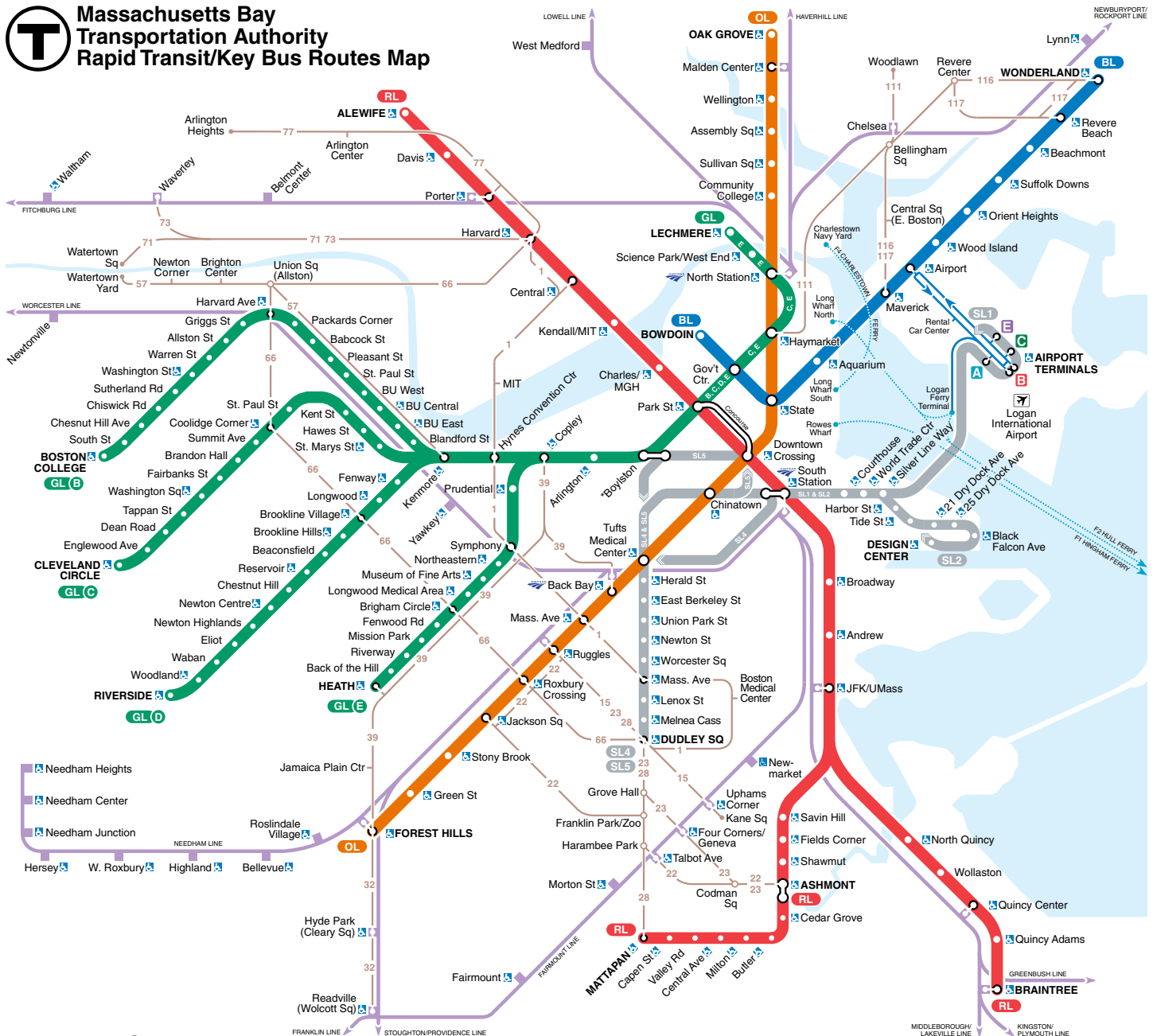


# New Massachusetts Bay Transportation Authority Rapid Transit Map for 2014



## Massachusetts Bay Transportation Authority Rapid Transit/Key Bus Routes Map



### LEGEND

- |                       |   |  |   |   |   |
|-----------------------|---|--|---|---|---|
| <b>RL</b> RED LINE    | <b>SL</b> SILVER LINE and branches  | <b>COMMUTER RAIL</b>                     | <b>Accessible station</b><br>All MBTA bus and ferry services are accessible | <b>Free Logan Airport shuttle bus</b>                     | <b>Customer Communications &amp; Travel Information</b><br>617-222-3200, 1-800-392-6100, TTY 617-222-5146<br>Web site: <a href="http://www.mbta.com">www.mbta.com</a> |
| <b>OL</b> ORANGE LINE | <b>GL</b> GREEN LINE and branches   | <b>Key Bus Route</b><br>Frequent Service | <b>Rapid transit transfer station</b>                                       | <b>Amtrak service</b><br>Back Bay, North & South Stations | <b>MBTA Transit Police</b> : 617-222-1212<br>TTY 617-222-1200   |
| <b>BL</b> BLUE LINE   | <b>Terminates at Park St</b><br><b>Terminates at N. Station or at Park St. during rush hour</b><br><b>Terminates at N. Station</b><br><b>Terminates at Lechmere</b> | <b>Ferry</b>                             | <b>Commuter rail transfer station</b>                                       | <b>Elevator/escalator/lift updates</b> : 800-392-6100     |   |

# INTRODUCTION

In the Spring of 2013 the MassDOT/MBTA held a contest to allow members of the public to submit designs for a new and improved MBTA Rapid Transit Map. Six finalists were posted on [mbta.com](http://mbta.com) in the fall of 2013 and the public voted a winner. The map submitted by Michael Kvrivishvili from Russia was the winning entry (see below). While this map was well designed and has an fresh take on the MBTA system, this entry needs to altered to comply with ADA minimum standards as well as current design standards. This report documents those alterations.



# MANDATORY ALTERATIONS

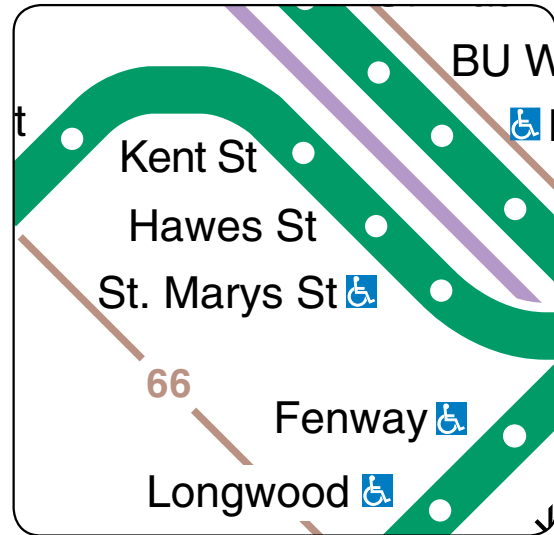
Below is a list of the alterations needed to make the MBTA Rapid Transit Map comply with minimum ADA standards for persons with visual impairments (i.e. low vision, color blindness).

## Wheelchair Symbol

The **International Symbol of Access** (ISA), also known as the International Wheelchair Symbol, must consist of a blue square overlaid in white with a stylized image of a person using a wheelchair. Furthermore using a ISA with a slash through it to denote a station without wheelchair accessibility could be interpreted as negative or offensive. (Note: the contest winner depicts St. Mary's as not wheelchair accessible when it in fact is.)



Contest Winner



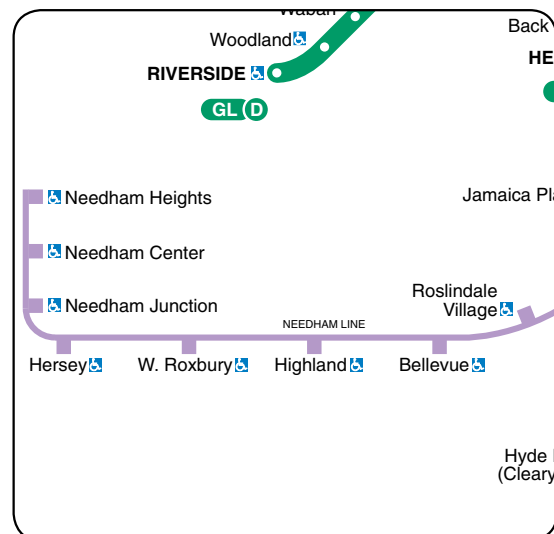
Proposed Alteration

## Black Text on a White Background

Compliance with all guidelines from Section 508 of the US Rehabilitation Act instructs that all text (with few exceptions) must be black on a white background or bold white on a dark background. A background shade or color must not be used and text labels must be solid black in order to create a high contrast for the visually impaired.



Contest Winner



Proposed Alteration



# MANDATORY ALTERATIONS

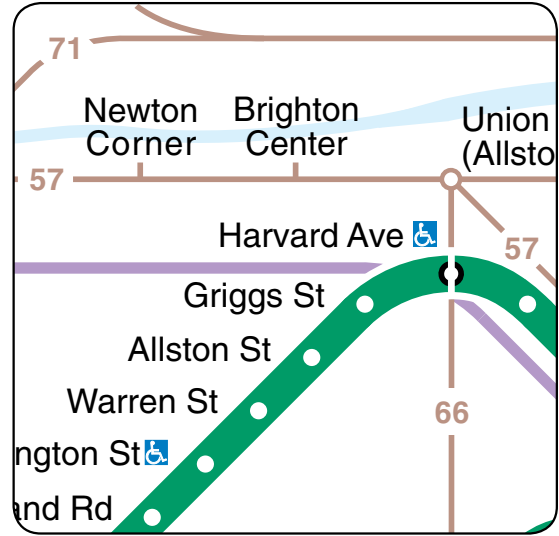
Below is a list of the alterations needed to make the MBTA Rapid Transit Map comply with minimum ADA standards for persons with visual impairments (i.e. low vision, color blindness).

## Text Size

Text has mandatory minimums. Compliance with all guidelines from Section 508 of the US Rehabilitation Act instructs that all text must have a minimum size based on a percentage of the full size of a graphic/map. Though the contest winning map is easier to read and less cluttered much of the text is too small and not black. The proposed map may seem busier but it complies with the Section 508 Guidelines.



**Contest Winner**



**Proposed Alteration**

## Color Blindness

The Orange Line/Blue Line connection can appear as one line to a person with color blindness or if the map is ever reproduced in black & white. Adding a bend to the Orange Line and Blue lines so they meet at a 45 degree angle eliminates this problem.



**Contest Winner**



**Proposed Alteration**

# DESIGN ALTERATIONS

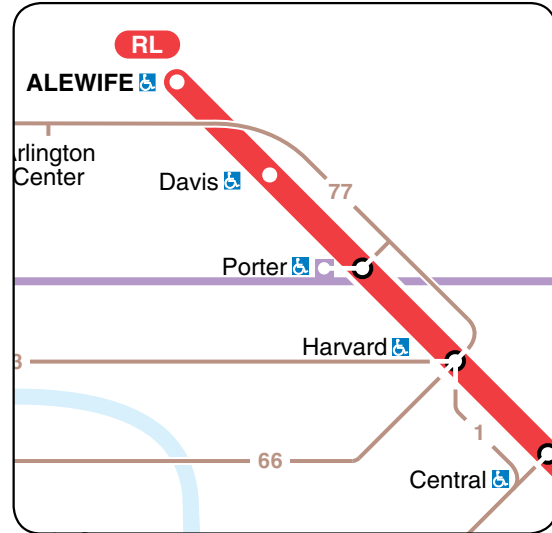
Below is a list of the alterations needed to make the MBTA Rapid Transit Map comply with current design standards.

## Bus Line Connections

Many design professionals who have viewed the contest winning map have found the bus line connections to rapid transit stations misleading. Viewing the sample, below left, many users did not know the the bus routes 1, 66, 71, 73 and 77 actually stopped at Harvard Station. A simple design change, below right, corrects the problem by placing the bus route numbers along the route instead of at their terminuses.



Contest Winner



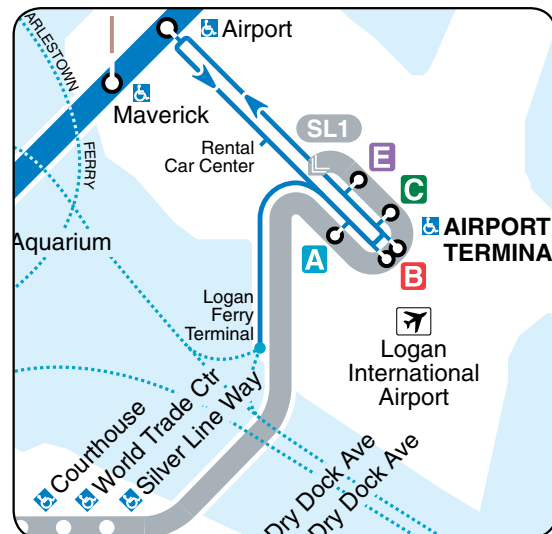
Proposed Alteration

## Logan Airport

While the contest winning map did a good job of simplifying the Silver Line at Logan Airport it ends up being misleading. The Silver Line SL1 should loop back onto itself and the shuttles from both the ferry terminal and Airport Station (Blue Line) are separate routes. By rotating the Airport Terminal Loop 45 degrees it allows the depiction of two separate shuttle routes and the added bonus of depicting the new Rental Car Center and emphasizing a strong connection with Airport Station.



Contest Winner



Proposed Alteration

# DESIGN ALTERATIONS

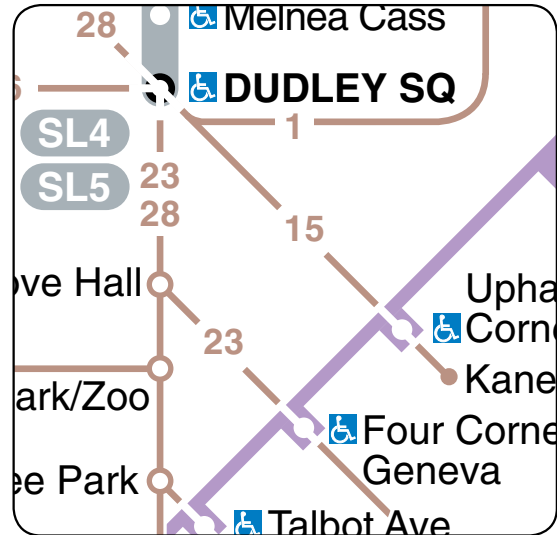
Below is a list of the alterations needed to make the MBTA Rapid Transit Map comply with current design standards.

## Bus/Commuter Rail Connections

Many design professionals who have viewed the contest winning map weren't sure if some of the bus routes actually connected to commuter rail stations, below left. A simple white dot placed into the purple square (diamond) leaves no doubt to the user that there is in fact a connection between a bus route and a commuter rail station.



Contest Winner



Proposed Alteration

## Winding Lines

The contest winning map has many lines that are needlessly windy. In the example below left, notice the windiness of the commuter rail line at Back Bay Station and the Route 66 Bus. With some simple design changes and different placement of stations the overall look is now simpler.



Contest Winner



Proposed Alteration



# DESIGN ALTERATIONS

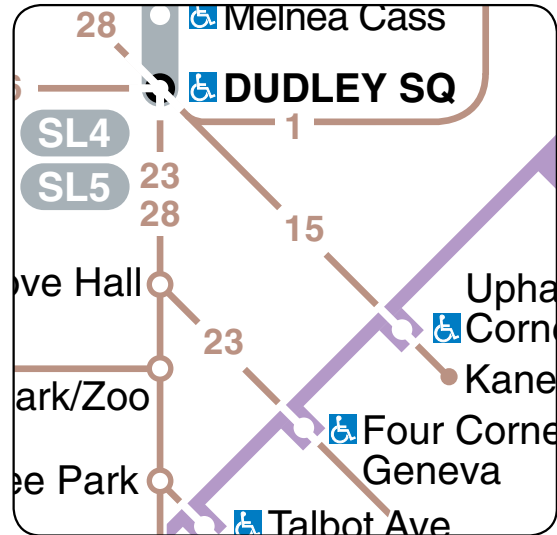
Below is a list of the alterations needed to make the MBTA Rapid Transit Map comply with current design standards.

## Line Thickness

The width of the bus lines depicted on the contest winning map are not thick enough to meet minimum design standards. Thickening the lines by 200% will make them meet preferred design criteria.



## Contest Winner



## Proposed Alteration

## Horizontal Text

Angled text is more difficult for the reader. Horizontal text should be used whenever possible. The contest winner had most of the text horizontal, but an effort was made to improve on this feature.



## Contest Winner



### Proposed Alteration