Warning VATCS – Dynamic Curve Series

Independently proven to reduce average approach speeds to curves by up to 7mph and significantly lower the occurence of lane departure fatalities

- Hazard specific
- Independently proven to be long term effective
- 7mph reduction on average curve approach speed maintained after 3 years - TRL 548 report
- 1/3rd drop in curve accident rate after 3 years - TRL 548 report
- Dynamic flashing corner beacons attract driver attention
- MUTCD compliant
- Clear speed management strategy in line with MUTCD
- Dual directional arrow diagram models available

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INTELLIGENT ENGINEERING, UNIQUE PEOPLE, WORKING TOGETHER

Proven Traffic Calming Solutions

All dynamic curve warning VATCS signs employ microwave doppler radar to detect vehicle approach speeds and in line with the core MUTCD philosophy of consistent road speed management strategy, utilize horizontal curve warning diagrams that are already recognized in the MUTCD.

The dynamic curve warning VATCS are installed in advance of the curve and downstream and in tandem with existing static warning signage so that targeted drivers are not informed what speed they are travelling, rather they are advised of the approaching hazard with request to SLOW DOWN further enhanced by dynamic flashing pairs of horizontal beacons.

The VATCS are not a replacement for static signage.

Curve Warning VATCS are available in a range of diagram sizes from 24 x 24" to 36 x 36". Deploying the VATCS family sign series will provide a consistent and clear approach for managing driver speeds in your community.

VATCS are the only traffic calming display technology that has been federally field tested on a large scale to prove long term effectiveness, with driver respect of the technology being maintained over a 5 year period.

First introduced in 2008 after being piloted by FHWA , VATCS are now in operation across 15 states and are steadily becoming the benchmark for consistent community display based traffic calming.

Technical Data

Model Reference	Warning VATCS – Dynamic Curve Series VATCS/W1 – XLR/SD/L/DL/PT
Display Technology	ITE color tested high intensity LED display. Optical performance in compliance with FHWA MUTCD, Auto Luminosity control to suit ambient light conditions.
Display Format	Color inverted MUTCD horizontal curve warning diagram, 24" to 30" diagram size options, complete with matching Slow Down message and amber flashing beacon pairs. Slow Down text height 4" and 6" to suit 24" and 30" model sizes. Beacons 5" in diameter.
Vehicle Detection	FCC compliant K band radar microwave vehicle detector integrated into the sign, factory preset range of 600 feet / 190Metres. Speed range of 5 to 150mph (8 to 240kmh). 12 degree beam accuracy +/-1 unit of measure. Simple set up.
Model Dimensions	24" Size 66" (1681mm) high x 38" (956mm) wide x 6" (160mm) deep 30" Size 74" (1881mm) high x 46" (1156mm) wide x 6" (160mm) deep
Model Weights	24" Size 90lbs (plus batteries in case of solar) 30" Size 135lbs (plus batteries in case of solar)
Power Supply	Display is dual Solar DC and AC 110V compatible as standard. In the case of Solar power installs SP80S4 solar kits should be ordered for each sign comprising 80W panel, side of pole mount and 4 x 12V 20amphr battery reservoir which are mounted internal to sign. Important for 24/7/365 solar operation, solar panel must be facing due south and have clear unobstructed view of sky with no shadowing.
Data Logging and Analysis Software	Datalogger windows based software is available to download date and time stamped traffic speed data from sign over Bluetooth™ for evaluation analysis in Excel.
Sign Configuration	Custom windows based software over Bluetooth™ wireless connection from client supplied Laptop or Netbook.
Enclosure	Purpose fabricated lightweight vandal resistant NEMA Type 3S ingress rated enclosure.
Finish	Matt Black front face Aircraft Grey rear powder coat finish or color to suit, 60 micron min thickness.
Window	¼" (5mm) anti reflective Polycarbonate.
Operating Temp Range	-30 to 165°F, 95% non condensing.
Mechanical Interface	Two mounting options are available: **1.** Sign will be supplied equipped with sign fix U channel supports on rear and SX0220 channel banding interface brackets to allow ¾" band mounting to a variety of support posts. **2.** Sign will be equipped with horizontal Z bracket mountings on rear which are then drilled to suit post by installer and sign is then clamp mounted by stainless steel U bolts (Not supplied). Solar Panel equipment is supplied with side pole mount to allow ½" banding.
Electrical Interface	Cable kits are supplied to facilitate plug and play connection to solar panel and sign. Sign also equipped on rear with naked AC plug and socket type 6P connection and separate ¾" knock out for conduit cable entry. Dust Caps are supplied to protect any unused sockets. Internal power connections are screw terminal.

Operation

The VATCS sign is designed to operate in both ACTIVE and STEALTH mode.

STEALTH mode is used to allow client to attain a baseline of road speed from the VATCS without the VATCS displaying any visual warning to the approaching traffic.

Once collected this base data can be compared against historic data and then importantly used to evaluate performance of the sign in ACTIVE mode.

Once in ACTIVE mode the sign upon detecting an approach speed above the pre-configured trigger speed will cause the warning display to be illuminated for 3.5 seconds giving drivers sufficient time to digest and adjust behaviour appropriately.

When vehicles are travelling below the trigger speed the sign will remain entirely blank, importantly the warning message is only targeted at offending vehicles. It is normal practice for curve warning sign applications to set trigger speed to 10% + 2mph above the posted speed limit or at the 50th percentile approach speed to the curve if known.

All VATCS are supplied with full operator manual which contains a guide to installation and set up best practices, which it is recommended are followed to ensure optimal performance and results.

Dynamic Curve Series - Uniplan Product Coding

MUTCD CODE REF	LEFT TURN	DUAL DIRECTION DISPLAY	RIGHT TURN	MUTCD CODE REF
W1-1L  **Turn**	Single Direction Left Curve Model: VATCS/W1-1L/SD/L/DL/PT Uniplan Part Number: WVW1-1L-SLDPCAP (24" x 24" Size) WVW1-1L-SLDPCBP (30" x 30" Size)	Dual Direction Curve Model: VATCS/W1-1LR/SD/L/DL/PT Uniplan Part Number: WVW1-1LRSLDPCAP (24" x 24" Size) WVW1-1LRSLDPCBP (30" x 30" Size)	Single Direction Right Curve Model:VATCS/W1-1R/SD/L/DL/PT Uniplan Part Number: WVW1-1-RSLDPCAP (24" x 24" Size) WVW1-1-RSLDPCBP (30" x 30" Size)	**W1-1R**  **Turn**
W1-2L  **Curve**	Single Direction Left Curve Model: VATCS/W1-2L/SD/L/DL/PT Uniplan Part Number: WVW1-2L-SLDPCAP (24" x 24" Size) WVW1-2L-SLDPCBP (30" x 30" Size)	Dual Direction Curve Model:VATCS/W1-2LR/SD/L/DL/PT Uniplan Part Number: WVW1-2LRSLDPCAP (24" x 24" Size) WVW1-2LRSLDPCBP (30" x 30" Size)	Single Direction Right Curve Model:VATCS/W1-2R/SD/L/DL/PT Uniplan Part Number: WVW1-2-RSLDPCAP (24" x 24" Size) WVW1-2-RSLDPCBP (30" x 30" Size)	**W1-2R**  **Curve**
W1-3L  **Reverse Turn**	Single Direction Left Curve Model: VATCS/W1-3L/SD/L/DL/PT Uniplan Part Number: WVW1-3L-SLDPCAP (24" x 24" Size) WVW1-3L-SLDPCBP (30" x 30" Size)	Dual Direction Curve Model:VATCS/W1-3LR/SD/L/DL/PT Uniplan Part Number: WVW1-3LRSLDPCAP (24" x 24" Size) WVW1-3LRSLDPCBP (30" x 30" Size)	Single Direction Right Curve Model:VATCS/W1-3R/SD/L/DL/PT Uniplan Part Number: WVW1-3-RSLDPCAP (24" x 24" Size) WVW1-3-RSLDPCBP (30" x 30" Size)	**W1-3R**  **Reverse Turn**
W1-4L  **Reverse Curve**	Single Direction Left Curve Model: VATCS/W1-4L/SD/L/DL/PT Uniplan Part Number: WVW1-4L-SLDPCAP (24" x 24" Size) WVW1-4L-SLDPCBP (30" x 30" Size)	Dual Direction Curve Model:VATCS/W1-4LR/SD/L/DL/PT Uniplan Part Number: WVW1-4LRSLDPCAP (24" x 24" Size) WVW1-4LRSLDPCBP (30" x 30" Size)	Single Direction Right Curve Model:VATCS/W1-4R/SD/L/DL/PT Uniplan Part Number: WVW1-4-RSLDPCAP (24" x 24" Size) WVW1-4-RSLDPCBP (30" x 30" Size)	**W1-4R**  **Reverse Curve**
W1-5L  **Winding Road**	Single Direction Left Curve Model:VATCS/W1-5L/SD/L/DL/PT Uniplan Part Number: WVW1-5L-SLDPCAP (24" x 24" Size WVW1-5L-SLDPCBP (30" x 30" Size)	Dual Direction Curve Model:VATCS/W1-5LR/SD/L/DL/PT Uniplan Part Number: WVW1-5LRSLDPCAP (24" x 24" Size) WVW1-5LRSLDPCBP (30" x 30" Size)	Single Direction Right Curve Model:VATCS/W1-5R/SD/L/DL/PT Uniplan Part Number: WVW1-5-RSLDPCAP (24" x 24" Size) WVW1-5-RSLDPCBP (30" x 30" Size)	**W1-5R**  **Winding Road**

Unipart Dorman
173 Main Street, Bath,
Ontario, K0H 1G0, Canada
Tel: +1 613 352 3458
Fax: +1 613 352 6845
email: dorman.enquiries@unipartdorman.com
www.unipartdorman.com