



# SEGD ADA White Paper Update 2006

## Guidelines, Best Practices, and Innovation for Signs for the Blind and Visually Impaired

*Sponsored by ASI-Modulex with Dixie Graphics and Nova Polymers*

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## PART 3 | Typography for the Blind

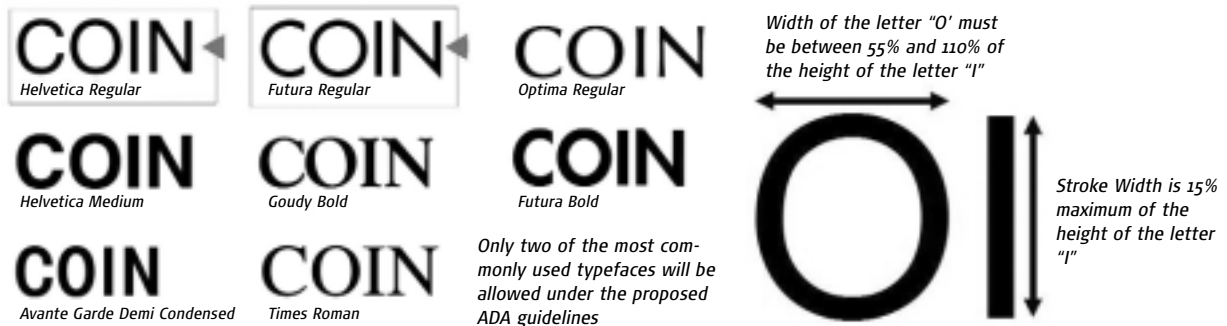
The new ADAAG is significantly more stringent in the area of typography for the blind. Reading tactile letters is extremely difficult. The letters must be relatively consistent in size and shape on every sign in the environment in order to be easily read. Tactile letters must also be smaller in size and simpler than most visual letters in the environment. Tactile type, though, applies only to permanent room identification signs; these apply to rooms that will not change names for at least a year.

### Height of Tactile Letters

There is only a narrow band of allowable heights for tactile letters: 5/8" minimum and 2" maximum based on the letter "I" (703.2.5); 1/2" minimum letters are allowed on dual signs. Tactile letters must always be capitalized. Tactile letters must also be minimum 1/32" in height from the surface of the sign. They may be beveled or chamfered.

### Character Proportion and Stroke Width

Tactile letters must be sans serif and always capitalized. Characters must be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I" at the top of the tactile text (703.5.4). The stroke width may be only 15% maximum of the height of the letter "I" (703.5.6). This rule makes most sans serif fonts not permissible for use, including Times Roman, bold fonts, and Optima. Stroke width rules are only for the top of tactile letters. If bold characters are beveled, they may comply.



^Under the new ADAAG, very few fonts are allowed.  
Test each font's stroke width to be sure.

^Character proportions and stroke width.

### Letter Spacing

Character spacing is measured between the two closest points of adjacent tactile characters within a message, excluding word spaces. For unbeveled letters, there must be a 1/8" minimum spacing between letters and a maximum spacing of 4 times the letter stroke width.

When characters are beveled, there must be a 1/16" spacing minimum at the letter base and 4 times the stroke width maximum at the base (703.2.7). Spacing requirements for the top of the letters are the same as for unbeveled letters.

Characters must be separated from raised borders and decorative elements by 3/8 inch minimum.

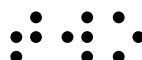
Letter spacing from the top of the letter must be 1/8" minimum and four times the stroke width maximum from the top of the letter



Letter spacing from the base of the letter must be 1/16" minimum and four times the stroke width maximum from the base of the letter

### When to Use Tactile Fonts Exclusively

Tactile type fonts and visual fonts can be the same, but it is important to determine in which environments they work the best in combination. Buildings with narrow hallways and repetitive room numbers have little need for identification signs that can be seen from a great distance. Buildings like hotels, office buildings, and residential structures may fit these criteria. Buildings that have large open spaces to be navigated, have unique destination names, or contain extensive temporary information may need to split tactile signs from visual signs.



## PART 4 | Typography for the Sighted

The ADAAG rules defining typography for the sighted are much less restrictive than those for the blind, but they are required on a greater variety of signs, including permanent and temporary identification, directory, and directional signs. Any type font is permissible for visual signs, using both capital and lower case letters, as long as they do not conflict with the guidelines for tactile type.

### Minimum letter heights

The most current ADAAG defines letter heights in far more detail than previous versions, focusing on the heights of letters in a variety of sign heights and distances. The most important element when designing using these heights is minimum ground clearance. Most wall mounted directional signs need only use the 5/8" minimum letter heights while most ceiling mounted directional signs must use letter heights of 2" or more.

### ADAAG 703.5.5 Visual Character Height

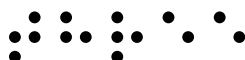
Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
40 inches (1015 mm) to less than or equal to 70 inches (1780 mm)	less than 72 inches (1830 mm)	5/8 inch (16 mm)
	72 inches (1830 mm) and greater	5/8 inch (16 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 72 inches (1830 mm)
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	less than 180 inches (4570 mm)	2 inches (51 mm)
	180 inches (4570 mm) and greater	2 inches (51 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 180 inches (4570 mm)
Greater than 120 inches (3050 mm)	less than 21 feet (6400 mm)	3 inches (75 mm)
	21 feet (6400 mm) and greater	3 inches (75 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 21 feet (6400 mm)

### Multi-lingual and Symbol Letter Heights

There are currently no requirements for letter heights on multi-lingual signs. It is advisable when using multiple languages to have them all include legible letter heights. For symbols, the use of a dominant symbol still requires following legible letter height rules. And smaller type permissible on symbol signs may still be permissible under the current ADAAG, depending on how the state and local codes interpret the guidelines.



*◀The new ADAAG requires letter height rules to be followed on symbol signs. Check state and local codes and enforcement to be sure. For overhead identification symbol signs, using only the symbol with no text is permissible as long as there is a wall mounted identification sign. Massachusetts General Hospital, Two Twelve Associates.*





◀Ottawa MacDonald Airport by Gottschalk + Ash uses large typography in both English and French.

### Dual Signs

For the first time, ADAAG has recognized that signs for the blind and the visually impaired require two different types of sign: small sans serif tactile letters for the blind, and larger letters with greater color contrast for the visually impaired. These two distinct needs are encapsulated in recommendation 703.1, which clarifies that both visual and tactile letters of different heights can be placed on the same sign. This frees the designer from being restricted to a very narrow window for type heights and styles.

When designing a dual sign, it is important to remember that tactile letters and Braille must be between 48" from the Braille base and 60" from the top of the tactile letter off the floor (703.4.1), although the visual text can be anywhere on the sign. On the other hand, visual text must have a color contrast with its background of at least 60%, while no color contrast is needed at all for tactile signs. Visual signs are open to any type font but the restrictions on tactile letters remain. One easing of the rules on tactile type is allowing dual signs to use 1/2" tactile letter heights as opposed to the 5/8" minimum employed on signs where visual and tactile text are the same.



Because of the distinct needs of visual versus tactile signs, it is important to have a strategy when employing these signs. Even though additional information (including temporary room information) can be placed on a dual sign, it is important that permanent room identification be consistent between visual and tactile elements.

◀Signs designed by Roger Whitehouse for ASI-Modulex meet the needs of both the blind and the visually impaired.

### Recommendations

- Depending on the environment, it may be important to create different typography for both the blind and the visually impaired. Transportation facilities and convention centers need distinct type for each group; in hotels and repetitive offices it is possible to combine them.
- The top of tactile fonts is what the blind read and where stroke width and spacing rules must be met.
- Only a narrow set of typefaces are allowed for tactile signs. All typefaces are allowed for visual signs as long as they are the right height.
- Visual typography rules apply to all sign types, including overhead signs that must be read from a distance.
- Typography for the blind must be capitalized. It is recommended (but not required) to use upper and lower case when designing visible type faces.

