

## Chapter 23

### Signing and Pavement Marking Plans

The following are changes, additions or deletions to the January 2012, Topic #625-000-008, Plans Preparation Manual (PPM), for use on Turnpike projects only:

#### 23.3 Tabulation of Quantities and Pay Item Notes

*Add the following paragraph*

The format of the quantity sheets shall include a breakdown of pay items by type. For example, quantities for RPM's shall be categorized by RPM type (mono-directional white, bi-directional yellow, bi-directional white/red, etc.)

#### 23.4 General Notes

*Add the following note*

Typical General Notes are shown in the TPPPH Traffic Plans Guide Drawings, sheet 108 (3 of 3).

The Applicable notes shown on the guide drawing should be added to the plans.

#### 23.6 Guide Sign Worksheet

*Add the following paragraph*

The **FHWA Standard Highway Signs Manual** and **MUTCD** guidelines for sign panel design, font usage and letter spacing shall be used as a standard. The Turnpike encourages the use of the "GuidSign" software by Transoft Solutions (version 5.0 or later) software for sign panel layouts. However, this software includes numerous user options that must be set as described in the remainder of this paragraph to obtain acceptable output. Coordinate settings (i.e., x and y) shall not be used. Horizontal letter spacing shall be shown using the incremental spacing of the character and the trailing space, except for the last character in a word which will be the width of the character only. Spaces between words shall be denoted with an "X" in the appropriate box and providing the dimension for the width of the space. Sufficient vertical and horizontal dimensions shall be provided on the sign face graphic to specify proper location of all elements. Code names for symbols, shields and arrows in the spacing table shall not be used. All elements (shields, symbols, arrows, etc.) shall be properly dimensioned within the sign layout area. The panel dimensions in the summary table shall not include the size of the exit number panel. The Exit Panel is manufactured separately, so the details for this panel shall be shown separately.

#### 23.7.1 Multi-Post Signs

*Add the following paragraphs*

All multi-post signs shall have cross-sections. The cross sections shall include the location of ditches, guardrails, barrier walls, right of way lines, potentially conflicting utilities and lane lines for proper location of the signs. Sign cross sections should be drawn as viewed by approaching traffic. The edge of travel elevation of the roadway and all appropriate references to this point shall be clearly labeled. More than one multi-post cross section may be placed within a single

cross section sheet as long as legibility is maintained. These types of cross sections do not require full roadway coverage. The recommended scale for the cross section is 1"= 10' horizontally and vertically. A graphic representation of each sign panel legend shall be shown on the cross section sheet.

### **23.7.2 Overhead Sign Cross Section and Support Structure**

*Add the following paragraph*

Proposed overhead truss span, overhead cantilever and bridge-mounted signs require cross sections. Sign panel replacements on overhead structures that are lane specific (such as down or up arrows) require cross sections. The cross sections shall include the location of ditches, guardrails, barrier walls, right of way lines, potentially conflicting utilities and lane lines for proper location of the signs. Sign cross sections should be drawn as viewed by approaching traffic. The grade elevation at the top of the foundation (along with its location), the elevation at the highpoint of the roadway directly beneath the structure and the vertical clearance from the high point of the roadway directly beneath the structure to the bottom of the sign luminaries shall be clearly labeled. A graphic representation of each sign panel legend shall be shown on the cross section sheet. For overhead signs with down arrows, up arrows at 45 degrees, or other lane specific legends, for which lateral placement is critical, that portion of the legend should be shown over the corresponding lane to ensure correct placement relative to the roadway. Any arrows, including down arrows and up arrows (straight or at 45 degrees), that designate lane assignments should be located within the center 1/3 of the associated lane. For overhead signs with down or up arrows, show the lane lines on the sign cross section to ensure the down arrow is centered over the appropriate lane.