



# Tactile Wayside Map Guidelines

*This paper is intended as a guide for the development of tactile map panels such as a wayside orientation panel. They are to be used in conjunction with additional sources listed below.*

## Braille Guidelines



Set all Braille, including proper names, in Grade 2 (Contracted) set in the standard Braille in full conformance with the "Summary of Rules for Use of Contractions" as set forth by the Braille Authority of North America (BANA)

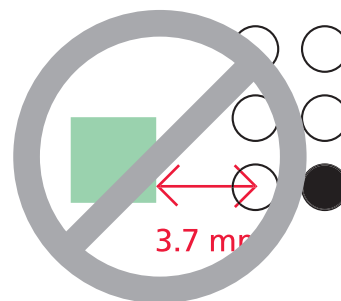
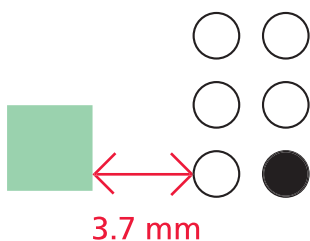
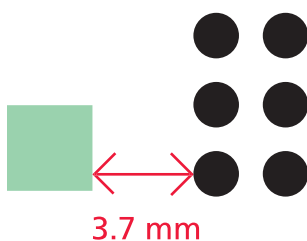
<http://brl.org/refdesk/rules/index.html>

Do not use Jumbo Braille (Large Dot Braille) - people that read standard (size) Braille have difficulty reading it. People who have less sensitivity (some diabetics) really can't read it anyway. Jumbo Braille is very controversial.

Typesetting and fabricating Braille must follow the guidelines set forth in the "ADA and ABA Accessibility Guidelines" Chapter 7, Section 703, Signs, and the "Editorial Corrections" (8/5/2008) <http://www.access-board.gov/ada%2Daba/>

## How to Measure

Specifications in this document are measured from edge to edge of a raised dot or shape (shown below, left) and from the edge of a raised shape to the edge of the Braille cell (shown below, center). Do not measure from the center of a Braille dot or cell (shown below, right).



## Braille Typsetting

Following the above guidelines, set **line spacing** at 0.400 inches (10.2 mm) of vertical distance between dot 1 on the top line and dot 1 on the bottom line (center to center). This is the only specification measured center to center.

**Line length** should be no longer than 12 inches, like Braille books.

**Avoid widows** when setting Braille type.

Be sure to use the Braille **capitalization cell** before each capital letter. Braille readers will generally assume capitalization at the beginning of a sentence. This can save space, since one letter rendered in Braille comprises a 6-dot cell, whereas a capital letter comprises a 7-dot cell. While proper names should be capitalized, words shown on the map such as "North" or "Visitor Center" shall be rendered in Braille as "north" and "visitor center."

## Braille Typsetting continued

Be sure to use the Braille **numeral symbol** before each Braille number.

The **raised height** of a Braille dot is 0.019 inches (0.483 mm) on paper. For an outdoor exhibit, it should be no less than 0.025 inches (0.635 mm) and no more than 0.037 inches (9.5 mm). Symbols such as "You are Here," Fort, and Visitor Center as well as the trail lines should be no less than 0.025 inches (0.635 mm) high.

## Map Labels

Braille map labels should be at least 0.375 inches (9.5 mm) edge to edge from other tactile elements that are not directly related to the label. For example the Braille "north" label and tactile north arrow should be at least 0.375 inches (9.5 mm) from the tactile scale and Braille scale labels.

Braille labels associated with leaders, symbols, or other map element should be set 0.15 inches (3.7 mm) edge to edge.

Braille labels for proper names (ex: Lehigh River) should use Grade 2 and caps and lower case. Printed labels remain as is.

## Map Design

Avoid placing a map inside another map. Tactile maps should have logical edges that either define the edge of the land form, a straight line edge of the map, or the edge of the panel.

Avoid placing printed map details, labels, or symbols under tactile elements to avoid distorting the printed map information.

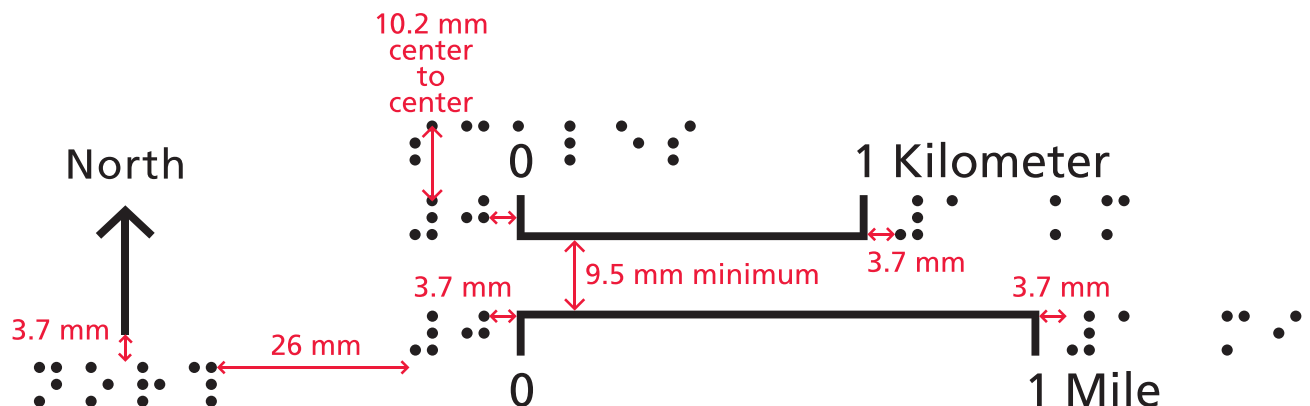
Not all maps will require a legend if all the shapes are directly labeled, but if a legend is needed, place the legend away from the map.

## North Arrow and Scales

Place the Braille "north" label below the north arrow. Keep the printed "North" label above the north arrow. The arrow should be tactile and should not have any other elements around it other than the Braille label.

Above the left corner of the scales, add a Braille label "scales" (not printed).

Match the design of the scale, location of the Braille and printed labels, shown here. Adjust the space between tactile scale lines and Braille labels so that none of the Braille dots are closer to the tactile scale line than 0.15 inches (3.7 mm).



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## Legend

Put a tactile line around the Braille entries in the legend. Inside the box, in the upper left hand corner, add a Braille label "legend." The legend label does not show as a text label on the printed layer.

The diagram illustrates the legend for a tactile wayside map. It features a white box containing three entries: 'You are here' with a yellow star icon, 'Visitor center' with a black inverted triangle icon, and 'Fort' with a black pentagon icon. Braille labels are provided for each. Dimensions are indicated: 9.5 mm minimum for the vertical spacing between the top of the Braille and the icon, and 3.7 mm for the horizontal spacing between the icon and the Braille. A vertical red line on the right side of the box is labeled 'The neartline is tactile only. It does not print.' To the right of the box is a list of symbols: a wheelchair icon for 'Wheelchair-', a picnic table icon for 'Picnic area', a triangle icon for 'Campground', and a triangle icon for 'Primitive car'.

## Leaders and Labels

Adjust leaders and labels so that they end at the baseline of the Braille label, and align with the left (or right) edge of the printed label as shown in this example.

The diagram shows a map with two islands, Dauphin Island and Toll Ferry. Below Dauphin Island is Fort Gaines, and below Toll Ferry is Fort Morgan. Braille labels are provided for both forts. Dimensions are indicated: 9.5 mm minimum for the vertical spacing between the top of the Braille and the fort icon, and 3.7 mm for the horizontal spacing between the icon and the Braille. A note indicates that the 3.7 mm dimension is measured from the right edge of the Braille label to the right edge of the fort icon.