

With the advent of more and more off peak road closures, particularly at night, we needed equipment to make our operation safer. The SmartBlind/SmartSign system gave us and our operatives peace of mind, providing a much safer working environment, by NOT having to cross the carriageway to change signs. Minimal maintenance, ease of operation, energy efficient and above all time-saving, makes this a product range everyone in the TM industry should be considering.

**Richard Pearson**

Manager Associated Asphalt Traffic Management

# SMART Sign

**SmartSign is a low cost remote controlled Variable Message System (VMS) road sign.**

SmartSign allows you to change your signs at the touch of a button. It is a modification of a standard sign plate, allowing instant remote control across most sign images



## KEY BENEFITS

- Use less manpower to deliver an enhanced service
- Longer working windows
- Simplified and improved risk assessment
- Reduced capital expenditure on impact protection vehicles and other specialised equipment
- More dynamic traffic management
- Higher quality tenders, attracting higher premium prices

SmartSign provides improved worker safety, as signs no longer need to be accessed to change them. It is typically 35 times cheaper than Variable Message Signs (VMS). Your working window will be extended by up to eighty minutes because traffic management can be altered rapidly. All units can be positioned in advance during quiet periods in off peak traffic. You'll be able to react faster to traffic flows and dramatically reduce your number of road crossings by up to 86%. With greater traffic management flexibility you will be able to reduce your manpower and vehicle usage; offering a competitive advantage over less progressive firms.

SmartSign can be combined with SmartBlind and SmartFrame. It is also compatible with your existing sign plate and 'A' Frame stock. It is suitable for use with Lattix and conventional posts. Our products have a modular design, so you can change any module with ease. All our units are solar powered for increased durability, minimal infrastructure costs and reduced carbon footprint. All products are serviceable on site. Each SmartSign is 95% recyclable.

To discover how TM Safety Signs can help your company become **safer**, **greener** and **more efficient** get in touch with one of our representatives:

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E info@tmsafety signs.com



## HOW IT WORKS

The handheld transmitter sends a digital code to the SmartSign receiver. Any receiver within range (up to 800 metres) will receive and decode this transmission. If the signal is valid, the receiver enters a timed active mode and carries out the command. Once complete, the receiver goes to 'sleep' and waits a further command. The sleeping receiver only draws about ¼ of current of a single LED. Two integrated 7-amp hour batteries supply the receiver and motor power, which in turn are charged by the conformal solar panel. The tiny current draw allows the batteries and solar panel to be so small. A 7-watt solar panel keeps the batteries charged throughout the year, eliminating the requirement for a mains supply or service visits. SmartSign is typically combined with SmartBlind for additional flexibility.

## PERFORMANCE

SmartSign has two main competitors, permanent 'gantry' type VMS systems, and the traditional manual traffic management operation.

VMS offers tremendous flexibility but at a cost. Coverage is sporadic due to the high capital expenditure. A typical VMS system will cost between 7 and 40 times as much as a single SmartSign unit. Essentially, an entire SmartSign 'Chapter 8' array could be installed for the cost of the cheapest mobile VMS unit.

The traditional 'run across the road' system for traffic management appears to offer the

lowest cost. This becomes less obvious when the additional time and resource factors are considered, even before the obvious risks to personnel. Our customers report that typical implementation times for a lane closure are reduced to 20 minutes, using only two personnel and a single vehicle. This time is not affected by traffic counts. Contractors often take advantage of the fact that SmartSign will fit on to their existing equipment.

SmartSign will complement traditional methods too. A common solution is to put SmartSign only on the central reserve, keeping 'dumb' signs on the verge. This reaps almost all of the advantages, at half of the price.

## CONSIDERATIONS

**Susceptibility to wind damage** when fitted with SmartBlind. We have worked hard to improve SmartBlind. With the innovation of polycarbonate shields, the system is far more resistant to strong wind events.

**System Mass** A 3 Lane Wicket will weigh up to 31 kg. This can be difficult to handle. Most clients elect to position SmartSign units in permanent locations, where they can be activated only when needed.

**Excess power drain** SmartSign is designed for 2 operations per day. More frequent operations, especially during the winter, have resulted in flat batteries. Additional battery capacity can be installed under these circumstances. We are also developing a miniature wind generator that will complement the solar panel.

I have found there to be a marked improvement in the durability of your product since the switch over to the next generation SmartBlind. The signs stood up well through the summer storms and high wind events without a single defect. Our long term aim is to increase the use of remotely operated SmartBlinds.

### Danny Rees

Operations Manager, Interroute JV

## LEGAL USAGE

- SmartSign is Highways Agency (HA) type approved
- The product can turn virtually any sign face into a VMS
- TM Safety Signs Ltd will supply any sign plate to current standards
- All servicing and modifications must be carried out using original parts, and under the supervision of TM Safety Signs Ltd
- Industry standard mounting attachments are used throughout. Quick-Fit for the temporary units, and Sign-Fix channel for the permanent

## RETURN ON INVESTMENT

Based upon the time saving on traffic management alone, a ½ set of 'Chapter 8' SmartSigns will pay for themselves in approximately 25 weeks of usage.

The daily addition of 80 minutes of working window will be vastly more precious. Even after years of use, your SmartSign will still be valuable. A typical major upgrade (after 5 years of service) will cost less than 40% of the initial outlay. For this we offer a full 12-month 'as new' warranty.

SmartSign units are available for rental from stock. Longer rental periods attract a low weekly rate. Immediate replacement cover is provided throughout the rental period. We offer flexible financing and hire or purchase is available.

Clients include:



Balfour Beatty

JACOBS



ATKINS

