

WEST SUSSEX COUNTY COUNCIL  
HIGHWAYS TRANSPORT & PLANNING



BUS GATE ENFORCEMENT  
**DEVELOPER'S PACK**

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## Acronyms Used

ANPR (Automatic Number Plate Recognition)

HRA (Habitats Regulations Assessment)

WAN (Wide Area Network)

DfT (Department for Transport)

TRO (traffic Regulation Order)

WSCC (West Sussex County Council)

SSE (Scottish & Southern Energy)

RDS (Rapidly Deployable Server)

RSA (Road Safety Audit)

POE (Power over Ethernet)

## Version Control

Version 1	Adrian Paul for initial thoughts	30.06.20
Version 2	Adrian Paul with AH & TT input	20.07.20
Version 3	Adrian Paul, final proof	29.07.20

## 1 Objective

To give guidance to developers who are installing a Bus Gate within a WSCC development.

## 2 What is a Bus Gate?

A 'Bus Gate' is a signposted stretch of road, along which use is restricted to public transport and (where specified) taxis and other authorised vehicles. Bus gates have been introduced nationally in areas where it would be inappropriate for a high volume of through traffic, such as residential areas, new developments and town centres.

## 3 Why have a bus gate?

Bus gates are used to encourage a modal shift, to reduce congestion hot spots, for safety reasons and for environmental noise and air quality balancing for specific HRA (Habitats Regulations Assessment) areas.

Enforcement of a bus gate is essential, to ensure that the purpose of the Bus Gate is realised.

Highway Agreements under S278/38 Highway Act will be required for third party Bus Gate works on existing or proposed public highway – contact [HighwayAgreements@westsussex.gov.uk](mailto:HighwayAgreements@westsussex.gov.uk)

## 4 Why use ANPR cameras for enforcement?

The use of ANPR cameras for enforcement is a common, tried and tested approach to bus gate enforcement throughout the country. Unlike rising bollards, there are no moving parts to fail or requiring heavy maintenance, especially following road salting. An ANPR camera just requires annual servicing and bi-annual lens cleaning.

## 5 Which ANPR cameras should be deployed?

As at the time of issue of this version, WSCC are requesting the use of Axis ANPR cameras mounted on a street lighting column. The lighting column will need to have a 240V a.c. commando socket fitted to power cameras and equipment, this should be arranged and paid for by the developer who will need to contact SSE to achieve this.

The equipment will comprise per site: 1 x RDS, 1 x Axis QL1700-LE, 1 x Axis P3375-VE, 1 x 4G SIM card, 1 x POE 4-Port Injector and these items, as at the time of issue of this version, will be purchased through Videalert. Cameras and associated equipment are to be paid for by the developer but will be owned by WSCC Streetworks.

Permission to attach the cameras and associated equipment will be via a 3<sup>rd</sup> party agreement between WSCC Streetworks, Tay Valley Lighting Limited and SSE. Please contact the Traffic Signals team at WSCC Highways to obtain the 3<sup>rd</sup> party agreement form, [traffic.signals@westsussex.gov.uk](mailto:traffic.signals@westsussex.gov.uk).

## 6 The Commuted Sum

For developer schemes the developer will be responsible for the equipment maintenance costs until the issue of the S278/38 Agreement final certificate.

When the developer purchases and installs the ANPR equipment they will benefit from the 12 month maintenance included with the purchase. Thereafter WSCC are only requesting a commuted sum over a five year period.

Years 2-6 will include the following: hardware + software maintenance and support (incl. SIM charges) plus provision of ‘Hosted Platform’ and software licenses rental fee.

Commuted sum to be secured through the S278/38 Agreement and be transferred to WSCC Streetworks who will manage the maintenance contract.

### **COMMUTED SUM FOR MAINTAINING BUS GATE ANPR CAMERAS & ASSOCIATED EQUIPMENT**

Form compiled by: Andrew Howick / Adrian Paul

Date: 15/07/20

<b>Annual Maintenance element</b>	<b>Cost</b>
Cost of maintaining based on:	
Cost of routine maintenance and inspection of camera installation per annum:	£4160
Average ad hoc repairs outside of scheduled maintenance visits (replacement parts and repairs ) per annum:	£0
Subtotal	£4160
<b>Discounted 5 year subtotal</b> = subtotal × 4.784	<b>£19,901.44</b>

<b>Replacement cost elements</b> (Discount rate 2.2%)				
<b>Description</b>	<b>Year</b>	<b>Cost</b> (2020 rates)	<b>Discount factor</b> <small>See table A below</small>	<b>Cost</b>
<b>Subtotal:</b>				

<b>Total commuted sum for 5 years</b>	<b>£19,901.44</b>
<b>Rounded to nearest £100</b>	<b>£19,900.00</b>

Commuted sum in line with CSS Methodology

## 7 Siting of the cameras and Technical Design input

WSCC work closely with Surrey & Sussex Police Force. The ANPR Police representative is to be invited to Bus Gate planning meetings to enable their early input into the most appropriate siting of the cameras, after the planning permission has been granted.

The Highway Agreements Team will review the technical design (when submitted as part of S278/38 Agreement application) of Bus Gate schemes.

The Highway Agreements Team (if planning-related) or Streetworks Team (if not planning-related) will advise and inspect the implementation.

## 8 Traffic Regulation Order (TRO)

Traffic Regulation Orders (TROs) are legal orders which allow Local Authorities such as WSCC or the police, to enforce regulations including speed limits, on-street parking, one-way streets and Bus Lanes/ Bus Gates. Most TROs are created with input from local communities and the police, to address specific traffic congestion, environmental or quality of life issues.

In addition to applying for a S278/38 a separate application is required for associated TRO's to support the Bus Gate. The developer is responsible for the cost associated with the Order (as at the time of issue of this version the cost is £7418). Contact WSCC TRO Team, [Tro.team@westsussex.gov.uk](mailto:Tro.team@westsussex.gov.uk).

## 9 Road Safety Audit (RSA)

A Stage 1 RSA will be required at the planning application stage. Further stages of RSA will be required as part of any S278/38 process. Prior to final S278/38 sign off, a post construction RSA will be required.

## 10 Site Markings and Regulatory Signs

Traffic Signs Manual Chapter 3 2019. Regulatory Signs. Department for Transport, Department for Infrastructure (Northern Ireland), Scottish Government, Welsh Government gives details of how Bus Lanes and Bus Gates should be marked and signed. Developers are to follow this guidance and the requirements regarding additional signage and sighting at the end of the document.

### **BUS LANES AND GATES EXTRACTED FROM TRAFFIC SIGNS MANUAL CHAPTER 3 2019 SECTION 9**

#### **9.1 General**

*9.1.1. This section describes bus lanes and gates that use prescribed signs, i.e. facilities for buses, cyclists, taxis and solo motor cycles. Where certain vehicles, such as private hire vehicles (minicabs), are permitted to use a facility, this is indicated by the legend "authorised vehicles". Where other vehicles such as heavy goods vehicles are to be admitted, the signs will require authorisation and guidance should be sought from the national authority. Working drawings for some non-prescribed signs, including those for bus lanes that may be used by heavy goods vehicles, and those for high-occupancy vehicle lanes, are available on request from the Department of transport.*

9.1.2. A bus lane is mandatory and requires an order which prohibits other vehicles from using that part of the carriageway while the lane is in operation. It may be either a with-flow lane or, in a one-way road, a contraflow lane. The latter must be operational at all times, but a with-flow bus lane may operate for only part of the day. With-flow bus lanes on the left hand side of the carriageway are usually available to both buses and pedal cycles; it is not considered safe to force cyclists to use the general traffic lane where they would be confined between two streams of motor traffic. There might, however, be situations where a with-flow lane leads directly to a bus-only facility that is not available to pedal cycles (e.g. a bus-only gate or the entrance to a bus station). In these circumstances, where the bus lane excludes cyclists, the regulatory upright traffic sign will need authorisation by the national authority. Where permitted by the order, taxis (hackney carriages), solo motor cycles and authorised vehicles may use a with-flow bus lane as appropriate. A contraflow bus lane is generally used by buses only, but pedal cycles may also use the lane where permitted by the order.

9.1.3. The Regulations permit signs to be varied to indicate centre or off side with-flow lanes. Where these are not appropriate for use by pedal cycles, as with nearside lanes the upright regulatory sign will need to be authorised. Centre or off side with-flow lanes are likely to be used as a lead-in to a bus gate at junction ahead (see 9.3.9). Where an off-side lane is provided in a two-way road, it should generally be separated from the opposing flow of traffic by a solid island or hatch markings to diagram 1040 (S11-4-23) where the boundary line is formed by the marking to diagram 1049A (S9-6-11, see 9.3.2 and Chapter 5). Contraflow lanes, in the direction of travel along the lane, should always be on the nearside.

9.1.4. Bus-only streets and bus gates are lengths of road or parts of a road where access is restricted to buses, although sometimes other vehicles such as pedal cycles, solo motor cycles, taxis and trams are also admitted.

9.1.5. Bus lanes and bus gates may be surfaced in coloured material in order to demarcate them more emphatically and to discourage encroachment by motor vehicles. However, coloured surfacing has no legal significance; it is the prescribed traffic signs and road markings that establish the legal status of a bus facility.

## 9.7 Bus-only streets and bus gates

9.7.1. Where a one-way or two-way road is reserved for buses and any other permitted vehicles, the entry points may be indicated by upright signs in following ways: a) The “bus only” sign to diagram 953, 953A or 953B (S3-2-33 to 35 respectively, see Figure 9-22, Figure 9-23 and Figure 9-24) (note that these signs are no longer used with the “Only” supplementary plate). Diagram 953 may be varied to omit the word “taxi”, the cycle symbol or both as appropriate (S3-4-7 and 8). The signs may have a supplementary plate that includes a time period, the legend “and authorised vehicles” or both. Diagrams 953A and 953B are the only signs that can be used where the solo motor cycles are permitted to use the road; these two signs do not have permitted variants. b) The “no entry” sign to diagram 616 with an appropriate exception plate (S3-2-10). This sign may be used where buses or both buses and cycles are the only vehicles permitted to use the road at all times; a time plate must not be used with the “no entry” sign. The prescribed legends for the exception plate are: “Except” and— i) “buses” or “local buses”; ii) “cycles”; iii) “buses and cycles” or “buses & cycles”; or iv) “local buses and cycles” or “local buses & cycles”. c) The “no motor vehicles” sign to diagram 619 with an appropriate supplementary plate (S3-2-12). This sign should be used where vehicles other than buses, cycles, and taxis BUS LANES AND GATES 105 are permitted to use the road (e.g. permit holders, for access, for loading etc.). The supplementary plate may

include time periods where the restriction does not apply continuously or where the exceptions apply only at certain times. d) Diagram 617 with an appropriate exception plate (S3-2-11). This sign is an alternative to diagram 619 where pedal cycles are prohibited.

The other end of a one-way road must have “no entry” signs to diagram 616 in accordance with 4.9.5 to 4.9.7.



**Figure 9-22** Diagram 953 (S3-2-33) Route for use by buses, pedal cycles and taxis only (Alternative types)



**Figure 9-23** Diagram 953A (S3-2-34) Route for use by buses, pedal cycles and solo motor cycles only (Alternative types)



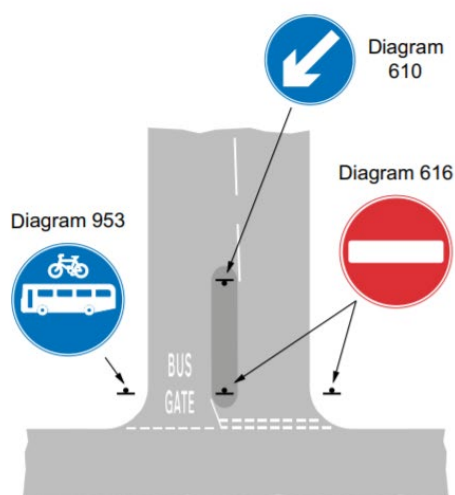
**Figure 9-24** Diagram 953B (S3-2-35) Route for use by buses, pedal cycles, solo motor cycles and taxis only (Alternative types)

9.7.2. The upright signs need to be placed as near as practicable to the point where the restriction commences, but there is no specific requirement to provide a sign on each side of the carriageway. This relaxation has been made to reduce environmental impact, but care should be taken to ensure that a single sign is clearly visible to all road users and does not give rise to issues relating to enforcement or road safety. This might require the sign in some instances to be placed on the off side of the road. There are likely to be some situations where two signs will still be preferable. Drivers should not be placed in the situation where they might not see the sign before starting to turn at a road junction. Also, at a junction where the side road is at an acute angle with the major road, two signs might be required so that it is clear as to which road the prohibition applies. 9.7.3. A bus gate is a short length of bus-only street. On a two-way road, access may be restricted to buses in one direction only, with all traffic permitted in the opposite direction, i.e. similar to a contraflow lane, but too short to be signed as such. In this case, that part of the carriageway reserved for buses should be separated from the opposing flow of traffic by a traffic island and not by a continuous line marking to diagram 1049A (see Figure 9-25). Bus gates are often used to remove through traffic from a road but allow full access. They effectively create a “no through road” for all traffic other than buses. The bus gate may be located either at a junction or part way along a road, and may be used by other vehicles where permitted by the order. If a bus gate is placed on a road that was previously a signed route or was used by significant through traffic, consideration should be given to providing or changing directional signing to guide prohibited traffic to use the preferred alternative route, as described in 5.1.2. An example is shown in Figure 9-26.

9.7.4. A bus gate is signed in a similar manner to a bus-only street as described in 9.7.1. Where the bus gate is a short length of one-way road which leads to a two-way road used by all traffic, the opposite end of the gate must have “no entry” signs to diagram 616.

9.7.5. Appropriate sizes for upright signs and supplementary plates indicating bus-only roads and bus gates are specified in Appendix A. It should be noted that diagram 953B is larger than diagrams 953 and 953A because the symbols on the sign are smaller. A bus-only street or bus gate may be indicated on an advance direction sign, as shown in Figure 9-26, incorporating an appropriate symbol prescribed by S12-20.





**Figure 9-25** One-way bus gate on a two-way road

9.7.6. The “BUS GATE” road marking to diagram 1048.5 (S9-6-15, see Figure 9-27) may be used in conjunction with 953 series upright signs, and with diagram 616 (no entry) when accompanied by a plate that exempts buses, as shown in Figure 9-25 and Figure 9-26. The regulations do not permit it to be used with diagram 617 or 619, even if these signs have a bus exemption. 9.7.7. This replaces the previously prescribed diagrams 1048.3 “BUS ONLY” and 1048.4 “BUS AND (cycle symbol) ONLY”. Unlike the “BUS ONLY” marking, the “BUS GATE” marking can be used where the restricted access applies for only part of the day or where the road may be used by vehicles other than buses, cycles and taxis (e.g. solo motor cycles or “except for access”). It also takes up less space than the previous “BUS AND (cycle symbol) ONLY” marking, which might have been difficult to place in a very short bus gate. The legend may be laid in a single line or in two lines depending on the carriageway or lane width available. Two sizes are prescribed; the smaller size will be appropriate for most situations. The larger size might be used where greater emphasis is required. 9.7.8. The marking to diagram 1048.5 is optional and might be particularly useful where there is only one upright sign (see 9.7.2). It should never be used as a substitute for the upright signs (particularly where the route is for buses only and no other vehicles are permitted); the Regulations prescribe the marking as being for a road that may be used by vehicles indicated on upright signs. 9.7.9. For bus-only roads and bus gates which also have tramways, see section 10 for signing details.

### **Additional Signage**

WSCC may request additional signage to be purchased by the developer and erected as part of the scheme.

### **Signage Sighting**

Where signs are required to be located near to trees, shrubs, bushes and general flora, those trees, shrubs, bushes and general flora must be either removed and relocated, or sufficiently pruned to prevent any part of the sign being obscured during growth. It may necessary to consult with a Council Arborist and/or Tree Preservation Officer to achieve this.