

Checklist and Certification of Compliance with ODOT's Specifications for Trailer-Mounted PVMSs

This checklist is based on the Trailer-Mounted Portable Variable Message Sign (PVMS) Specifications that describe the minimum requirements for equipment to be included on the Qualified Products List (QPL). All PVMSs used or purchased by ODOT, or used on ODOT projects, shall be listed on the QPL. To be considered for inclusion on the QPL, this checklist shall be completed by the Manufacturer, signed, and submitted with the Preliminary Information for Product Evaluation Form.

Manufacturer _____ **Product** _____ **Model#** _____

Person Completing Checklist _____ **Title** _____ **Phone** _____

YES	NO	Specification	ODOT Use
<input type="checkbox"/>	<input type="checkbox"/>	1. The bottom of the message panel is a minimum of 2.15 m (7 ft) above the roadway when it is in the operating mode.	
<input type="checkbox"/>	<input type="checkbox"/>	2. The sign automatically adjusts its brightness under varying light conditions.	
<input type="checkbox"/>	<input type="checkbox"/>	3. The sign controller includes a display screen upon which messages can be reviewed before being displayed on the message sign.	
<input type="checkbox"/>	<input type="checkbox"/>	4. The sign controller is capable of maintaining memory when power is unavailable.	
<input type="checkbox"/>	<input type="checkbox"/>	5. The sign is equipped with a power source and a battery back-up.	
<input type="checkbox"/>	<input type="checkbox"/>	6. The sign is designed to operate within the following temperature range: -20 to 140 degrees F.	
<input type="checkbox"/>	<input type="checkbox"/>	7. The sign is designed to operate within the following humidity range: 20 to 95% non-condensing.	
<input type="checkbox"/>	<input type="checkbox"/>	8. The sign is adequately ventilated to minimize fogging.	
<input type="checkbox"/>	<input type="checkbox"/>	9. The sign uses (check one): <input type="checkbox"/> LEDs <input type="checkbox"/> Hybrid LED-flip disk Number of LEDs per pixel _____.	
<input type="checkbox"/>	<input type="checkbox"/>	10. LEDs are amber in color and 590 nanometers (nominal) wavelength.	
<input type="checkbox"/>	<input type="checkbox"/>	11. The failure of a single LED does not impact the functionality of any pixel.	
<input type="checkbox"/>	<input type="checkbox"/>	12. If the sign is a hybrid LED-flip disk sign, the reflective material is designed to prevent peeling, warping, fading, etc. Please provide details:	
<input type="checkbox"/>	<input type="checkbox"/>	13. If the sign is a hybrid LED-flip disk sign, the flip-disks are designed to prevent pixel sticking for ease of maintenance and continuous operation. Please provide details:	
<input type="checkbox"/>	<input type="checkbox"/>	14. The brightness of the LED is controlled by pulse width modulation of DC current with an adjustable duty cycle. The LED drive current does not exceed the LED manufacturer's recommendations.	

YES	NO	Specification	ODOT Use
<input type="checkbox"/>	<input type="checkbox"/>	15. The display is (check one): <input type="checkbox"/> a line matrix <input type="checkbox"/> a character matrix <input type="checkbox"/> a full matrix.	
<input type="checkbox"/>	<input type="checkbox"/>	16. The display is capable of displaying eight (8) characters per line.	
<input type="checkbox"/>	<input type="checkbox"/>	17. Each character is defined by a 5 X 7 matrix.	
<input type="checkbox"/>	<input type="checkbox"/>	18. The sign is capable of displaying all upper case alphanumeric characters.	
<input type="checkbox"/>	<input type="checkbox"/>	19. The sign is capable of displaying three (3) lines of characters.	
<input type="checkbox"/>	<input type="checkbox"/>	20. The character height is 18 inches.	
<input type="checkbox"/>	<input type="checkbox"/>	21. The sign is capable of storing at least 50 programmable messages.	
<input type="checkbox"/>	<input type="checkbox"/>	22. The time it takes to alternate between panels is no more than 0.25 seconds.	
<input type="checkbox"/>	<input type="checkbox"/>	23. Message changes can be accomplished with no horizontal scrolling, flashing, or other visual disturbance.	
<input type="checkbox"/>	<input type="checkbox"/>	24. The sign controller uses a keypad or keyboard for creating messages.	
<input type="checkbox"/>	<input type="checkbox"/>	25. The controller uses password authorization to prevent unauthorized operation.	
<input type="checkbox"/>	<input type="checkbox"/>	26. The sign comes with an electro-hydraulic raise/lowering mechanism. A manual back up system is also provided.	
<input type="checkbox"/>	<input type="checkbox"/>	27. The sign can be securely locked either in the transport or display height position.	
<input type="checkbox"/>	<input type="checkbox"/>	28. The sign can rotate up to 360 degrees and securely lock in any position.	
<input type="checkbox"/>	<input type="checkbox"/>	29. The sign has a high impact resistant clear non-glare UV inhibitor polycarbonate or equivalent face.	
<input type="checkbox"/>	<input type="checkbox"/>	30. The batteries, charge controller, and sign controller are housed in a lockable, weatherproof cabinet.	
<input type="checkbox"/>	<input type="checkbox"/>	31. The cabinet includes an ID plate showing the manufacturer's name, model number, and serial number of all components of the sign assembly.	
<input type="checkbox"/>	<input type="checkbox"/>	32. The sign uses photovoltaic (solar) panels for power, which can be adjusted to minimize wind drag during transport, and for maximizing exposure during use.	
<input type="checkbox"/>	<input type="checkbox"/>	33. The sign uses a solid state charge controller to regulate the charging and discharging of the battery and photovoltaic panels. The sign is able to accept power from conventional 120V AC, 60 Hz for recharging purposes.	
<input type="checkbox"/>	<input type="checkbox"/>	34. Upon low voltage condition the charge controller will disconnect the battery for protection. The charge controller will re-connect the batteries when sufficient voltage is provided.	

YES	NO	Specification	ODOT Use
		35. The charge controller provides short circuit and overcharge protection.	
		36. The sign uses 12V DC deep cycle lead acid batteries, which are secured within the battery enclosure.	
		37. The batteries can operate the sign continuously for at least 20 days without recharging. Provide the following details: Number of solar panels:____ Maximum power (watts) per panel:____ Maximum power voltage per panel:____ Maximum power current per panel:____ Short-Circuit current of each panel:____ Total battery-rated Amp hours:____	
		38. The Gross Vehicle Weight (GVW) rating of the trailer is sufficient to accommodate the weight of the sign assembly.	
		39. The trailer has with two safety chains of 3/8-inch high-test steel with safety grab hooks.	
		40. The trailer is equipped with four crank down 2000-pound (minimum) capacity jacks for leveling and stabilizing the sign when in operation.	
		41. The sign is stable operating in winds up to 80 miles per hour.	
		42. The trailer and lighting complies with the requirements of the Federal Motor Vehicle Safety Standards (FMVSS) and the State of Oregon Motor Vehicle Code. A license plate light and holder are provided.	
		43. The trailer and cabinet are painted with lead free orange paint.	
		44. Neither the trailer or sign assembly has advertising.	

Manufacturer's Certification of Compliance with ODOT Specifications

Yes. This product (name _____, model _____) meets ODOT Specifications for Trailer-Mounted Portable Variable Message Signs.

Name _____ Signature _____ Date _____

No. This product (name _____, model _____) does not meet ODOT Specifications for Trailer-Mounted Portable Variable Message Signs, but I would still like ODOT to consider this product for inclusion on the QPL. Following is an explanation of the differences between this product and ODOT specifications.

Name _____ Signature _____ Date _____