Amendment Notice: Digital Signs

This bulletin applies to and amends the following document:

- Metrolinx GO Station Architecture Design Standard (DS-04)

The bulletin incorporates architectural requirements for digital signs from the GO DRM that were reviewed and approved. This bulletin also incorporates additional digital signage housing requirements for reducing ingress of moisture.

Amendments to the Metrolinx GO Station Architecture Design Standard are provided below:

Change: (Red for modified or added clauses, ~~strikeouts~~ for removed clauses)

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2.10.1 FIXTURE AND FURNISHING

Fixtures and furnishings provide information, convenience, and comfort to GO passengers. They shall be located with clear visibility to encourage intuitive wayfinding, passenger safety, and passive surveillance of adjacent environments.

Customer Experience

Fixtures and furnishings shall be designed to facilitate convenient access to services and information along the passenger's journey

Functional Design Requirements

Detailed specification sheets for Fixtures and Furnishings can be found in the GO standard suite of performance specifications.

Fixtures and furnishings shall be provided in accordance with the following requirements and locations identified in Table 17 and 18.

Fixtures and Furnishing shall be designed to:

a) Conform to the Universal Design Standard

b) Ensure clearance is provided for barrier-free paths and approach;

c) Provide queuing areas that will not interfere with pedestrian/passenger traffic;

d) Ensure that each seating area provides a clear space for side approach and side transfer to a seat as per

Universal Design Standard;

e) Be clustered where possible to clearly identify points of passenger service, information and efficiently utilize station infrastructure;

f) Provide installation tolerances and operational requirements to facilitate ease of ongoing site operations and maintenance;

g) Ensure longevity using robust design and durable materials;

h) Fare handling devices shall be placed to avoid work within the Dynamic Clearance Envelope on/or beside Railway Track; and

i) Material performance and durability shall conform with CSA-S478 "Guideline on Durability in Buildings"

Table 17: Fixtures and Furnishings locations

Fixture or Furnishing	Location:
Accessible Seating	• Shall be provided as per the Universal Design Standard • Seating areas reserved for customers who use wheelchairs shall be provided with direct line of sight to amenities such as bus loop and PUDO and free from waste receptacles or fare devices.
Automated External Defibrillator	• Station Building interior (Waiting Area)
Benches	• Rail Platform, in Shelters - 1 grouping for every two rail cars • Rail Platform, standalone - 1 grouping for every two rail cars • Bus Platform, in Shelters - 1 grouping for every two bus bays • Bus Platform, standalone - 1 grouping for every two bus bays • Station Building interior (Waiting Area) • Transit Plaza (integrated with Raised Planters) • Park and Ride lots - in shelters • Refer GO Standard Cut sheet for bench selection and order form
Shelters	• Rail Platform - 1 for every two rail cars • Bus Platform - 1 for every two bus bays • Park and Ride lots • Remote/PUDO • On Street • Refer to GO Standard Drawings and Specifications
Two-way Intercom	• as per DRM
Charging Stations (cellphone, laptop)	• Along the wall adjacent to seating in Station Building interior (Waiting Area or Platform Access Area)
Waste Receptacles	• Station Building interior (Waiting area) • Platform Access areas • Bus Platform • Rail Platform • Park and Ride lots • Washrooms • Service Counter/Station Ambassador Office

Wi-Fi	• Station building interior • Rail platform
Vending Machines	• To be determined by project scope
Digital Signs	• Bus Platforms Entrances • Rail Platform Entrances • Station Buildings interior • Bus Platforms • Rail Platforms • Refer to DRM and Wayfinding Design Standard
Infotainment/CP 24	• Station Building Interior (Waiting Area)
Network Clock	• Station Building Interior (Station Ambassador Office)
Newspaper boxes	• Bus Platform • Station Building exterior
Static Sign Display Case	• As per Sign Implementation Manual • Station Building exterior • Park and Ride lots • Remote/Ancillary parking lots • Refer to DRM and Wayfinding Design Standard
PRESTO–Station Fare Transaction Processor (SFTP)	• As per project scope • Platform Access locations • Bus Terminal locations require SPOSs only (TVMs/AVMs)
Presto–Add Value Machine (AVM)	• Self-serve Hub • Platform Access Locations (to be verified by project scope)

Ticket Vending Machine (TVM)	• Self-serve Hub • Platform Access Module (outside of Station Building) • Bus Platform • Parking Structure • Park and Ride lot
Bollards	• Station Site exterior • Maintenance Facilities • Parking Garages • Service Buildings
Garbage Enclosure	• Station/Terminal Site exterior • Bus Maintenance Facilities
Salt Bin	• Rail Platform • Bus Platform
Advertising Boards (Digital/ Static)	• Station Ambassador Module, interior and exterior (Platform-facing elevation only). • Pedestrian Tunnels and Bridges • Bike Storage Module

Table 18: Fixtures and Furnishings Requirements

Fixture or Furnishing	Requirements

Digital Signs at Line Stations, Terminals and Carpool Lots	**General Design Requirements**
	
	• Where existing site conditions prevent a recessed installation, consult with Metrolinx for direction and approval. Ensure recess in wall for digital sign is 10% larger than overall current monitor size to accommodate for flexibility in future monitor sizes. Provide a filler panel to enclose the niche opening. All placements and orientations shall be coordinated with Metrolinx Wayfinding Design Standard (DS-03 Part 1), under Planning Guidelines and Metrolinx Universal Design Standard (DS-02) and Metrolinx GO Station Architectural Design Standard (DS-04). The placement of digital signs shall comply with the vertical and horizontal clearance requirements outlined within the GO Design Requirements Manual.
	• Suite of sign types:
	    o Digital Departure Signs (Train and/or Bus);
	    o Digital Platform Specific Signs (Train or Bus);
	    o Digital Parking Counter;
	    o Digital Wayfinding Interactive Kiosks (TBD); and
	    o Infotainment.
	
	Digital Departure Signs (Train and/or Bus):
	
	Placement and Appearance Criteria – Rail or Bus
	• Information and Service Modules to be used for interior and exterior applications, with modules adjusted as required, based on site conditions (in consultation with GO);
	• For exterior applications, integrate within the building envelope where possible and provide weather protection i.e. building canopy;
	• Provide independent weather protection if integration with building canopy is not possible (in consultation with GO);
	• Where an Information or Service Module cannot be established due to site conditions, consider suspending the screen from the underside of the canopy. At remote locations, consider implementing the concept of the suite of shelters;
	• At carpool lots, integrate into the carpool shelter; and
	• Where possible, recess eye-level digital signs into walls to prevent potential injuries. Install such that the

face of the screen is flush with adjacent surfaces. Ensure the entire screen is visible from all angles. Conceal all conduits, connections and infrastructure.

- When wall mounted, the front face shall not project more than 100mm horizontally as per OBC and AODA regulations.

Mounting Heights and Orientation

- 2440mm (8'-0") minimum clearance to underside of monitor to accommodate maintenance and snow clearing equipment.

Location Criteria

- Digital Departure Sign (Train and/or Bus) shall be located at:
  - o Inside Station/Terminal buildings, adjacent to the waiting area; mounted at barrierfree
  - o height as per OBC and AODA regulations;
  - o At Rail Platform Access Points (platform access area, entrances to tunnels,
  - o bridges, parking structures, side platforms – via ramp and/or walk-on);
  - o At Primary Bus Loop Access Point(s); and
  - o At Car Pool Lots shall be located at remote parking lot locations (at GO's
  - o discretion).

Number of Monitors

- Minimum one Digital Departure Sign for Train, plus one for Bus, or one combination Train and Bus Digital Sign (confirm with GO); and
- For larger sites with significant service, confirm the number of monitors for each of the above with GO.

Digital Platform Specific Signs (Train and/or Bus):

Location Criteria - Rail

- Island Platforms: three sets of back-to-back Digital Platform Specific Signs (Train) at each track used by GO;
- Side Platforms: three sets of back-to-back Digital Platform Specific Signs (Train) at each track used by GO;
- Avoid clustering of digital signs in close proximity; Digital Departure Sign locations take precedence over Digital Platform Specific Signs;
- Always locate one set of Digital Platform Specific Signs at the mini platform and the other two equally

spaced;

- Digital Platform Specific Signs should be mounted to the underside of the rail platform canopy; and
- Ensure digital screens are outside of train envelopes.

Placement and Appearance Criteria – Rail

- Pedestrian traffic flow shall not be interrupted by queuing and shall consider a minimum clear width of 1500mm for a queuing line.
- Digital signs on rail platforms shall be installed to meet the design criteria for minimum lateral clearance requirements to major and elevated platform structures from the centerline of track.

Location Criteria - Bus

- At each bus platform at Line Stations, Bus Terminals and Car Pool Lots: one set of back-to-back Digital Platform Specific Signs (Bus);
- Locate digital signs consistently at the driver's end of each platform; and
- Mount Digital Platform Specific Signs from the underside of the canopy, where possible. If not possible, use a standard GO pole. Ensure poles are away from the barrier-free path of travel.

Placement and Appearance Criteria – Bus

- Ensure digital signs are outside of road/vehicular clearance envelope.

Placement & Appearance Criteria

- Follow GO standard drawings for poles and canopy mounts;
- At rail platforms, place static platform numbers on trackside; and
- At bus platforms, place static platform numbers on road side.

Mounting Height and Orientation

- 2440 mm (8'-0") minimum clearance to underside of monitor to accommodate maintenance and snow clearing equipment.

Technical Design Requirements

- The architectural drawings must include design drawings as well as any enclosures or other infrastructure associated with these signs.
- Contractor shall submit Shop drawings for review by Metrolinx (Facilities Architecture and Engineering,

Design Division, Station Services) prior to fabrication.

- Cabling shall be neatly installed and hidden from view to prevent exposure to the elements.

- Refer to I&IT standard, GO Design Requirements Manual and Metrolinx Specifications for monitor types and requirements

- Protective housing shall be provided, especially around independent digital screens not located under a sheltered area to protect from vandalism and reduce the exposure to environmental and weather conditions.
  - o Thermal management and precipitation protection shall be included in the detailing of the housing. Refer to the I&IT standard and GO Design Requirements Manual for requirements when subjected to environmental and weather conditions.

Digital Parking Counter
- Location Criteria - At vehicular entrance(s) to parking structures, visible when approaching by road

- Appearance - The look and feel to be integrated with the GO Station ID Totem suite.