



ADA White Paper
Series Update

The ADA and Typography
Part 3

The Americans With
Disability Act

The ADA is designed for people that have a wide spectrum of visual impairments including blindness and visual impairments. In 2010 the ADA was updated to differentiate between the needs of the blind and the needs of the visually impaired. This was a substantial change, requiring different regulatory approaches for signs as well as delineating the specific places where signs for the blind need to be used. Type is the area where these differences are the most dramatic. This paper will focus on areas of the code that are often the most complex, controversial and difficult to interpret.

Color, Symbol and Braille

Since the Federal ADA guideline was adopted almost 30 years ago there have been some issues that have remained up to some interpretation, while efforts have been made to resolve these issues over time. The three that have stayed the most controversial is the use of color contrast, Sign gloss, the rounding of Braille, State Codes, and the use of symbols on signs. This paper will both state the current interpretation of the code and how designers and fabricators should deal with them.

State the Good Sign Practice Along with the Code

There is the word of the ADA and there are good sign practices. It is important to state both when following the code. Just because something is permissible does not mean it is good design.

State and Federal ADA

A large percentage of states follow the ADA standards almost exactly as they are written at the federal level. Some states have narrow differences and one state in particular (California) has larger differences. It is important to know the state codes in each state and respond to them where they differ from Federal standards (Look at previous state white papers by Nova Polymers for more specific information.)

Color

- While this may change in the future there is no required percentage color contrast between foreground and background.
- The current standard is that a dark letter must be on a light background and vice versa. It is open to interpretation how much contrast the letters should have, but designers and fabricators must be responsible for legible signs inside the code. The code provides an advisory in this area to ensure that signs are legible.
- Currently there is nothing in the code that prohibits using different materials and graphics for foreground and background, though the code offers an advisory to ensure that signs are legible.
- While it is not part of the ADA most state codes have minimum illumination standards.
- The code requires signs have a non-glare finish. This usually means using a matte finish or color.

Color Recommendations

- Make sure all sign colors are mockup tested to ensure high contrast
- If using background materials or graphics make sure that they have a high contrast with the foreground type or symbol, or keep a minimum of 3/8" away.
- If you would like to test for color contrast with standard colors use a contrast calculator like those offered by companies like pantone and Rowmark.

Specific Codes Governing Color

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory 703.5.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

Advisory 703.7.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.



Signs using a variable material or graphic background are currently permissible under the code, but it is still very important to utilize best practices for contrast and test for sign legibility.

Pictograms

- The 4 pictograms used for specific ADA codes must be copied exactly (See the first white paper) unless a state or local code has superseded it with a new symbol design. While there are some new symbols for accessibility being developed they are not yet sanctioned by the federal code.
- While pictograms can be used predominantly in wayfinding all codes for type height must be adhered to.
- While pictograms must be inside a 6 inch field it can be any size. Multiple pictograms can be used in the same field.



This newly developed symbol for accessibility has been adopted by a few states and localities including New York City but is not yet in the federal ADA.



6 x 9

09001BU



**12 DIAMETER
12UNX**



**12 DIAMETER
12WMN**



**12 TRIANGLE
12MEN**

Multiple pictograms can be used in the same field and it is common to use a smaller symbol for accessibility with a large identification symbol.

Pictogram Recommendations

- Follow the ADA as closely as possible with little experimentation into other pictogram designs unless designated in a state or local code.
- Outside of the four standard accessible pictograms there are no specific rules governing other pictograms but it is a good idea to follow international standards for restroom and other permanent identification signs.
- Make sure to follow all specific codes for ADA typography when working Pictograms.

Specific Codes Governing Pictograms

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4

Braille Rounding and Separation

- Braille is to be rounded or domed. This allows for a variety of approaches including topping of a flat top, and perfect domed Braille. Every mass marketed approach to Braille production including Photopolymer, etching, raster, thermoforming, and flatbed printing have an approach to rounding Braille.
- In California there are different standards for Braille spacing than in the federal standard.

Braille Rounding and Separation Recommendations

- Make sure to have a written description of the Braille process for rounding or doming written into the specifications for all signs.
- If working extensively in California it is a good idea to adopt California Braille separation standards for all signs whether inside or outside the state.

Specific Codes for Braille Rounding and Separation

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

Table 703.3.1 Braille Dimensions

| Measurement Range | Minimum in Inches Maximum in Inches |
|---|--|
| Dot base diameter | 0.059 (1.5 mm) to 0.063 (1.6 mm) |
| Distance between two dots in the same cell ¹ | 0.090 (2.3 mm) to 0.100 (2.5 mm) |
| Distance between corresponding dots in adjacent cells ¹ | 0.241 (6.1 mm) to 0.300 (7.6 mm) |
| Dot height | 0.025 (0.6 mm) to 0.037 (0.9 mm) |
| Distance between corresponding dots from one cell directly below ¹ | 0.395 (10 mm) to 0.400 (10.2 mm) |

1. Measured center to center.

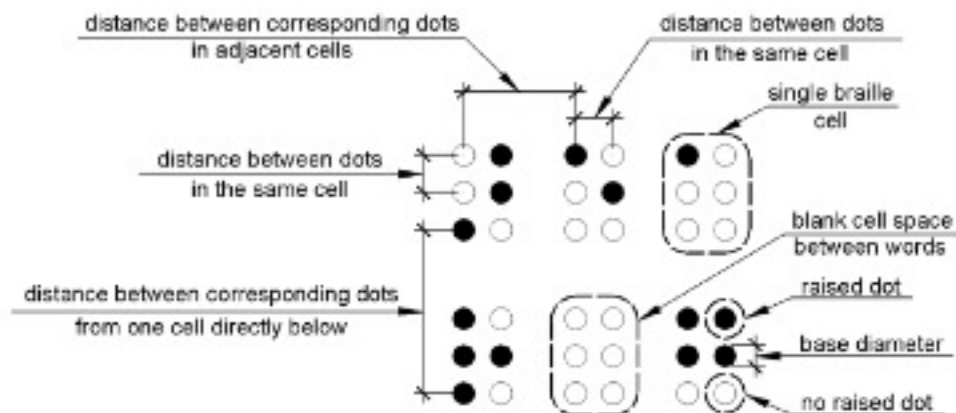


Figure 703.3.1
Braille Measurement

Permanent and Temporary Information

- Permanent locations require naming on signs. While a specific time period is not part of the code design best practices put permanent locations as any designated use that cannot be easily changed to another use.
- All designated locations must have identification signs. Temporary uses can be designated with a number or letter addressing system.
- The most important permanent locations.

Recommendations for Permanent and Temporary Information

- Have a clear and consistent rationale for designating temporary and permanent locations.
- While the names of people who work in offices are not required to conform to ADA requirements the name or address of the room is required to conform.
- Make sure that permanent room identifiers work well with temporary address information.

Specific Codes for Permanent and Temporary Information

216 Signs 216.1 General. Signs shall be provided in accordance with 216 and shall comply with 703. EXCEPTIONS:

1. Building directories, menus, seat and row designations in assembly areas, occupant names, building addresses, and company names and logos shall not be required to comply with 216.
2. In parking facilities, signs shall not be required to comply with 216.2, 216.3, and 216.6 through 216.12.
3. Temporary, 7 days or less, signs shall not be required to comply with 216.
4. In detention and correctional facilities, signs not located in public use areas shall not be required to comply with 216. 216.2

Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with 703.1

703.2, and 703.5. Where pictograms are provided as designations of permanent interior

EXCEPTION: Exterior signs that are not located at the door to the space they serve shall not be required to comply with 703.2.

Advisory 216.2 Designations. Section 216.2 applies to signs that provide designations, labels, or names for interior rooms or spaces where the sign is not likely to change over time. Examples include interior signs labeling restrooms, room and floor numbers or letters, and room names. Tactile text descriptors are required for pictograms that are provided to label or identify a permanent room or space. Pictograms that provide information about a room or space, such as “no smoking,” occupant logos, and the International Symbol of Accessibility, are not required to have text descriptors..

Advisory 216.3. Directional and Informational Signs. Information about interior spaces and facilities includes rules of conduct, occupant load, and similar signs. Signs providing direction to rooms or spaces include those that identify egress routes.

Permanent Room identification is the only element required to meet the code



State and Local Codes

- The federal code is considered the highest standards and states must meet or exceed that standard.
- Even though the federal code was only amended once since 1990 (In 2010), the American National Standards Institute updates the ADA every few years and stated can adopt the more recent codes.
- Most state comply with the federal ADA or a more updated ANSI code. Some state like California have a more unique code. (Novapolymers offers a California white paper)
- Municipalities also can adjust the code. Most have limited these changes to areas like accessible symbols and more specific standards for restroom signs.

Recommendations for State and Local Codes

- Always use the 2010 ADA federal guideline consistently unless a state has a clear and specific deviation from the guideline like a changed pictogram or a specific approach to Braille and text.

California has adopted its own approach to accessible restroom signs with a circle for females, a triangle for males and a combination of both for unisex and transgendered restrooms.



