

2.6 Pictograms

Pictograms should be used to the maximum extent possible. Pictograms are useful because they are a form of shorthand for explaining directional or location messages, designed to be suitable for local as well as an international audience. Stand-alone pictograms are used to identify passenger facilities such as information points and toilets. See Annexure B for the list of standard icons. If a representative icon is not available in the list, then the same shall be approved by the DRM/PHOD concerned.

2.7 Text Spacing and Pictogram Sizes

A standard alphabet spacing is to be ensured. The ratio of sizing of various elements in the sign board vis-à-vis the Cap height (denoted by x) is specified in the following graphic. This ratio is to be followed for all the sign boards. As mentioned in Para 2.3, the cap height (x) may be finalised based upon the requirement of viewing distance.



Figure 8: Proportions of Arrow, Pictograms, Text, and Spacing in Signage Boards

2.8 Signages at Complex Stations

Each large station has its own specific layout and requirements and will need a detailed analysis on a case-to-case basis for working out the signage requirements for that particular station. However, while deciding the signage for large station, following may be seen:

- The font, font size, arrows, line spacing, text layout, information hierarchy, pictograms mentioned in this document and other guidelines mentioned above have to be followed.

- The colour coding mentioned in this document may be followed, however, for large stations dealing with different type of trains or traffic segment like MG/BG, Local/Long distance, EMU/Mail Express etc., different colour schemes shall be used for wayfinding of different zones of train type/traffic segment for ease of passengers. In this regard, signages used at CSMT stations (placed at Annexure-D) may be referred for guidance only and a suitable colour-coding scheme shall be judiciously finalised by the DRM taking into consideration the architectural theme of the station. The colour scheme so selected shall be based on recommended Visual Contrast Value of 70% between the background colour and character colour. Accordingly, all the identification and direction board, which is usually white text in Dark blue Background may be changed with suitably selected colour pattern for that Category of Train or Traffic segment.
- While selecting the colour scheme, care shall be taken for People with partial loss of vision who find it difficult to navigate in and around the built environment, especially in unfamiliar settings. While excessive contrast can create problems of glare, inadequate contrast can make it difficult for persons with low vision to discern objects or details in the environment.
- Further, if above segregation is not permanent but dynamic (i.e., changes from time to time or day to day etc.) then true colour LED boards may be used and the colour scheme should be altered dynamically depending upon the requirement.
- The positioning of the signage and placement height of the signage may be decided as per the local condition requirements.
- The front gate elevation board shall distinguishably guide towards the various train type/traffic segment for ease of passengers. Similar directional wayfinding boards shall be used in concourse area to align and separate the users. The ratio of sizing of various elements in the sign board vis-à-vis the Cap height (denoted by x) is specified in the following graphic. colour scheme is only representative. Final colour scheme shall be approved by DRM.



Figure 9: Colour scheme for zoning of different train type/traffic segment at complex station

2.9 Placement Height

- Wall mounted signs are designed for placing at a height clearance 2.10m from the finished floor level.
- Platform Hanging signs are designed for placing at a height clearance 2.5m from the finished floor level.
- FOB hanging signs may be decided as per the height of FOB from station to station, as far as possible height clearance 2.5m from the finished floor level may be achieved.

- External signs, where vehicle entrances are required, are designed for placing at a height clearance 4.0m from the finished floor level. Other pedestrian signs may be placed at 2.5m from bottom of signage to finished floor level.
- When free-standing signage are erected in a level area, a suggested wheelchair-safe waiting zone of 1500mm should be space-proofed, to facilitate a comfortable and safe space without impacting on pedestrian flows.
- Braille and tactile signage should be placed at a height between 900 mm to 1500 mm (ideal location at 1050 mm) above the finished floor level.
- The signage may be placed at 1.2m - 1.6m from bottom of signage to finished floor level so that these boards are visible to persons occupying wheelchairs.

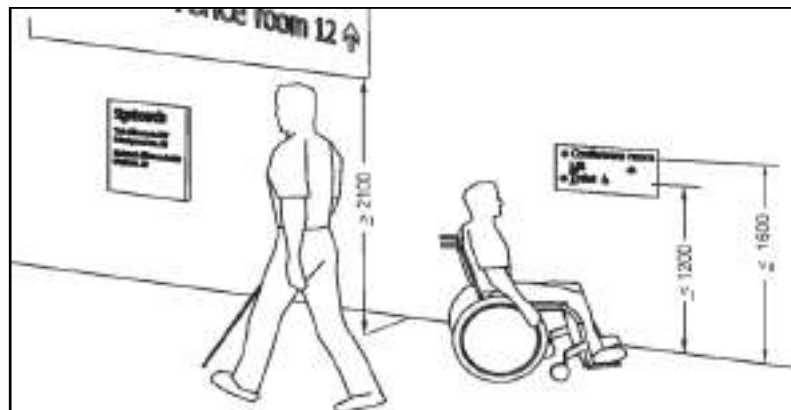


Figure 10: Placement height of signage boards related to Divyangjan

- Concourse Hanging signs are designed for placing at a height clearance 3.3m from the finished floor level duly considering the viewing angle. On step-free routes, it is advisable to provide signage at both a high and low level to accommodate the needs of all users so that they are comfortable for reading without strain.
- Maps and information panels at station entrances, along roads and corridors should be placed at a height between 0.90 m and 1.80 m

2.10 Emergency Exit Plan

The emergency exit plan shall be prepared for all different covered locations in the stations (e.g., tourist office), as per local layout and strategically placed for general awareness of the users and during an emergency. This plan shall show the following important information:

- Location of the plan (You are here)
- Two nearest escape routes from the location of the map
- Location of fire equipment
- Exit staircases highlighted in yellow
- Safety instructions in case of emergency

All fire safety and fire evacuation signs at Check Fire are to be **photoluminescent** – a quality standard set to ensure fire safety signs are still visible even if a fire were to break out and electrical lights went out. All Emergency lightings shall be confirming to IS 9583: 1981: Specifications for Emergency Lighting Units. The signage boards of Emergency exit plan shall be as per IS 9457: 2005 as depicted below:

Combination Sign with Directional Arrows

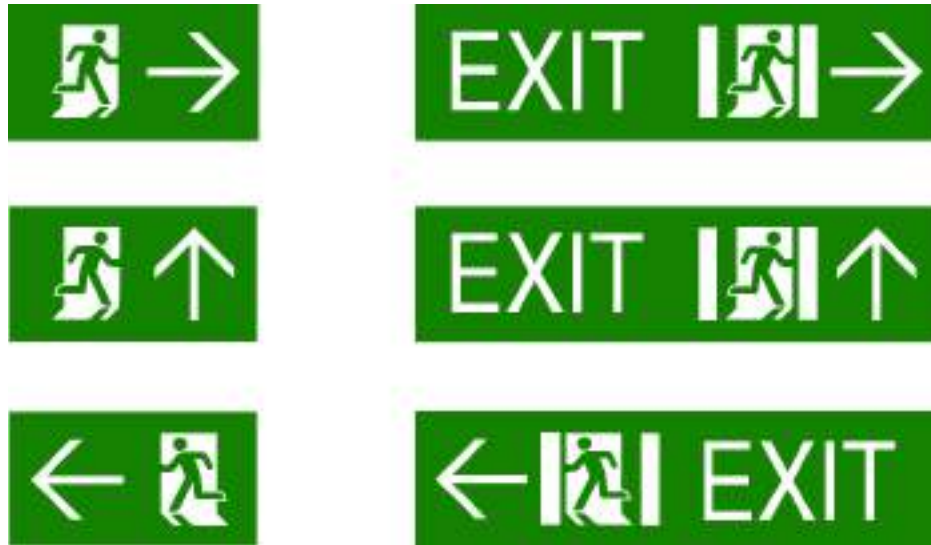


Figure 11: Examples of Emergency exit signage

2.11 Orientation Map:

Orientation maps give the aerial overview of the Station in 3 D Isometric view, with “**You are here**” shown indicating the relative position of all utilities with respect to the location of these orientation maps. It shall help passengers to build a mental model of the entire scape. Using these orientation maps, the passenger coming in at any point shall be able to orient themselves easily to reach their desired destination and access relative spatial information regarding important utilities within the station, such as ramps, escalators, elevators, cafeterias, station master offices, FOBs, exit/entry gates, and washrooms, with respect to the current location of the intended user. Additionally, the maps shall also show the relative direction to the nearest transit stops for buses or metros outside the station, enabling passengers to navigate to their desired mode of transport comfortably. To ensure consistency and clarity, the location of utilities on the map should be depicted using standard pictogram outlined in Annexure B. The orientation map shall also preferably have braille dot embossing placed at accessible height for Divyangjan users.

To improve the navigation experience for passengers, Orientation Map may be installed at stations whose location and quantum of boards shall be as per station specific requirement. However, when planning for locations of Orientation Maps, the pedestrian traffic movements and other environmental factors shall be considered to increase the effectiveness of such signage boards.

2.12 Digital Signages

Digital signages are increasingly being used for station wayfinding and should be gradually integrated with other wayfinding elements. The benefits of using digital wayfinding include the flexibility to reconfigure wayfinding messaging, the seamless combination of customer information with wayfinding and the ease of connecting wayfinding information. As the provision of digital information in spaces becomes more prevalent, screen usability factors should be considered. Digital screens, particularly touch screens, may be inaccessible to people with vision impairments, wheelchair users and people of short stature where the touch area is out of their reach. New technologies allow the usable portion of a touchscreen to be interactively lowered to suit the height of the user. This allows people of different heights and in wheelchairs to customise the working area to their height, if configured properly. These digital touchpoints can also include audio output and the ability to increase font size and screen contrast.

It is imperative that the installation of digital signage not be viewed as just hanging a screen on a wall. The display must be integrated into the room/platform/relevant area design if it is to be installed in a new space, or that careful thought be given to how it should be integrated into an existing space. When planning for locations of screens, the pedestrian traffic movements and other environmental factors shall be considered to increase the effectiveness of digital signage. For example, a location where sunlight comes through the window & thus impacting the visibility of screen's content should be avoided.

2.13 Train And Coach Indication Boards

Different types of train Indication Boards are used at the Railway stations for the convenience of the passengers. The system consists of a central server and various boards that get their display data from the central server. The system is IP based and common station networking arrangement is used for interconnecting its various components. The different types of Boards are as under: -

- a) Multiline Display Board (MLDB)**
 - Mono colour MLDB
 - True colour MLDB (Indoor video display (IVD) & Outdoor video display (OVD))
- b) Platform Display (PFD) Board**
- c) At-a-glance display (AGD) Board**
- d) Coach Guidance Display (CGD) Board**
- e) Display Monitor/ LED TV (industrial grade)**

These display Boards shall be provided as per latest version of RDSO specification No. RDSO/SPN/TC/108/2019. The requirement of different types of boards shall be as per latest instructions issued from Railway Board from time to time.

The system block diagram is shown in below figure.

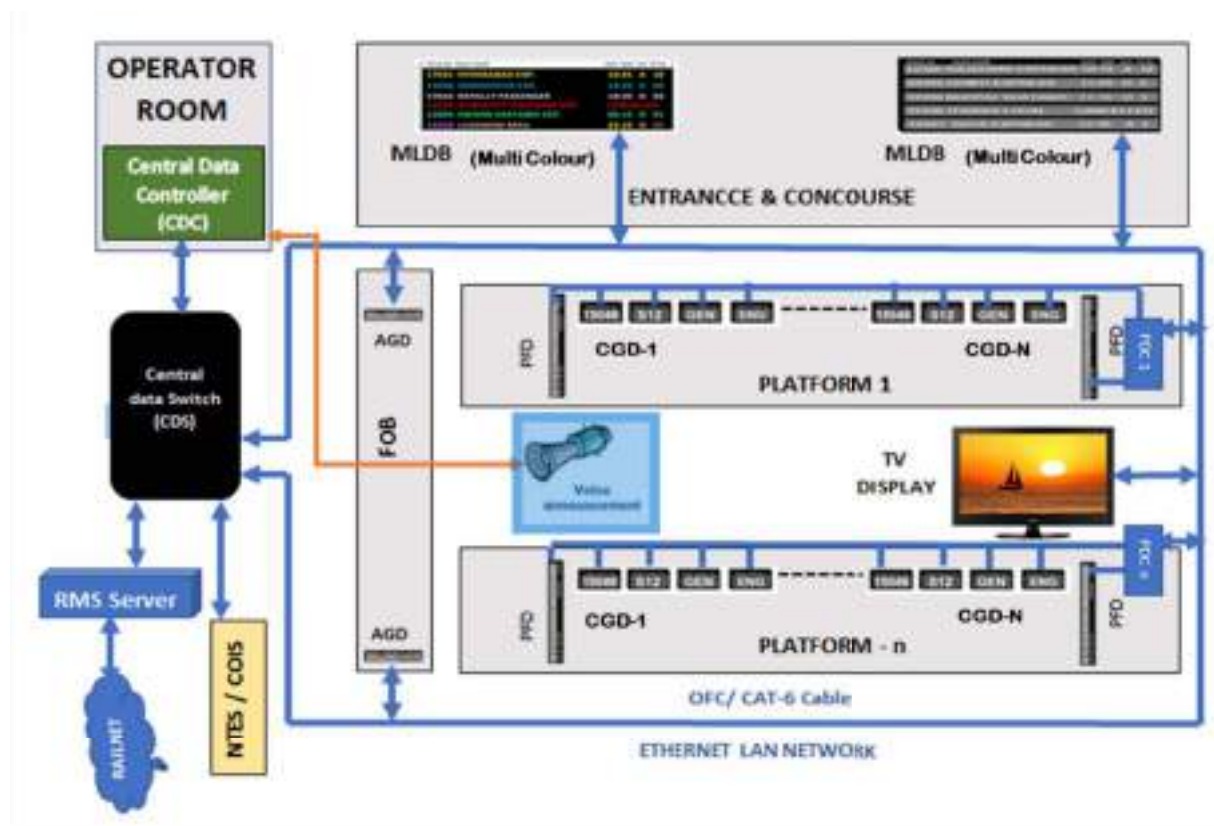


Figure 12: System Block Diagram

2.13.1 Multiline Display Board (MLDB)

Multiline Display Boards are used to display train Information in mono colour i.e., Train number, Name, time of arrival/departure and platform number. It shows information of up trains/ down trains or both. The multiline display boards are generally placed at main entrance/ concourse of the station.

TRAIN No.	TRAIN NAME	EXPT. TIME	A/D	PF No.
12345	RAJDHANI EXPRESS	10:10	A	10
22345	GOMTI EXPRESS	11:05	D	2
12356	BHOPAL SHATABDI	11:15	D	3
31235	ITARSHI LOCAL	CANCELLED		
12347	GAYA EXPRESS	12:30	A	4

Figure 13: Multiline Display Board (MLDB)

2.13.2 True Colour Indoor/Outdoor Video Display Board

True colour Indoor and Outdoor Video Display are used to display train information in multi-colour, commercials, entertainment programs and other information to passengers.

“Train number, Train name, Arrival or Departure status, Time and Platform Number” can be displayed in different colours for the passengers to easily read and differentiate. Trains having certain special status can be displayed in different colours to quickly capture the attention of the passengers. Like cancelled, diverted, platform changed etc.



TRAIN NO.	TRAIN NAME	EXPT. TIME	A/D	PF NO.
17031	HYDERABAD EXP.	10:45	A	10
15046	GORAKHPUR EXP.	18:20	A	04
57642	REPALLY PASSENGER	18:20	D	04
12236	GUWAHATI RAJDHANI EXP.	CANCELLED		
12004	SWARN SHATABDI EXP.	06:15	D	01
12229	LUCKNOW MAIL	22:10	D	01

Figure 14: True Colour Indoor/Outdoor Video Display Board

2.13.3 Platform Display Board (PFD)

Platform Display Board is used to display the information of the train scheduled for arrival/departure from that platform i.e., Train number, Name, time of arrival/ departure in mono colour. The Platform display boards are generally placed at suitable places on platforms/ foot-over bridges.



TRAIN No.	TRAIN NAME	EXPT. TIME	A/D	PF No.
12345	RAJDHANI EXPRESS	10:10	A	10

Figure 15: Platform Display Board (PFD)