

Developing the Daktronics Vanguard® VM-1020 DDMS



In January, Transportation Secretary Ray LaHood stood before the U.S. Senate Transportation Committee advocating the use of “out of the box” ideas. Many agencies were examining the merits of travel time and variable tolling. Not by chance, Daktronics was already developing a product to support those endeavors.

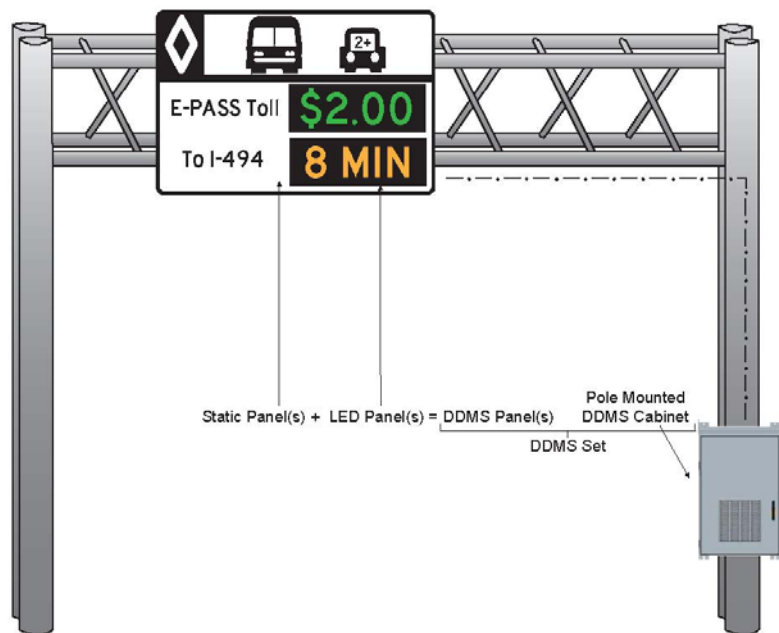
Travel time messages and High Occupancy Toll (HOT) lanes, which can manage congestion, reduce pollution and incidents, improve arterial way finding, and earn enough revenue to exceed self-sufficiency, have become viable active traffic management solutions. Improvements in technology such as traffic cameras and detection systems are now reliable enough to meet stringent standards.

And the remaining puzzle piece – a DMS system designed specifically for those applications – is now available: Vanguard VM-1020 Dedicated Dynamic Message Signs (DDMS). During product development, Daktronics determined that agencies were interested in an easy-to-use product with the full functionality of a traditional DMS. Travel time and toll rate messages are crucial; display reliability cannot be compromised.

“The key design factors for the new DDMS were simple installation, easy maintenance, and still providing all the same levels of functionality of a typical Dynamic Message Signs,” says DDMS Product Manager Mike Weinberg.

The display’s components are literally “outside the box.” Most traditional DMS components are housed inside a DMS’s cabinet, but the DDMS’s critical components are moved to a cabinet on the ground, allowing easy maintenance without bucket trucks or lane closures. The 2-inch-deep display cabinets, referred to as the LED panels, easily mount to standard static panels.

One DDMS controller allows updating of up to six LED panels at a time. The DDMS set can be operated with any NTCIP-compliant control software, including Vanguard® Central Control Software. Travel time and toll messages can even be displayed next to each other, giving motorists bearing on how much time they’ll save compared to the price.



Throughout the past few years, many nationwide Daktronics projects, such as Washington State DOT’s SR 167 HOT Lanes pilot project, have spurred the improvement of travel time and toll displays.



“The HOV lanes on this span of SR 167 were underutilized ... and the regular lanes were being used at or over capacity,” says Mark Sawyer, WSDOT Project Manager. Sawyer says that public reaction has been strong and more people are learning about the SR 167 HOT lanes.

Daktronics’ experience regarding WSDOT’s HOT lanes and several other projects allowed a firsthand perspective while developing the Vanguard VM-1020. Agencies nationwide are already formulating plans to install the product in travel time and toll applications.

“Indiana DOT has already purchased the VM-1020 for use in travel time applications,” says Casey Crabtree, Daktronics ITS Market Manager. “And other DOTs and consultants have definitely expressed interest.”

Due to the numerous benefits reaped from travel times and HOT lanes, it’s no surprise that there’s so much interest surrounding state-of-the-art technology like the Vanguard VM-1020 DDMS.

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