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massachusetts bay transportation authority | version 03.2015

# **MBTA** wayfinding training guide

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- 1.09 Review Questions
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# Introduction

This training sequence is designed to assist the user in understanding and applying the MBTA wayfinding signage system. Depending on specific project parameters and time frame, the user may either complete all components of the training in sequence or may exclusively focus on the components that apply to their particular application. This document is designed to direct this full range of trainees efficiently and effectively through the learning process.

	HOME resources website updates site map
MBTA resources (Clask to Download)	
MBTA Signage Guidelines	Regulatory Signage
MBTA Signage System Overview for Design Consultants	Tactile/Braille Signage
MBTA Digital Sign Manual Management Guide	Commuter Rail Trailblazer
Instructions	Curriculum
Working	Videos
Schedules	
Details	Assets Custom Fonts
Construction Documents	

#### MBTA Digital Signage Manual - Resources

All training materials, including Curriculum materials, Training Videos and Templates are accessed through the Resources page of the MBTA Digital Signage Manual.

#### **Segment I: Overview**

An overview of the system and each of the three new signage resources: *MBTA Signage Guidelines*, MBTA Digital Signage Manual and SignMaker<sup>™</sup> Application, with a series of review questions to test understanding of the system.

#### **Segment II: Practice Module**

A series of practice stations: Subway, Commuter Rail, Ferry, Garage and Busways for visual wayfinding signage applications and Subway and Commuter Rail for Tactile/Braille signage applications.

#### Segment III: End-to-End Process

An overview of the implementation process, focusing on the roles of the designers, the End-to-End Process steps, and the use of templates.

#### Resources





Curriculum

In addition to this Training Guide (PDF), Curriculum materials include a Training Schedule (EXCEL), which lists the projected duration of each component of the training sequence; Review Questions (EXCEL), which are used in Segment I of the training to confirm understanding of the system and resources; and Practice Stations folder, which contains files used in Segment II of the training to practice application of the new wayfinding system. The Review Questions and Practice Station files are explored more thoroughly in the relevant sections of this guide.



**MBTA Digital Signage Manual - Resources** Curriculum materials are accessed through the Resources page of the MBTA Digital Signage Manual.

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			MBTA Signage Guidelines		6		
			MBTA Digital Signage Manual		2		
2			SignMaker™ Application		4		
			Segment   Review Questions		4		
2			TOTAL SEGMENT I	-	16	2 days @ 8hrs/day	
	EGMENT II: PRACT	ICE MODULE					
	ansit Mode	Sequence	Station	Projected Dur	ration (hrs)		
5							
7				Path	Signage		
3							
	I SUBWAY	1	Pleasant Street	-	2		
)		2	Green Street	1	4		
		3	Central Square	1	6		
2		4	Andrew	1	6		
5		5	Malden Center	2	6		
1		6	Suffolk Downs	2	7		
		7	Back Bay	2	8		
5		8	Downtown Crossing	4	8		
e -		9	South Station	4	8		
			SUBWAY SUB-	OTAL 17	55		
9							
02	2 COMMUTER RAIL		North Wilmington	1	1		
		2	Nantasket Junction	1	2		
1		3	Hersey	1	2		
		4	Morton Street	1	3		
F		5	Ruggles	1	4		
		6	Grafton	1	4		
5		7	Canton Junction	2	6		
7		8	Back Bay	2	6		
			CR SUB-	OTAL 10	28		
	3 FERRY	1	Logan Airport	1	2		
		2	Rowes Wharf	1	2		
5			FERRY SUB-	OTAL 2	4		
) 03 L 2	Sheetl		FERRY SUB-	OTAL 2	4		14

#### Training Guide • MBTA Wayfinding Training - Guide.pdf

### Training Schedule

MBTA Wayfinding Training - Schedule.xlsx

#### **Review Questions**

MBTA Wayfinding Training - Review Questions.xlsx

#### **Practice Stations**



#### **Training Schedule**

This excel file lists the projected duration of each component of the training sequence. Actual duration will vary individually, but this schedule gives users a sense of how long specific components and the training sequence overall will take to complete. It can also be used as an activity log during training.

#### Introduction

I: Overview



**Training Videos** 

Training videos give step-by-step guidance on specific elements of the wayfinding system. Videos are in a standard .mp4 format that may be played in Quicktime, iTunes, and other common video players, and include optional subtitles. To the right is a screenshot of one video demonstrating the subtitles and the video navigation bar, in this case from Quicktime.

The Training Guide references the relevant videos throughout the training sequence. The chart below displays how each video relates to the transit modes covered in this guide.

Curriculum Videos (Click to Download)	Tra	aining
Videos [Click to Download]		Curriculum
		Videos [Click to Download]
		· J · M

# MBTA Digital Signage Manual - Resources

Training Videos are accessed through the Resources page of the MBTA Digital Signage Manual.

#### **Overview**

I. 01 Signage System Overview02 Digital Signage Manual

#### Practice Module

- II. 03 Pathway Diagrams
  - 04 Sign Layout
  - 05 SignMaker™
  - 06 SignMaker™TB

Арр	licability of		I		I	I	
Vid	eos	01	02	03	04	05	06
U	SUBWAY		•			٠	
	COMMUTER RAIL		•	•		۲	
VFIN	FERRY	•	•				
N N	GARAGE	•					
VISUAL WAYFINDING	BUSWAY						
Š	BUS STREET	•	•				
T/B	ALL		•				



#### **Video Display**

Subtitles may be turned on or off through the video playback application's options.



**Templates** 

Templates are used in the End-to-End Process for the creation of the Details, Schedules, Working Files and Construction Documents. These files will be used throughout implementation of the new wayfinding signage system. Modified versions of the Plan Template are provided for practice during Segment II of the training. The use of the templates is explored more thoroughly in Segment III of this guide and in Chapter 19: Endto-End Process of the *MBTA Signage Guidelines*.



#### **MBTA Digital Signage Manual - Resources**

Templates are accessed through the Resources page of the MBTA Digital Signage Manual.

#### Instructions

- Base Drawing Guidelines.pdf
- CD Master Template Guide.pdf

#### **Working Files**



#### Schedules

- Disposition Schedule\_template.xlsx
- Field Measurement Schedule\_template.xlsx
- QC Review Checklist\_template.xlsx
- Wayfinding Review Checklist\_template.xlsx
- W&I Schedule\_template.xlsx

#### Details

01 Subway



#### CD Master Template • CD\_Master\_Template.indd • CD\_Master\_Template.pdf Links

Introduction

I: Overview

II: Practice Module

# **Segment I: Overview**

This first segment of training covers the background, concepts, and rules for the new MBTA wayfinding system. The format is a combination of intensive reading of the *MBTA Signage Guidelines* and hands-on experimentation with the new digital tools associated with the system – the MBTA Digital Signage Manual and the SignMaker™ Application. Before access is granted to download the SignMaker™ software, the trainee must complete a series of review questions designed to ensure adequate comprehension of the system.

Note: Bus Street signage is referenced in this segment of training to give an understanding of how it fits into the overall signage system. However this training sequence is focused on station signage. The design of Bus Street signage is handled separately by the Bus Operations department, and therefore is not included in the practice segment.



#### 1: MBTA Signage Guidelines

Become familiar with this reference book, which provides an overview of the MBTA's new signage system logic, rules, and application.



#### 2: MBTA Digital Signage Manual

Explore the browser-based repository of the entire MBTA wayfinding signage system, including existing conditions information and sign design for every individual MBTA station, as well as all design tools and resources.



#### **3: Review Questions**

This series of review questions is designed to lead the trainee through a review of the new wayfinding signage system and signage resources.



#### 4: SignMaker<sup>™</sup> Application

The traditional methods for designing fixed wayfinding signage have been replaced with a new methodology that utilizes this custom software application developed to specifically create MBTA wayfinding signs. After completing the Review Questions, contact BIA for access to download the SignMaker<sup>™</sup> software.



#### 1: MBTA Signage Guidelines

Begin by reading the *MBTA Signage Guidelines* to get an overview of the system and the signage rules. Become familiar with the overall scope and organization of the guidelines as it will be the primary reference for detailed signage rules as one proceeds with sign design in Segment II. For targeted training focusing on particular signage types, one may focus on certain chapters and omit others, using the chart below to find the chapters directly applicable to each signage type.

#### Overview

- I. 01 Preface
  - 02 Background
  - 03 Components
  - 04 Wayfinding System
  - 05 Bus System

#### Signage Tools

- II. 06 SignMaker™
  - 07 Digital Signage Manual

#### **Existing Stations**

- III. 08 Subway Stations
  - 09 Commuter Rail Stations
  - 10 Ferry Stations

#### **Rules & Guidelines**

- IV. 11 System-Wide Wayfinding
  - 12 Subway
  - 13 Commuter Rail
  - 14 Ferry
  - 15 Garage
  - 16 Tactile / Braille
  - 17 Bus
  - 18 Related Systems

#### **Construction Documents**

- II. 19 End-to-End Process
  - 20 Technical Information

Арр	olicability of			Т				11		Ш					I	V					V
Cha	pters	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
U	SUBWAY							•											•		•
WAYFINDING	COMMUTER RAIL	•					•	•				•							•		•
VEID	FERRY						•	•			•								•		
	GARAGE	•					•	•				•							•		•
VISUAL	BUSWAY					•	•	•											•		•
5	BUS STREET	•					•	٠													•
T/B	ALL							•											•		•

#### Resources



**MBTA Signage Guidelines** see chart above for guidance



**Training Videos** 01 Signage System Overview



2: MBTA Digital Signage Manual

Explore the contents of the MBTA Digital Signage Manual (DSM) to become familiar with the overall scope of content and the structure of the browser-based repository. The chart to the right displays the scope of the DSM by transit mode - while the signage needs of some are covered simply with a system overview, others provide schematic wayfinding sign design for individual stations. Both the existing conditions information and individual sign designs will be important resources in Segments II and III of the training sequence, as well as when implementing the new wayfinding signage system.



Sco	pe of DSM	EXISTING	WAYFINDING	SYSTEM
500	pe of D3W	CONDITIONS	SIGNAGE	OVERVIEW
U	SUBWAY	•	•	
NDN	COMMUTER RAIL	•	•	
VFIN	FERRY	•	•	
VISUAL WAYFINDING	GARAGE			•
SUA	BUSWAY	•		•
>	BUS STREET			•
T/B	ALL			•

#### Resources



**MBTA Digital Signage Manual** 00 HOME.html MBTA Signage Guidelines 07 Digital Signage Manual



**Training Videos** 02 Digital Signage Manual



**3: Review Questions** 

After becoming familiar with the signage resources discussed in the previous pages, complete the review questions using these resources as reference. Questions are grouped by MBTA Signage Guidelines chapter. The questions are compiled in an Excel file, with instructions for use on the first tab.

	0		Wayfinding Training Questions.xlsx			
n	Home Layout Tables		rtArt Formulas Data Review			~
4	A	B	C	D	E	
L	Guidelines Chapter	Question No.	Question	Response		
2	V. Rules & Guidelines					
	11 - System-Wide Wayfinding	IV.01	Locations where horizontal circulation paths transition to vertical, or			
	of of the state of		where horizontal paths split apart, are called			
3						
		IV.02	Name the four possible types of content justification on sign panels.			
1			······			
		IV.03	T/F: Panel alignment rules prescribe content placement for all			
		11100	wayfinding information other than the station name.			
5			adjunding mormation of its than the station marter.			
		IV.04	T/F: SignMaker <sup>™</sup> eliminates the need to know panel alignment rules.			
5		11.04	in the signification of the need to taken participation anglishes to taken			
-		IV.05	T/F: Left-justified and centered panels may be stacked in a single			
		14.00	assembly.			
7			assertiony.			
-		IV.06	T/F: If a destination is accessible via multiple paths, all paths should be			
		14.00	considered equally important without a preferred path.			
3			considered equally important without a preferred path.			
	10 Cuburer	8/07	For Subway, entering and exiting surface signs on platforms are based			
	12 - Subway	IV.07	on what metric?			
			A) 1 Enter or Exit per every other train car			
			A) 1 Enter or Exit per every other train car			
			B) 1 Enter or Exit per each train car			
			C) 1 Enter + 1 Exit per each train car			
			D) 1 Enter + 2 Exit per each train car			
•						
		IV.08	The primary purpose of Overhead Station ID signs at entrances is to			
			identify			
			Select all that apply:			
			_ Station Name			
			Available Lines and Destinations			
			Entrance Number			
			Accessible Pathway (if applicable)			
			_ Elevator (if applicable)			
			_ Exiting Destinations			
0						
-		IV.09	T/F: Pay gates are considered to be decision points and require			
			overhead entering and exiting signage.			
1			oronnoud ontoning and ontoning orginagor			
-		IV.10	T/F: On multi-line Station ID entrance signs, only subway lines and			
		14.10	destinations are displayed.			
2			destinations are displayed.			
~		IV.11	T/F: For Subway, exiting surface signs are not needed in the unpaid			
		IV. 11	portion of a lobby.			
3			portion of a lobby.			
3		IV.12	T/C. On surface sizes, entering and suiting destinations that it is			
		IV.12	T/F: On surface signs, entering and exiting destinations should be			
4			combined for clarity.			
4		8440	For Occurrent to Doll, and address and address of the state of the			
	13 - Commuter Rail	IV.13	For Commuter Rail, entering and exiting surface signs on platforms are			
			based on what metric?			
			A) 1 Enter or Exit per every other train car			
			B) 1 Enter or Exit per each train car			
			C) 1 Enter + 1 Exit per each train car			
			D) 1 Enter + 2 Exit per each train car			
5						
		IV.14	T/F: For Commuter Rail, train direction and pedestrian direction arrows			
			are distinct.			
6						
		IV.15	T/F: For Commuter Rail, outbound destinations are indicated by			
			terminal station name.			
7						
		IV.16	T/F: Unlike most subway stations, many commuter rail stations have			
			open ambulatory path entry.			
			-p			
8						
8		0/17				
8		IV.17	T/F: For Commuter Rail, Boston is the only inbound destination on all wayfinding signs.			

#### Resources



**Review Questions** 



MBTA Signage Guidelines see chart on I.07 for guidance



Training Videos 01 Signage System Approach 02 Digital Signage Manual

Introduction I: Overview

II: Practice Module



4: SignMaker<sup>™</sup> Application

After completing the Review Questions, contact BIA for access to download the SignMaker™ software. The traditional methods for designing fixed wayfinding signage have been replaced with a new methodology that utilizes this custom software application developed to specifically create MBTA wayfinding signs. All new sign design will use this software application to assure that new signage is correct, clear, and consistent.

The application includes three modules: SignMaker<sup>™</sup>, SignMaker<sup>™</sup> TB, and SignMaker<sup>™</sup> BUS. The chart to the right displays which transit modes are covered by each module. SignMaker<sup>™</sup> BUS and Bus Street signage are not covered as part of this training sequence.

Install the SignMaker<sup>™</sup> and SignMaker<sup>™</sup> TB modules onto your computer and experiment with them, using the resources below as guides. Become comfortable using the interface to generate signs and schedules, and understand SignMaker's<sup>™</sup> output.

#### Resources



**SignMaker™ Application** see above for guidance on downloading MBTA Signage Guidelines 06 SignMaker™



**Training Videos** 05 SignMaker™ 06 SignMaker™ TB

00 Stations System Database Browse... Mode Sign Manual Implementation Database O Production Database Sign Manual Browse... Browse... Implementation Temporary Database Sign Manual: Browse... Browse... Implementation OK Exit

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	🗏 🔟 Wayfinding Training	۹	
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New Fold	er	Cancel Ch	oose

#### **Database Selection**

Use a Temporary Database during training. Create a training folder on your desktop or designated location on the server for the Temporary Database and select that as the database location when opening the software for the first time.

Fun	ctionality of	SignMaker™	SignMaker™	SignMaker™
Арр	olications		ТВ	BUS
ט	SUBWAY	•		
	COMMUTER RAIL	•		
VISUAL WAYFINDING	FERRY	•		
L W/	GARAGE	•		
SUA	BUSWAY	•		
>	BUS STREET			•
T/B	ALL		•	

A O M&TA SignMaker - Sign Manual		MOTA SignMaker - Implementation (Numware-Inot(Shared Folders)/Dauktopitest 0325)	- 0 -	META SignMaker - Implementation (lumware-host/Shared Folders/Deatrop/text 0323)	- 0 - X-
SIGN maker*		File Help		File Help	
Subway Station Index Commuter Rall Station Index Bus / Garage Index Ferry Station Index Sign Design View Schedule Management Opt	ions Station Management	SIGN maker <sup>ee</sup> TB		SIGN maker <sup>™</sup> BUS	
Station 061 SCIENCE PARK / WEST END		Subway Station Index Commuter Ral Station Index Subway Bus/Garage Index OR Garage Index Remy Station Index Sign Design Vew Schedule Management Options Station Management Station Manage	gement	Project Index Sign Design View Schedule Management Options Project	
UNI SCIENCE PARK / WEST END	Export	061 SCIENCE PARK / WEST END	Export	Project X	Generate Signs Export
Sign	Catalog	591	Catalog	Routes	1 Catalog
C 101 S-LM3.1.101 Edit New Duplicate Delete Save Cancel	A OVERHEAD - IN	T 202 T.DIR.202 Edit New Duplicate Delete Save Cancel	AI -		(4b)
teel	C SURFACE - IN		CLEVEL 2: PLATFORM	500	Find
	DD SURFACE - OUT	Physical Properties	LEVEL 1: LOBBY LEVEL 0: STREET	00001 - Washington St opp Ruggles St	(00001) Washington St opp Ruggl +
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Text Type: 4" Text: SCIENCE PARK / WEST END Choose		Destinations: Green Line - all trains Choose			500063 (500063.T1.1.01) (00064) Dudley Station
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		SHERE DEPENDENT PRESS		Augura et Rasson	(00079) Massachusetts Ave @ Ne - 500079 (\$00079.11.1.01)
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SignMaker™

Mac application used for the creation of visual wayfinding signage (including busway signage). It is a custom, menu-driven application for automating every aspect of the sign design process:

- physical properties
- path type and sign content selection
- entire station catalog of signs
- sign schedules
- outputs accurate full size sign files for fabrication



#### SignMaker<sup>™</sup> TB

Windows application used for the creation of Tactile/Braille signage.. It is a custom, menu-driven application for automating every aspect of ADA compliant Tactile/Braille sign generation:

- · braille generated automatically
- physical properties
- sign content selection
- entire station catalog of signs
- sign schedules
- outputs accurate full size sign files for fabrication



#### SignMaker<sup>™</sup> BUS

Windows application used for the creation of Bus Street signage. It enables automatic generation of full size bus stop signs on two standard template sizes. The software is linked to Bus Operations's route database and serves as a simple content management tool:

- sign content generated automatically
- review and edit signs
- outputs accurate full size sign files for fabrication

troduction I: C

I: Overview II: Practice Module

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# Segment II: Practice Module

This series of practice stations is designed to provide a representative range of pathway and signage conditions present in the system at large. Within each signage type and transit mode, stations are arranged from simple to complex to become gradually more challenging as proficiency improves.

For each station, schematic-level sign design will be completed with the following steps:

Step 1: Review Station Documentation Step 2: Pathway Diagrams (if applicable) Step 3: Sign Layout Step 4: SignMaker™

The chart to right gives an overview of the practice station content. Station Documentation is provided within the Curriculum materials by plan files for each practice station, as well as by existing conditions information on the MBTA Digital Signage Manual (DSM) for certain transit modes. Once the sign layout is complete and signs have been created using the relevant SignMaker<sup>™</sup> module, completed Answer signage can be found for comparison either on the station's Wayfinding Signage pages of the DSM or in Answer files. Do not expect to match the Answer signage completely - there may be multiple correct ways to sign a station - but use it to increase your understanding of the signage system. Answer Notes are provided at the end of this segment of the Training Guide.



#### **Plan Files**

Diagrammatic plans are provided as Illustrator files for each practice station, with instructions and templated drawing elements on the relevant layers.

Pra	ctice	PRACTICE	STATION	ANSWER	S
Ove	rview	STATIONS	DOCUMENTATION	Signage	Notes
	SUBWAY	9	DSM/plan files	DSM	II.25
DING	COMMUTER RAIL	8	DSM/plan files	DSM	II.28
VISUAL NAYFINDING	FERRY	2	DSM/plan files	DSM	II.30
WAY V	GARAGE	1	plan files	Answer files	II.30
	BUSWAY	2	DSM/plan files	Answer files	II.31
T/B	SUBWAY	5	DSM/plan files	Answer files	II.31
Ĥ	COMMUTER RAIL	4	DSM/plan files	Answer files	II.32

#### Subway, Commuter Rail and Ferry

Each visual wayfinding practice station, located within the relevant transit mode folder of the Curriculum's Practice Stations, contains diagrammatic plans of each level of the station. Use these plans as underlays for creating the pathway diagrams and sign layouts.

It is recommended to complete the pathway diagrams (Step 2) for all practice stations of a particular transit mode before continuing on to Sign Layouts / SignMaker (Steps 3/4).

Once a practice station has been completed, reference the station's Pathway Diagrams or Sign Locator and Drawings pages on the DSM and Answer Notes at the end of this segment of the Training Guide. Do not look at these pages before attempting a station, but reference other similar stations on the DSM. It is recommended to look at the Answers after each individual station, rather than after completing multiple stations, so that common mistakes that are caught early on.



#### Resources



#### MBTA Signage Guidelines

04 Wayfinding System 06 SignMaker 11 System-Wide Wayfinding Rules 12 Subway Rules 13 Commuter Rail Rules 14 Ferry Rules



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**Training Videos** 03 Pathway Diagrams 04 Sign Layout 05 SignMaker™ roduction

I: Overview

II: Practice Module



#### Step 1: Review Station Documentation



# Step 2: Pathway Diagrams

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#### **Existing Conditions**

Begin by reviewing the practice station's Existing Conditions pages on the DSM: Station Overview, Field Notes and Plans + Photographs to understand the basic attributes of the station: surface station vs multilevel, type of platform, accessibility, connections to other transit modes, etc. The station's existing conditions documentation will be an important resource when signing the station.

Note: do not look at the practice station's Wayfinding Signage pages before attempting the station. Find other similar stations on the system and use them as reference.

#### **Station Paths**

Create pathway diagrams for each practice station using the Illustrator plan files provided in the Curriculum materials. Each file contains a base drawing in the Linework layer and instructions and templated drawing elements in the Pathway Diagrams layer. Review Training Video 03: Pathway Diagrams for more step-by-step guidance on creating the diagrams.

It is recommended to complete the pathway diagrams for all practice stations of a particular transit mode in order to get a real understanding of how they work before continuing on to Step 3. After completing the diagrams for a station refer to the station's Pathway Diagrams page on the DSM for comparison.





#### **Locating Signs**

Create sign layouts for each practice station using the same Illustrator plan files used to create the pathway diagrams. Use those pathway diagrams as well as the existing sign layout provided in the Existing Signage layer for reference when laying out new signs in the Wayfinding Signage layer. Review Training Video 04: Sign Layout for more step-by-step guidance on locating signs. Refer to Chapter 11: System-Wide Wayfinding Rules and each transit mode's individual rules chapter in the *MBTA Signage Guidelines* for specific guidelines on quantity and layout requirements.



Step 4: SignMaker™

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#### Sign Design

Once a practice station's sign layout is complete, use SignMaker<sup>™</sup> (Sign Manual Mode - Temporary Database) to design the sign content for each sign in the station. Record sign quantities in the schedule. Review Training Video 05: SignMaker<sup>™</sup> and Chapter 06: SignMaker<sup>™</sup> in the guide-lines for guidance on the software interface and output, and the Rules chapters for guidance on sign content. After exporting, return to the Illustrator plan files and place the sign tags to label each sign in the station.

As each station is completed, refer to the station's Sign Locator and Drawings pages on the DSM to compare results. Make edits to your sign layout and signs as needed.

II: Practice Module

#### Garage

The files for the one practice station, the Wonderland Garage, are located within the 04 Garage folder of the Curriculum's Practice Stations. Use these plans as underlays for creating the sign layout.

Creating Pathway Diagrams (Step 2) is typically not required for garages, but may be useful for understanding its circulation paths.

Once the practice station has been completed, reference the Answer files, located within the xx Answers folder of the Curriculum's Practice Stations. This pdf contains the construction documents created for the actual Wonderland Garage - additional components beyond a schematic level of design, such as Mounting Type Elevations and Sign Frame Details, are provided as reference only. Also refer to the Answer Notes at the end of this segment of the Training Guide.

Note that the Wonderland Garage's busway signage is not included for the purposes of this practice station.



04 Garage 01\_049 Wonderland 049 Wonderland Garage.pdf

#### Resources



MBTA Signage Guidelines 04 Wayfinding System 06 SignMaker 11 System-Wide Wayfinding Rules 15 Garage Rules



**SignMaker™ Application** SignMaker™



**Training Videos** 04 Sign Layout 05 SignMaker™



**Review Station Documentation** 



#### **Base Drawings**

The Wonderland Garage is new construction, so no existing conditions documentation is available. Therefore, begin by reviewing the garage's plans to understand its basic attributes. Floor plans of the first four levels are provided - the 400 plan is representative of levels 4-7. Each file contains a base drawing as well as additional Label content in the Linework layer. This additional content in red has been provided to account for information not directly identifiable from the architectural drawings themselves that would be communicated by a project team over the course of a project.



Sign Layout



#### **Locating Signs**

Create sign layouts in the Bus / Garage Signage layer for each level of the garage, using the Label content in the Linework layer for reference. Some of the basic rules of sign layout are similar to those of Subway, Commuter Rail and Ferry so reviewing Training Video 04: Sign Layout may be helpful. However the sign types are different, so refer to Chapter 15: Garage Rules in the MBTA Signage Guidelines for specific guidelines on Garage signage.



Step 4: SignMaker™



#### Sign Design

Once the garage's sign layout is complete, use SignMaker<sup>™</sup> (Sign Manual Mode - Temporary Database) to design the sign content for each sign in the garage. Review Training Video 05: Sign-Maker<sup>™</sup> and Chapter 06: SignMaker<sup>™</sup> in the *MBTA Signage Guidelines* for guidance on the software interface and output, and the Rules chapter for guidance on sign content. After exporting, return to the Illustrator plan files and place the sign tags to label each sign in the garage.

When the practice station is completed, refer to the Answer files to compare results. Make edits to your sign layout and signs as needed.

#### **Busway**

The files for two practice stations are located within the 05 Busway folder of the Curriculum's Practice Stations. Use these plans as underlays for creating the sign layout.

Creating Pathway Diagrams (Step 2) is typically not required for busways.

Once a practice station has been completed, reference the Answer files, located within the xx Answers folder of the Curriculum's Practice Stations. They include plan files with sign layouts and sign elevations and a separate schedule file. Also refer to the Answer Notes at the end of this segment of the Training Guide.





#### Resources



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**MBTA Digital Signage Manual** Bus Index



**SignMaker™ Application** SignMaker™



**Training Videos** 04 Sign Layout 05 Sign Maker™

#### Step 1: Review Station Documentation



#### **Existing Conditions / Base Drawings**

Begin by reviewing the practice station's Existing Conditions pages on the DSM: Station Overview and Plans + Photographs to understand the basic attributes of the busway: quantity of buses, number of platforms, etc. Then review the plans, which contain a base drawing as well as additional Berth content in the Linework layer. This additional content in red identifies the location of each bus berth sign and the routes assigned to that berth - typically this content is provided by Bus Operations.



Step 3: Sign Layout



#### **Locating Signs**

Create sign layouts in the Bus / Garage Signage layer, using the Berth content in the Linework layer for reference.

Refer to Chapter 05: Bus System and Chapter 17: Bus Rules for specific guidelines on Busway signage.



Step 4: SignMaker™



#### Sign Design

Once a practice station's sign layout is complete, use SignMaker<sup>™</sup> (Sign Manual Mode - Temporary Database) to design the sign content for each bus berth. Review Chapter 06: SignMaker<sup>™</sup> in the *MBTA Signage Guidelines* for guidance on the software interface and output, and refer to Chapter 05: Bus System and Chapter 17: Bus Rules for specific guidelines on Busway signage. After exporting, return to the Illustrator plan files and place the sign tags to label each sign in the busway.

When the practice station is completed, refer to the Answer Drawings to compare results. Make edits to your sign layout and signs as needed.

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Curriculum

#### Tactile/Braille

Each Tactile/Braille practice station, located within the relevant transit mode folder of the Curriculum's Practice Stations, contains diagrammatic plans of each level of the station. Use these plans as underlays for creating sign layouts (Directional and Informational signs only - no Room IDs).

Creating Pathway Diagrams (Step 2) is not required, but it may be helpful to reference the station's Pathway Diagrams page on the DSM to fully understand the station's circulation.

Once a practice station has been completed, reference the Answer files, located within the xx Answers folder of the Curriculum's Practice Stations. They include plan files with sign layouts and sign elevations and a separate schedule file. Also refer to the Answer Notes at the end of this segment of the Training Guide. It is recommended to look at the Answers after each individual station, rather than after completing multiple stations, so that common mistakes are caught early on.

#### Resources



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**SignMaker™ Application** SignMaker™ TB



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#### Step 1: **Review Station Documentation**



#### **Existing Conditions / Visual Wayfinding**

Begin by reviewing the practice station's Existing Conditions and Wayfinding Signage pages on the DSM to understand the basic attributes of the station, as well as visual wayfinding signage design. The documentation on the DSM is focused on visual wayfinding signage, but is an important resource when creating the Tactile/Braille signage as there is often a correlation between sign content on adjacent signs.

Also review the plan files, which contain a base drawing in the Linework layer.



Sign Layout



#### **Locating Signs**

Create sign layouts in the Tactile/Braille Signage layer for each practice station. Review Training Video 04: Sign Layout for more step-by-step guidance on locating signs. Refer to Chapter 4: Wayfinding System and Chapter 16: Tactile/Braille Rules in the MBTA Signage Guidelines for specific guidelines on Tactile/Braille signage.

Only Directional (and Informational) signs are included for the purposes of these practice stations. Creating the sign layout and content of Room IDs is typically much simpler than Directional signs, and content is often provided by others on the project team.



Step 4: SignMaker™

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#### Sign Design

Once a practice station's sign layout is complete, use SignMaker<sup>™</sup> TB (Temporary Database) to design the sign content for each sign in the station. Record sign quantities in the schedule. Review Training Video 06: SignMaker<sup>™</sup> TB and Chapter 06: SignMaker<sup>™</sup> in the *MBTA Signage Guidelines* for guidance on the software interface and output, and Chapter 16: Tactile/Braille Rules for guidance on sign content. After exporting, return to the Illustrator plan files and place the sign tags to label each sign in the station.

As each station is completed, refer to the Answer files to compare results. Make edits to your sign layout and signs as needed.

## **Answer Notes**

#### **Visual Wayfinding: Subway**

Pathway diagrams, sign layouts, sign elevations and sign schedules can be found on the DSM.

General Notes: These sign layouts reflect only a schematic level of design. Evenly spaced platform surface signs with map panels generally assumed. The sizes of signs reusing existing frames or locations are approximate - they would need to be field verified and sizes adjusted in the implementation phase.

Station wayfinding is primarily for the use of customers unfamiliar with a station. Simple signs indicating the primary path to the key destinations are clearer and more useful to customers than complex signs indicating every possible path and available destination.

At stations with multiple transit modes only the Subway platforms and shared entrances and lobbies are signed in the Subway section of the DSM. To view the Commuter Rail portions of the station, select the station from the DSM's Commuter Rail Index.

#### 01\_072 Pleasant Street

000: As a surface station it requires only the minimum single entering sign on each platform, rather than a set of signs per train car. These platform Station IDs are located by the crosswalk, where pedestrians will be entering and exiting the platform. At surface stations the back sides

of platform signs (facing the street) follow the rules for platforms and therefore do not use color ovals. Entering maps face the platform, backed by blank panels facing the street.

#### 02\_047 Green Street

000: This is a fairly standard, simple, single line station lobby. Accessible entrance Station IDs are located over each lobby door, indicating that the station is accessible. An overhead entering sign is located over the pay gates, confirming the available trains. Both the paid and unpaid lobbies have one entering and one exiting surface sign per space. Their locations are based on existing sign locations and available wall space for new sign frames. Overhead exiting signs over the pay gate and exit doors direct to available exit destinations.

100: On center platforms an overhead entering sign identifies the destinations of the tracks at the bottom of the stairs. One platform Station ID per train car is located across the tracks on the side walls. In the center of the platform entering and exiting surface signs alternate, each with the relevant entering or exiting maps. At this station all exits from the platform are through the lobby, so the exiting signs direct to the lobby rather than listing individual exit destinations.

#### 03\_005 Central

000: Ambulatory entrance Station IDs are located

over each stair. The signs above the elevators indicate the available destinations as well, since they are exterior elevators that act as accessible entrances to the station.

100: Overhead entering signs are not required over the pay gates at stations like Central that have very small, confined lobby spaces with surface and other overhead entering signage clearly indicating the entering destination. Entering and exiting surface signs are located as space allows in these small unpaid lobbies. On side platform stations one platform Station ID per train car is located between the tracks. Along the platform walls entering and exiting surface signs alternate, each with the relevant entering or exiting maps. Overhead exiting signs are located at each exit from the platform, perpendicular to the path of travel to increase visibility along the platform. This station has no central lobby space, so exiting signs direct to the destinations available at each exit.

#### 04\_012 Andrew

000: Accessible entrance Station IDs are located at the pedestrian entrances to the covered busway. Overhead entering signs direct down the stairs and to the elevator, while surface entering signs confirm the station name and available trains. Overhead exiting signs at the tops of the stairs direct to exit destinations and indicate the location of the busway. Centrally located surface oduction

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entering and exiting signs provide the relevant maps.

100: The paid and unpaid lobbies each have surface entering and exiting signs with relevant maps. An overhead entering sign over the pay gates confirms the entering path to all trains. In the paid lobby overhead entering signs split the paths to the platforms, indicating the ambulatory paths via stairs and accessible paths to the relevant elevators. The signs above the elevators include color ovals since there are two elevators leading to separate platforms. Overhead exiting signs indicate the exit destinations available from the lobby exit.

200: The platform follows the typical side platform rules. Most of the exits from the platform are through the lobby, so the exiting signs direct to the lobby rather than listing individual exit destinations. The elevator on each platform leads to all exit destinations, so the exiting signs can simply direct to the elevator. One exit on the Ashmont / Braintree platform bypasses the lobby, exiting directly to the busway.

#### 05\_032 Malden Center

000: A split path entrance Station ID is located at one entrance to the station, indicating the direction of the accessible path. The elevator icon is included because the paths to the platforms include elevators in addition to the entrance ramp. Wall space is limited in the lobbies, so surface entering and exiting signs with relevant maps are provided only in the unpaid lobby (maps should be provided in both lobby spaces to the extent practical). Overhead entering signs over the stairs to the Commuter Rail and over the pay gates indicate the paths to each platform. The sign above the Commuter Rail elevator includes the Commuter Rail oval since there are multiple elevators on the lobby level leading to separate platforms. A color oval is not necessary at the Orange Line elevator because the destination of the elevator is clearly indicated with adjacent wayfinding signs. Note that this is a single line Subway station with Commuter Rail in terms of the use of color.

100: The Subway platform follows the typical center platform rules. At this station all exits from the platform are through the lobby, so the exiting signs direct to the lobby or the elevator rather than listing individual exit destinations. Transfer destinations like the Commuter Rail are also included on exit signs.

#### 06\_052 Suffolk Downs

000: This is a crossover station with pay gates only on the Bowdoin platform side, meaning that customers approaching from the Wonderland side must be directed over the crossover and through the pay gates before the path splits between the two platforms. The platforms follow typical side platform rules. Exiting destinations available from the same exit or side of the station should be grouped together to provide a smooth transition to splitting the path (see signs D001, B001 and B003 for an example).

100: Crossover stations often require signs with both entering and exiting content because customers are following the same crossover path to both entering and exiting destinations on the opposite side of the tracks. Signs with both exiting and transfer destinations are considered exiting signs in terms of sign type. Signs are provided at decision points along the crossover paths and confirm the entering and exiting destinations.

#### 07\_041 Back Bay

000: Only the lobby space shared by the Subway and Commuter Rail/Amtrak is signed, as the focus is on the Subway here. This does involve some investigation into the Commuter Rail/Amtrak portion of the station, which uses track numbers rather than train directions to identify platforms. The Commuter Rail and Amtrak ovals are used to direct to the Commuter Rail/Amtrak lobby on the lower left of the plan, where ticket and track information are provided. Overhead entering and exiting signs are provided at decision points, including over the pay gates to the Orange Line. Surface entering and exiting signs with relevant maps are located in both the paid and unpaid lobby spaces. Note that this is a single line Subway station with Commuter Rail and Amtrak in terms of the use of color.

100: The Subway platform follows typical center platform rules. The primary exit from the platform is through the lobby, so exiting signs direct to the lobby and Commuter Rail and Amtrak transfer destinations. Secondary exit stairs at either end of the platform are only signed to at the ends, since all exit destinations are available through the lobby exit. An overhead elevator split sign is used over the central stairs, indicating the direction of the elevator since views to it are blocked by the staircase.

#### 08\_009 Downtown Crossing

000: Ambulatory entrance Station IDs indicate which lines and destinations are available at each entrance stair. Only the platforms reached on a direct path from that entrance are indicated. The signs above the elevators indicate the available destinations as well, since only certain platforms are accessible from each elevator. Note that this is a multiline Subway station in terms of use of color.

100: The Orange Line platforms, although offset, follow the typical side platform rules. To differentiate between lobbies, the long lobby space on the Oak Grove platform side is referred to as the "Concourse", while the lobby space on the Forest Hills side is referred to as the "Lobby." On platforms transfer destinations such as the

Silver Line are only directed to when they can be reached on a direct path. For example, the Silver Line is reachable from the Forest Hills platform lobby exit, but would require wayfinding on the street, which is not within the scope of station wayfinding, so the Silver Line is only signed to at the direct exit at the end of the Forest Hills platform. The accessible path to the Red Line is a similar situation - there is no direct accessible path to the Red Line from the Forest Hills platform, so only the ambulatory path is included on signs. Due to the deficiencies in the accessible paths of this station, particular attention must be paid to the accessibility of exit and transfer destinations. Destinations should not be included in an accessible path if they are not accessible - this may require the use of multiple wayfinding bands or alternating signs to indicate both ambulatory and accessible paths in the same direction. The passage to the Green Line at Park Street is considered a secondary exit and is only directed to from the Forest Hills platform lobby.

200: The Red Line platforms follow the typical side platform rules. The primary exit from the platform is through the Concourse, so exiting signs direct to the Concourse and the Orange Line. Direct exits to the street are considered secondary exits and are only signed to at the exits.

#### 09\_010 South Station

000: Ambulatory entrance Station IDs indicate which lines and destinations are available at each entrance stair. The signs above the elevators indicate the available destinations as well, since they are exterior elevators that act as accessible entrances to the station. The exterior SL4 stop is treated as a separate station, but is included as a transfer destinations on exiting signage within the station. Note that this is a multiline Subway station in terms of use of color.

100: The paid lobby space includes a central area where multiple ambulatory and accessible paths cross. Rather than signing each decision point, spaces like these are better served by locating signs at the edges, over each stair, elevator and pay gate, so that customers can stand in the central area and see all of the available paths. There are multiple elevators on this level so the signs above the elevators must indicate the destination unless it is clearly indicated on adjacent wayfinding signs.

200: The Silver Line platforms follow the typical side platform rules. This is a terminal station for the SL1/SL2 so one platform is used for exiting only and the other for entering and transfer only. All exit destinations are reached though the lobby, but the number of transfer destinations at this station make the exiting signs complex.

300: The Red Line platforms also follow the typical side platform rules.

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#### **Visual Wayfinding: Commuter Rail**

Pathway diagrams, sign layouts, sign elevations and sign schedules can be found on the DSM.

General Notes: All freestanding signs are double sided - the back sides of signs that will not be seen from the station entering path will have blank signs and are therefore left off of these schematic sign layouts.

Parking entry signs are only provided at this schematic level of design if station parking is identified as CR only by existing signage. Parking signage would be addressed at other stations during Implemention.

Exiting destination text on platform surface signs is typically 2", unless there are surface crossovers allowing access across the tracks, in which case 3" text may be used to allow customers to see the available exit destinations from further away.

At stations with multiple transit modes only the Commuter Rail platforms and Commuter Railonly entrances and lobbies are signed in the Commuter Rail section of the DSM. To view the Subway platforms and shared portions of the station, select the station from the DSM's Subway Index.

#### 01\_133 North Wilmington

000: This station has a single side platform with a combined track. The platform is less than 3 train cars long, so it needs extra Station IDs for a minimum of 3 signs on either side of the tracks. Cross-track and platform Station IDs indicate the directions of the trains. The backs of the platform Station IDs (facing the surface parking) are Entrance IDs. Additional Station IDs indicating just the station name are only used where they will just be seen from the train and won't be seen from the platform or the station entering path.

#### 02\_206 Nantasket Junction

000: This station has a single side platform with a combined track. The platform is 9 train cars long so it needs 1 entering or exiting sign per train car on either side of the tracks over the entire length of the platform. Cross-track and platform Station IDs indicate the directions of the trains. The backs of the platform Station IDs (facing the surface parking) are Entrance IDs. The exiting path from the platform is simple so exiting signs are only provided as necessary to confirm the directions of the exit destinations. The CR map and display case are located near the primary accessible entrance to the platform, under the canopy.

#### 03\_256 Hersey

000: Parking entry signs label the 2 parking lots. If the lots are not named on the existing signage then a simple naming convention should be used to differentiate between separate lots - in this case cardinal directions are used, in other cases street names or numbers may be used.

100: This station has a mini-high as the boarding point. The platform follows the typical single side platform with combined track rules, with the addition of mini-high signage. Platform Station IDs direct to the mini-high. At the minihigh the overhead Board Trains Here sign marks the boarding point, and the mini-high platform Station IDs confirm the entering information on the raised platform. CR maps and display cases are located on the mini-high, as well as at the other end of the platform near the directed entry points. Exiting signs indicate the accessible and ambulatory paths to the parking lots.

#### 04\_225 Morton Street

000: This station has facing side platforms with single direction tracks. The platforms are 9 train cars long so follow typical frequency and platform Station ID rules, but are offset by 2 train car lengths. Review the *Offset Platforms* section of Chapter 13: Commuter Rail Rules in the guidelines for guidance on cross-track Station IDs at offset platforms. CR maps and display cases are located near the primary entrances to the platforms, under the canopies.

100: Overhead platform-split path Entrance IDs are located over the stair or ramp to each platform. They direct to the accessible entrance to each platform since the platforms are not easily visible from the overpass.

#### 05\_229 Ruggles

000: The Commuter Rail platform follows typical center platform with single direction track rules. Commuter Rail stations that share facilities with the Subway are often more like Subway stations in terms of the layout of signs, as opposed to surface stations which typically do not have structure from which to support overhead signs, etc. The exiting signage follows the same rules as the Subway in terms of the exiting and transfer destinations.

100: Only the Commuter Rail lobby is included in the Commuter Rail portion of the DSM. Reference Ruggles from the Subway Index for the pathway diagrams and sign layout of the shared portions of the lobby level. Note that this is a single line Subway station with Commuter Rail in terms of the use of color.

#### 06\_273 Grafton

000: Platform-split path Entrance IDs direct to the ambulatory and accessible entrances to the platforms as there is a non-typical layout of entrances.

100: The platforms follow typical rules for facing side platforms with offsets, single direction tracks, and mini-highs. The offset cross-track Station ID facing the Outbound mini-high is a blank Station ID to ensure that customers on the mini-high are not confused by the sign. CR maps and display cases are located on each mini-high and at key entrances to the platforms.

#### 07\_232 Canton Junction

000: This station is a complex crossover station with center platforms, facing side platforms, single side platforms, offsets and mini-highs. Review the *Entering Destinations* section of Chapter 9: Commuter Rail Stations in the guidelines for guidance on entering destinations at stations with multiple lines and platforms. CR maps and display cases are located on each mini-high and at key entrances to the platforms. Parking entry signs label the two parking lots with cardinal direction names to distinguish the lots on the exiting signage. When the exiting path to the two lots are combined the exit destination is simply "Parking".

100: Crossover stations often require signs with both entering and exiting content because customers are following the same crossover path to both entering and exiting destinations on the opposite side of the tracks. Signs with both exiting and transfer destinations are considered exiting signs in terms of sign type. Entering and transfer paths should be indicated as separate paths on multiple wayfinding bands if possible, even if the paths are combined at that point. Signs are provided at decision points along the crossover path and confirm the entering and exiting destinations.

#### 08\_228 Back Bay

000: Only the Commuter Rail/Amtrak lobby is included in the Commuter Rail portion of the DSM. Reference Back Bay from the Subway Index for the pathway diagrams and sign layout of the shared portions of the lobby level. This station uses track numbers rather than train directions to identify platforms. Note that this is a single line Subway station with Commuter Rail and Amtrak in terms of the use of color, but the purple Commuter Rail color band is used within the Commuter Rail/Amtrak-only portion of the lobby.

100: The Commuter Rail/Amtrak platforms follow typical center and facing side platform with single direction track rules, but use track number Station IDs. As at Ruggles, Commuter Rail Stations that share facilities with the Subway are often more like Subway stations in terms of the layout of signs. The exiting signage follows the same rules as the Subway in terms of the exiting and transfer destinations. CR maps and display cases are located in central locations on each platform. oduction l

l: Overview

#### **Visual Wayfinding: Ferry**

Pathway diagrams, sign layouts, sign elevations and sign schedules can be found on the DSM.

General Notes: Overhead signage is typically only used when the station has the canopy structure to support the signs. Otherwise surface signage is typically sufficient.

#### 01\_006 Logan Airport

000: As a simple, single side dock this station requires only the minimum single Platform ID on the dock. A split path entrance Station ID with Ferry map and display case are located at the entrance, along with an exiting sign.

#### 02\_001 Rowes Wharf

000: This station has a center dock so a doublesided Platform ID is located at the center of the dock. Surface entering and exiting signs with relevant maps and display cases are provided at the entrance. Overhead split path signs direct to the ambulatory and accessible paths to enter and exit from the dock.

#### Visual Wayfinding: Garage

Sign layout, sign elevations and sign schedules for this garage can be found in the PDF file located in the "xx Answers" folder. These construction documents reflect an implementation level of design, so include additional elements such as mounting elevations and frames and details for reference only.

General Notes: New signage for both Wonderland's station and garage were designed and implemented at the same time, so in lobby spaces shared by the two facilities (indicated in grey on the base drawings) directional pedestrian signage is provided by the station wayfinding. Reference Wonderland's Station Updates from the Subway Index on the DSM for the station's signage. At a station without new wayfinding signage the garage's directional pedestrian signage would be included in the garage signage.

#### 01\_049 Wonderland

000: Entrance IDs are located at both the vehicular and bus entrances. Clearance Bars are provided where clearance heights are indicated on the base drawings. On this level Level IDs are just provided at the stairwell and elevator lobby as it is clearly the ground level. Directional (Veh) signs direct to the passenger drop off area and to the exits. Informational (Veh) signs identify the passenger drop off area. Standard signs are located at pedestrian crossings and

other locations where traffic control needs are indicated on the base drawings. Informational (Ped) signs notify and remind customers about the Pay on Foot system at the entry gates and within the elevator lobby.

200: Level IDs are provided at regular intervals throughout the garage (larger size for vehicular scale) as well as at stairwells and within the elevator lobby (smaller size for pedestrian scale). Directional (Veh) signs direct vehicles through the garage. Informational (Veh) signs remind customers about the Pay on Foot system at regular intervals throughout the garage. Standard No Parking signs are located where needed to reinforce the floor striping. Standard accessible parking signs are located at each accessible and accessible van parking spot. Informational (Ped) signs remind customers about the Pay on Foot system within the elevator lobby.

300: Level 3 is similar to Level 2. Clearance heights are reduced on the upper levels so additional Clearance Bars are required.

400+: The upper levels have very similar layouts except for the roof level, which has reduced signage needs.

#### **Visual Wayfinding: Busway**

Sign layout, sign elevations and sign schedules for these stations can be found in the PDF files located in the "xx Answers" folder.

General Notes: As the locations, content and preferred mounting are typically provided by Bus Operations, signing a busway primarily involves selecting an identity type, orientation and sign size that works for all signs at the station.

#### 01\_043 Ruggles

000: Double-sided bus berth signs are provided at the locations indicated on the base drawing. Location IDs and vertical orientation are used for all signs. Typically all signs should be the same size, but in cases like this where there are signs with 1, 2 and 3 routes, it may make more sense to select a size that works for the majority of the signs and let the outliers (in this case the 3 route signs) use a different size.

#### 02\_030 Mattapan

000: At some station busways there are multiple separate platforms with different mounting conditions. The identity type and orientation must always be the same for all signs at a station. On separate platforms with different mounting methods the sign size is more flexible, so one platform uses 1 route signs, while the other uses 2 route signs.

#### Tactile/Braille: Subway

Sign layouts, sign elevations and sign schedules for these stations can be found in the PDF files located in the "xx Answers" folder.

General Notes: Elevators already feature Tactile/ Braille per code, therefore Tactile/Braille signs are only located at elevators in rare cases at complex stations where a more detailed elevator directory is desired.

Room IDs are not included in these practice layouts. Only doors on the entering or exiting path are signed. The exceptions to this are emergency exit and exit only doors, which are shown with Directional exiting signs but could also be labelled with Room ID signs.

At stations with multiple transit modes only the Subway platforms and shared entrances and lobbies are included in answers files.

#### 01\_006 Kendall MIT

000: Directional entering signs are located at each entrance to the station - both entrance thresholds and entrance stairs - and indicate the destinations available through that entrance. The signs at the top of stairs indicate the direction of the vertical circulation mode ("stairs down to") in addition to the destination. No exiting signs are required at this level because there are no doors along the exit routes.

100: The CAA on each platform contains both

a Directional entering sign (CAA Platform ID assembly) and an Informational CAA sign. No exiting signs are required at this level because there are no doors along the exit routes.

#### 02\_057 Aquarium

000: Each of the three entrances has a Directional entering sign directing to all trains. The signs at the two headhouses state the vertical circulation mode ("stairs to") to indicate that the entrance is inaccessible. At the entrance that is a stair the sign indicates the direction ("stairs down to") because it is located directly at the top of the stair. The signs at the headhouse exit doors direct to the "exit" first, followed by the same destinations as the visual wayfinding above. At the emergency exit door the sign indicates that it is not an entrance.

100: At the emergency exit door the sign indicates that it is for emergency exits only.

200: The CAA on each platform contains both a Directional entering sign (CAA Platform ID assembly) and an Informational CAA sign. No exiting signs are required at this level because there are no doors along the exit routes.

#### 03\_032 Malden Center

000: Each of the five sets of entrance doors has a sign identifying all transit available within the station: Orange Line and Commuter Rail. Sign troduction I: Overview

T002 states "stairs to" to make clear that those entrances do not lead to an accessible path. Directional exiting signs are placed at each exit door with "exit" stated first, followed by the exiting destinations and text equivalents of the visual icons from the corresponding visual wayfinding signs. Sign T006 states "ramp to" to indicate that the door leads to an accessible path. At the exit only door the sign states "exit only - do not enter."

100: The CAA on each platform contains both a Directional entering sign (CAA Platform ID assembly) and an Informational CAA sign. No exiting signs are required at this level because there are no doors along the exit routes.

See the Commuter Rail section for Malden Center's Commuter Rail platform answers.

#### 04\_003 Porter

000: The two Commuter Rail-only entrances signs indicate that they are ambulatory only. The instance directly at the top of a stair indicates the stair direction, "stairs down to", while the other sign is placed at the threshold to the entrance, so only states "stairs to" to make clear that the entrance does not lead to an accessible path. The enclosed head house has an entrance and exit sign at each of its two sets of doors.

200: The doors at the stairs leading up to the Commuter Rail each have a sign. One instance leads also to an exit. 300: The CAA on this platform contains both a Directional entering sign (CAA Platform ID assembly) and an Informational CAA sign. At the emergency exit door the sign indicates that it is for emergency exits only.

400: The same signs are present on this platform as well.

#### 05\_036 North Station

000: Each set of entrance doors has a sign identifying the transit available within the station: all trains for the Orange Line and Green Line. Entrances that lead exclusively to stairs state "stairs to", while accessible entrances just state the destinations. At the exit only doors the outsides of the doors are labeled "exit only - do not enter." Each set of exit doors states "exit" followed by the exit destinations and text equivalents of the visual icons from the corresponding visual wayfinding signs.

100: The CAA on the platform contains both a Directional entering sign (CAA Platform ID assembly) and an Informational CAA sign. No exiting signs are required at this level because there are no doors along the exit routes.

200: The same signs are present on each platform on this level as well.

#### Tactile / Braille: Commuter Rail

Sign layouts, sign elevations and sign schedules for these stations can be found in the PDF files located in the "xx Answers" folder.

General Notes: Elevators already feature Tactile/ Braille per code, therefore Tactile/Braille signs are only located at elevators in rare cases at complex stations where a more detailed elevator directory is desired.

Room IDs are not included in these practice layouts. Only doors on the entering or exiting path are signed. The exceptions to this are emergency exit and exit only doors, which are shown with Directional exiting signs but could also be labelled with Room ID signs.

At stations with multiple transit modes only the Commuter Rail platforms are included in answers files. Shared entrances and lobbies are included in the Subway answers.

At surface stations with open path entry and exit, exit signs are typically not needed.

#### 01\_233 Canton Center

000: An entrance sign is located centrally within the open entry zone, beneath the canopy, to the right of a map panel, and facing the direction of approach. Each end of the platform has a Directional entering sign identifying the platform, with the sign placed at the center of the mini-high at that end. A third platform sign is placed centrally beneath the canopy, to the right of a map panel, and at an accessible juncture in circulation.

#### 02\_273 Grafton

000: Each entrance to the platforms has a sign identifying which platform(s) the entrance leads to. Sign T001 is directly at the top of a stair and therefore states "stairs down to." The other entrances have both ramps and stairs and do not specify the vertical circulation mode. (Note: signs could state "stairs/ramp to" if deemed helpful to customers).

100: Each end of each platform has a Directional entering sign identifying the platform, with the signs placed at the center of the mini-high at those ends. A third platform sign is placed centrally on each platform near a juncture in circulation and to the right of a map panel.

#### 03\_126 Malden Center

000: See the Subway section for Malden Center's shared entrance/lobby answers.

100: A Directional entering sign identifying the available trains is placed at the set of doors along the entering path. Each end of the platform has a Directional entering sign identifying the platform. A third platform sign is placed centrally near a juncture in circulation. Each entering platform sign is placed to the right of a map panel. A Directional exiting sign at the exit doors states "exit" first, followed by the exiting destinations and text equivalents of the visual icons from the corresponding visual wayfinding signs. At the emergency exit doors the sign states "emergency exit only."

#### 04\_230 Hyde Park

000: This station has both open path and directed path entry. An entrance sign is located within the open zone of entry to the Inbound platform, beneath the canopy, to the right of a map panel, and facing the direction of approach. Each end of each platform has a Directional entering sign identifying the platform, with the signs placed at the center of the mini-high at those ends. A third platform sign is placed centrally at an accessible juncture in circulation, and beneath a canopy on the Inbound platform. Each entering platform sign is placed to the right of a map panel.

100: Each stair and ramp acting as an entrance to the platforms has a Directional entering sign at its top, identifying which platform the entrance leads to. Introduction

I: Overview

II: Practice Module

# Segment III: End-to-End Process

The "End-to-End Process" consists of those steps necessary to implement the new signage system at a station, from the initial coordination meeting through the construction phase. It involves both MBTA Design and Design Consultants, and requires careful coordination in order to successfully implement the signage system at every station.



# Name of the state



#### **1: Designer Roles**

Begin by reading the *MBTA Signage System Overview for Design Consultants* (accessed through the Resources page of the DSM) to gain an understanding of the basic roles of each party.

#### 2: End-to-End Process Steps

Review the detailed End-to-End Process steps in Chapter 19: Endto-End Process of the *MBTA Signage Guidelines* to understand how the tasks completed in Segment II of the training fit into the implementation process and what other tasks are involved.

#### 3: Templates

Review the templates used in the End-to-End Process in Chapter 19: End-to-End Process of the *MBTA Signage Guidelines* and then explore the templates themselves (accessed through the Resources page of the DSM).

#### 4: Pilot Stations

Review the construction documents for the five pilot stations (accessed through each station's Station Updates page on the DSM): Subway stations Science Park/West End, Wonderland, Government Center, and Orient Heights; Commuter Rail station South Weymouth.

Resources



MBTA Signage Guidelines
19 End-to-End Process



#### **MBTA Digital Signage Manual**

Resources: - MBTA Signage System Overview for Design Consultants - Templates Subway, Commuter Rail stations: - Station Updates





BASE DRAWINGS

DIGITAL SIGNAGE MANUAL



SITE VISIT



SIGNMAKER™



3D MODELING



COORDINATION / REFINEMENT

SIGN LAYOUT



MOUNTING



CONSTRUCTION DOCUMENTS



CONSTRUCTION PHASE



#### **Plan Template**

The plan template works similarly to the diagrammatic plans provided for each practice station in Segment II. The Illustrator file has instructions and templated drawing elements on the relevant layers. The base drawings will be created as part of the End-to-End Process steps.

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