

# Public Transit buses and Trains

## 1.Introduction

This section will discuss specifications to enhance the accessibility and safety of transit facilities for individuals with blindness, including design requirements for platforms, stops and shelters, the need for accessible websites and mobile apps. Building entrance systems are a key component of exterior paths of travel; design requirements for the accessibility and usability of entrances is included, along with technical criteria for various types of doors and entrance glazing systems.

## 2.Transit Stops and Shelters

For the visually impaired, navigating through transit terminals can be challenging. Locating transit stops is a common barrier amongst those impacted by blindness as identification is often largely dependent upon elevated signage. Therefore, guidance tactile warning surface indicators (TWSI) should be placed across sidewalks to assist in locating transit stops.

The layout of a bust stop is of particular importance. Bus stop layouts should be consistent, although the limitations of a location may cause variation to be necessary. Furniture or other amenities (e.g., waste receptacles and newspaper boxes) near transit stop marker poles should be cane detectable, of a visually contrasting colour, texture and located so as not to obstruct accessible use of the stop.

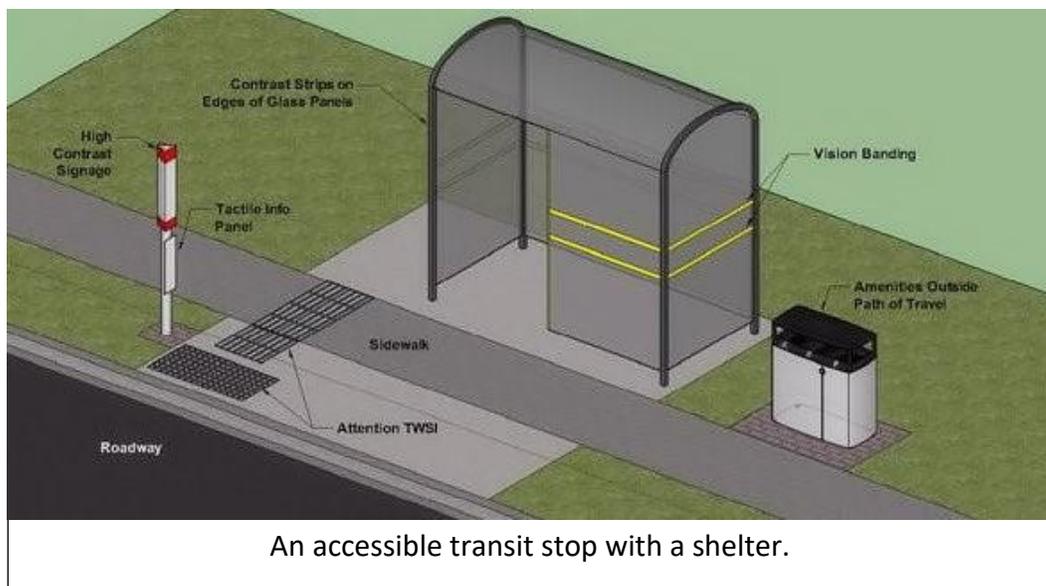
Transit stops should be located on an accessible route and have a marker pole that is identifiable, visually and tactilely, from other facilities and elements along the route. Stops should be identified with visual and tactile signage. In circumstances where neither bus shelters nor benches exist, poles and signage should be differentiated from similar structures. Information from transit authorities should highlight apps applicable to their transit system that assist with tracking transit vehicles or transit stop locations. These mobile aps should be accessible

Pedestrians impacted by blindness should be able to identify a “bus stop” sign by touch or colour. Bus stop signs might have an enlarged section on the pole, perhaps with print schedule information, to help with tactual identification. Stop identification numbers that are posted for real-time transit information should be in large-print, braille and raised numerals, located to be readable and touchable. Transit information such as time to the next transit vehicle arrival or route identification that are presented visually on digital changeable message signs should be made available through audio presentation as well.

Boarding areas at transit stops should be firm, stable, slip resistant and directly connected to an accessible pedestrian pathway. They should be sloped no steeper than 1:50 in any direction, but never steeper than 1:20. When a boarding area is higher than 250 mm above the surface of the road, attention TWSIs should be installed along the unprotected edge.

Where a transit stop is separated from the pedestrian access path by traffic lanes, the crossing route should be accessible and have APSs.

Shelters at transit stops are recommended to provide weather-protection for commuters. Doors into transit shelters should be accessible. Where no door is provided, a clear opening at least 920 mm wide should be provided. Where seating is provided within transit shelters, the seats should be colour contrasted to be identifiable for people impacted by blindness.



Bus shelters are designed to be mostly transparent, to allow bus drivers to see passengers inside them. As with glass doors and panels in other contexts, the edges of all panels should be marked with a colour-contrasting strip and have contrasting stripes at eye level. Glass panels should extend as close to the ground as possible so that panels are cane detectable. Additionally, panels should be consistent in width from top to bottom to prevent overhead or tripping hazards.

Some bus stops include electronic signage at stops and stations. If electronic signage is not executed correctly, it can present a challenge for individuals with blindness. Red LED signs are difficult to read, as are dynamic signs where text scrolls across a screen. Yellow on black is preferred for electronic signage, and if scrolling messages are necessary, they should move slowly enough to be read comfortably.

### 3. Transit Stations and Platforms

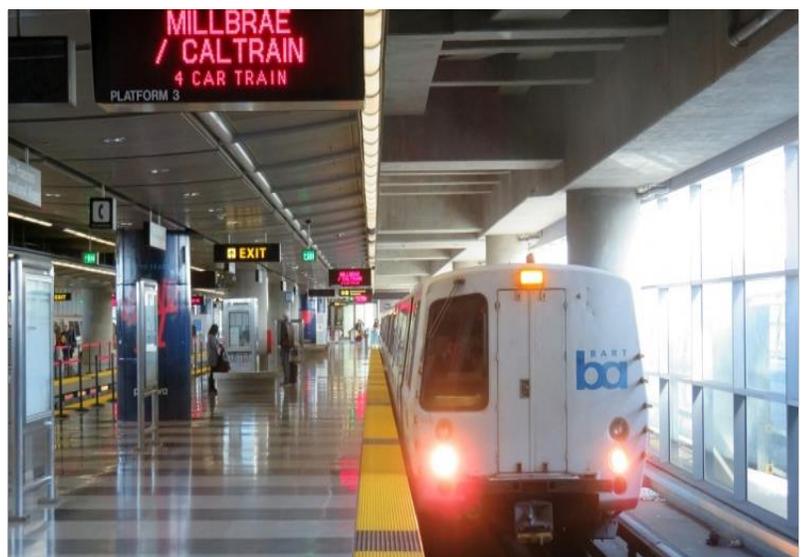
Transit station design incorporates many of the same concepts as for transit stops. Visual information should always be presented in other accessible formats such as audio, braille and tactile characters, where appropriate. For example, audible signs would not be helpful when several buses pull up to a stop at the same time. This would make it difficult for anyone to hear the audible announcements, given the collective noise of the buses. It would also be difficult to identify where the bus being announced has parked. Audible signs can only be helpful in settings where there is no excessive ambient noise, and they can clearly be heard.

Due to the complexities of navigating many stations, the use of tactile paths with guidance TWSIs, audible information systems, tactile signs, tactile maps and other wayfinding support systems is recommended. Elements incorporated into transit stations (e.g., pedestrian routes, stairs, ramps, washrooms, emergency systems, furniture and lighting) should comply with good accessibility practices.

If a station is unstaffed and primarily relies upon ticketing machines, the machines should incorporate clear signage, tactile elements and be in an accessible location. Addition of an audible tone or audible sign will also help with locating the machine or kiosk. Only kiosks that are fully accessible using either large print or text to speech output should be used. These ticketing machines are readily available and have been successfully installed in many cities including Los Angeles and San Francisco. Unfortunately, CNIB is currently unaware of similar installations in Canadian cities.

Platforms in train stations should always be clearly defined with both visual and tactile indicators. Attention TWSIs must be installed in a continuous line along the platform edge, extending the entire length of the platform. [The TWSI tiles should be installed as set out in the section on TWSI found on Clearing our path.](#)

Where entrances to a train or LRT vehicle are known with a high degree of certainty, provide additional visual and tactile indications of where best to wait. Trains are typically operated to stop at predesignated points. If a train is shortened, the distance between the last vehicle on a train and the nearest accessible entrance should be minimized. This will avoid unnecessarily walking along a platform to board a train or to exit a station.



Example of BART. The light rail system in San Francisco. TWSI is installed along the platform edge.

Directional TWSIs can be used to indicate where passengers will line up to enter a train or subway car when it arrives. This will avoid pedestrians impacted by blindness having to navigate quickly should they find themselves between doors or, worse yet, between cars.

Platform edges including, but not limited to, those found on train platforms and ferry docks should be clearly marked with TWSIs. The TWSI should be parallel to the platform edge, extend its full length and have a depth of 600 – 650 mm.