Signage & Wayfinding

G

G1 General Strategy

G2 Stations & Urban Areas

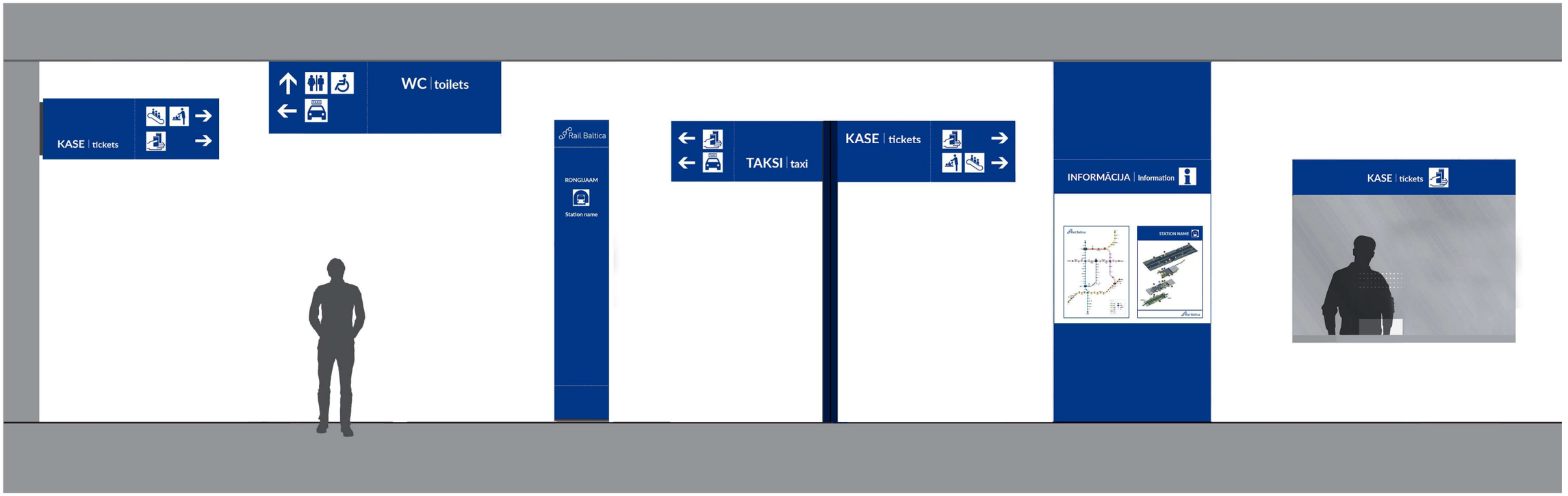
General Strategy

G1

General Wayfinding Strategy

G1.1

Train stations can be as a difficult and stressful environment. Without correct signing and information, the possibility of making a wrong decision about line, direction or interchange is increased and stress levels will rise accordingly.



General Positioning Strategy

G1.2

Reading Distance

Maximum reading distance
An awareness of sightliness and reading distances is important when positioning directional signs.
Signs should be not obscured and easy to read.

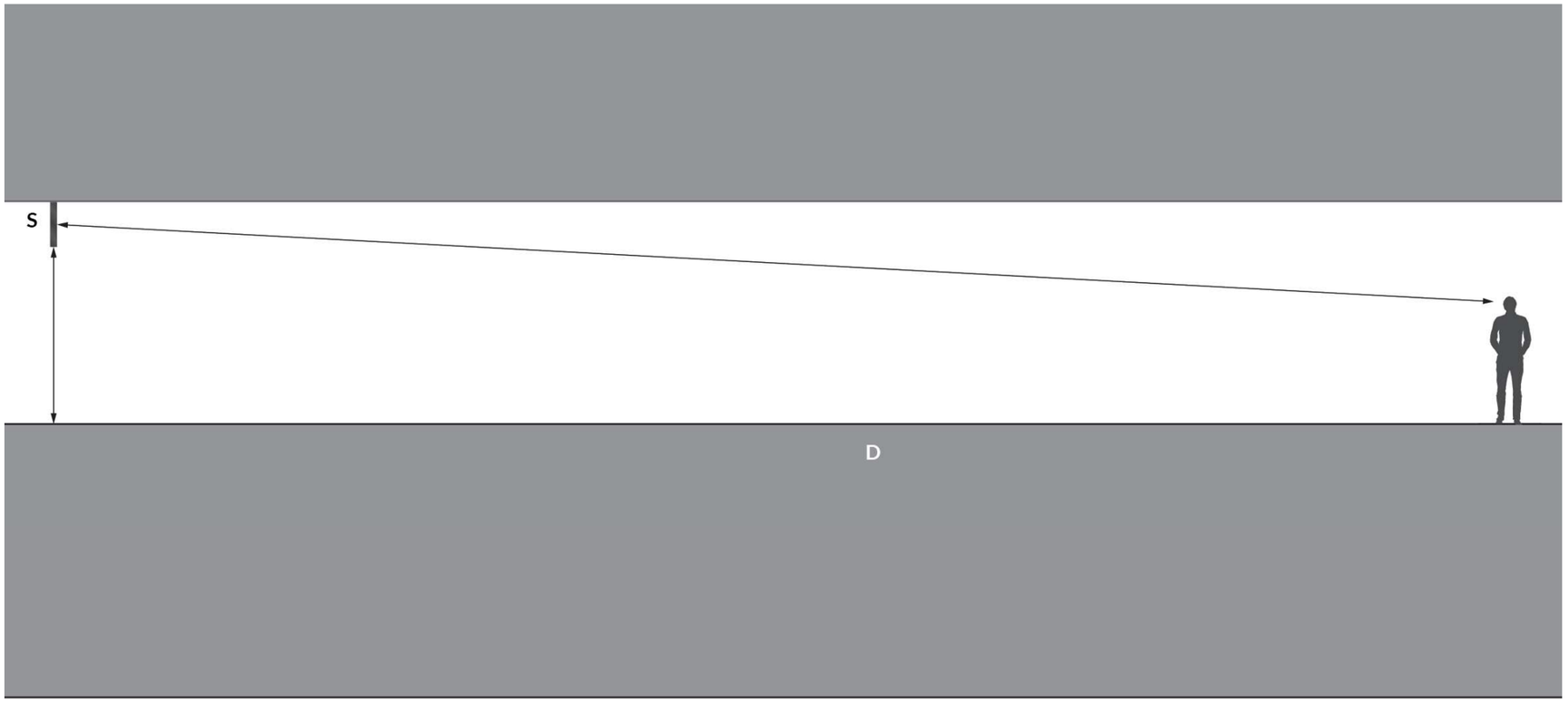
Size of signage, text and pictograms depends on the distance from the observer (D) in order to provide a clear and visible information.
There are no universal sizes to be used, each situation is different and must be analysed specifically.

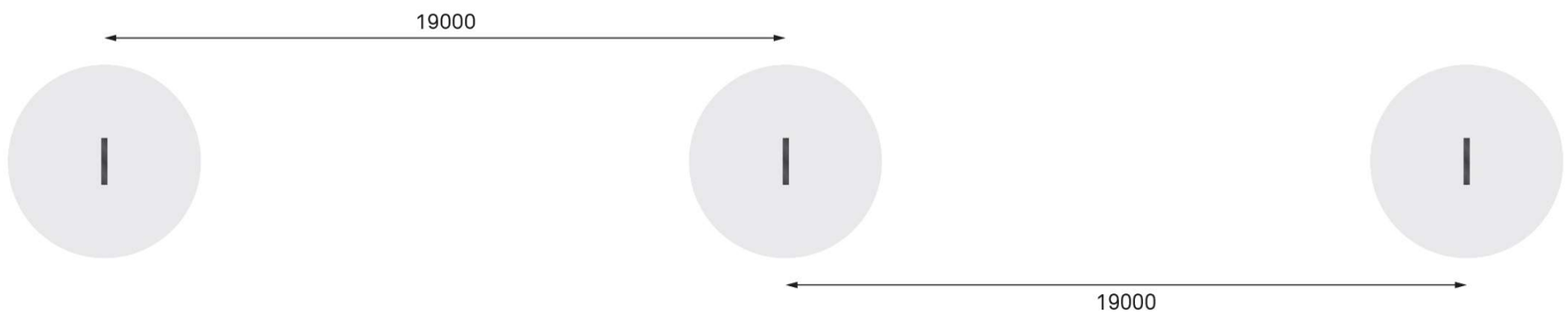
To determine the size of the sign the following equation is used **s = 0.01 D**
for people with visual impairments **s = 0.09-0.1 D**

D = distance of observer from the
s = internal dimension of the pictogram's frame

In accordance with the requirements of PRM TSI, clause 5.3.1.1, the minimum quantum depth is calculated based on the formula: reading distance in mm divided by 250 = font size (for example: 10000mm: 250 = 40mm).
Minimum distance of 2.30 m from the edge of the board should be respected, so that the signs are not covered by people standing in front of them. However, the maximum height is 2.50 m.

Sign placement
Wherever possible directional signs should be orientated to face passengers on their way through the station and located at key decision points. Once a certain route has been defined, a sign confirming that passengers are going in the correct direction should be positioned within 18 – 19 meters from the original decision point. .





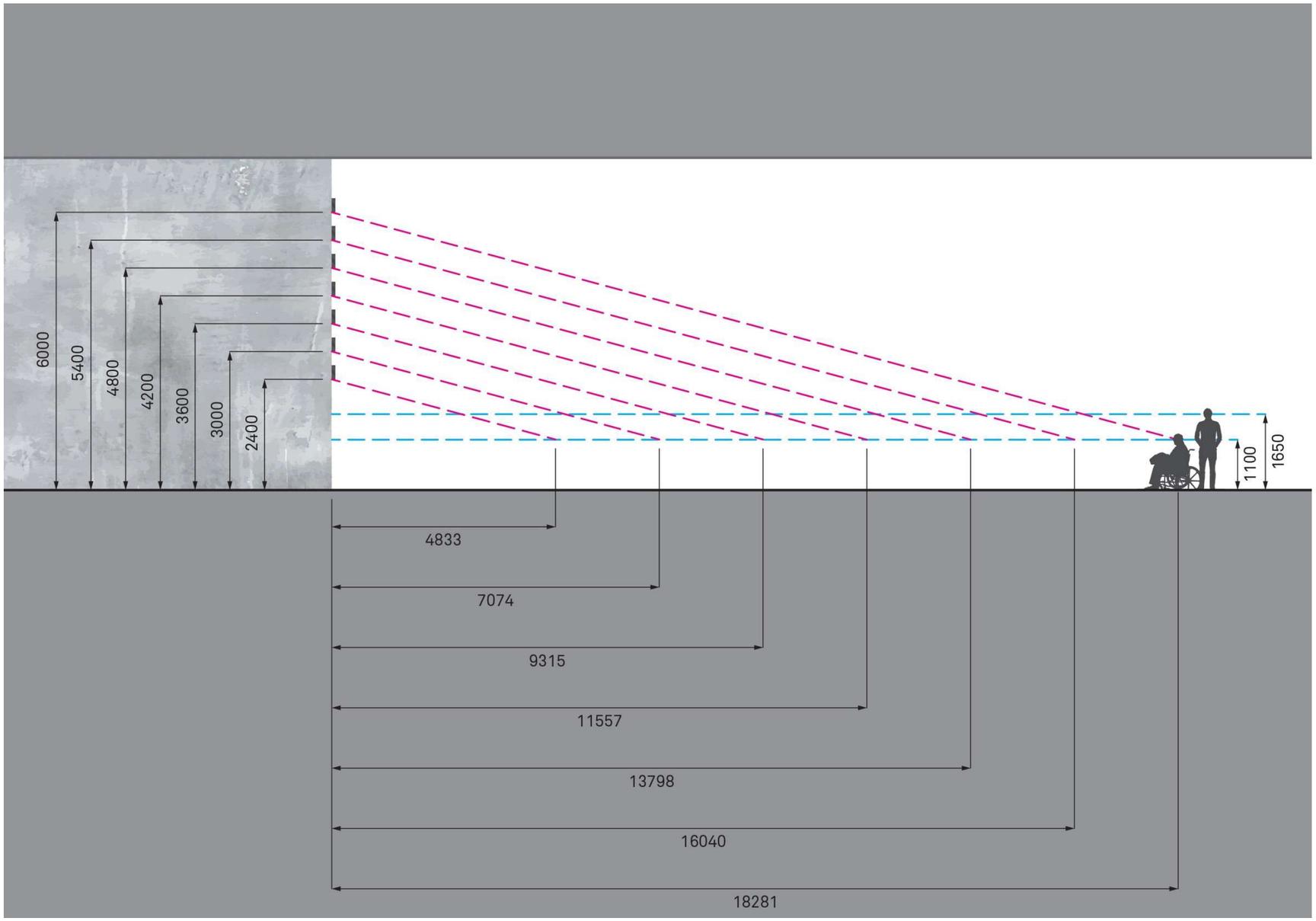
General Positioning Strategy

G1.2

Fixing Heights

Sign height
Where high ceilings prohibit the positioning of signs at the preferred height of 2400mm, a higher placement is sometimes permitted. The chart opposite illustrates a matrix of sign heights and reading distances, taking into account a comfortable viewing angle and tilt of the head for someone in a wheelchair. If a sign is placed too high, people will have to move further back to read it and may not relate the information on the sign with their chosen route through the station because of the increased viewing distance.

Variations in ceiling heights
For very high ceilings, a maximum sign height of 4200mm is recommended from the ground to the base of the sign. Higher signs result in an increased reading distance which may not be possible to achieve in constrained spaces.



General Positioning Strategy

G1.2

Visibility and Placement

Minimum reading distance
Careful location of signs is vital to ensure visibility. Awareness of sight lines and reading distances determine the positioning of signs. The aim is to make the signs easy to read.

The angle of viewing determines the minimum reading distance for signs, which are displayed at closer range than directional signing. Sightliness need to take into account the needs of wheelchair users (as illustrated) reading signs from a low height, where a 30-degree angle is generally considered the maximum for a comfortable tilt of the head.

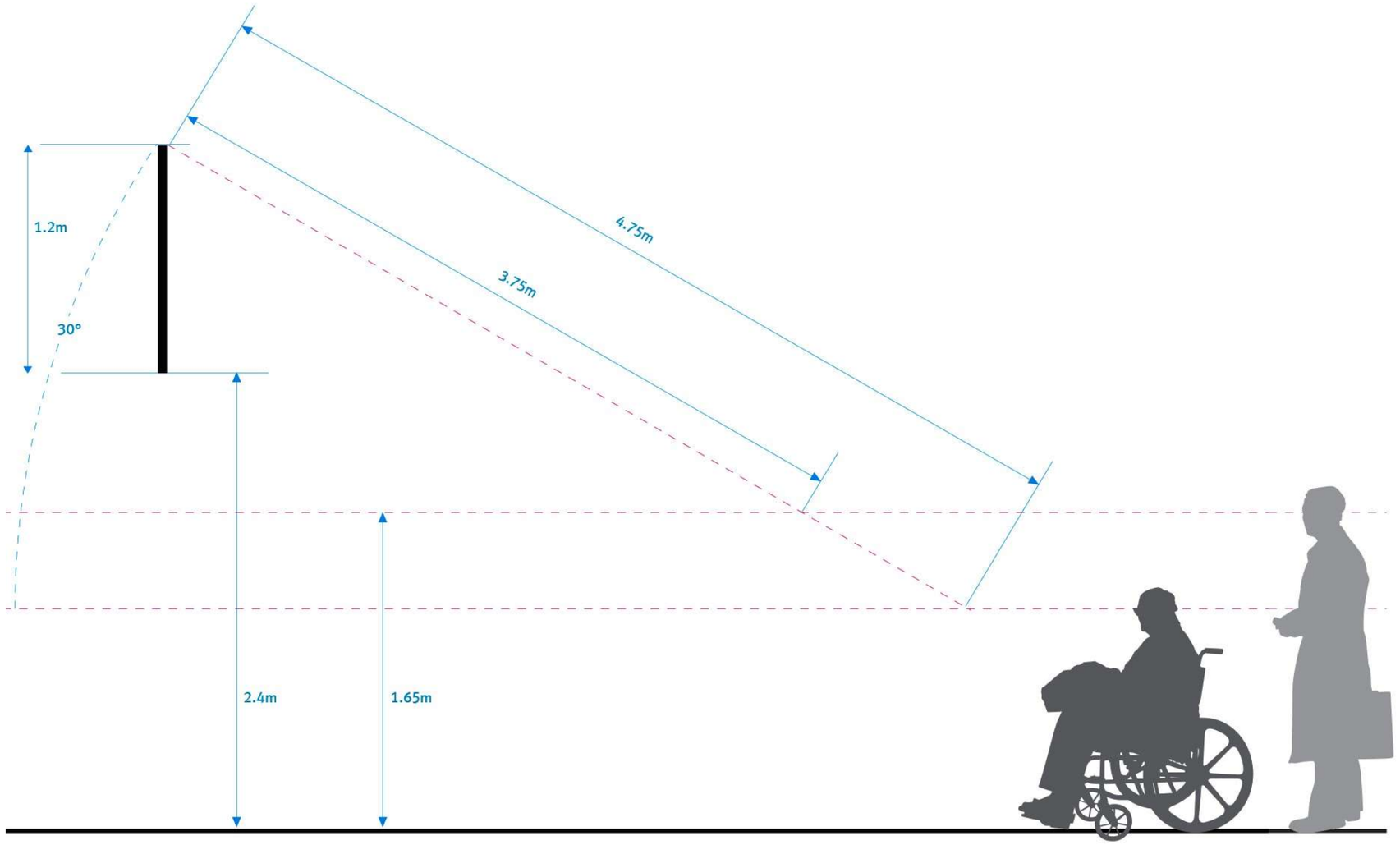
It is also useful to know the minimum reading distance, particularly for electronic or variable message signs. This is determined by the angle of viewing where 30 degrees is usually considered to be the maximum angle for a comfortable tilt of the head.

According to PRM TSI p.4.2.1.10 paragraph (4) the information concerning the departure of trains shall be available at a height of 160 cm maximum at least in one location in the station.

According to PRM TSI p.5.3.11. paragraph (3) displays shall be designed and assessed for an area of use defined by the maximum viewing distance according to the following formula:

Reading distance in mm divided by 250 = font size (for example: 10 000 mm/250 = 40 mm).

Type size
A minimum type size of 30mm is recommended for electronic signs to compensate for variations in screen resolution, resulting in easily readable letter forms.



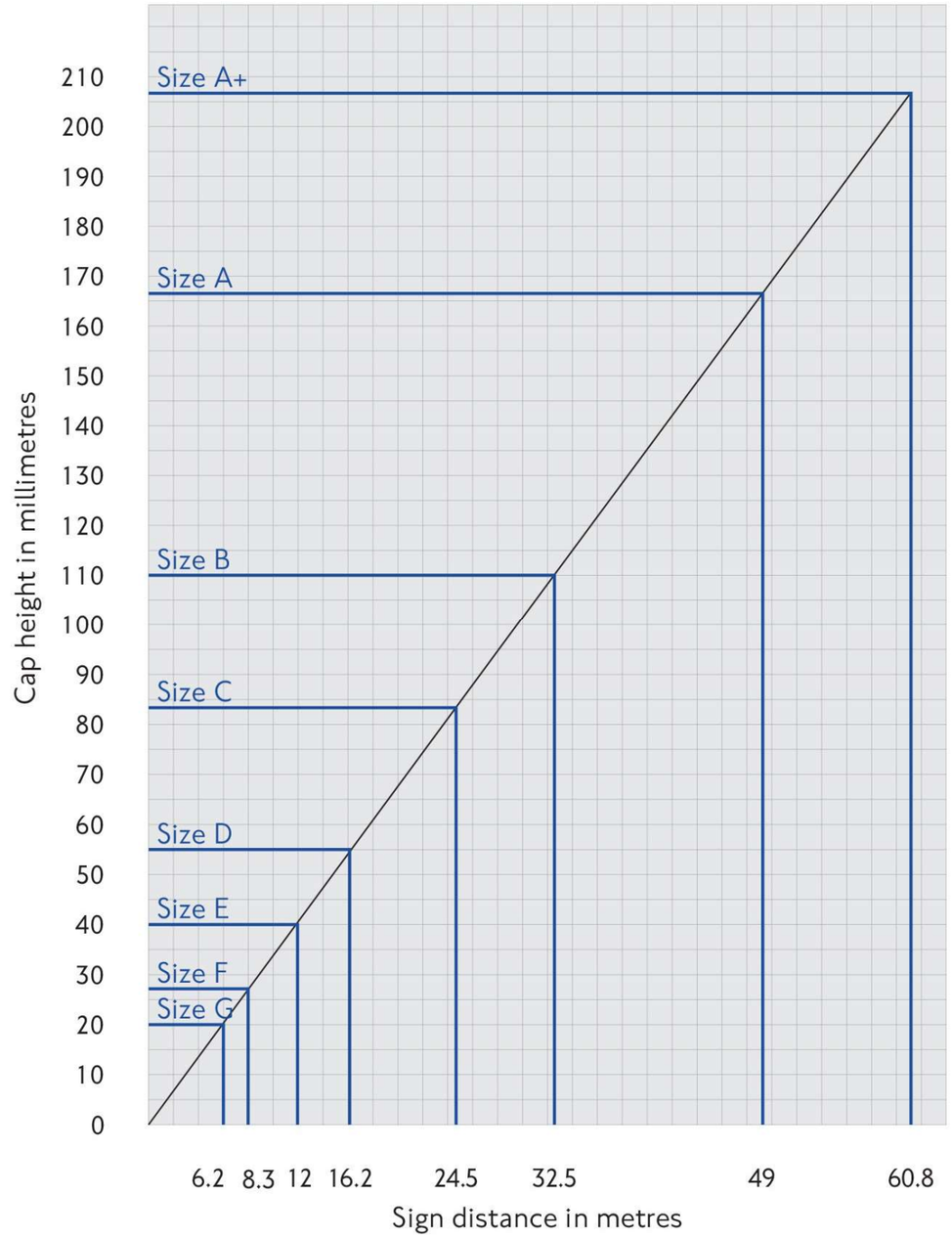
General Positioning Strategy

G1.2

Viewing Distance Chart

This chart shows the distance at which certain sizes of lettering can be read by a person with average eyesight. The data obtained was used to determine the minimum letter size for any sign.

Other considerations, such as architectural features or visual continuity, may influence the final choice of letter size, but the optimum size will be used wherever possible.



Type sizes	Cap height	x height	Margins
Size A+	206	150	450
Size A	166	120	300
Size B	110	80	200
Size C	83	60	150
Size D	55	40	100
Size E	41	30	75
Size F	28	20	50
Size G	21	15	38

General Design Strategy

G1.3

Design Strategy

Signage design is done in accordance with existing Rail Baltica Visual Design. Additional typeface and colors are proposed.

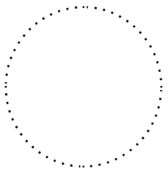
When viewed overall, the signing graphics have a unified family feel that helps create a distinctive sense of place. The signing system will be the single most important brand element that will visually link all stations and metro environments.

The signing graphics and hardware design must compliment the differing architectural aesthetic standards used in all stations.

Visual impact
The signage was designed in a way to reduce the negative consequences that signs can have on the visual quality of a landscape and urban areas and to ensure that signs complement the amenity and landscape character of the surrounding area, particularly in sensitive and prominent landscape areas of Latvia, Lithuania and Estonia. An environment behavior approach was taken into account as well as visual preferences common to the majority of people, independent of their urban context.

Primary colors

Signage color I
Azure blue
RGB 0/55/135
CMYK 100/59/00/47



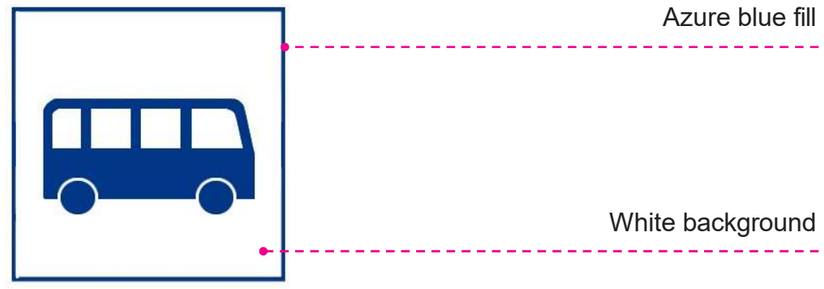
Signage color II
White
RGB 255/255/255
CMYK 0/0/0/0

Signage typeface

Rail
Baltica

Signage color combination rules

Pictograms color rules



Sign Specific Design & Positioning G1.4

Typeface

Signage font proposed: Lato
Lettering is in upper and lower case, with an initial capital letter at the start of sign messages and for proper names, except for station names on roundels, fascias and friezes which are upper-case letters only.

Line spacing
Line spacing is based on the height of the lower-case letter ‘x’. One ‘x’ is the standard minimum between two lines of information. When information in more than one size of lettering is used, the larger ‘x’ height should be used to separate the two lines of differing size.

Font LATO

RAIL BALTICA
Rail Baltica

RAIL BALTICA
Rail Baltica

RAIL BALTICA
Rail Baltica

RAIL BALTICA
Rail Baltica

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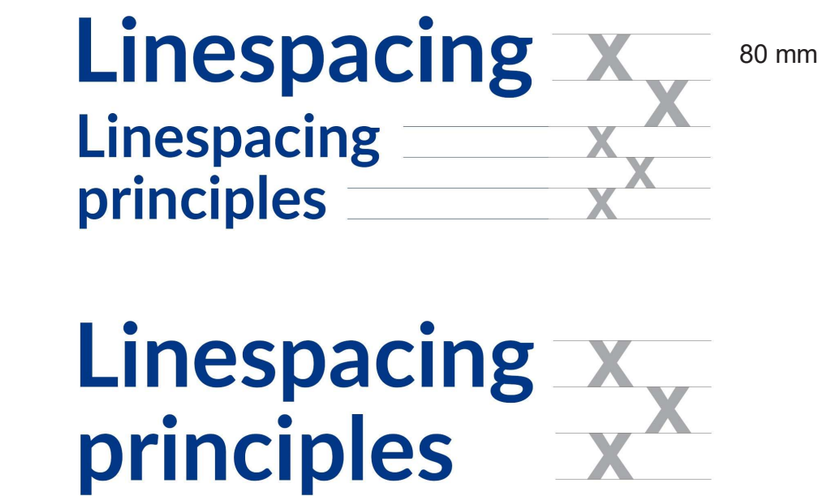
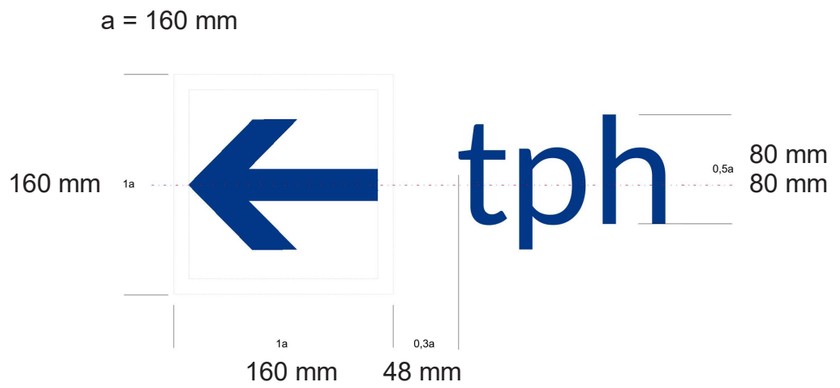
Linespacing



Font dimentions



Sign Specific Design & Positioning G1.4

Pictograms

Operational pictograms
This class of pictograms covers trains as well as other transport modes available at individual stations, such as Bus Transit, coach services, taxis and airport interchange.

Passenger facilities
Another class of pictograms highlights station facilities provided for passenger comfort and convenience, for example toilets, meeting points, left luggage, waiting rooms and ticket vending machines

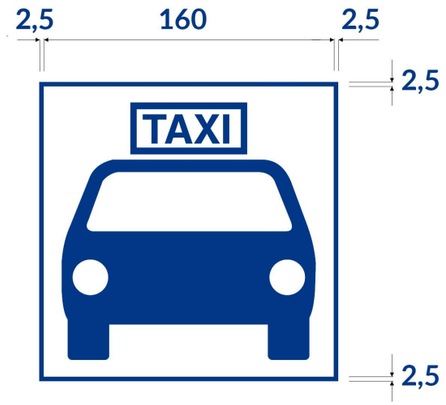
Passenger services
In addition, pictograms can highlight more general passenger services, such as car parks, bureau de change, shops, hotels and restaurants

Visibility and contrast
Directional arrows are designed to be highly visible and recognisable from a distance. They aid clear identification of directional signs within stations and ensure signing messages are quickly read and understood. The use of white arrows against a black background achieves good contrast and visibility, and also reduces glare.

Pictogram designs and dimensions shall be based on International Standards (ISO).

Overview

Pictogram dimensions



Typical pictogram names and functions

Name: Taxi
Function: Showing taxi parking

Name: Parking
Function: Showing the direction and location of the parking

Name: Disabled person
Function: Showing a route, installation or facility dedicated to disabled people

Name: Information
Function: Showing the direction and location of the passenger's information point

Name: Platform
Function: Showing platform

Name: Ticket office
Function: Showing the direction and location of the ticket office

Name: Toilet
Function: Showing the location of the toilets for men and women

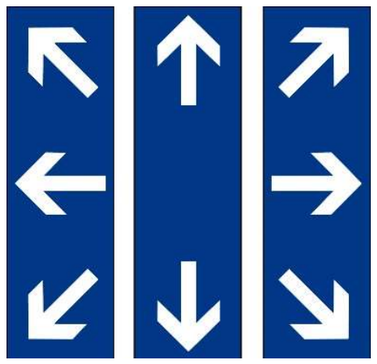
Name: Bus
Function: Showing the location and direction of bus stop

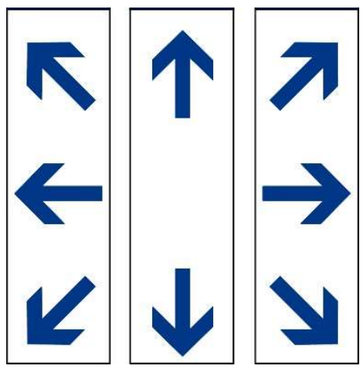
Sign Specific Design & Positioning G1.4

Pictogram

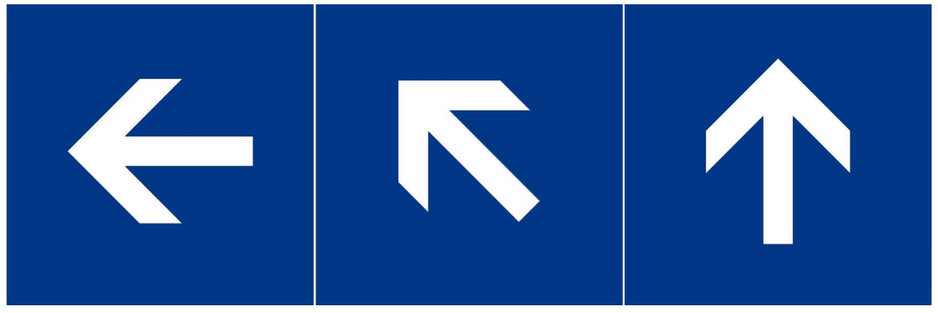
Arrow orientation
Arrows are rotated at 45° increments to indicate each direction. The diagrams show how arrows are positioned within the signing module, always aligned with the center lines irrespective of arrow orientation. Directional arrows should be used as illustrated in these guidelines and not redrawn or modified in any way aligned with the center lines irrespective of arrow orientation. Directional arrows should be used as illustrated in these guidelines and not redrawn or modified in any way.

In accordance to PRM TSI p.4.2.1.10 there should be no more than five pictograms, together with a directional arrow, indicating a single direction placed adjacent to each other at a single location.





Example of arrows on three column board



Signage Primary Color
Dark azure
003787
Pantone 294
RGB 0/55/135
CMYK 100/59/00/47

Arrow sequence
Strait ahead arrow should always be always placed as a top sign. Aligned arrows should be placed opposite of each other.
Arrows only appear on directional signs and should be positioned at the far right or left of any module combination, centred in the end modules as illustrated.

Sign Specific Design & Positioning G1.4

Directional Signs - Entrance Signs

Exit signs are located over station exit doors or portals, either face-mounted or integrated into the station architecture. The sign shows the exit number and the name of the street, landmark or major building at that exit.

Example of a multi-line entrance sign

Typical dimensions of a multi-line sign

Text on the sign shall always be centred

Example of directional sign positioning

Sign Specific Design & Positioning G1.4

Directional Signs - Exit Signs

At some exits directional information is required to indicate the way to facilities at that exit, such as bus services, taxis or car park. A secondary pictogram grid has been developed for directional information featured on exit and entrance signs.

Arrows and pictograms are positioned in the end modules of the sign to the right or the left, depending upon arrow direction, and aligned with the baseline of the Latin text of the road or landmark name.

Typical dimensions of a single-line sign

Sign Specific Design & Positioning G1.4

Directional Signs - Platform and Track Signs

Platform signs
At some exits directional information is required to indicate the way to facilities at that exit, such as bus services, taxis or car park. A secondary pictogram grid has been developed for directional information featured on exit and entrance signs.

Arrows and pictograms are positioned in the end modules of the sign to the right or the left, depending upon arrow direction, and aligned with the baseline of the Latin text of the road or landmark name.

Typical dimensions of a platform sign

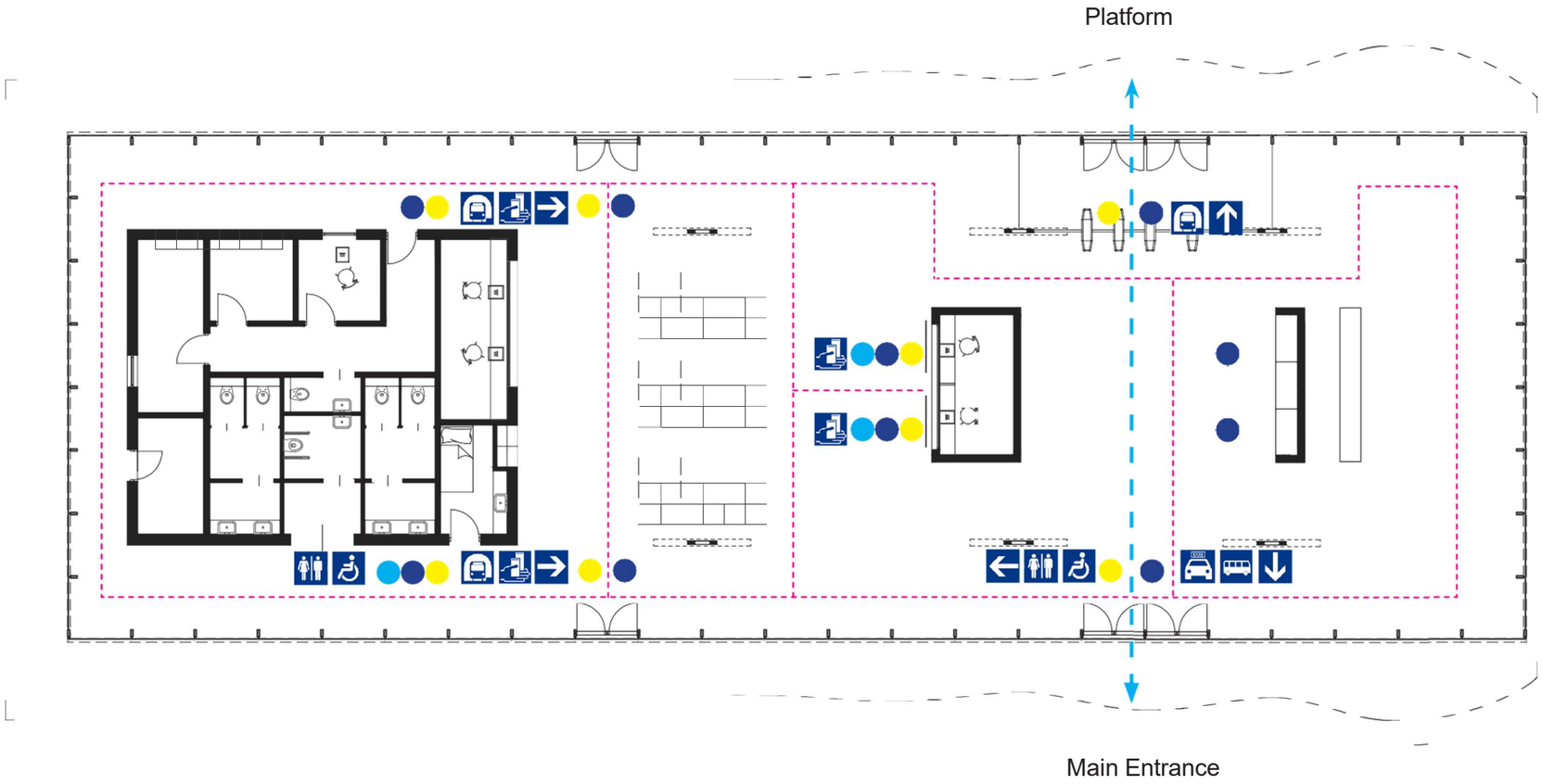
Sign plan

G1.5

Flows and Functions

It is important for the signs to be allocated in the best possible way within the space of the station to allow safety and accessibility.

Location signs are installed at individual facilities or services in station buildings, such as ticket sales, elevators or lifts and information points.



Legend

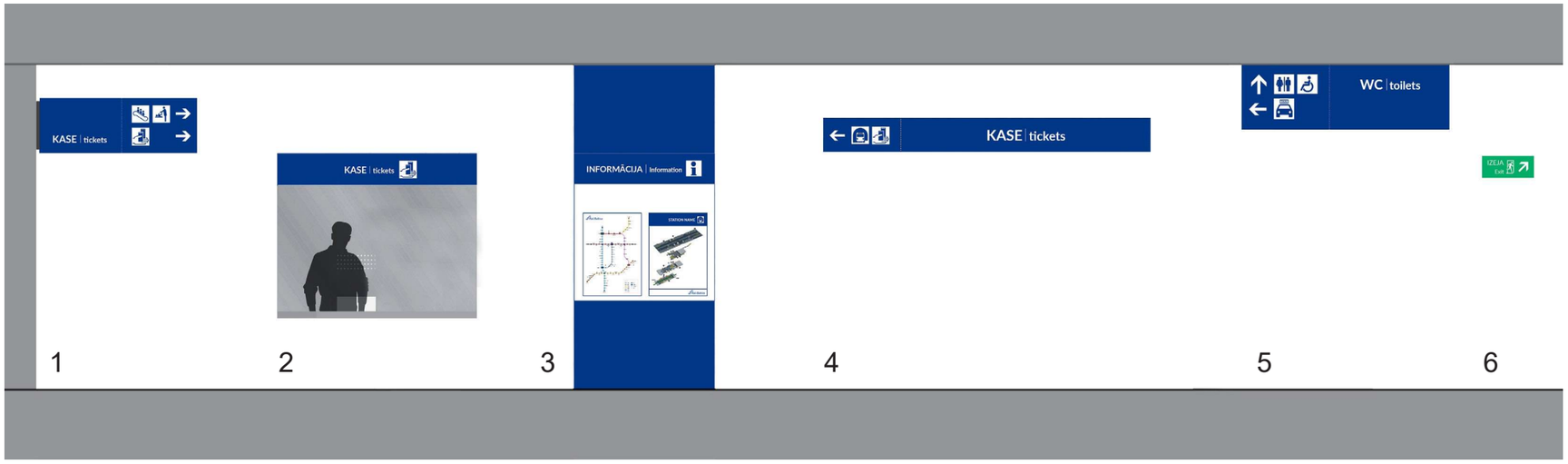
- Identification Sign
- Directional Sign
- Information Sign
- Main pathway
- Secondary pathway

Sign plan

G1.5

Overview

Train stations can be as a difficult and stressful environment. Without correct signing and information, the possibility of making a wrong decision about line, direction or interchange is increased and stress levels will rise accordingly.



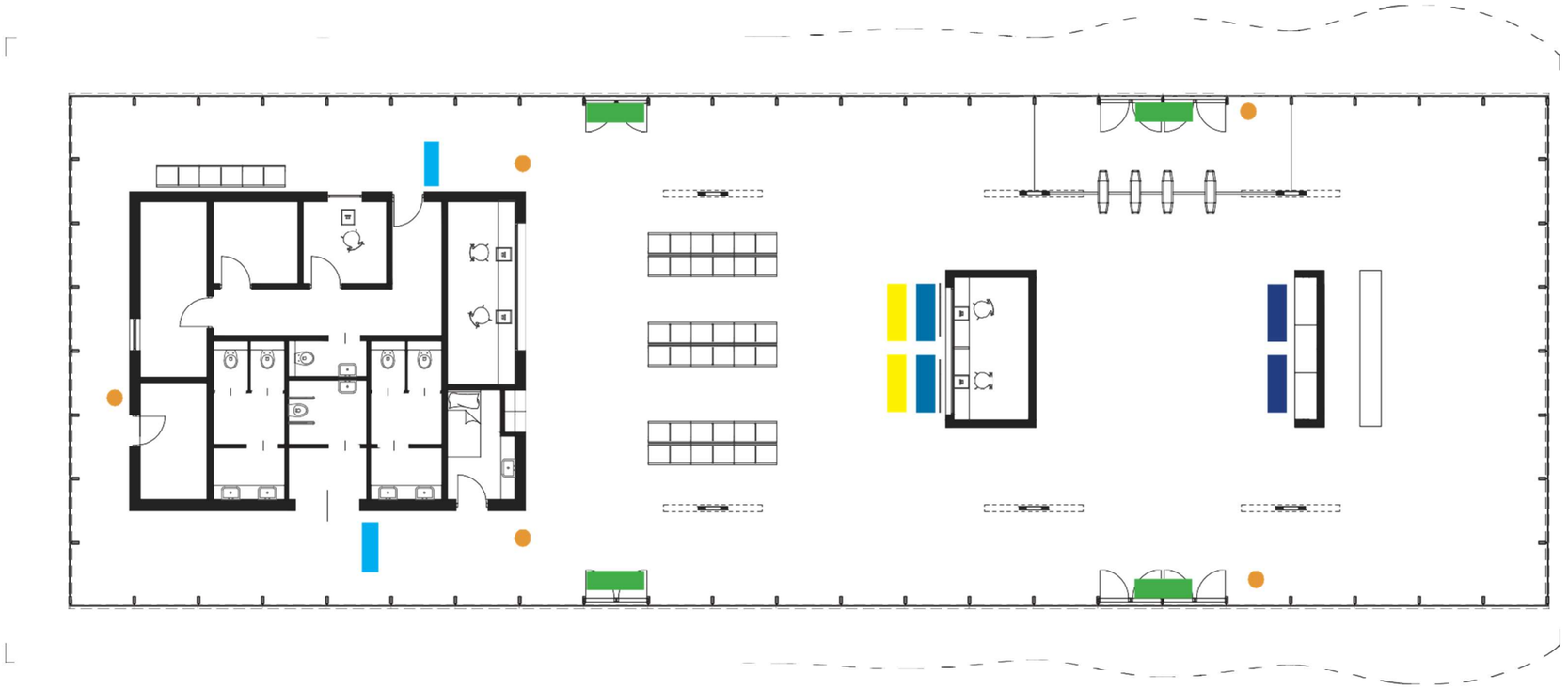
Legend

1. Finger-pointer wall-mounted cantilevered sign
2. Fascia sign
3. Wall sign
4. Horizontal wall sign
5. Ceiling sign
6. Emergency sign

Sign plan

G1.5

Station Sign Plan - Type of Sign



Legend

- Finger-pointer wall-mounted cantilevered sign
- Fascia sign
- Wall sign
- Horizontal wall sign
- Ceiling sign
- Emergency sign

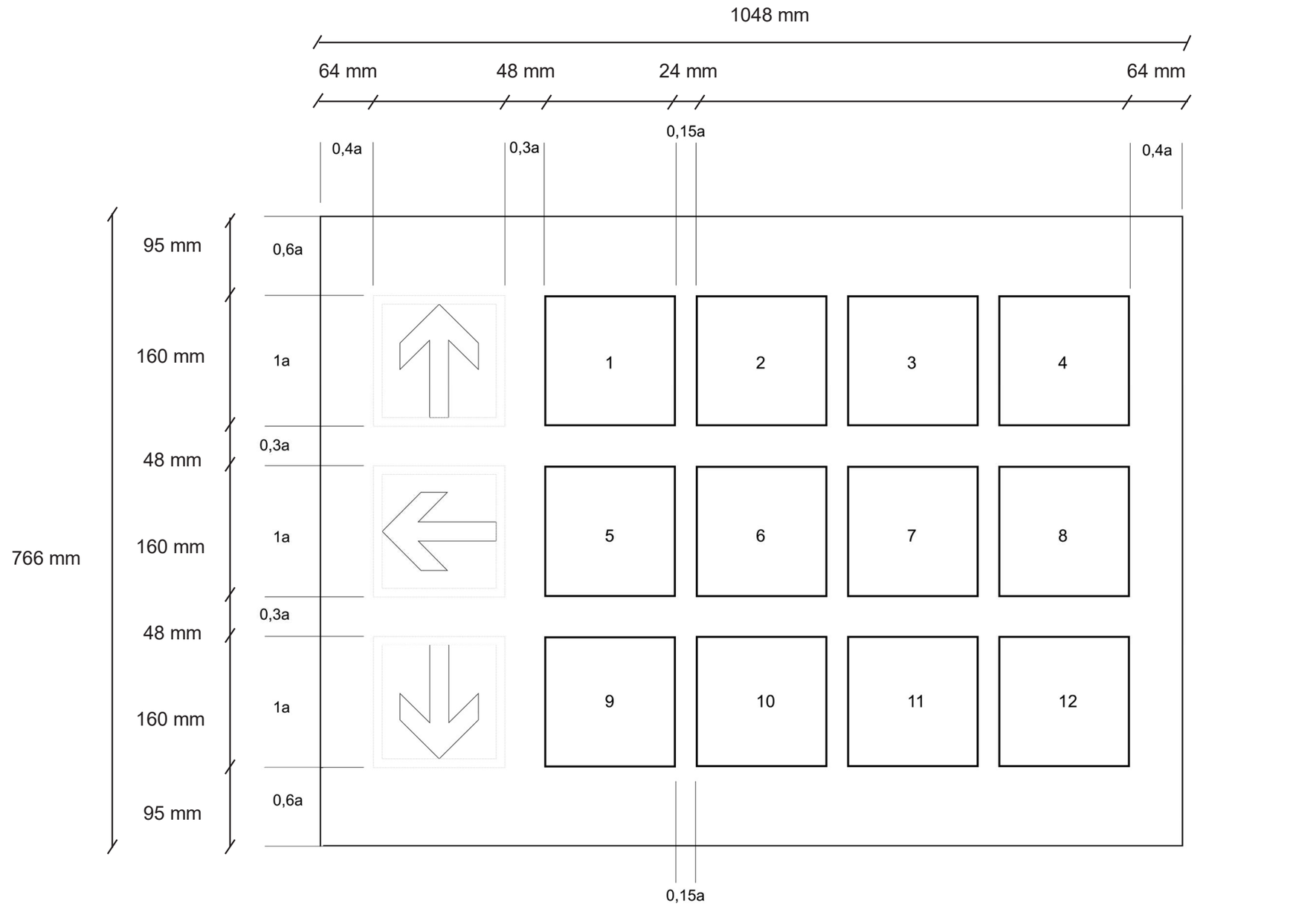
Making layouts

G1.6

Pictogram

Pictograms are a form of shorthand for explaining directional or location messages at a glance, and are suitable for local as well as international audiences. Pictogram designs are based on International Standards (ISO) and redrawn for consistency with other graphic elements.

The pictogram style mirrors aspects of the typeface and the pictogram keylines match the typeface weight. While designing the pictograms all the margins should be retained. The maximum number of pictograms could be four in one row.



a = 160 mm

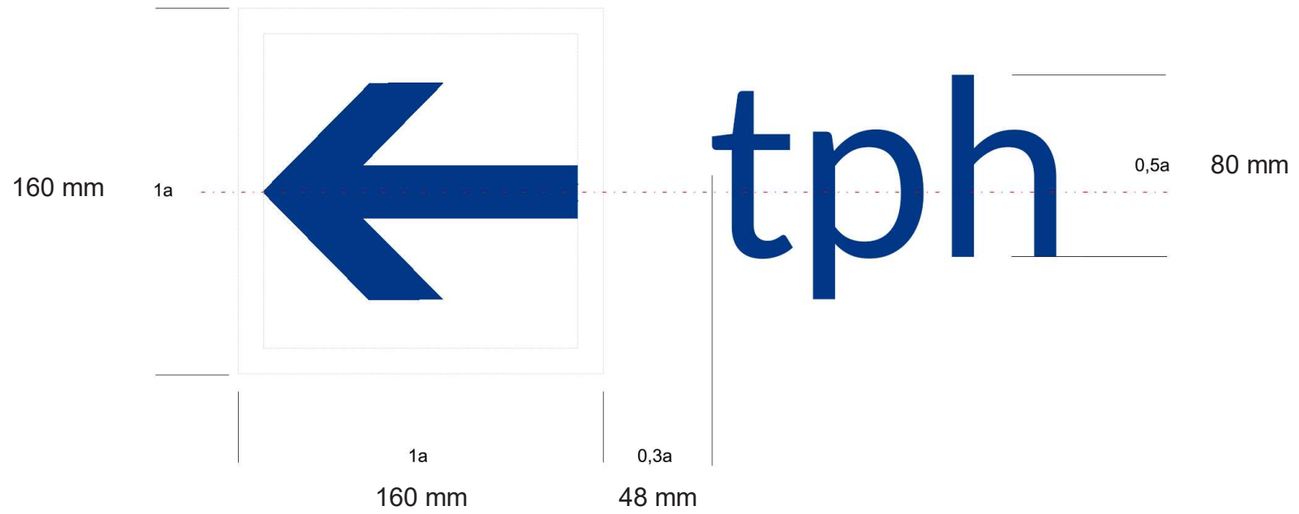
Making layouts

G1.6

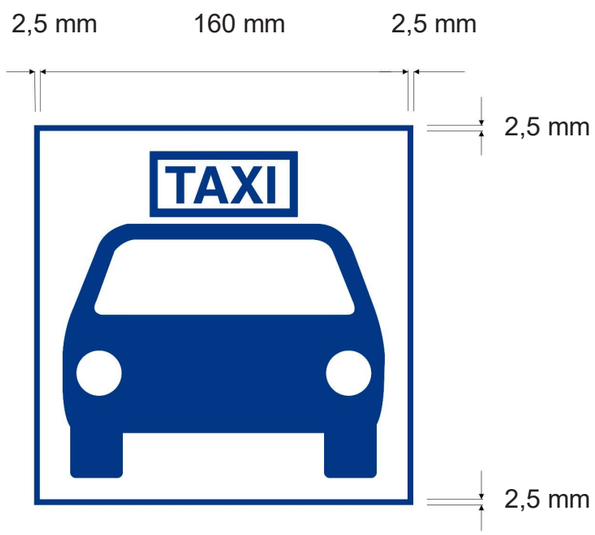
Layouts

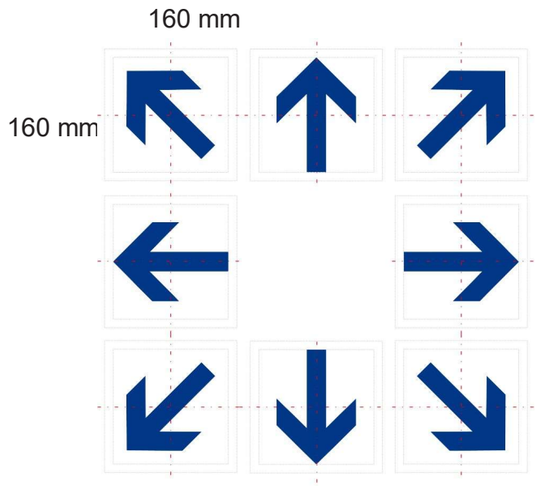
Examples shows the method to design frame thickness and overall rules for the dimensions of the pictograms.

Minimal margins for text and arrows (mm)



Minimal margins for pictograms





Making layouts

G1.6

Text Composition

General rules of composition and margins.

Minimal margins (mm)

Examples of pictograms and text composition for multiline and singleline signs

Text shall always be centred

Making layouts

G1.6

Geometry

Note

Dimensions rules in (mm)
Rules of extending the sign (mm)
Double pictogram sign (mm)

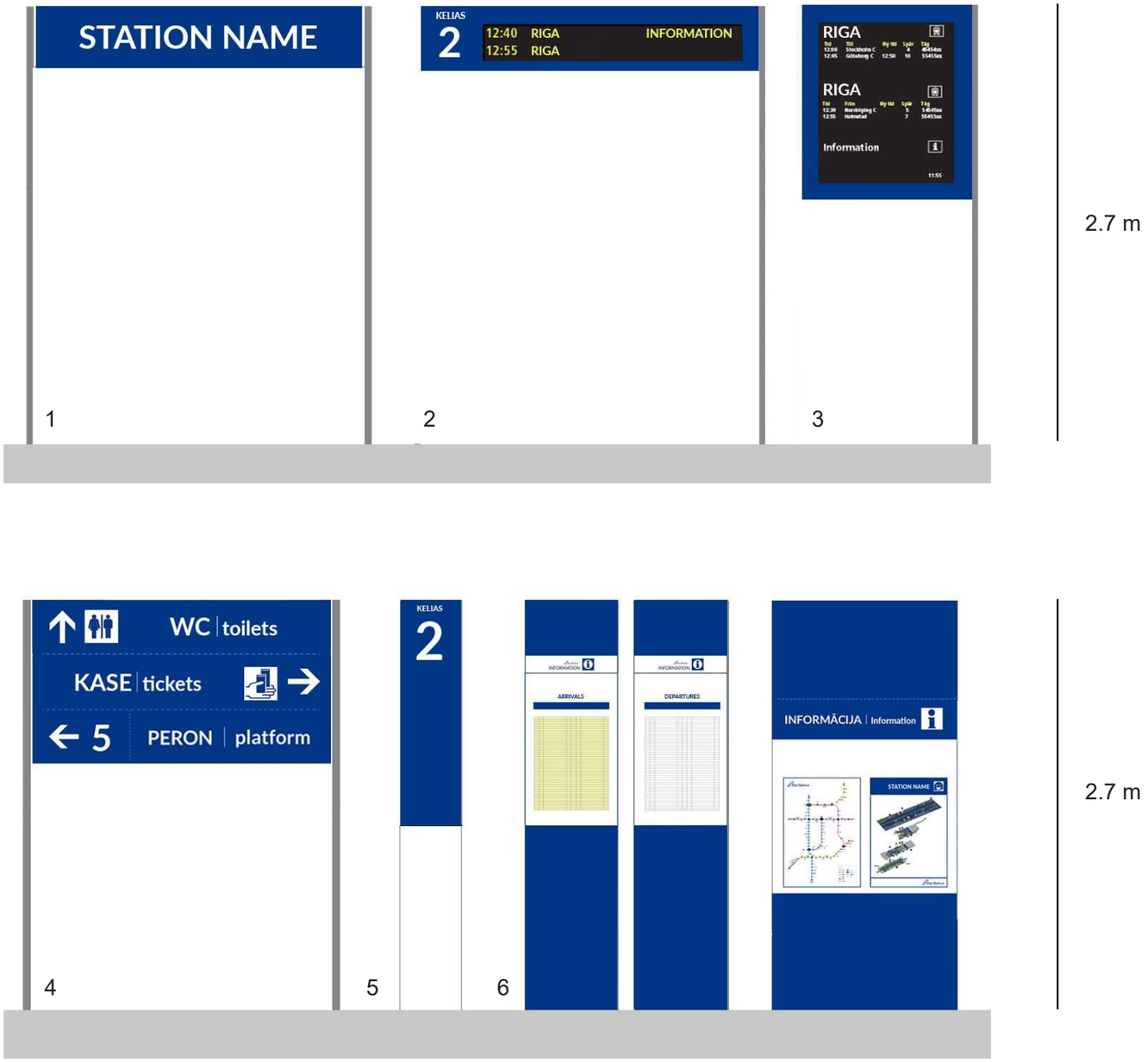
Stations & Urban Areas G2

Sign Plan

G2.1

Platform Signs Overview

Typical platform signs include: platform signs, multi-train displays with real time information, station name sign, track number signs, direction signs as well as loudspeakers and clocks.



Legend

1. Station name
2. Platform sign
3. Multi-train display
4. Directional signs
5. Track number sign
6. Informational boards

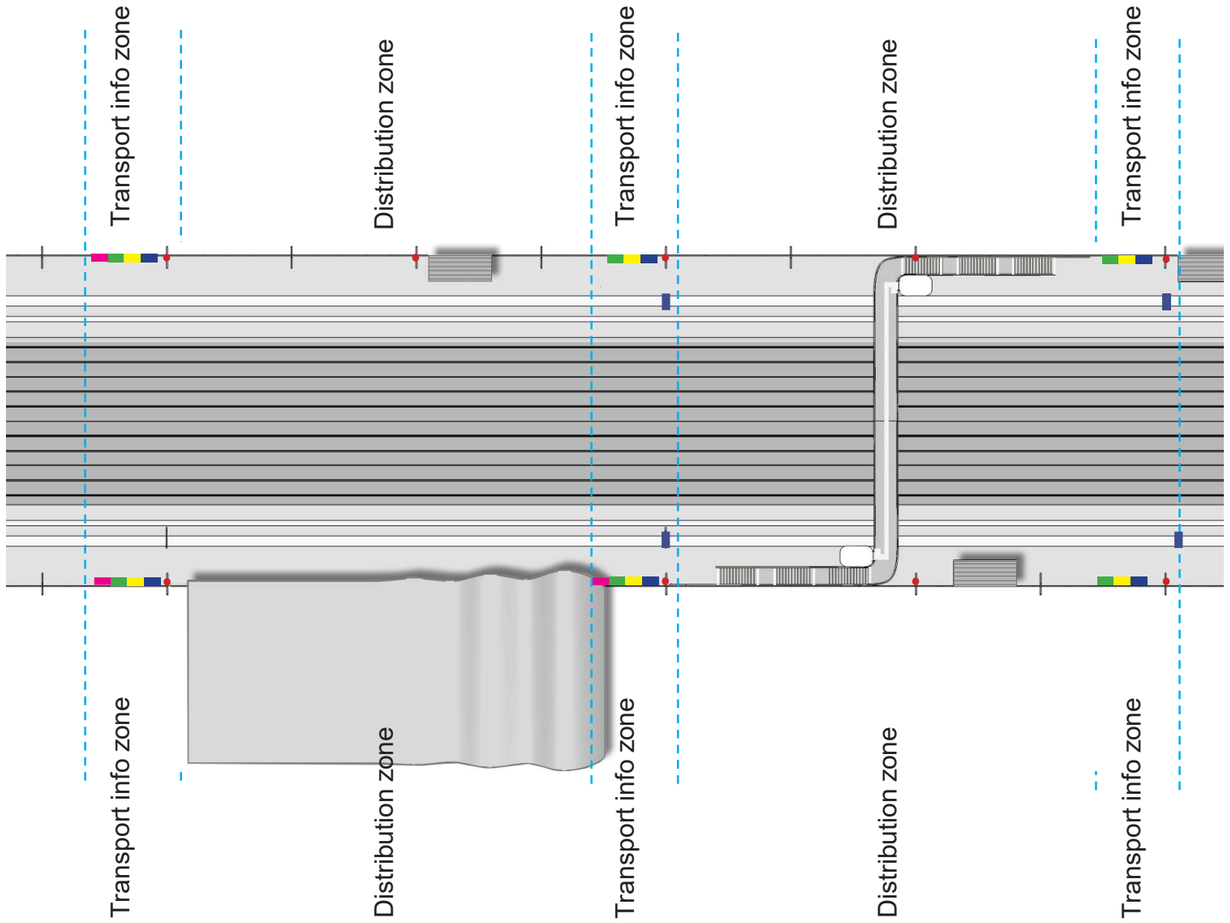
Sign Plan

G2.1

Platform Sign Plan

Signs on the platform
It is important for the signs to be allocated in the best possible way in the limited space of the platform in order to ensure safety and accessibility. The flow of the passengers on the platform heavily depends on the location of the overpass and lifts and how many entrances are there.

A summary of sign types are as follows
A. Station identification signs shall be located at the main approaches to the station.
B. Information signs display a locality map and incorporate network map, station map and timetable.
C. Each platform is identified and incorporates timetable and route information.
D. Public facilities (lifts, timetables and maps) are identified.
E. Regulatory information can be incorporated within existing sign types.
F. Signs are to be located perpendicular to the flow.



Design for the 100 m long platform

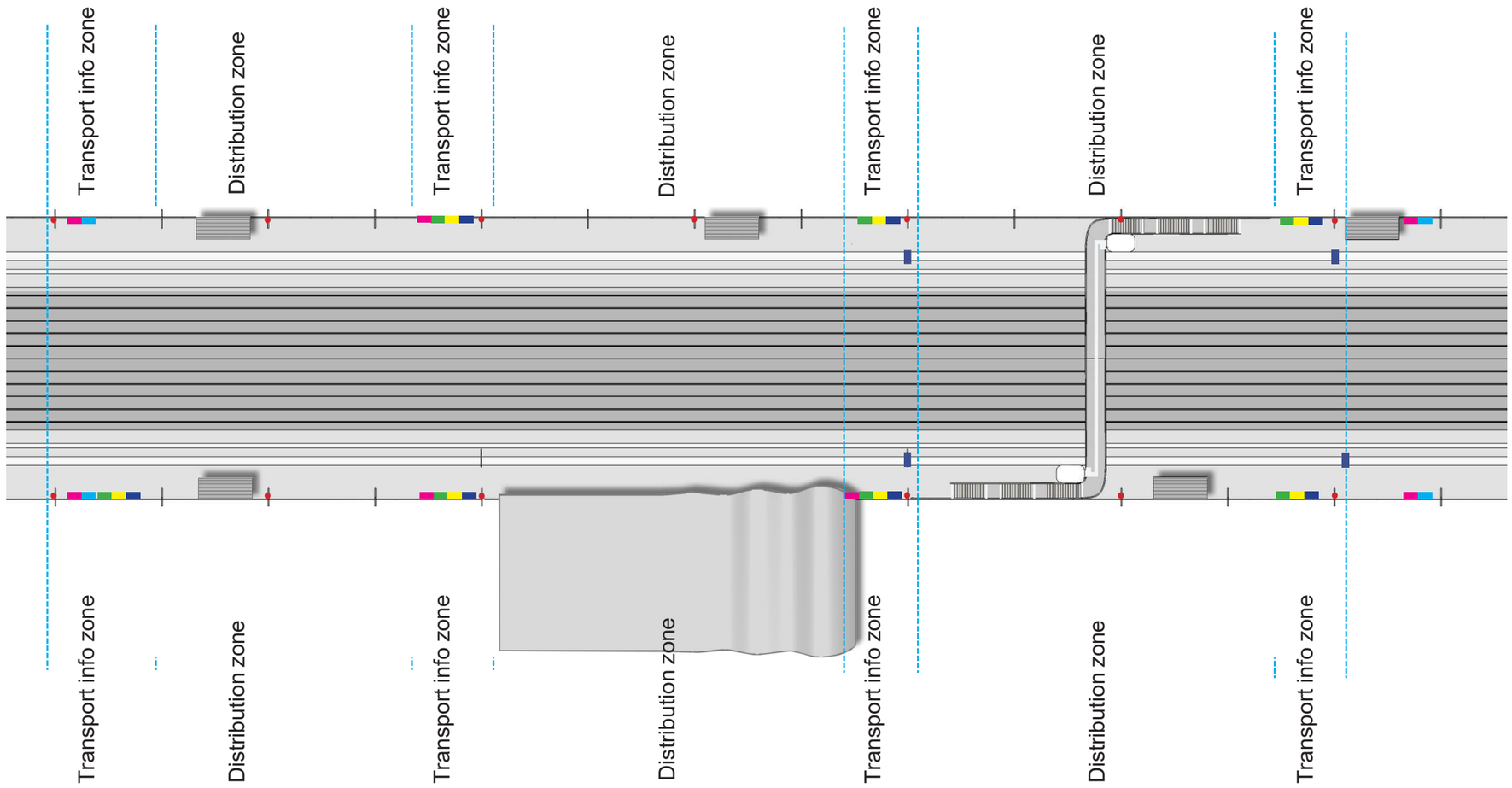
Legend

- Station name
- Platform sign
- Multi-train display
- Directional signage
- Track number sign
- Informational boards
- Loudspeaker

Sign Plan

G2.1

Platform Sign Plan



Design for the 200 m long platform

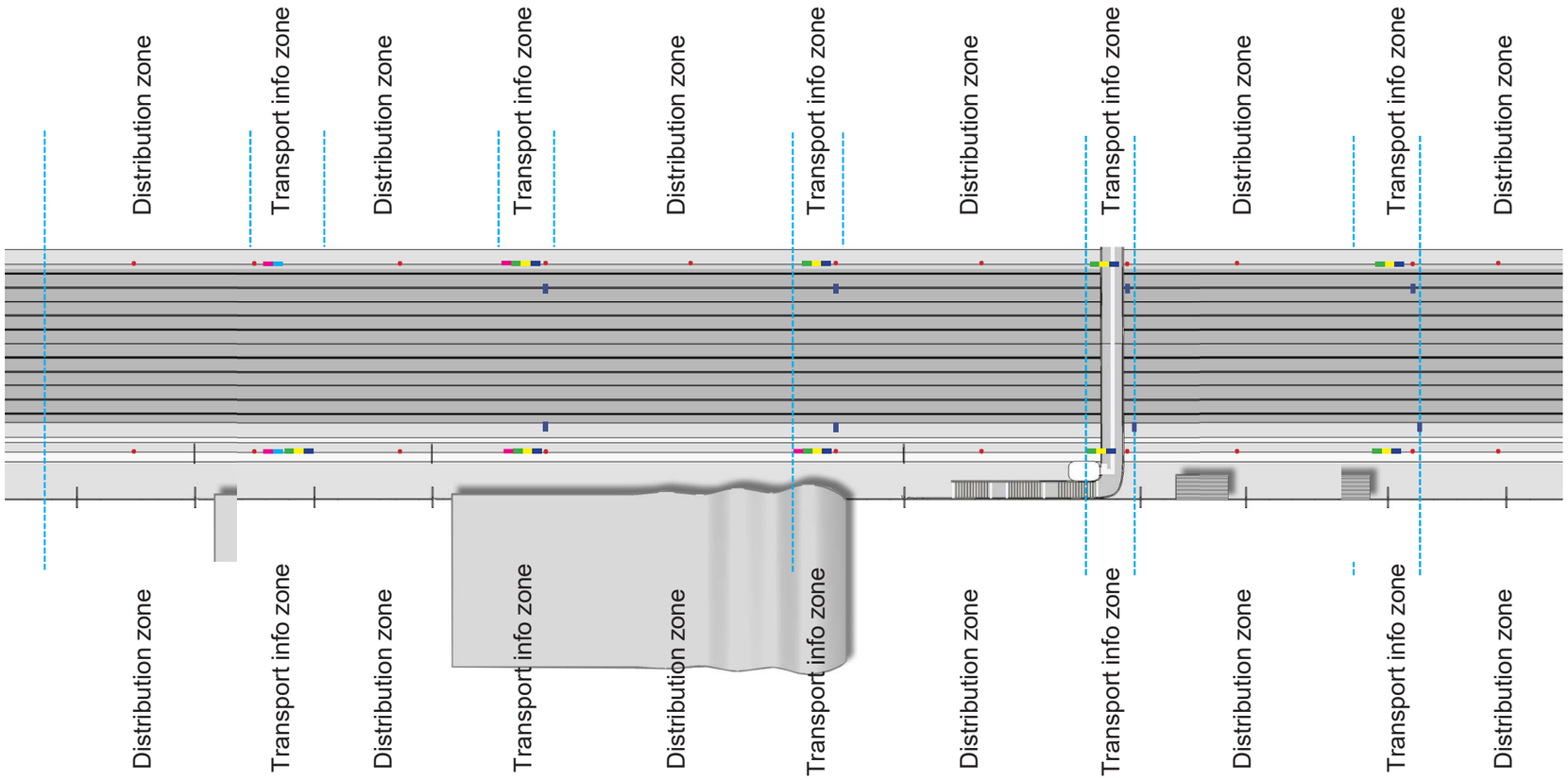
Legend

- Station name
- Platform sign
- Multi-train display
- Directional signage
- Track number sign
- Informational boards
- Loudspeaker

Sign Plan

G2.1

Platform Sign Plan



Design for the 400 m long platform

Legend

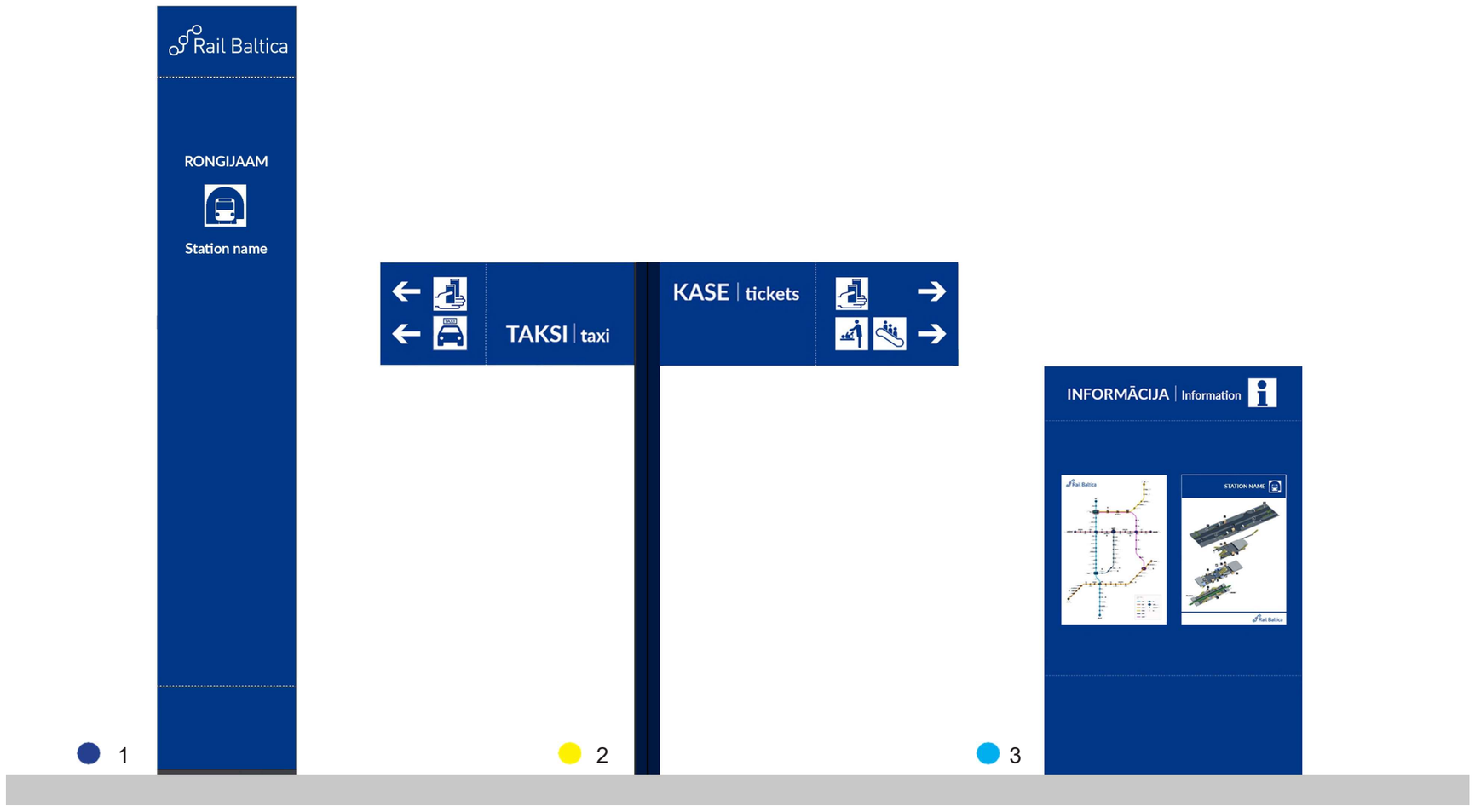
- Station name
- Platform sign
- Multitrain display
- Directional signage
- Track number sign
- Informational boards
- Loudspeaker

Sign Plan

G2.1

Urban Signs Overview

External signs include: totem signs which identifies the station as well as fingerprints signs which provide directions for passengers.



Legend

- 1. Urban Totem sign
- 2. Urban Fingerpointer sign
- 3. Urban Stand sign

Sign Plan

G2.1

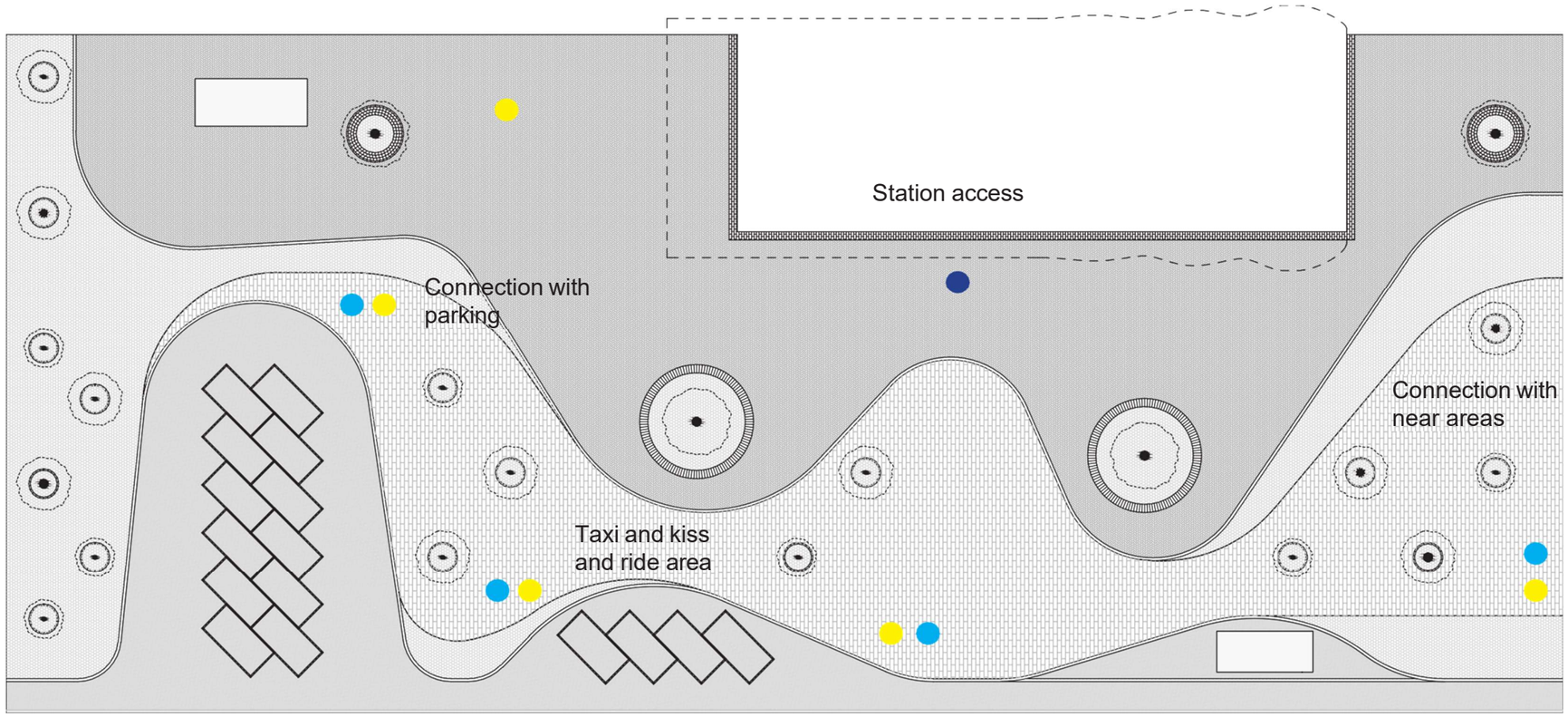
Urban Signs Overview

Signs on the platform
It is important for the signs to be allocated in the best possible way to ensure accessibility and safe route to the station. Urban signs should help directing passengers to the points of interest within the station external area.

Totem sign
Totem should be placed directly in front of the station building so is clearly visible and easily recognizable from a distance as it serves as an identification sign for the whole Rail Baltica network.

Fingerpointer sign
Finger Pointer signs provides directional information and should be placed in external key locations such as station's car and bike parking, main route to the station as well as secondary routes.

Stand sign
Stand sign provides basic information for passengers outside of the station and should be placed in in a key locations such as station's parking and on the main route to the station.



Legend

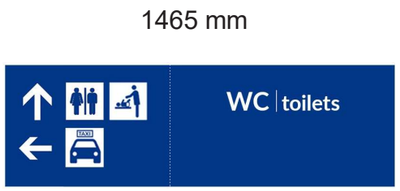
- 1. Urban Totem sign
- 2. Urban Fingerpointer sign
- 3. Urban Stand sign

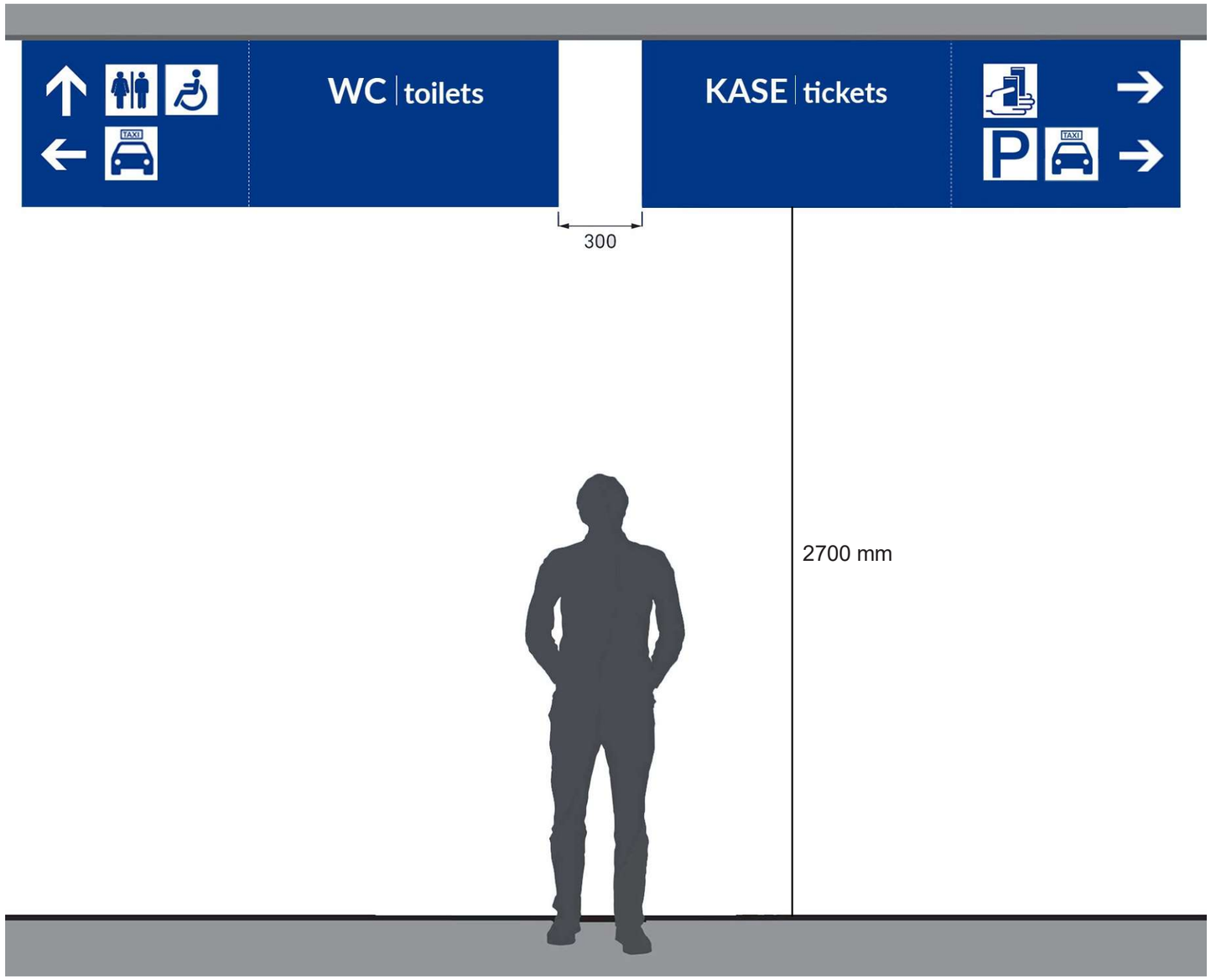
Ceiling Sign

G2.2

Ceiling Station Sign

Sign pairs are a useful way of indicating multiple directions at key decision points inside station buildings, for example in wide thoroughfares or where the interior architecture restricts the use of large multi-line signs. Pairs of signs should always be positioned with the equivalent of one module or 300mm between the signs so they can be read as a pair and not as two separate directional signs. Sign pairs should be the same module length, determined by the longest combination of text and graphics for a symmetrical display.





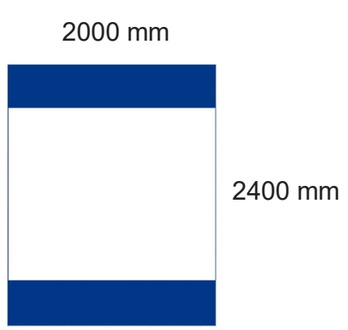
Wall Sign

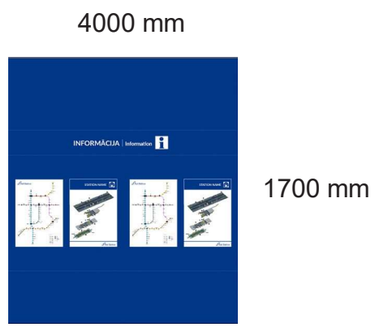
G2.3

Wall and Fascia Station Sign

Location signs often form part of a fascia above windows, doorways, alcovers or offices. Provided the sign depth conforms the standard 300 mm rule, the length can vary to run the length of the facility being signed, for example ticket office illustrated.

Location signs are usually placed at a height of 2100 mm from the floor to the base of the sign. Where this is not possible, location signs should be face-mounted at a height above the facility relative to the window or door being signed, for example the ticket offices illustrated



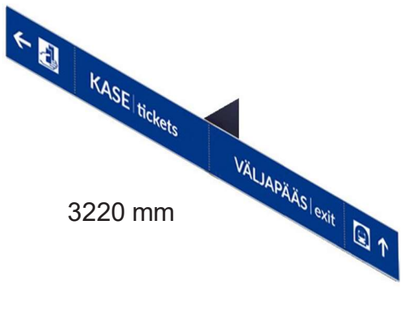


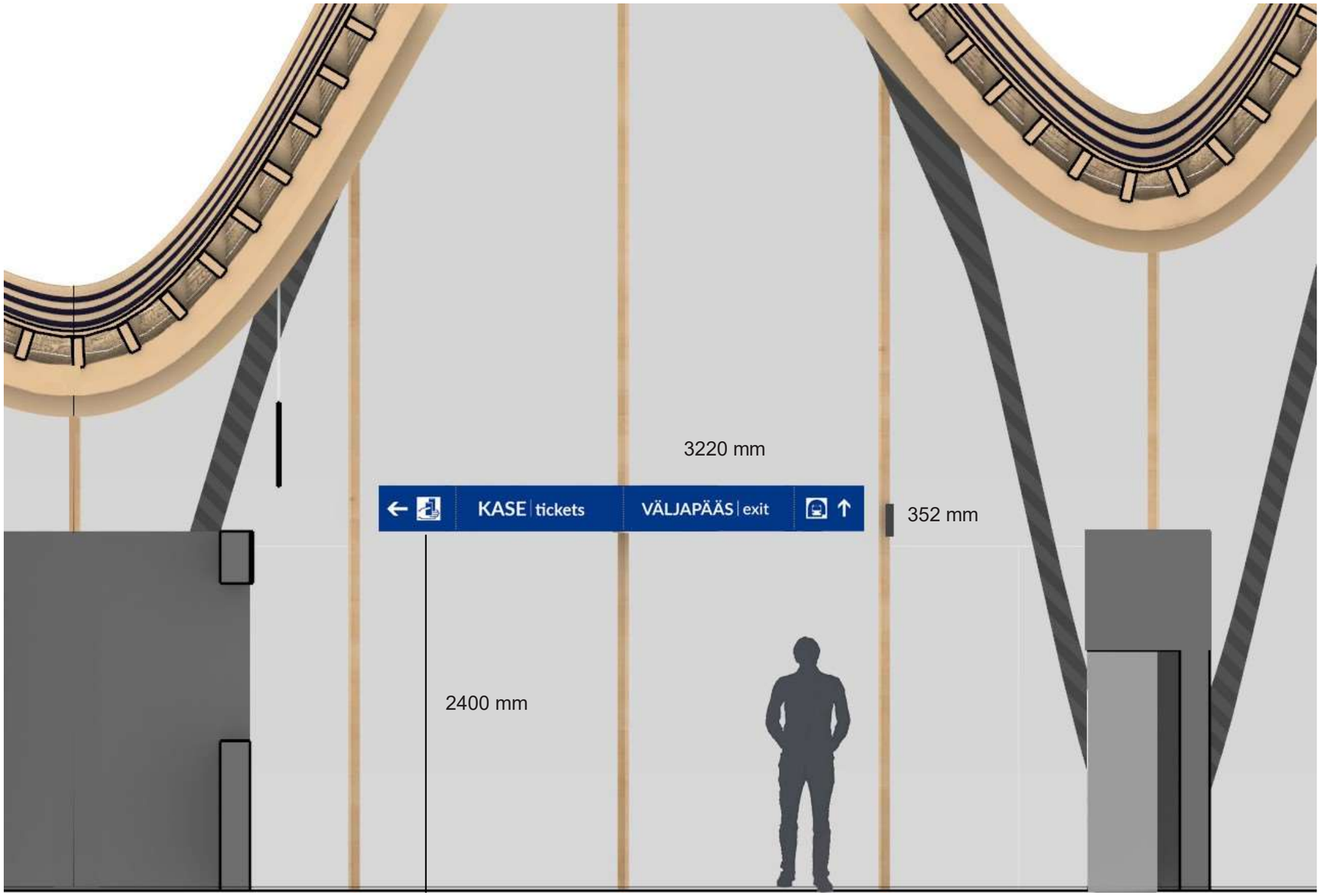
Wall Sign

G2.3

Wall-mounted L-shaped Sign

The illustration shows a typical station with sign in situ. The sign is integrated into station architecture and runs the full width of the exit portal. The sign graphics are centered over the exit area.



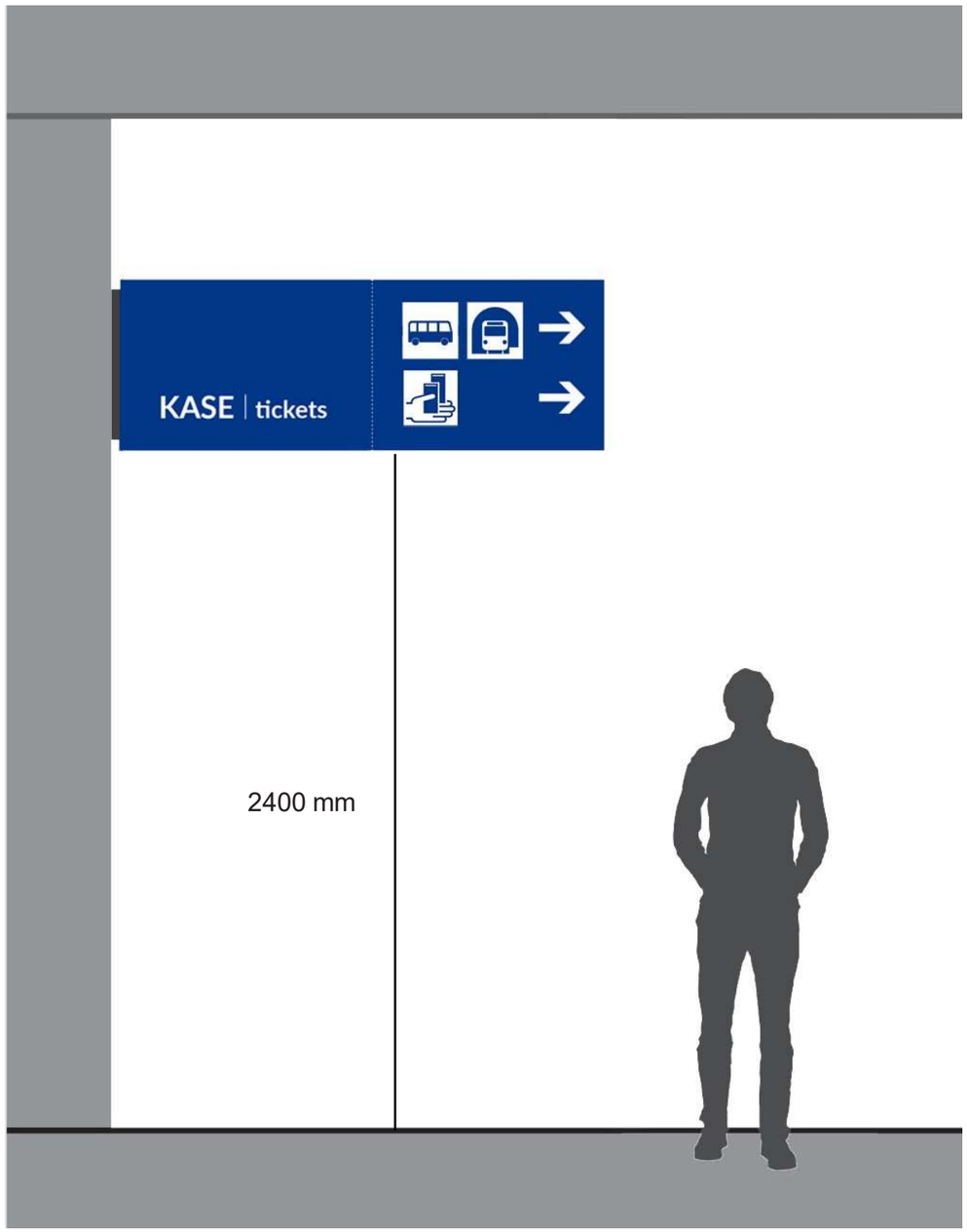


Finger-pointer Sign

G2.4

Finger-pointer Wall-mounted Station Sign

Fingerpoint signs help direct the passengers in the area of station and beyond. They should be located in important points of the station.

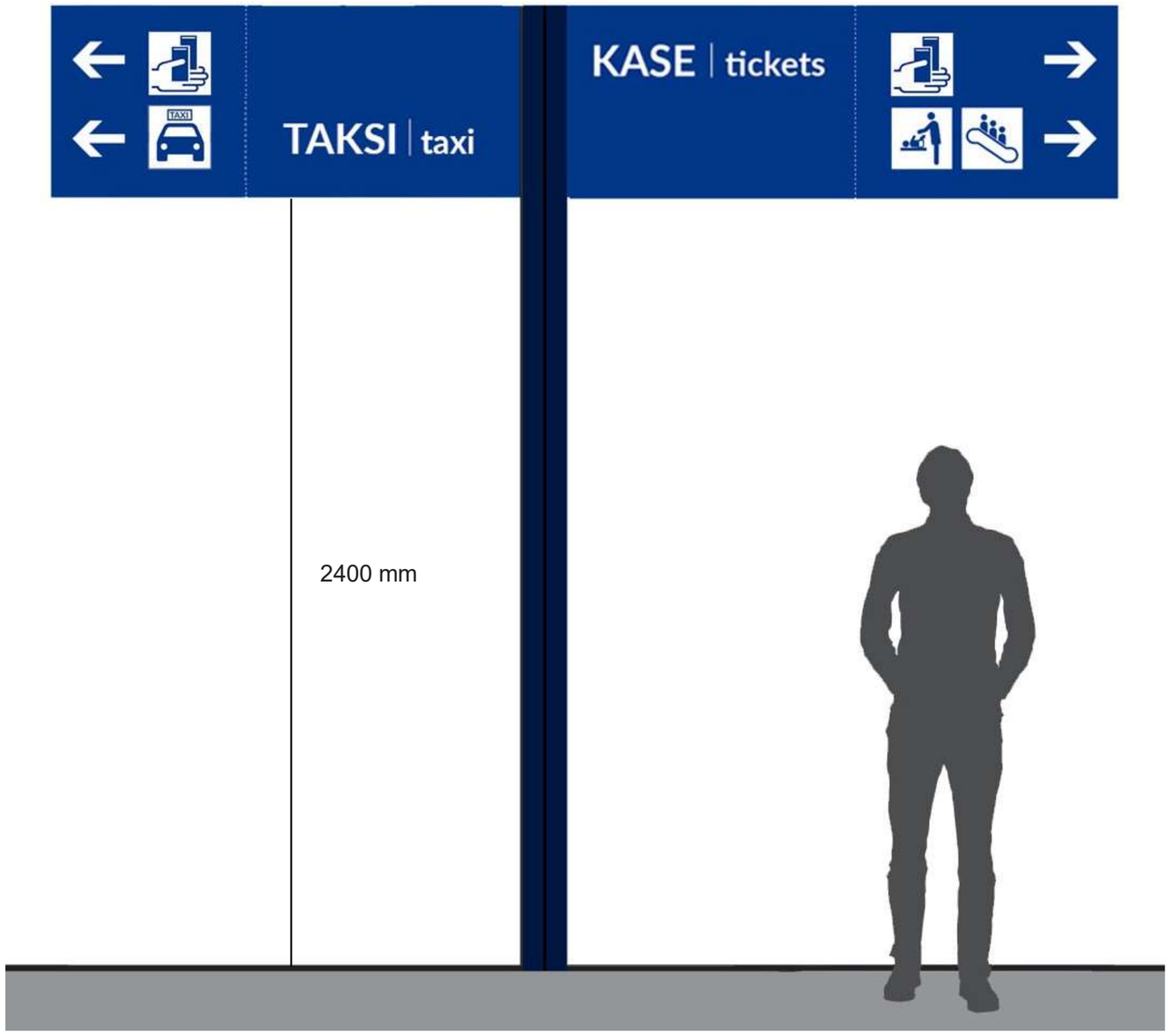


Finger-pointer Sign

G2.4

Finger-pointer T-post Urban Sign

Finger-point signs help direct the passengers in the area of station and beyond. They should be located in important points of the station.
The L-shaped structure also allows the sign to be placed at the preferred height of 2400 mm from the floor to the base of the sign instead of using suspended ceiling signs with visible drop rods.



Totem Sign

G2.5

Urban Totem Sign

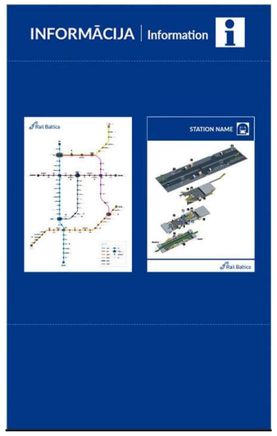
The approach to Rail Baltica stations should be identified by a station totem that is clearly visible and easily recognizable from a distance.

Totem Sign

G2.5

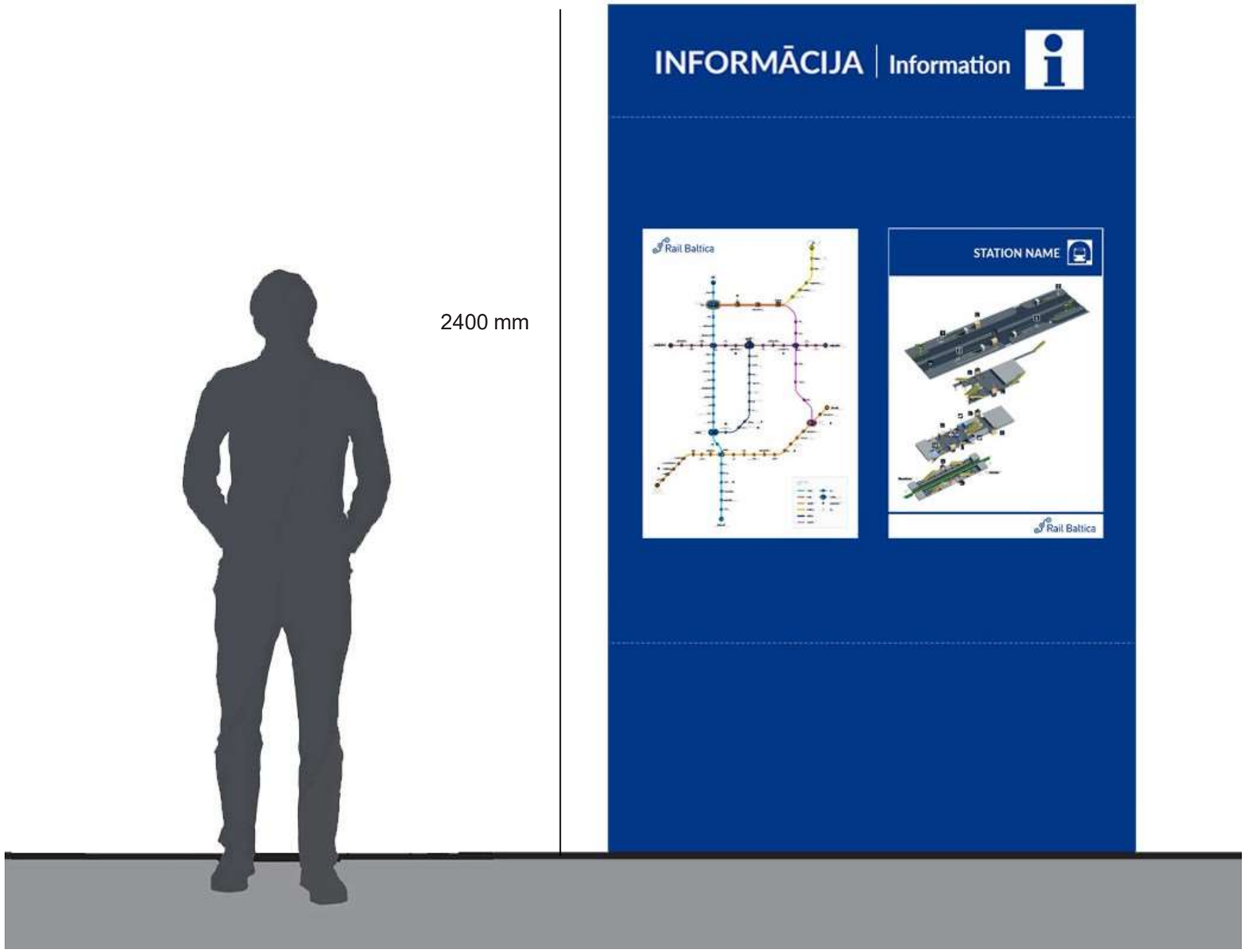
Informational Stand

In urban spaces where there is no flat vertical wall space to use for large glass panel signs, free-standing urban informational signs can be used instead. All such urban stands can display information on both sides.



2400 mm

1500 mm



2400 mm

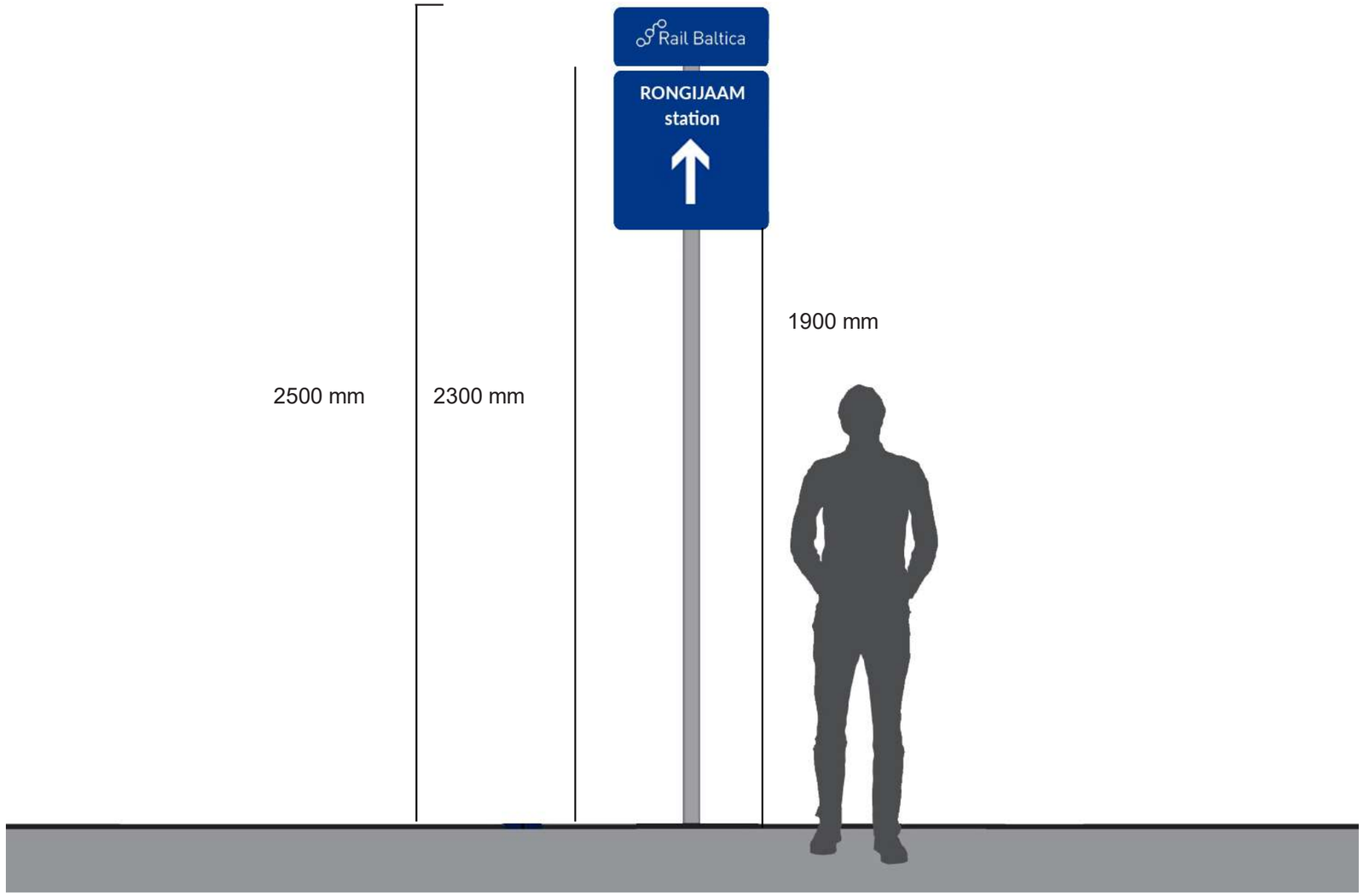
Urban Directional Sign

G2.6

Urban Informational Stand

Urban directional sign provides direction to the station in urban areas.

Pictograms, parameters, and the height of sign shall be based on ISO standard.



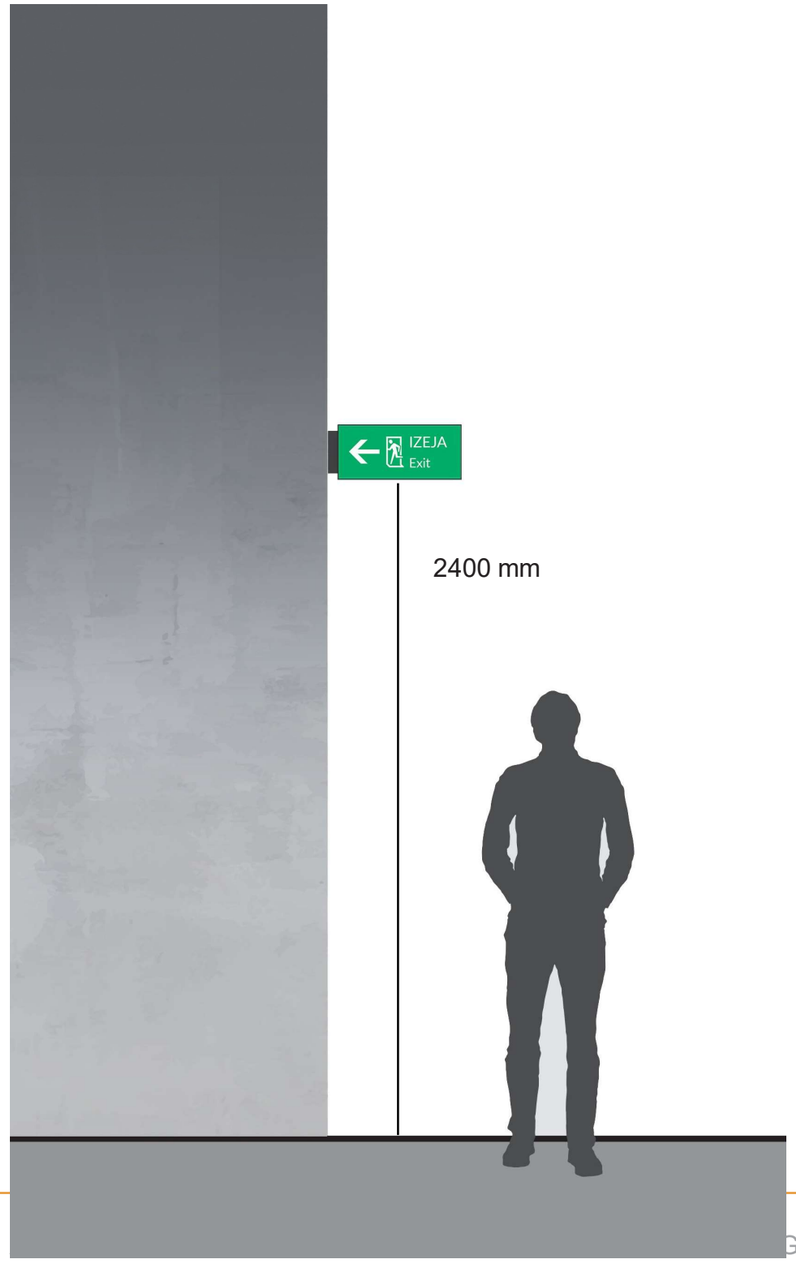
Emergency Sign

G2.7

Emergency Exit Sign

Emergency exit signs have to be illuminated at all times and must clearly mark the escape route, usually through back-of-house areas. As illuminated signs, these use the same inner frame case and outer frame extrusions as directional and location signs but at a reduced height and length.

Emergency signs are likely to make more use of surface mount frames. The internal illumination is the same as the larger signs, although with an illuminated background there will be a discernible fade toward the edges of the sign faces



Design visualization

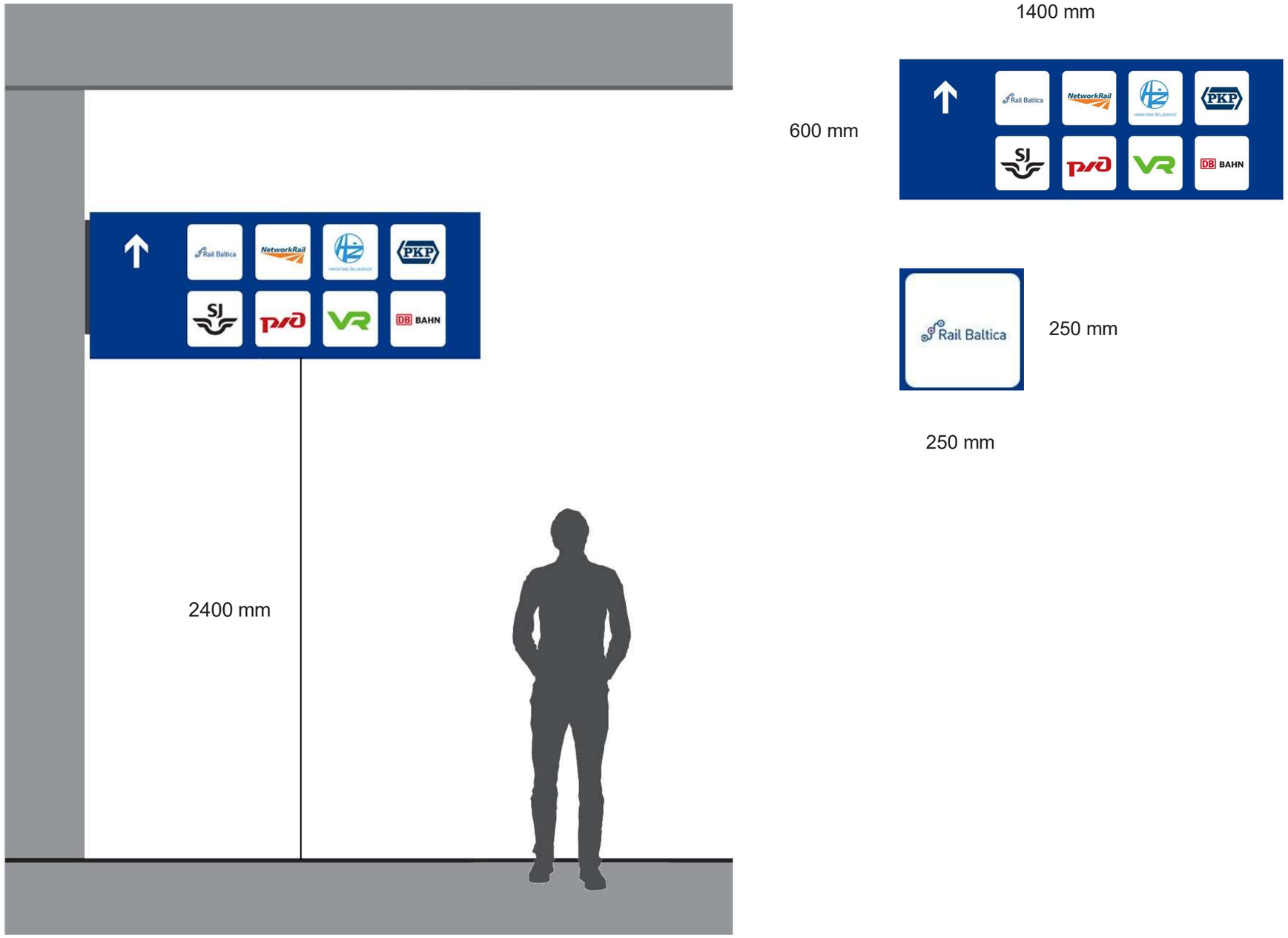
Commercial Sign

G2.8

Commercial Sign

The image shows integration of Rail Baltica logo with other rail or transport services.

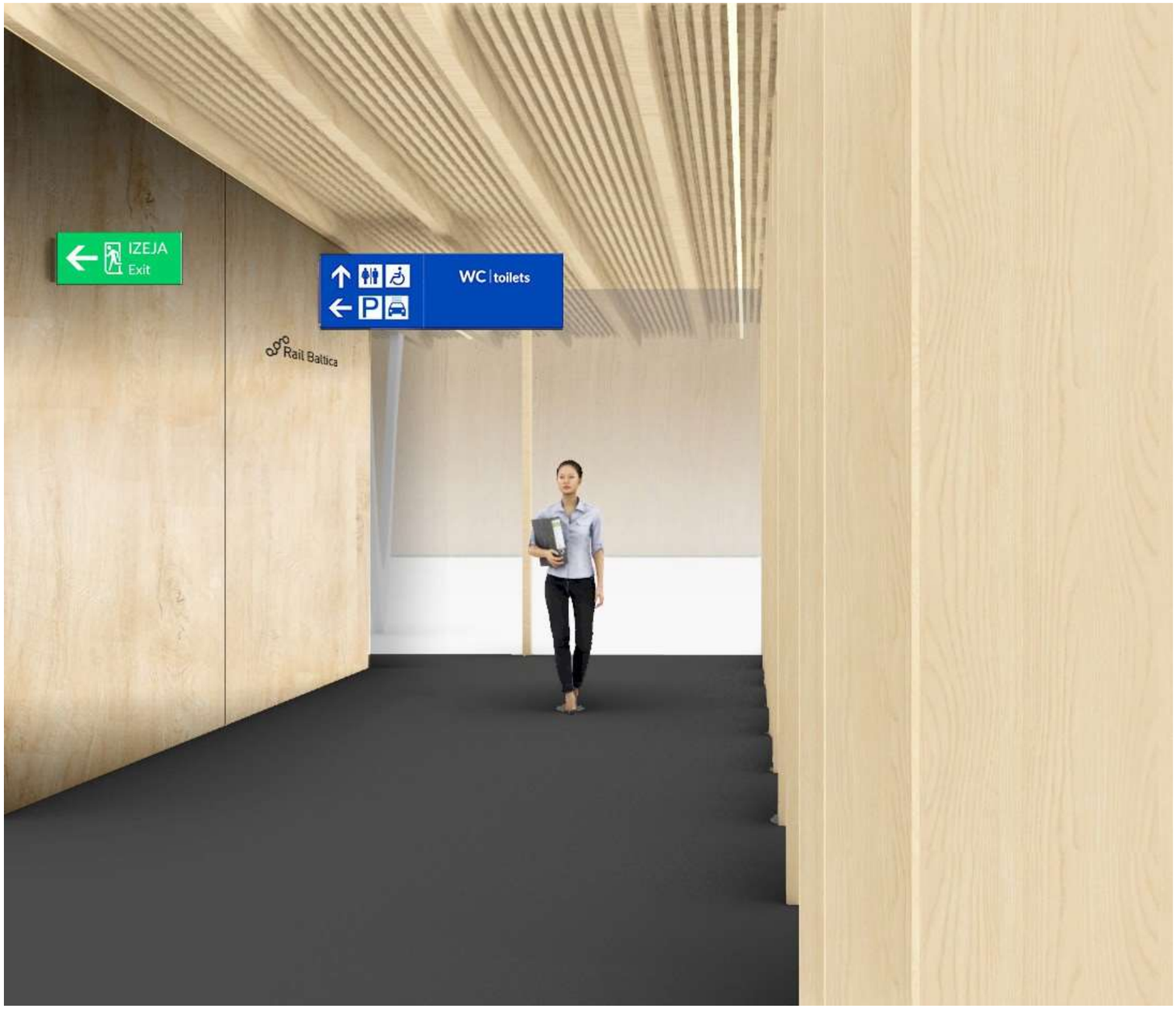
Pictograms, parameters, and the height of sign shall be based on ISO standard.



Visualizations

G2.9

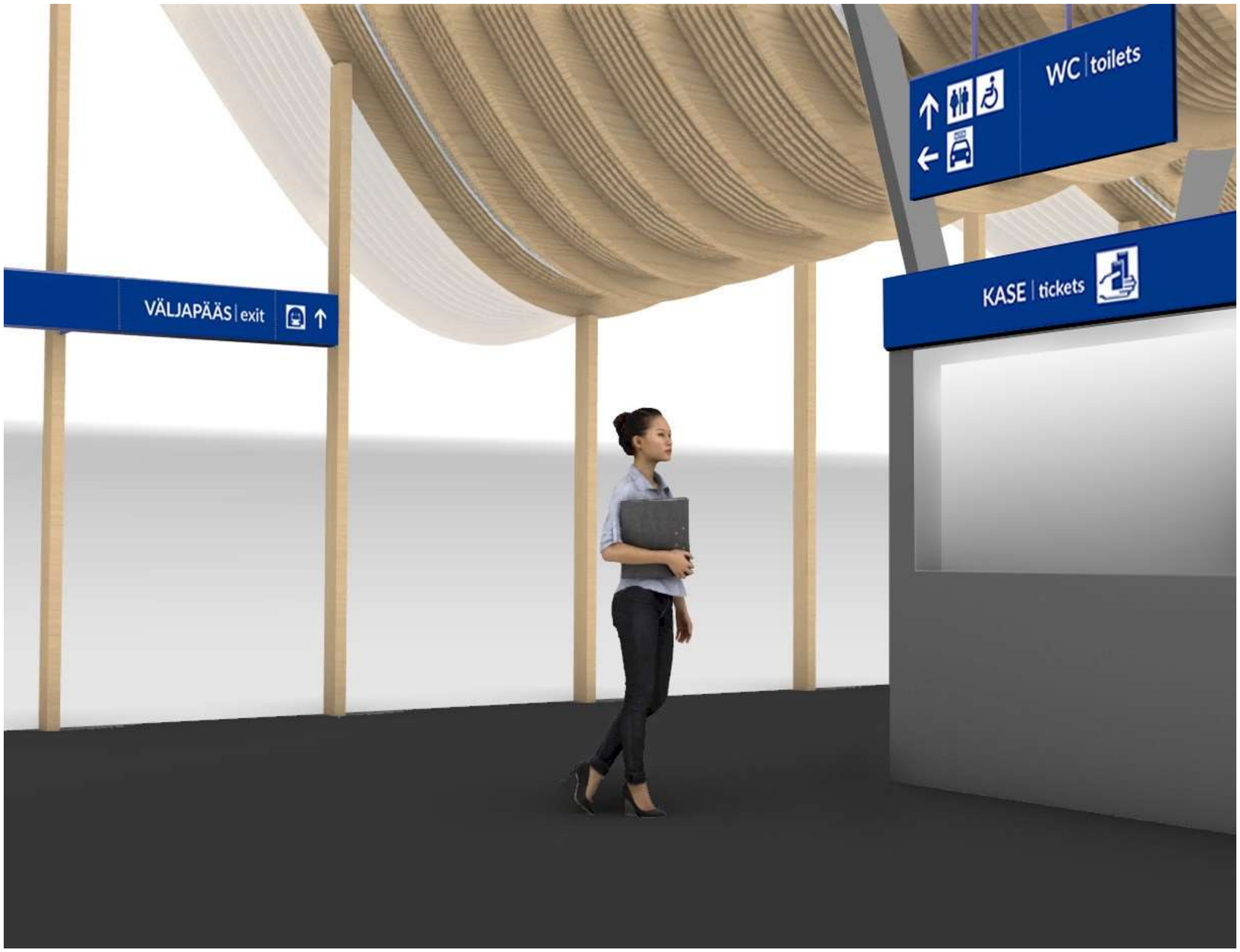
Finger-pointer and Emergency Exit Sign



Visualizations

G2.9

Wall-mounted, Ceiling and Finger-pointer Signs



Visualizations

G2.9

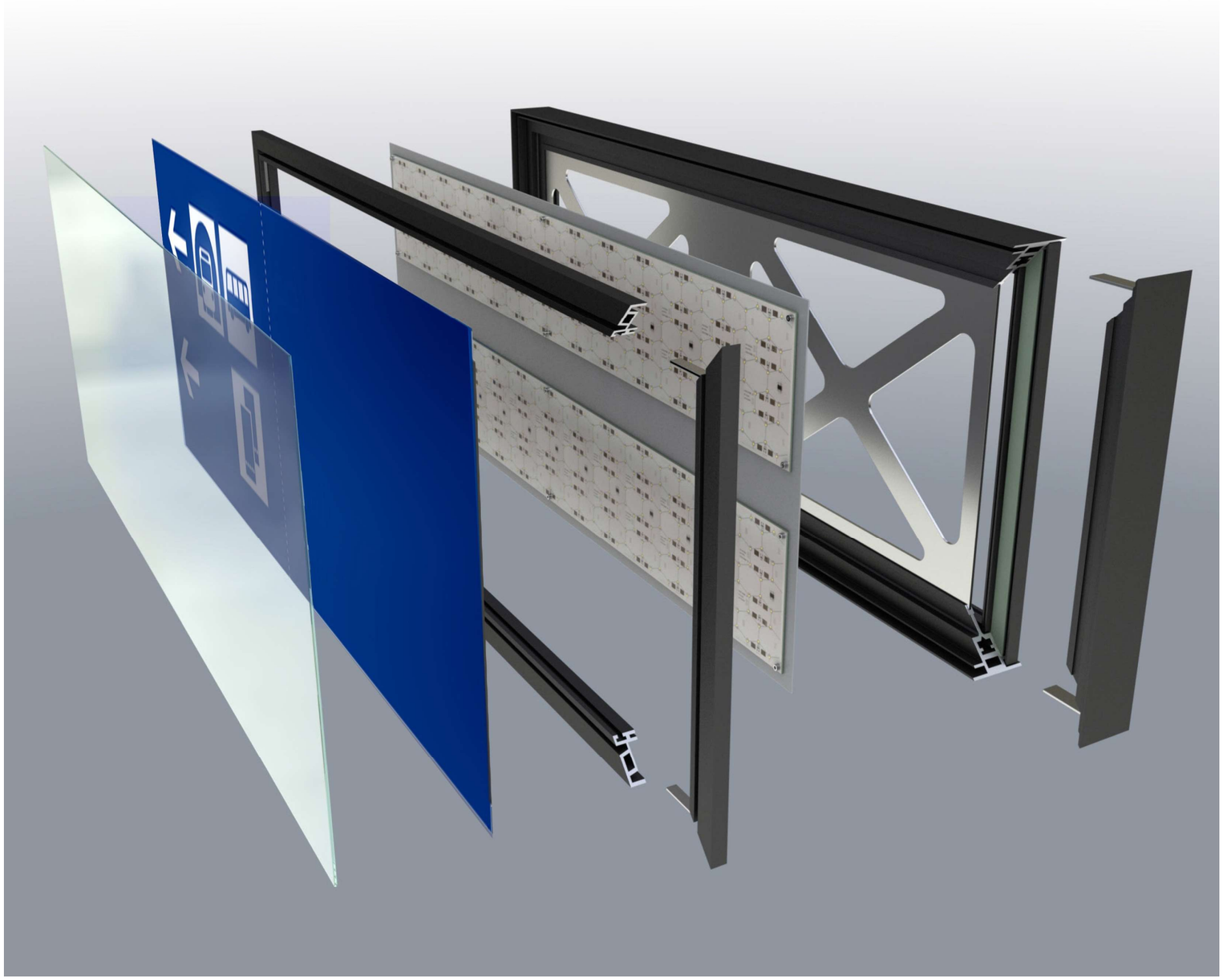
Wall Sign

Technical Details

G2.10

Primary Components

As illustrated in the exploded view opposite, the extrusions are formed into rectangular frames and corner lugs are used to hold the frames square before assembly. The internal bracing plate with machined apertures is shown in silver. The case back panel is shown with the mounted LED lighting panels in place. The sign graphics film is applied to the back of the glass before assembly but here, for illustration purposes, the sign face is shown as clear. A black frit is required around the edges of the glass face. The sign graphics are applied as different layers of vinyl film to the back (inside) of the glass face.

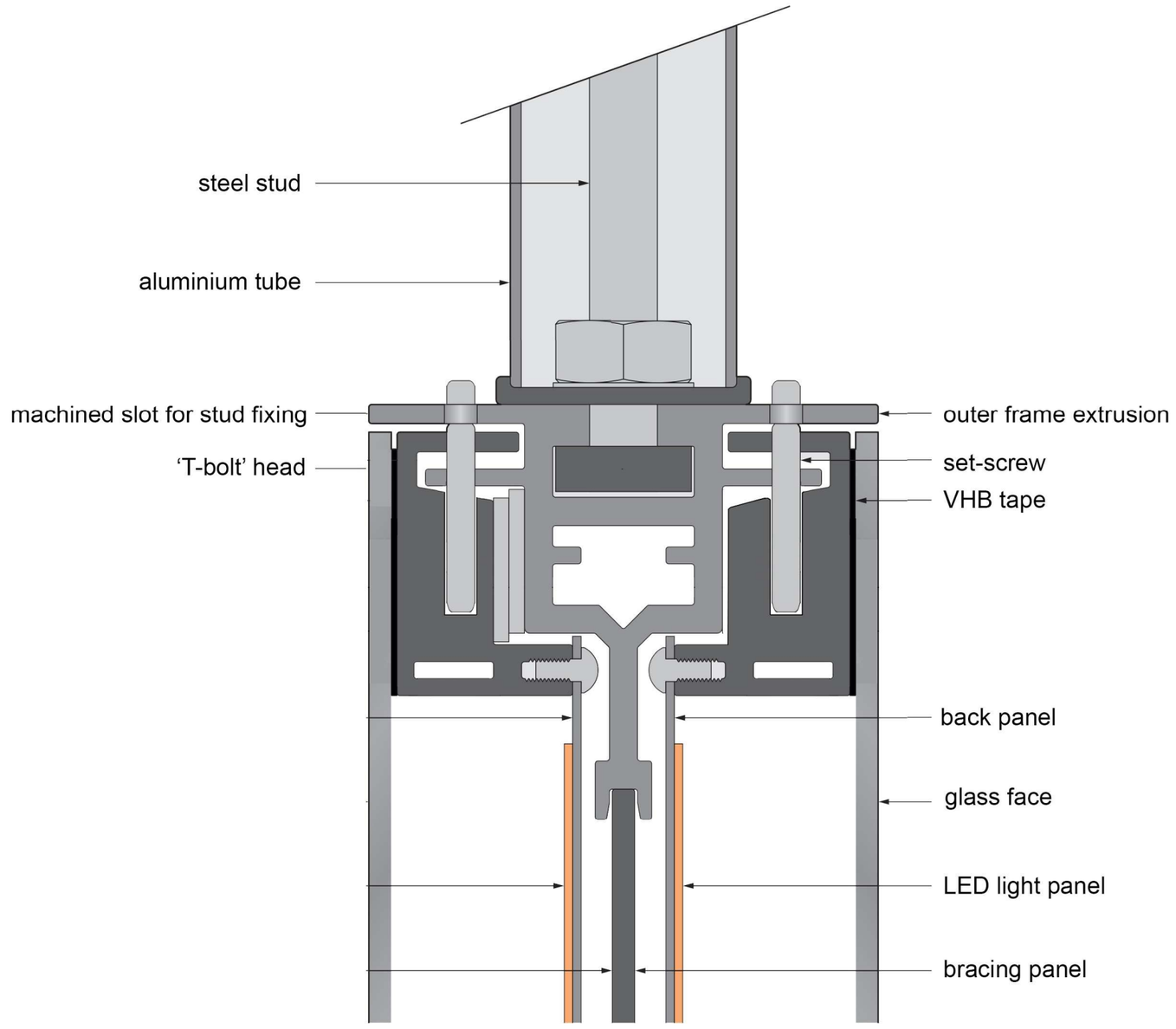


Technical Details

G2.10

Ceiling Bracket Fixing

To fix signs to ceilings, either directly or with the use of drop-rods, a threaded stud must be used. The steel threaded stud is bolted to the outer frame extrusion anywhere along its length. This can help the fixing to avoid service conduits, pipes and ducting in the ceiling space and when a greater number of fixing points are required for longer sign units. Drop-rod sleeves should be used for signs that are suspended below a ceiling. The sleeves are hollow aluminium extrusions that hide the steel studding and provide space for power leads to be fed down from the ceiling spur point into the sign cases.



Technical Details

G2.10

External Ground Fixing

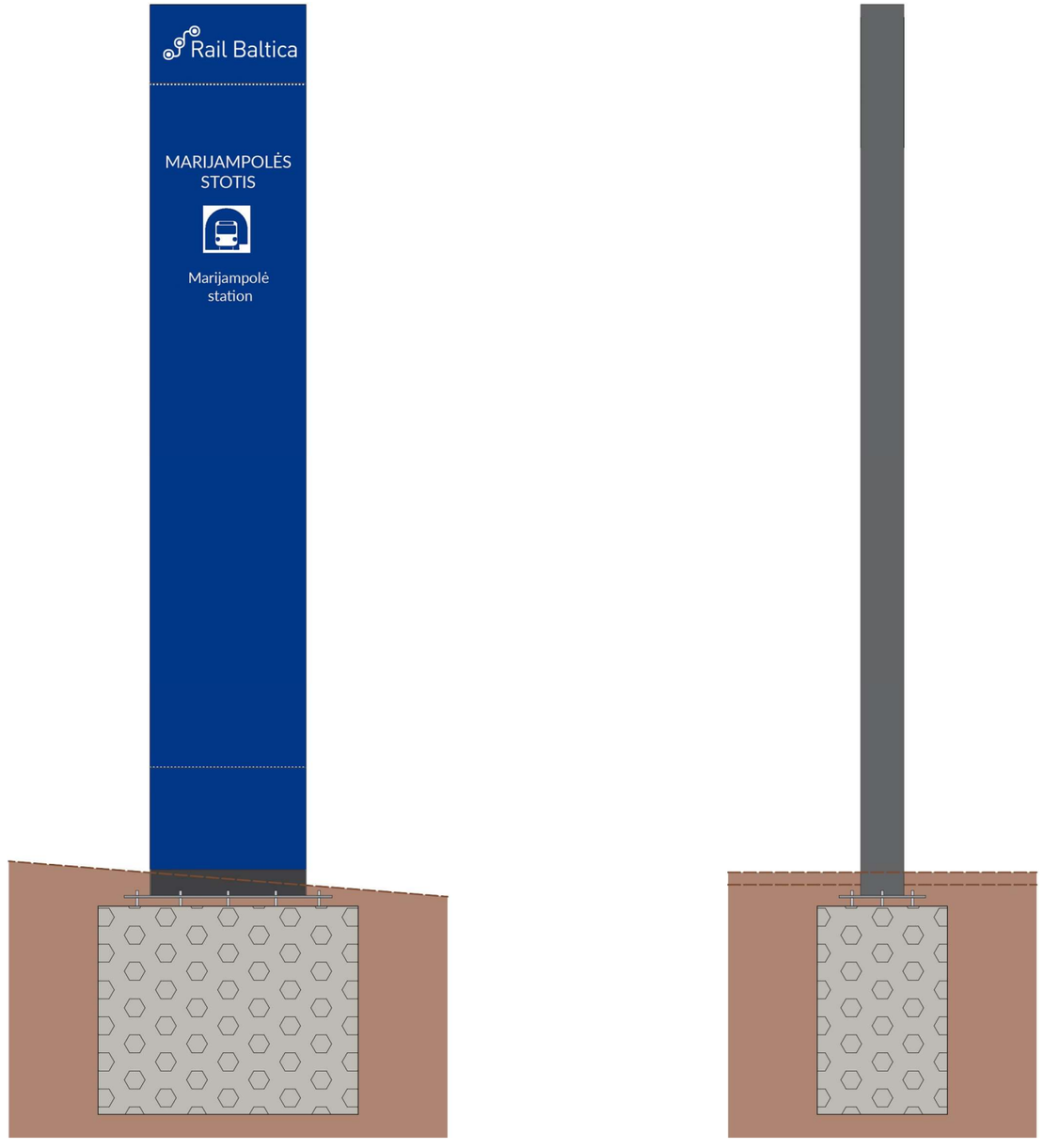
All floor mounted sign units and cases, including totems, are fixed in a similar manner. The surface cladding panels or sign faces do not touch the floor. There is always a gap of between 30 and 60 mm between the floor surface and the bottom edge of the panel or sign face.

The outer frame and internal structure of these floor mounted units will extend down below the finished floor level. A common feature is a base fixing plate that allows the unit to be bolted down to a concrete base or slab. For the external totems, the unit structure extends below the bottom edge of the cladding panels to a depth of 150 mm.

This 150 mm depth allows the totem to be mounted vertically even if the surrounding ground or pavement is uneven or sloping. A maximum incline of six degrees can be accommodated by this fixing method. In special conditions where the incline may be greater than this, an extended base fixing can be manufactured.

All floor mounted sign hardware needs to be securely bolted down. The large 5 m totems will require additional support in the form of specially cast concrete bases. These are required to resist the affects of wind loading on the totem faces. Each concrete base should weigh approximately 1.5 tonnes.

The base plate of the totem is bolted to the concrete base using projecting studs which will allow levelling adjustment. These steel studs will be zinc plated steel and can form a rag-bolt cage structure cast into the concrete.



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Rail Baltica Signage and Wayfinding

ARCHITECTURAL, LANDSCAPING AND VISUAL IDENTITY DESIGN GUIDELINES FOR RAIL BALTICA

RB Rail AS