

DRAFT

ADA Screen Resolution Guidelines

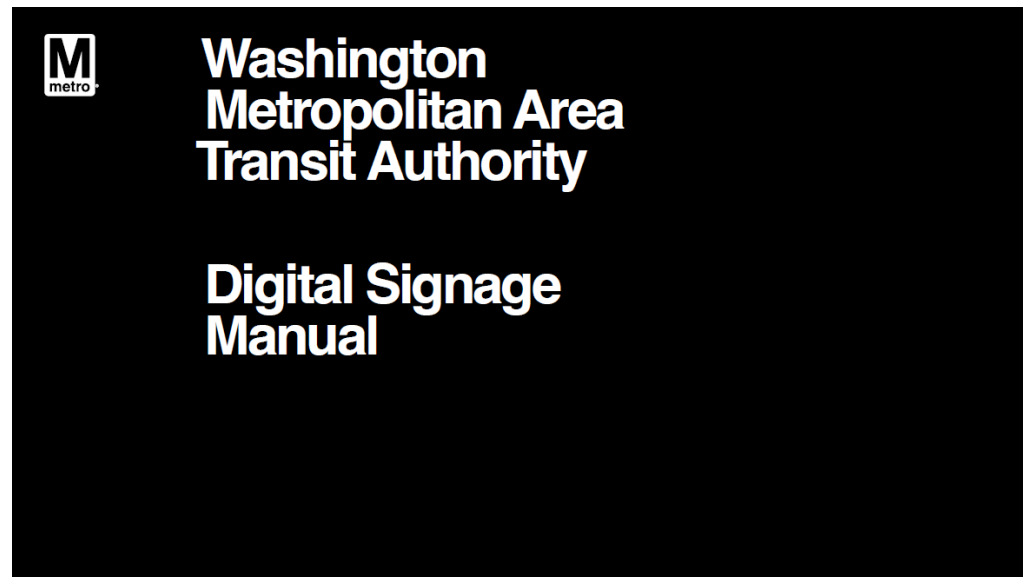


Designing Digital for Accessibility

WMATA now has a full design style guide specifically for signage that dictates the guidelines for maintaining consistency across all signs and public-facing points of contact.

The Digital Signage Manual contains all WMATA's digital signage guidelines and requirements.

It is critical that these guidelines are followed, particularly when it comes to contrast, to maintain legibility for all riders.

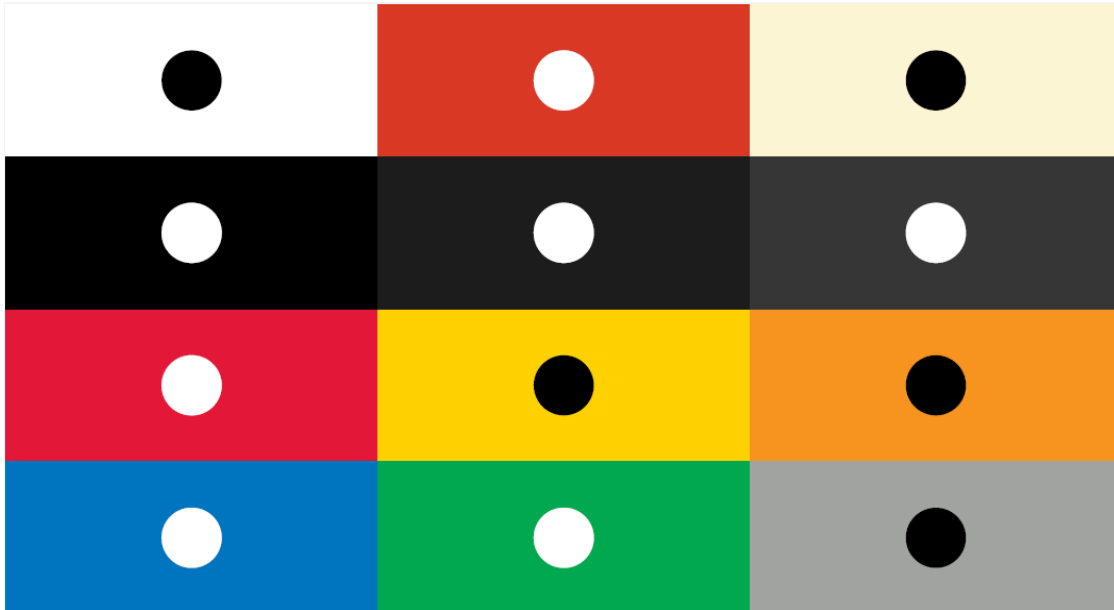


Contrast Guidelines

Our contrast guidelines are:

- Contrast ratio must be at least 3:1
- Smaller lettering must be at least 4.5:1
- Typography should be black or white whenever possible to maintain contrast
- Background colors should always match our design guidelines
- Typeface should always be Helvetica, per the guidelines

Examples - Graphics



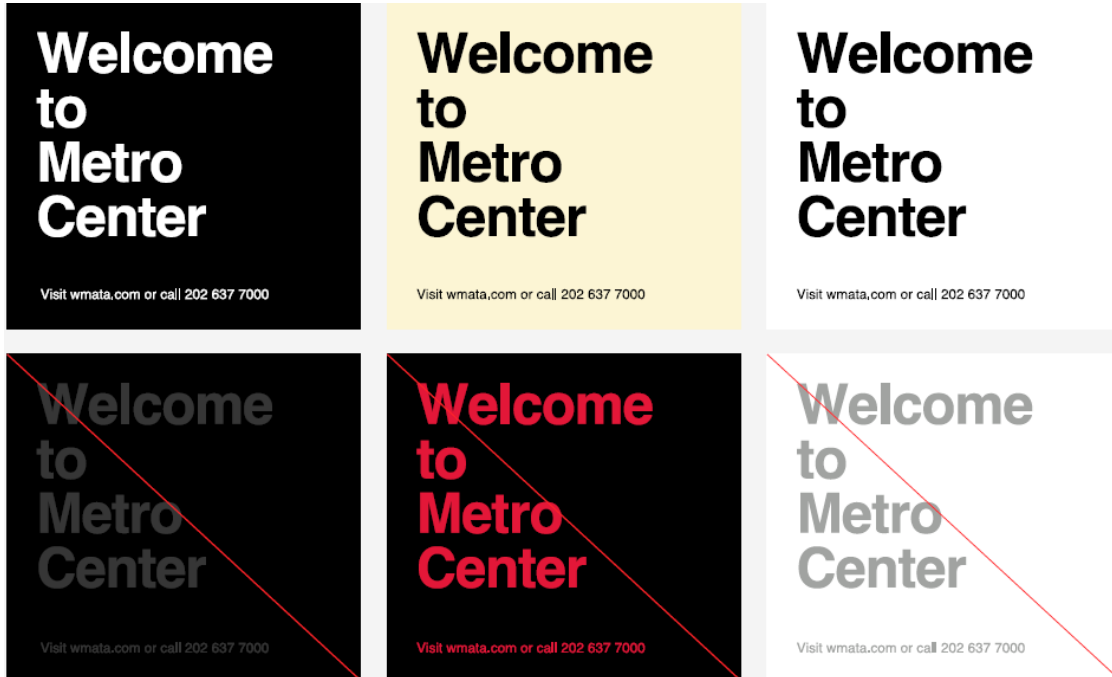
- Use white or black graphics on colored backgrounds
- Maintain contrast ratio
- Avoid lighter backgrounds
- Use high contrast values like black or white whenever possible to ensure graphic elements are understood
- According to ADA compliance requirements, graphic elements must have at least a 3:1 contrast ratio

Examples - Typography

Aa	Aa	Aa
Aa	Aa	Aa
Aa	Aa	Aa
Aa	Aa	Aa

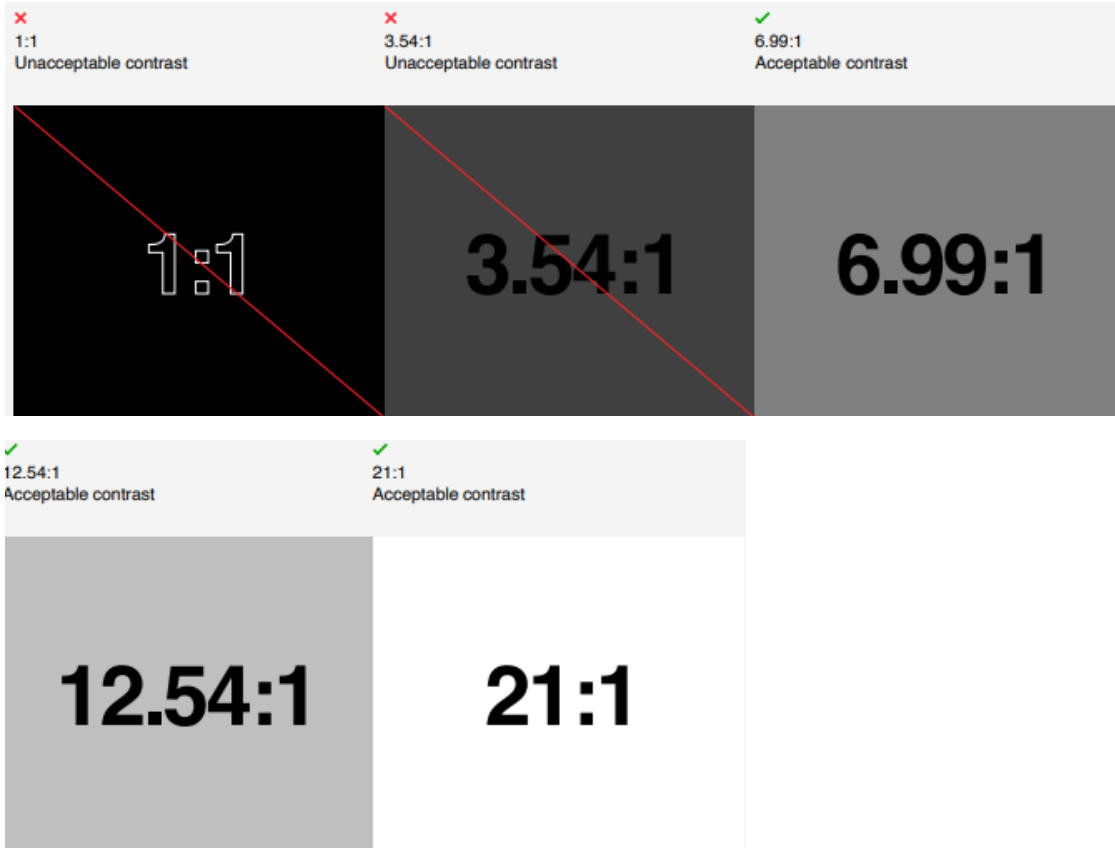
- Use white or black text on colored backgrounds
- Maintain contrast ratio
- Avoid lighter backgrounds
- Always set type in either black or white to ensure legibility
- According to ADA compliance requirements, large text must have at least a 3:1 contrast ratio and small text must be at least 4.5:1

Examples - Typography



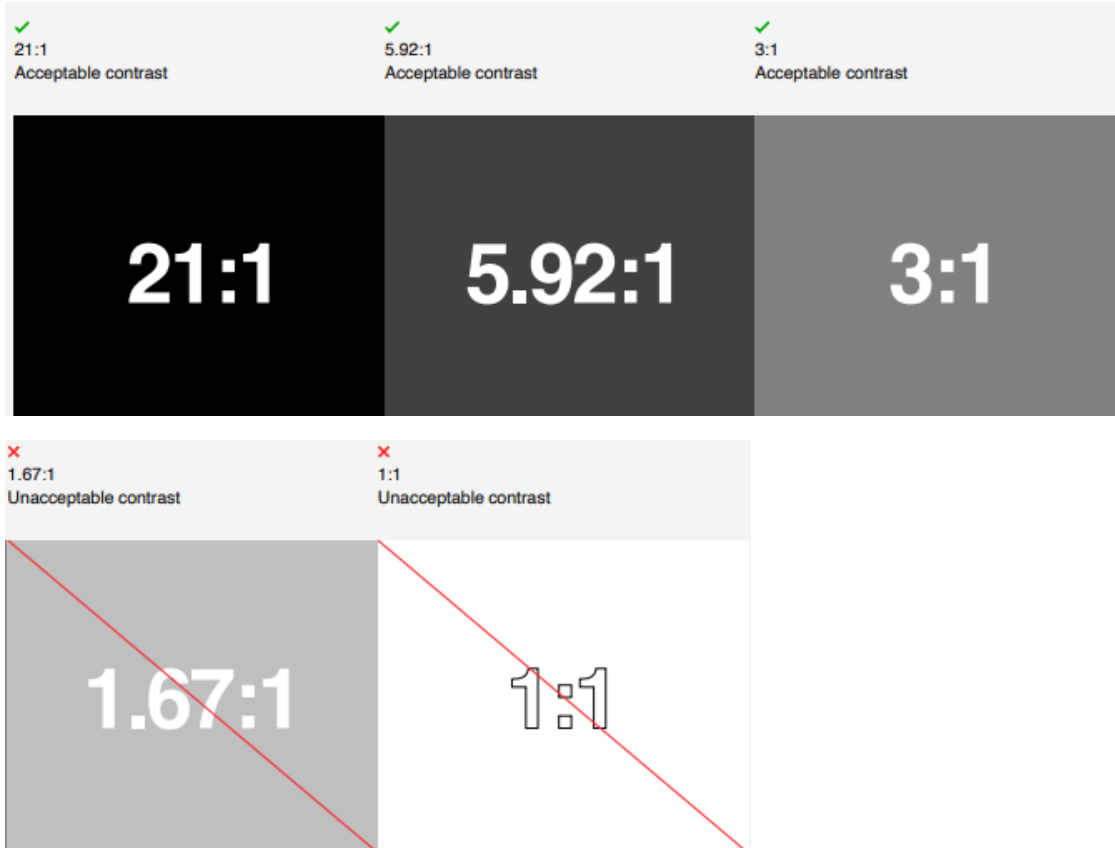
- To the left are examples of Best Practices for using color with typography, and maintaining an acceptable contrast ratio
- Contrast ratios must be met when using type
- Set in either black or white whenever possible and avoid using color or low contrast values

Examples – Black text on various backgrounds



- ADA compliance states the presentation of text and image must have a contrast ratio of at least 4.5:1 for small text and at least 3:1 for large text.
- Use the examples to the left as a reference for acceptable or unacceptable contrast.

Examples – White text on various backgrounds



- ADA compliance states the presentation of text and image must have a contrast ratio of at least 4.5:1 for small text and at least 3:1 for large text.
- Use the examples to the left as a reference for acceptable or unacceptable contrast.

Thank you!

Washington Metropolitan
Area Transit Authority

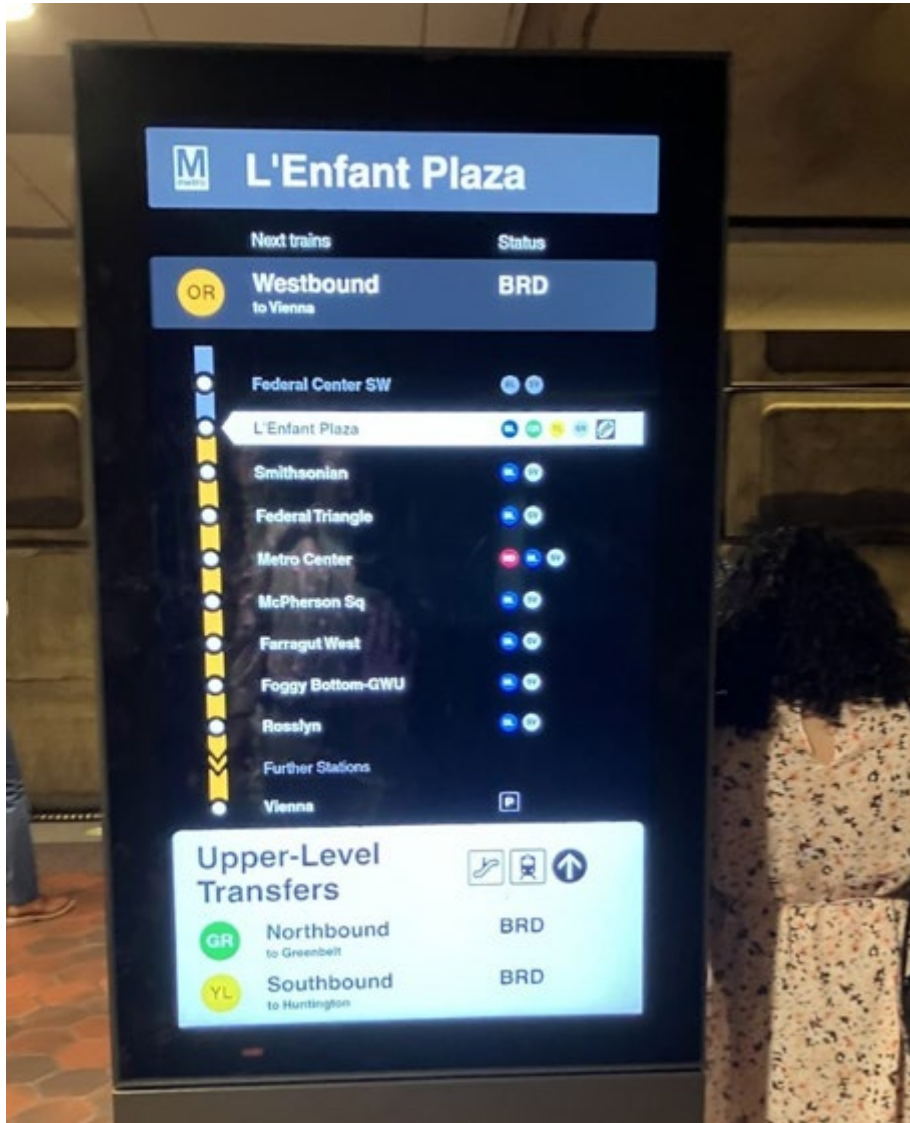
Appendix – Screen Examples



Technology Specifications

55" CID

ADA Screen Resolution Guideline



Active Display Area: 55" (1211.6 x 682.4 mm)

Backlight: LED

Resolution: 1920 x 1080

Pixel Pitch (mm): 0.63 mm (H) x 0.63 mm (V)

Brightness: 2500 cd/m2 (Typ)

Contrast Ratio: 5000:1

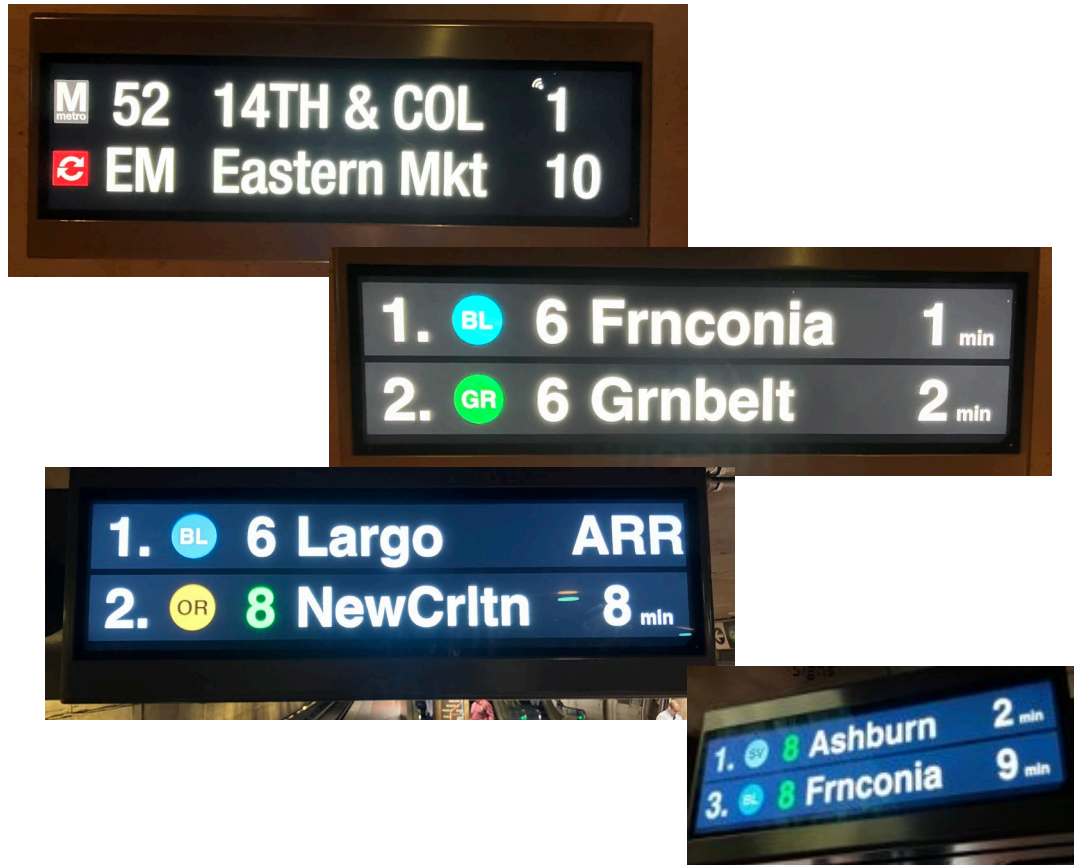
Viewing Angle: 176° (H) 178° (V) with CR ≥ 10

Display Colors: 16.7 Million colors (Max)

Technology Specifications

42" 2-line PID

ADA Screen Resolution Guideline



Active Display Area: 42" (1040 x 260 mm)

Backlight: LED

Resolution: 1920 x 1080

Pixel Pitch (mm): 0.53 mm (H) x 0.53 mm (V)

Brightness: 1200 cd/m² (Typ)

Contrast Ratio: 4000:1

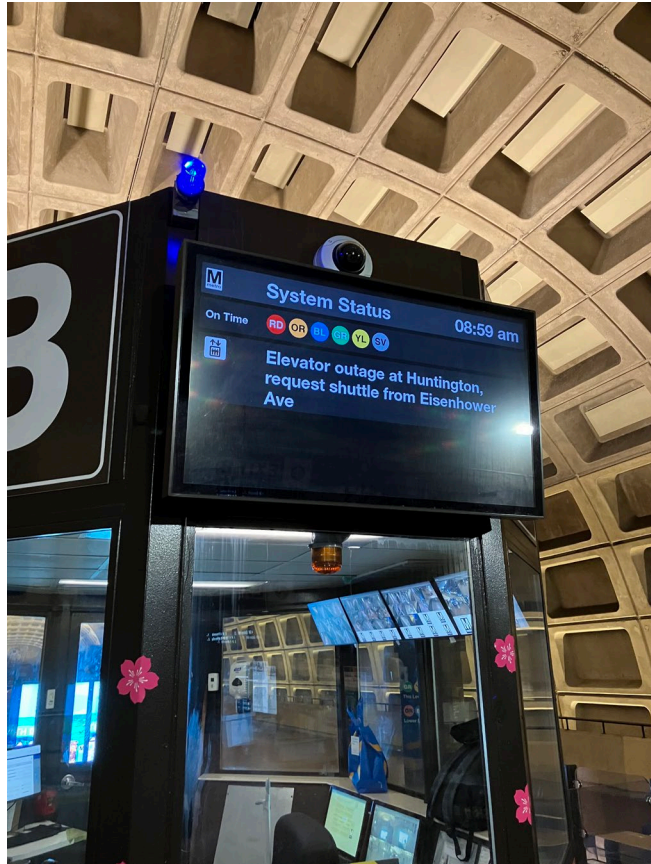
Viewing Angle: 176° (H) 178° (V) with CR ≥ 10

Display Colors: 16.7 Million colors (Max)

Technology Specifications

46" KID

ADA Screen Resolution Guideline



Active Display Area: 46" (1018.08 x 572.67 mm)

Backlight: LED

Resolution: 1920 x 1080

Pixel Pitch (mm): 0.53 mm (H) x 0.53 mm (V)

Brightness: 1500 cd/m² (Typ)

Contrast Ratio: 4000:1

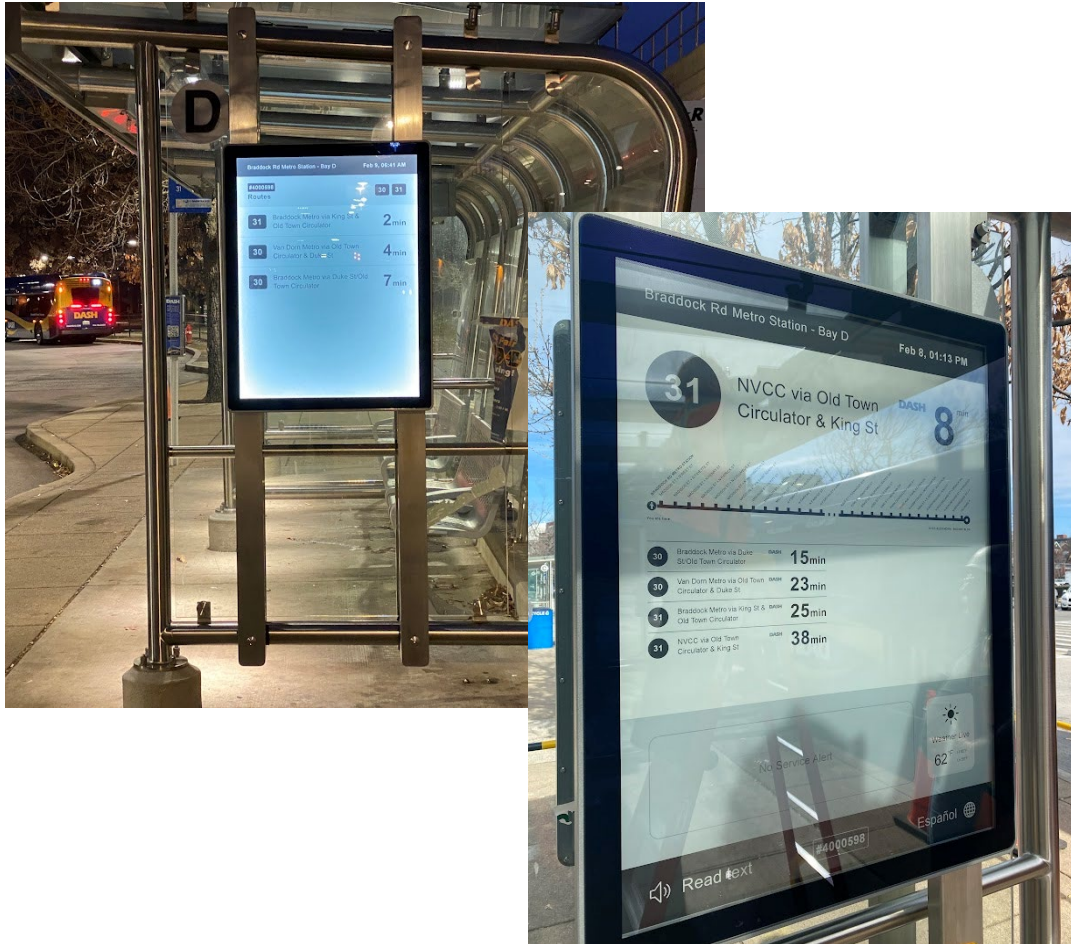
Viewing Angle: 176° (H) 178° (V) with CR ≥ 10

Display Colors: 16.7 Million colors (Max)

Technology Specifications

42" ePaper

ADA Screen Resolution Guideline



Active Display Area: 854 x 637 mm (H x W)

Lighting: Embedded LED front illumination, adjustable

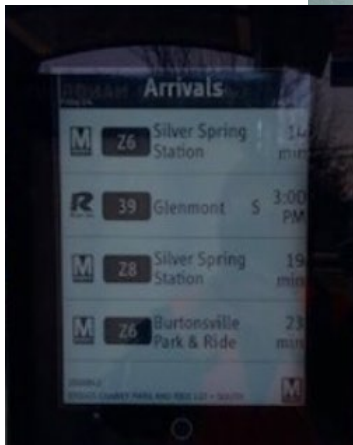
Resolution: 2880 x 2160

Display Colors: 16 levels of gray

Technology Specifications

13" ePaper

ADA Screen Resolution Guideline



Active Display Area: 203.2 mm x 269.2 mm,
8.0" x 10.6" (W x H)

Backlight: Electrophoretic

Resolution: 1600 x 1200 pixels

Contrast Ratio: 12:1 in direct sunlight

Viewing Angle: 70° horizontal and vertical
(typical)

Display Colors: Black, white, dark gray, light gray

Technology Specifications

24" On-Bus CleverVision

ADA Screen Resolution Guideline



Active Display Area: 24"

Backlight: LED, with auto-dimming capability

Resolution: 1920 x 1080 pixels

Display Colors: 16.7 Million colors (Max)



Technology Specifications

7k On-Rail

ADA Screen Resolution Guideline

Backlight: LED

Resolution: 1600 x 1200 pixels

Display Colors: 16.7 Million colors
(Max)

