



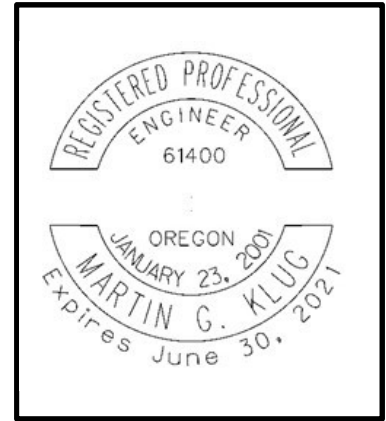
Standard Drawing Report

Date: June 30, 2021

Technical Owner: Martin Klug
Traffic Plans Engineer

Standard Drawing Number: TM221

Drawing Title: SIGNING DETAIL – MILEPOST
MARKERS



Original Report Date: July 1, 2009

Background Information, Including Reference Material:

ODOT uses six different sizes of mile post markers. Some Oregon highways have mile point numbers in the low hundreds, requiring mile post markers with one, two and three digits. Mile post markers used on expressways and freeways use a larger font than those on conventional roads. Standard Drawing TM221 illustrates the dimensions and text layout for each of these six combinations.

Each of the six signs has a unique rivet hole pattern, which corresponds with a specific post length on TM222.

Assumption Made:

While the MUTCD allows milepost markers with decimal points to indicate tenths of a mile, ODOT does not use them. Furthermore, some states use an alphanumeric mile point system for interchanges and place markers with the mile point and a letter; ODOT has a similar system for internal use but does not install alphanumeric milepost markers for exit ramps, frontage roads, etc. Either of these conditions would require creation of a four-digit marker.

Oregon uses “Z” miles on its straight-line charts to indicate milepost sequences interrupted by major alignment changes, and some highways include milepost markers with the letter “Z” prefacing the mile point, but this is not standard. A



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three-digit mile point prefaced with a letter “Z” in the legend would require a non-standard sign and post.

Design Narrative:

The Standard Highway Signs manual and MUTCD describe many of the features of milepost markers (although the MUTCD refers to them as “Reference Location Signs” as they could include kilometers). Standard Drawing TM221 includes the information from those sources and adds some ODOT-specific details.

Section 2D.46 of the MUTCD identifies two categories of these signs, one for expressways and freeways and another for conventional roads. The first category has larger legend and both wider and taller backgrounds. Standard Drawing TM221 defines expressways and freeways as having four or more lanes and conventional roads as having two lanes.

Page 3-80 of the Standard Highways Sign manual provides the dimensions and layout for the dimensions on each of the six signs. The drawing on page 3-80 illustrates a metric sign with detail sketches and tabular information to replace the “km” with “MILE”.

Standard Drawing TM221 includes ODOT-specific information, such as the aluminum sign thickness (0.063 inches as per ODOT Standard Specifications Section 02910.10) and the size and pattern for the rivet holes. Each sign has a unique rivet pattern that corresponds with a specific length of post on ODOT Standard Drawing TM222.

Upon assuming responsibility for TM221 for the December 2009-May 2010 iteration, I made the following changes to the design:

- 1) Added text referencing Standard Drawing TM222 for post lengths.
- 2) Added text indicating a 1/2 - inch wide border for all signs. This dimension appears on page 3-80 of the Standard Highway Signs manual and contradicts the border width size for 6” and 10” legend tabulated in ODOT Standard Specification 000940.45(c).



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For the December 1, 2021 – May 31, 2022 iteration, I made the following change to the design:

- 1) Replaced a reference to “silver-white” lettering to just “white”. The industry standard no longer uses this term.