs.
- Restricted working hours charges.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC may take over responsibility for the on-going maintenance of this installation and will consider each application on a case by case basis. If KCC will not maintain the signs if damaged/worn then the scheme promoter will need to secure funding for maintenance when required.

### **Typical Costs**

The cost for a basic direction sign and post typically starts from about £195 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 8 weeks.



A kerb build-out can be provided for a number of reasons. These include:

- narrowing the road as a traffic calming feature
- to bring a pedestrian crossing point out between parked cars to improve visibility and pedestrian safety
- to bring a bus stop out beyond parked cars reducing the loss of parking needed to get the bus into the kerb to pick up passengers
- when placed either side of a junction the give way line can be brought forward to improve visibility for emerging vehicles.



### Site Requirements

- The site requirements will vary depending on the type of build-out, size and location, but generally the build-out should be positioned so that it is not a hazard to traffic while still performing the required function. It is important to consider whether the build-out will be a hazard if there are no parked cars present.
- A build-out must not reduce the available carriageway width to an extent that large vehicles permitted to use the road are obstructed. Consideration should be given to large agricultural vehicles, for example, that may need to use roads occasionally in rural areas.
- Build-outs will usually be in areas with street lighting so that they do not become a hazard in the dark.
- Where build-outs are used to pinch the carriageway to a single lane, there must be sufficient forward visibility for drivers to see opposing traffic approaching.

### Potential Additional Costs

- Advance warning signing or priority signing.
- Build-outs used as a pedestrian crossing point will need a corresponding dropped kerb and tactile paving on the other side of the road.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the build-out safely.
- While unlikely in this case, utility services may need to be altered or relocated.

(This can be very expensive, especially if there are fibre optic cables).

- Amendments to the existing Traffic Regulation Orders (parking etc) and associated signing and lining may be needed to accommodate the changes.
- Drainage alterations – these are likely to occur as build-outs tend to trap water that would previously flow in front of the kerbs to the nearest gully.
- Enhanced construction materials.
- Provision or enhancement of street lighting.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Restricted working hours charges.
- Road safety audits giving independent safety advice on planned changes.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of this installation however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

The cost for a basic build-out typically starts from about £1,775 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 20 weeks due to the consultation requirements.



Many pedestrians have difficulty crossing streets where there are full height kerbs. This can include people with mobility issues, particularly those with walkers, wheelchairs or mobility scooters. They can also present issues to able bodied pedestrians notably parents with prams or pushchairs.

Providing dropped kerbs will help these pedestrians move around more freely.

Adding tactile paving will also help people with vision impairments to find the

crossing points and guide them across the road.

Dropped kerbs can also be installed individually to assist people to gain access to a parking area or similar.

### Site Requirements

- Footways on both sides of the road if the dropped kerb is used for a crossing point.
- Located at a safe point with good visibility for drivers and pedestrians.
- On, or close to the 'desire line' for pedestrians wishing to cross the road.
- Located where they will not be obstructed by parked vehicles.

### Potential Additional Costs

- Additional or extended footway links to connect the crossing point into the nearby footways.
- Additional cost for wider footways, verge crossings or for radius kerbs.
- Pedestrian guardrail to channel pedestrians to the crossing point.
- Kerb build-out to narrow the road at the crossing point (see kerb build out information sheet for more information).
- Drainage alterations (drainage gully gratings in particular can be an issue for wheelchair and buggy wheels etc. and can also trap heels and so should be relocated or the crossing point moved away from them).
- Road marking renewal or alterations.
- Enhanced construction materials.
- Traffic Regulation Orders (TRO) for changes to the waiting restrictions etc.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to

close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the dropped kerbs safely.

- Utility alterations/diversions.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.
- Restricted working hours charges.

### **Future Maintenance**

Once the works have been completed satisfactorily, KCC will take over responsibility for the on-going maintenance of the crossing however if enhanced or non-standard materials are used, KCC reserves the right to use our standard materials in any maintenance work.

### **Typical Costs**

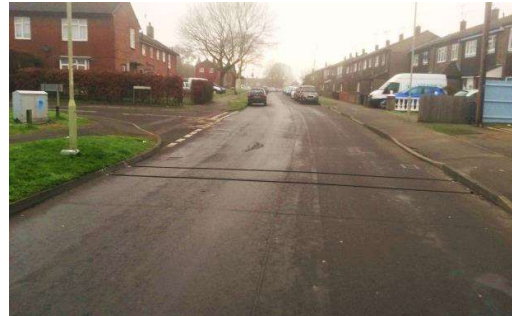
The works cost for a basic pair of dropped kerbs typically starts from about £930 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 8 weeks.

Traffic Surveys are carried out to provide evidence of an issue on the highway and to provide data for designers to use when developing new works on the highway.

Traffic counts fall into two main categories, automatic or manual. Automatic counts involve equipment placed in or alongside the highway. The most common of these is the ATC tube survey which consists of a pair of tubes laid across the carriageway which are connected to a data logger that allows reports such as traffic volume, speed and vehicle classification to be generated. This type of count would generally be carried over a week-long period.



Manual counts are carried out by people on the ground (enumerators), by video recording or Automatic Number Plate Recognition (ANPR) cameras and are typically carried out over a 12 hour period from 7am and 7pm. They are used for junction turning counts, origin and destination (OD) surveys, pedestrian and cycle surveys, parking and queue length surveys.

OD Surveys can also be carried out by a roadside survey however this requires the police to be involved to stop the vehicles.

### Site Requirements

ATC tube surveys ideally need:

- to be situated on straight stretches of road, away from junctions, bends, on street parking or other factors that might affect data collection.
- A secure fixing point will also be required at the survey site in order to attach the counter, i.e. a lamp column or signpost is ideal.

Manual surveys have no particular site requirements other than a suitable location for the enumerators or video equipment to observe from with an unobstructed view.

### Potential Additional Costs

- There is a cost levied by the Street Lighting team for a permit in order to attach ATC equipment to a lamp column, this is up to £95.
- Longer than standard survey durations.
- Prices for ATC surveys are for single locations. Additional ATC counts that are carried out at the same time and general area as the first will incur an additional charge but this will be less than for the single count.
- Counts on higher speed roads will require additional traffic management which will incur extra costs.
- Manual surveys that are more complex and require additional people or video equipment.

## **Future Maintenance**

N/A

## **Typical Costs**

The cost for a single ATC tube survey is around £300 for a week of data collection. A simple manual count (12 hours) such as a pedestrian count for a new crossing is from £600.

## **Timescale**

Traffic surveys can usually be completed in around 6 weeks but this may be extended at busy times.



Parked vehicles near an entrance to a school can be a hazard for the children, obscuring their view of traffic and vice-versa.

A School Keep Clear marking prohibits stopping or parking in the vicinity of the pedestrian entrance(s) to the school to deal with this issue. They can also help to keep an area clear of parking for a crossing patrol to operate safely.

The marking can also be used for combined vehicle/pedestrian access but would not usually be marked for solely vehicular accesses.

The markings only apply Monday to Friday during term times and can either operate for periods at the start and end of the school day or can be continuous between these two time periods depending on the particular local requirements.

### Site Requirements

- The markings can be provided to protect entrances normally used by pedestrians and can be between 25.56m and 43.56m long in steps of 6m.
- If the school has more than one pedestrian entrance then multiple markings can be provided but their overuse can reduce their effectiveness if drivers cannot find anywhere else to stop.
- There must be somewhere suitable to site the time plates and posts that accompany the markings.
- Currently, a Traffic Regulation Order (TRO) is required for the marking to be enforceable by the local Parking Attendants (*this is currently under review by the government and is likely to be removed in the future*). Objections to the proposal may result in KCC deciding not to proceed with the new restriction. Costs up to this point will need to be paid by the applicant.

### Potential Additional Costs

- Any existing controlled parking bays will need to be removed and the relevant TRO amended to reflect the change.
- Vegetation may need to be cleared to provide sufficient visibility of the signs.
- Depending on site conditions, a Temporary Traffic Regulation Order (TTRO) to close the road along with associated diversion signs or temporary traffic lights may be needed in order to install the works safely.
- Lane rental fees - a charge levied on works carried out on traffic sensitive roads

which restrict traffic flows during peak hours. This is usually during the morning and evening peak hours or 7am to 7pm depending on the traffic conditions and can range from £300 to £2,000 per day.

- If more than one marking is required there will be extra costs for the markings and signs.
- Restricted working hours charges.

### **Future Maintenance**

Once the works have been completed satisfactorily, the local District/Borough/City Council will take over responsibility for the on-going maintenance of this installation and it is therefore important to consult with the local council at an early stage to ensure they support the proposals.

If the school changes its access arrangements it is expected that they will fund any changes to the Keep Clear markings.

### **Typical Costs**

The cost for the Traffic Regulation Order starts from £2,385 and the installation of a basic School Keep Clear typically starts from about £635 and can increase significantly if some of the above additional costs are incurred.

### **Timescale**

Timescales for this type of work are typically around 20 weeks due to the consultation requirements.



Fixed electronic warning signs are installed at locations throughout the county to improve road safety. The most common application is to remind drivers of the prescribed speed limit and activate when the Kent Police enforcement threshold is exceeded.

These signs are non-mandatory and non-statutory; therefore, they cannot be legally enforced and must be supported by other adjacent legal signage. Every location should have an ongoing crash or speed related problem which has not been addressed by the use of other engineering measures, such as gateways, build outs or white lining improvements. Full speed survey data will be required to evidence the issue as electronic signs are a last resort option. Whilst the signs have a positive impact their benefits are short-lived and decline over time.



A variety of sizes and prescribed legends can be used, including; 30mph, bend/junction warning, road narrows or school; each with an optional SLOW DOWN message. However, the use of smiley/sad faces or “Thank You” is not permitted within the DfT sign regulations.

### Installation and maintenance

All VAS requests are managed by the Traffic & Network Solutions Team based in Aylesford, who are also responsible for ongoing inspection and maintenance. These must be procured following the agreed process using the approved sign supplier, via the traffic systems maintenance contract. Whilst there are several other producers of similar equipment, these are not authorised for use in Kent and will be removed from site if not purchased via the correct process. Each sign comes with a six-year warranty from the manufacturer.

Many of the existing VAS have exceeded their expected life and are obsolete, with no spare parts available from the manufacturer. A small stock of components has been salvaged from damaged or faulty signs in order to effect repairs and extend the life of the remaining assets, although in many cases this is not possible, so signs will be removed. They will then require reconsideration of the ongoing need, as a VAS may no longer be the best solution. Even in situations where a VAS has been removed and a replacement sought, a full speed survey to evidence the issue is needed; SpeedWatch data is *not* a comparable substitute.

The signs can be either solar or mains powered, although the preferred option is to use a solar panel which affords more flexibility in locating the sign for remote situations. However, due to adjacent vegetation or structures these are not always viable, and a dedicated mains power supply will be required. All mains powered VAS require a dedicated UKPN connection which will require specific investigation and can significantly affect the cost.

Each site will be assessed on an individual basis using our professional judgement, including consideration of mandatory signage, proximity to junctions and other safety aspects. This equipment cannot be attached to existing signs or lamp columns and must not increase any safety concerns by distracting drivers or obscuring hazards. Therefore, not all sites will be suitable for a VAS, although every effort will be made to accommodate the request. Delivery time will be approximately 12 weeks from the order being placed.

### Finance

There is no funding available for the routine replacement of faulty signs, as they are not safety critical assets. County Councillors have often used their Member funding allocation to support the installation or replacement of VAS equipment, optionally with a contribution from the Parish Council.

Parish Councils are often keen to address speed related issues in their local area. We have therefore developed a scheme now in use across Kent by many parishes; the Speed Indicator Device (SID) – a flexible alternative to the static electronic signs.



This arrangement is for a single SID to be used at multiple sites on fixed poles within existing 30mph zones. The equipment is not suitable for use in 20mph areas due to the sensitivity of the radar and the nature of the local environment.

Whilst there are similarities, this scheme is not affiliated with SpeedWatch which serves a different role and purpose. Active SpeedWatch sites are not necessarily appropriate for this scheme and will be assessed on an individual basis.

All such devices must be procured following the agreed process using the approved sign supplier and contractor. Whilst there are several other manufacturers of similar equipment, these are not authorised for use on the Kent highway network and will be removed.

## Sign equipment

Each SID is battery powered and can be moved by a single person, although this may not be practicable. The sign is supplied with a spare battery and charger to allow it to be swapped when necessary. There is the option to include a data collection facility for an additional cost. Delivery time will be approximately 12 weeks from the order being placed.

Two versions available; the Mini and Advanced type. Battery life is traffic volume dependent but about four weeks for the Mini SID and about one week for the Advanced version. The Mini SID is relatively lightweight with an electronic display to show actual vehicle speed above 25mph. It flashes for those above the 30mph limit and blanks at 40mph to discourage “high scores”. The Advanced sign has the same speed display and includes a ‘SLOW DOWN’ legend but is significantly heavier. Either option is easily transferable between locations with the correct training, although the Mini SID is recommended as a more portable device. The sign can be supplied with a data collection facility and appropriate download software.

## Poles and brackets

Fixed posts will be installed at all locations agreed during the site visit but will leave empty poles around the parish when not in use. Each site will be assessed on an individual basis and will be at our professional discretion. There are no fixed criteria, but each site should be within the highway boundary, 150m inside existing speed limit zone and away from existing signs or junctions. A bracket is required for every mounting position which will be installed prior to hand over. A minimum of three posts is required per SID, with a maximum of five sites per sign in order to comply with movement requirements and retain effectiveness.

A local consultation exercise must be undertaken by the Parish Council to ensure that residents have an opportunity to comment on the scheme. Evidence of this will be required before ordering the equipment and any objections will need to be considered. However, modifications to the scheme will require re-assessment before proceeding.

## Traffic management and site safety

Some post locations may require traffic management to enable their installation but must not be required for relocating the SID. Basic traffic management using cones/barriers is included in the price, but any extra safety measures will require a further site visit and increase the scheme cost, e.g. temporary traffic signals.

## Sign relocation

In order to comply with traffic signs regulations, the sign must not remain in one location for more than two months and therefore requires regular relocation. A group of volunteers need to be responsible for the SID movement and battery charging. No lifting equipment will be needed as the poles will be in place and the SID will simply attach to the bracket.

Initial training will be given on the device setup and mounting. The use of hi-visibility vests and PPE are essential during the relocation process and the Parish Council must carry out a risk assessment for the movement of the signs including parking/access for each location.

A Memorandum of Understanding must be signed by the Parish which defines the roles and responsibilities of each party.

### Maintenance

The sign has a 12-month warranty from the manufacturer, who will deal with any technical issues directly with the Parish Council. However, any initial problems can be discussed with the KCC Traffic & Network Solutions team.

Replacement batteries, new brackets or extra poles are available but should be procured via KCC to ensure compatibility. It is strongly advised that the SID is covered by Parish Council insurance, as in the event of theft or damage we are unable to provide a replacement.

### Finance

Below are two examples of SID packages, although each scheme will be quoted individually based on the specific requirements – please do not use these prices for budgetary purposes:

This package includes:

- One electronic sign with a data collection facility
- Two batteries and a charger
- Galvanised poles with mounting brackets
- Post installation with minor traffic management
- Two padlocks and keys
- Site visit, land ownership check and utility surveys
- Delivery and training

#### Mini SID + 3 posts (recommended)



8kg SID + 4kg battery

**£7,000 (excl. VAT)**

#### Advanced SID + 5 posts



12kg SID + 12kg battery

**£9,000 (excl. VAT)**

