

Signage Manual

Rail Stations

April 2023



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A railway station is an important node within many journeys. Commuters change their form of transportation at this node and expect to do so with minimal difficulty. The essence of a railway station and supporting infrastructure is the circulation patterns of commuters in transit. Therefore, the design of a successful railway station (new or upgraded) must begin with circulation design/analysis.

A perfect circulation design is “legible” – easy for all to comprehend; totally self-explanatory – but this is unlikely to be achieved within the complex interactions of site, function and urban and social context that govern station design. So a clear “wayfinding” strategy is required to “make sense of” the circulation pattern. Signage is a key element to assist commuters in the station environment.

This manual is intended to provide guidance to those who are preparing tender documents for the provision of signs at stations within the Queensland Rail City Network. It contains:

- Procedural information
- Technical details of sign types

Before the content of this manual can be applied effectively, however, the design of the context of the signs (wayfinding and thus circulation) must be finalised. There can be no engineering formula for the location of signs. Effective signage is the product of circulation design by a person skilled in the manipulation of the contextual perception of all commuters. This involves not only the placing of the most appropriate sign in the best location, but also, the minimisation of the number of signs to reduce clutter and improve comprehension. Creative amalgamation of “signs” is desirable – some examples are illustrated on the sign type drawings. The sign layouts shown are to be used as a basis for design to suit site specific conditions.

The issues within the previous paragraph indicate that it is desirable to introduce a stage of work that precedes the development of the signage “brief”. For new stations or station upgrades, this preparation of signage layout and selection of type is best incorporated into the work of the station designer. For existing sites a preliminary work stage (probably by a specialist) is indicated.

Introduction

It is assumed that each signage installation project will be under the control of a Project Officer appointed by the relevant stakeholders. The following Stages apply to each project to the degree appropriate to the particular project.

Stage 1 – by Project Officer

1. Consult with Queensland Rail (or nominated representative) and prepare a brief on the signage requirements for the station in question. The brief will contain:

- Required extent of signage
 - Priorities for signage – eg Rank entries in order of importance/ demand
 - Relevant issues arising out of the local context – eg High usage by persons with particular disabilities
 - Restrictions on platform access, working hours, etc
 - Extent of signage contractor's work in relation to electrical (and comms) supply to illuminated signs. Electrical design, wiring and components to suit the signage application.
 - Any impacts the proposed signs may have on other components such as security camera positions.
 - Where the proposed signage is associated with a new station or a major station upgrade, the brief may also include a preliminary signage concept prepared by the station designer.
2. Select/appoint a signage contractor via an approved process.

Stage 2 – by Signage Contractor

Prepare a preliminary signage layout for the station and all other facilities required to be identified in accordance with the brief generated in Stage 1 of the process.

The signage plan is to identify the following site features:

- Public and private roadways associated with the site.
- Paths of travel to the site and within the site, including footpaths and crossing points.
- Pedestrian and vehicle entry points into the station grounds.
- Location of car parks, passenger drop-off bays, taxi ranks, bus stops and the like associated with the station and within a general radius agreed to in Stage 1.
- The general layout of the station including, but not limited to, access paths, buildings, structures, underpasses, footbridges, facilities and platforms.

The signage plan is to identify the following information specific to signage:

- Locations and type of signs in accordance with the signage requirements brief.
- The specific location of each sign, describing its orientation, height, distance from any paths of travel and the like.
- The message content of each sign / sign face, including text, pictograms, Braille, and arrows.
- Installation details where connections, footings etc differ from the design intent in the manual.

The signage plan is to be accompanied by –

- Clear statements of design/location rationale.
- Structural Engineer's certification that the proposed fixing locations for the signage provide adequate support.

Stage 3 – by Signage Contractor & Project Officer

Submit signage layout plans to Queensland Rail for review.

Stage 4a – by Signage Contractor

On issue of the reviewed plans from Queensland Rail, address all comments provided with the plans and prepare a final Signage Layout Plan.

Stage 4b – by Project Officer

Determine what, if any, lighting upgrade is required for the signs and determine who is to design and/or install the lights. In conjunction with the signage layout Plan, prepare a lighting diagram that indicates compliance with the required lux levels at the face of each sign.

Stage 5a – by Signage Contractor & Project Officer

Submit signage layout plans to Queensland Rail for final review.

Stage 5b – by Project Officer

Submit required lighting / lux level plans to Queensland Rail for final review.

Note: The balance of the work includes electrical (and possibly lighting) only to the extent stated in the Brief and/or instructed by the Project Officer.

Stage 6 – by Signage Contractor

On issue of the reviewed plans from Queensland Rail, address all comments provided with the plans and issue a Signage Plan for Approval by Queensland Rail.

Stage 7 – by Signage Contractor

On approval of the plans fabricate signage in accordance with Rail Station Signage Manual.

Stage 8 – by Signage Contractor

Prior to the installation of the fabricated signs on site prepare a work method Statement and Risk Management plan and submit these documents to Queensland Rail.

Queensland Rail will provide advice on whether any further approvals are required to undertake the installation work.

Stage 9 – by Signage Contractor

Install signage on site in accordance with the agreed Work Method Statement, Risk Management Plan and any other requirements stipulated by Queensland Rail.

Principles for rail station signage

Section



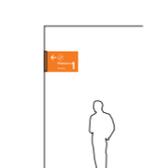
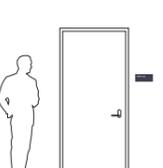
The overall approach is to provide an easily accessible train station environment through information and identification of facilities.

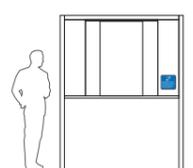
Sign types are categorised as 4 types -

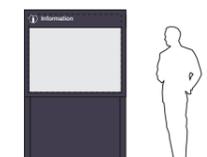
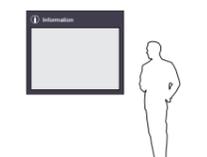
Directional Signs (DS)
Facility Identification and Regulatory Information (FI)
Information System (IS)
Primary Identification (PI)

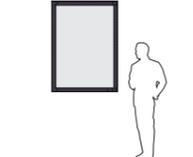
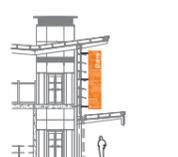
A summary of sign types are as follows:

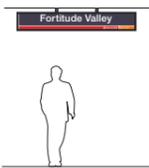
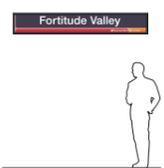
1. 'Main' facility PI signs identify the entry points to the station and are located at the main approaches.
2. 'Secondary' facility PI signs are located in key locations to support the 'Main' PI signs where applicable to draw commuters towards the station access points to platforms. Note that the secondary PI signs feature less information than the main PI signs.
3. If a Commuter Car park (Park 'n' ride) facility exists, then it is identified at the main entrance.
4. Information signs display a locality map and incorporate network map, station map and timetable.
5. Each Platform is identified and incorporates timetable and route information.
6. Kiss 'n' ride and Taxi zones, Bus stops are signed. These signs do not replace statutory requirements as specified in the Manual of Uniform Traffic Control Devices eg. No Standing, Taxi/Bus Zone.
7. Staff facility areas (eg toilets) are signed as "Staff Only".
8. Public facilities are identified for example lifts, timetables and maps.
9. Identify accessible facilities. Accessible signs are to supplement high level signage.
10. Regulatory information can be incorporated within existing sign types.
11. Directional signs direct to station facilities, other public transport and to major destinations including but not limited to local shopping centres, schools, hospitals, community centres.
12. Signs are to be located perpendicular to the flow of traffic (either vehicular or pedestrian).

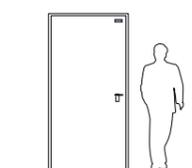
SCHEMATIC	SIGN TYPE	LOCATION	PAGE
	DS-1 Minor Directional Sign	At decision points	4.1
	DS-4 Internal Directional Sign - Suspended	At decision points - suspended	4.2
	DS-6a Braille & tactile directional Sign - Wall Mounted	At decision points	4.3
	DS-6b Braille & tactile directional sign - freestanding	At decision points	4.4
	DS-7 Wall Mounted Directional Sign	At decision points	4.5
	DS-8 Directional Sign - freestanding	At decision points	4.6
	DS-9 Internal Directional Sign - projecting	At decision points	4.7
	FI-1a Staff facility identification sign	Next to facility entrance door	4.8

SCHEMATIC	SIGN TYPE	LOCATION	PAGE
	FI-1b Public facility identification sign	Next to facility door	4.9
	FI-1c Customer Service - hearing loop signage	At station office	4.10
	FI-1e Priority Seating Area Identification Sign	Core zone platform shelter or suspended above seating area.	4.11
	FI-1f Sharp Disposal Identification Sign	Above the sharps disposal bin	4.12
	FI-1g Help Phone Identification Sign	On freestanding console	4.13
	FI-1i Accessible Lift Identification Sign at Lift Landing	Outside the lift	4.14
	FI-1j Accessible Lift Identification Sign Control Panel	At lift car controls	4.15
	FI-1k Assisted Boarding Point Mat	On the platform surface	4.16

SCHEMATIC	SIGN TYPE	LOCATION	PAGE
	FI-3a Kiss 'n' ride Identification Sign	At the head of the Kiss 'n' ride zone	4.17
	FI-3b Taxi Identification Sign	At the head of the taxi zone	4.18
	FI-5 Facility & Prohibition Signs	Mounted at restricted areas	4.19
	FI-6a Facility Identification Sign - Wall Mounted	Mounted above facility	4.20
	FI-6b Facility Identification Sign - Double Sided	Mounted above facility	4.21
	FI-7a Safety Signage - Line Marking	Applied to platform	4.22
	IS-6c Timetable & Map Sign Freestanding	At major gathering points	4.23
	IS-6d Timetable & Map Sign Wall mounted	At major gathering points	4.24

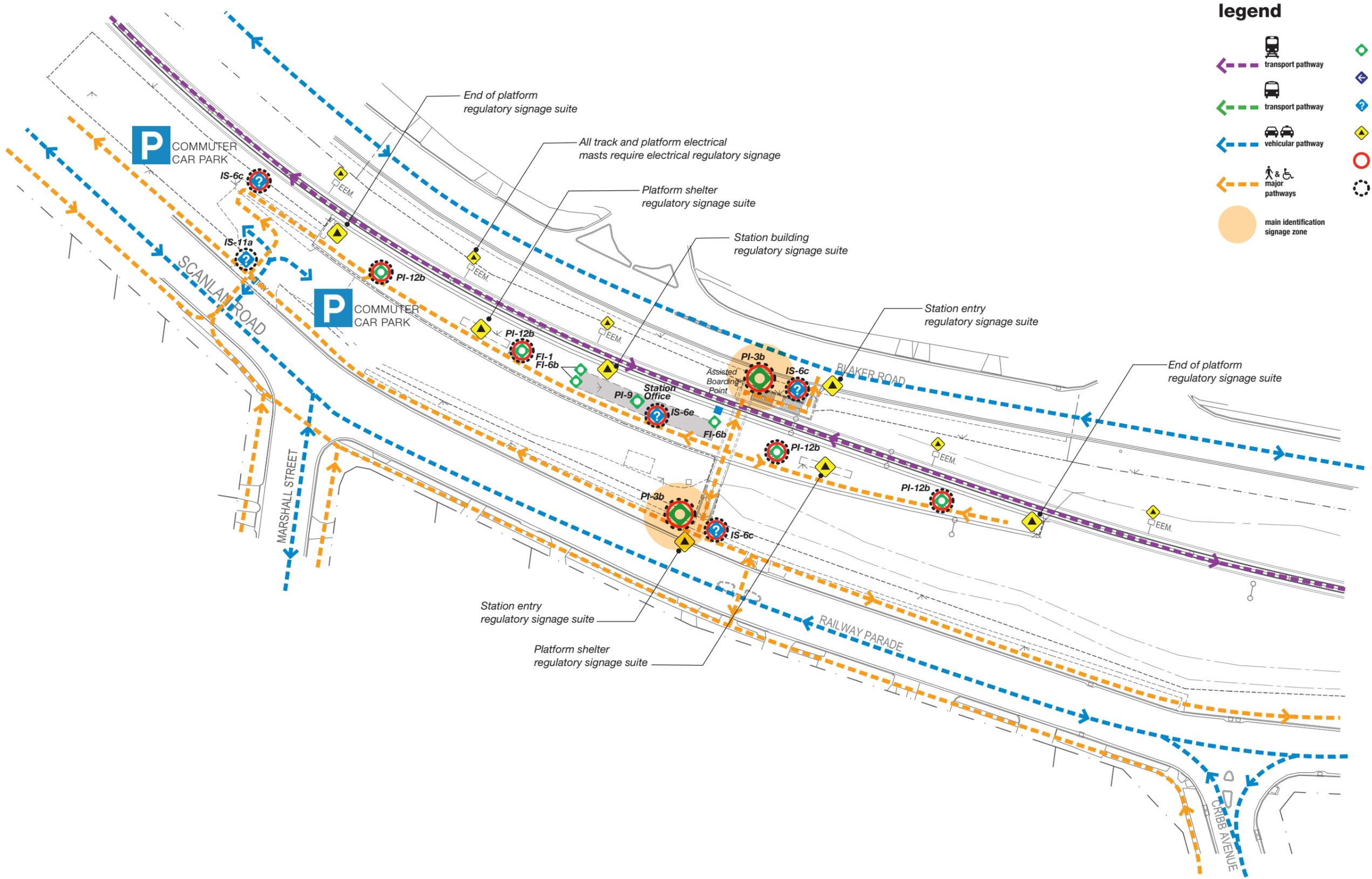
SCHEMATIC	SIGN TYPE	LOCATION	PAGE
	IS-6e Portrait Display Cabinet - Wall mounted A0 & 4 x A3 Poster Option	At major gathering points at the station entry	4.25
	IS-8a Rail Station Entry Information Display Signs	At station entry	4.27
	IS-10a Bus Stop Blade Sign	At bus stop Located at the boarding point of the bus stop NOTE: Not used at Busway	4.28
	IS-11a Park 'n' ride liability sign - freestanding	At entrance of car park	4.29
	IS-11b Park 'n' ride liability sign - Wall mounted	At entrance of car park	4.30
	PI-3b Major identification sign (includes Park 'n' ride)	Main sign to identify site / station from major approaches	4.31
	PI-4a Banner Sign - projecting	Secondary sign to identify station as a support to the main identification sign	4.32
	PI-4b Banner sign - freestanding	Secondary sign to identify station as a support to the main identification sign	4.33

SCHEMATIC	SIGN TYPE	LOCATION	PAGE
	PI-5 Entry identification - Secondary sign	Secondary sign to identify station as a support to the main identification sign	4.34
	PI-9 Customer Service & Fares / Tickets identification sign	At station office and ticket machine	4.35
	PI-12 Station identification sign - graphic layouts	Platform	4.36
	PI-12a Station identification sign - platform	Suspended from station structure on platform (where required)	4.37
	PI-12b Station identification sign - freestanding	Freestanding on platform (where required)	4.38
	PI-12c Station identification sign - wall mounted	Wall mounted on platform (where required)	4.39
	PI-12d Station identification sign - Landscape format	Main sign to identify station entry from major approaches	4.40
	PI-13a Platform identification sign	Suspended or projecting from platform structure or electronic PID unit	4.41

SCHEMATIC	SIGN TYPE	LOCATION	PAGE
	PI-13b Platform identification sign - freestanding	Freestanding (where required) - pole mounted	4.42
	PI-13c Platform identification sign - wall mount	Wall mounted sign at entrance of platform	4.43
	PI-14a Minor station & Park 'n' ride identification sign	At entrance of station car park - freestanding	4.44
	PI-14b Minor station & Park 'n' ride identification sign	At entrance of station car park - wall mounted	4.45
	PI-15a Station Identification Sign - Non-illuminated	Main sign to identify site / station from major approaches	4.46
	PI-15b Station identification sign	Main sign to identify site / station from major approaches - fixed to lift shaft	4.47
	ST-1 Standard door sign - panel	On service door (as required)	4.48
	ST-2 Statutory sign - vinyl	On service door (as required)	4.49

The following circulation paths are used to identify where signage is required based upon decision points along paths. When used in conjunction with the sign type description of typical purpose, location, information, and direction purposes. The following circulation paths are of various size stations.

- small suburban station
- large suburban station
- large inner city station

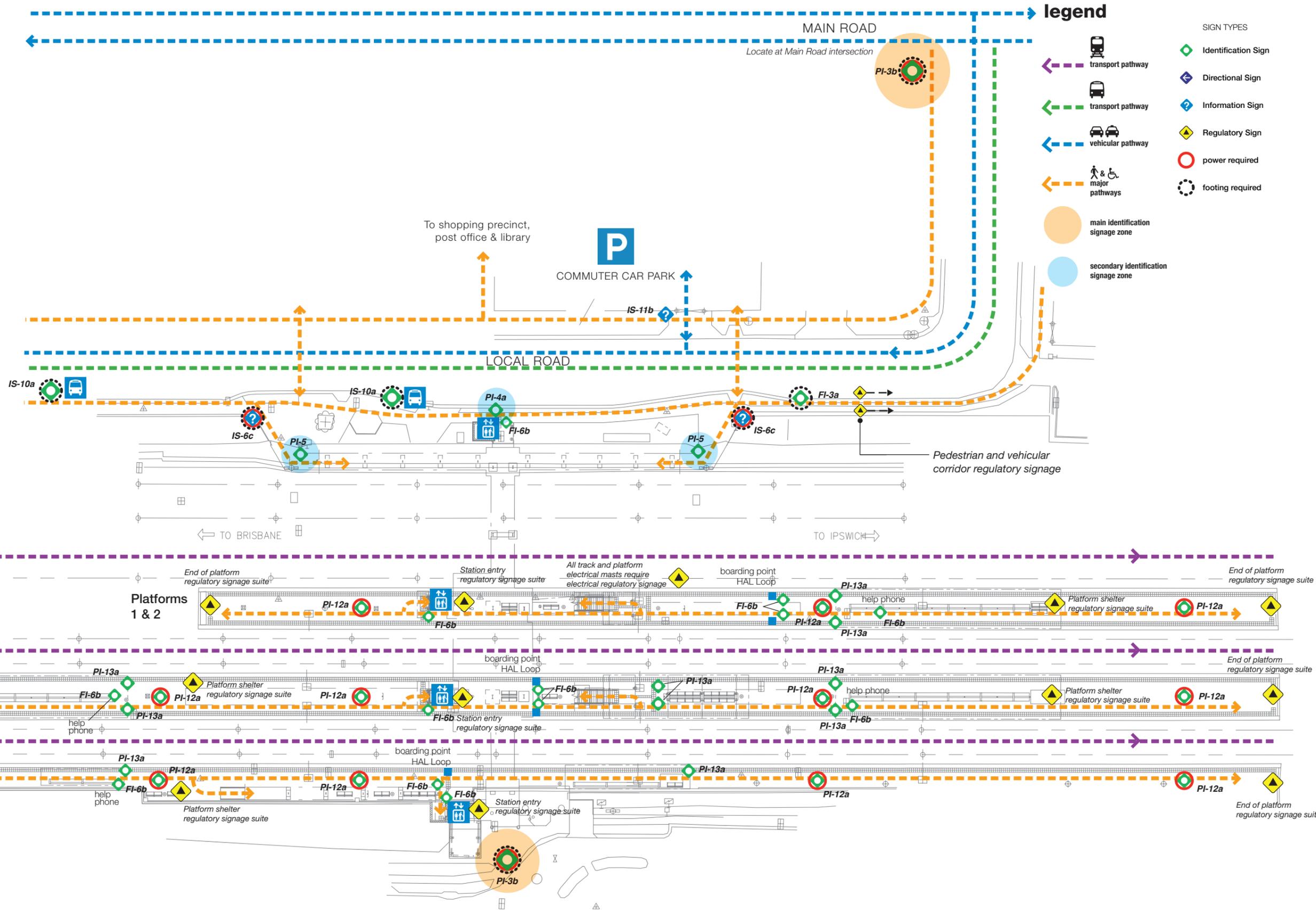


Typical Sign Location Plan

Principles for rail station signage

Large suburban station - Main Arrival / Car Park / Platform (plan 1 of 2)

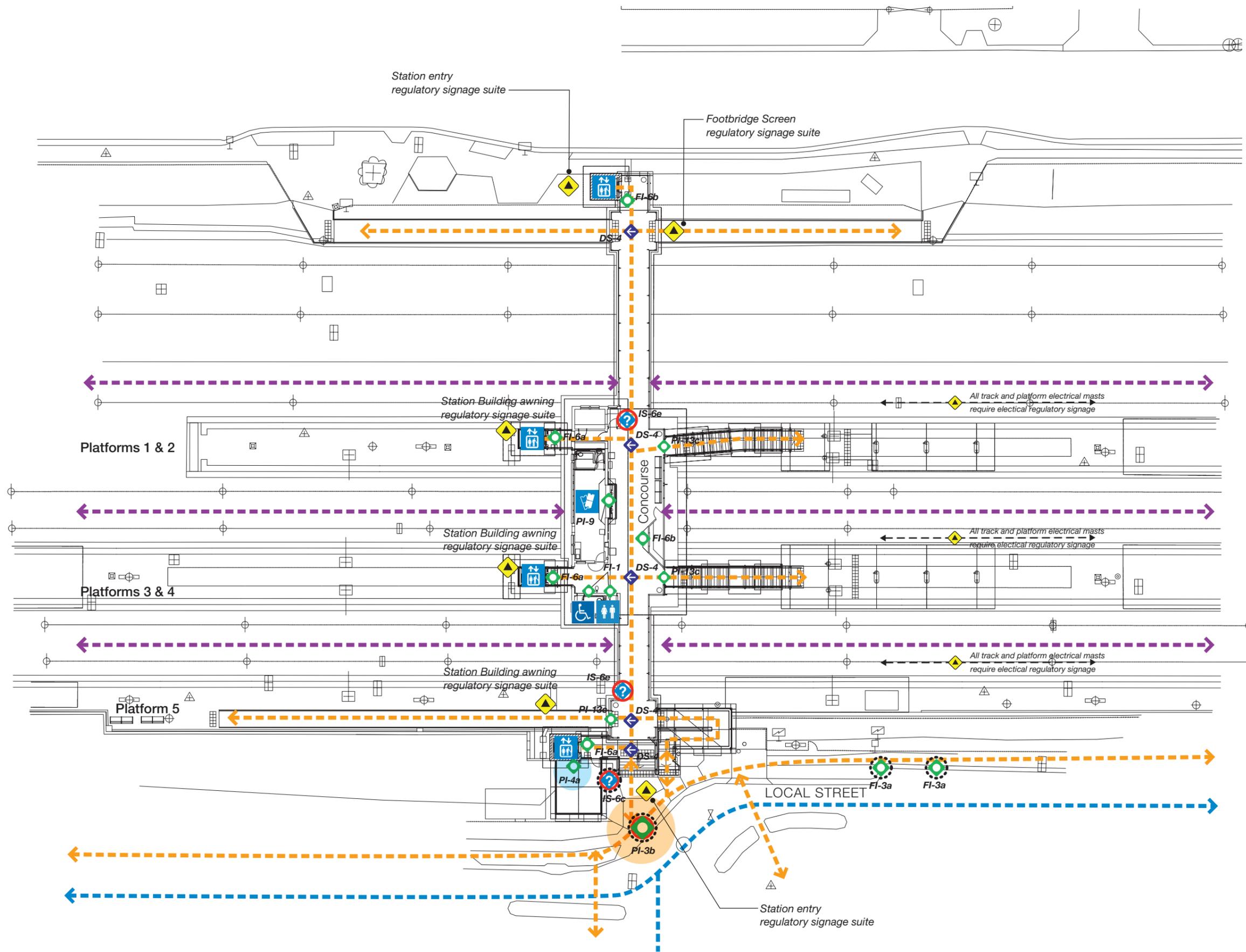
1.3.3



Typical Sign Location Plan

Principles for rail station signage

Large suburban station - Secondary Arrival / Concourse (plan 2 of 2)

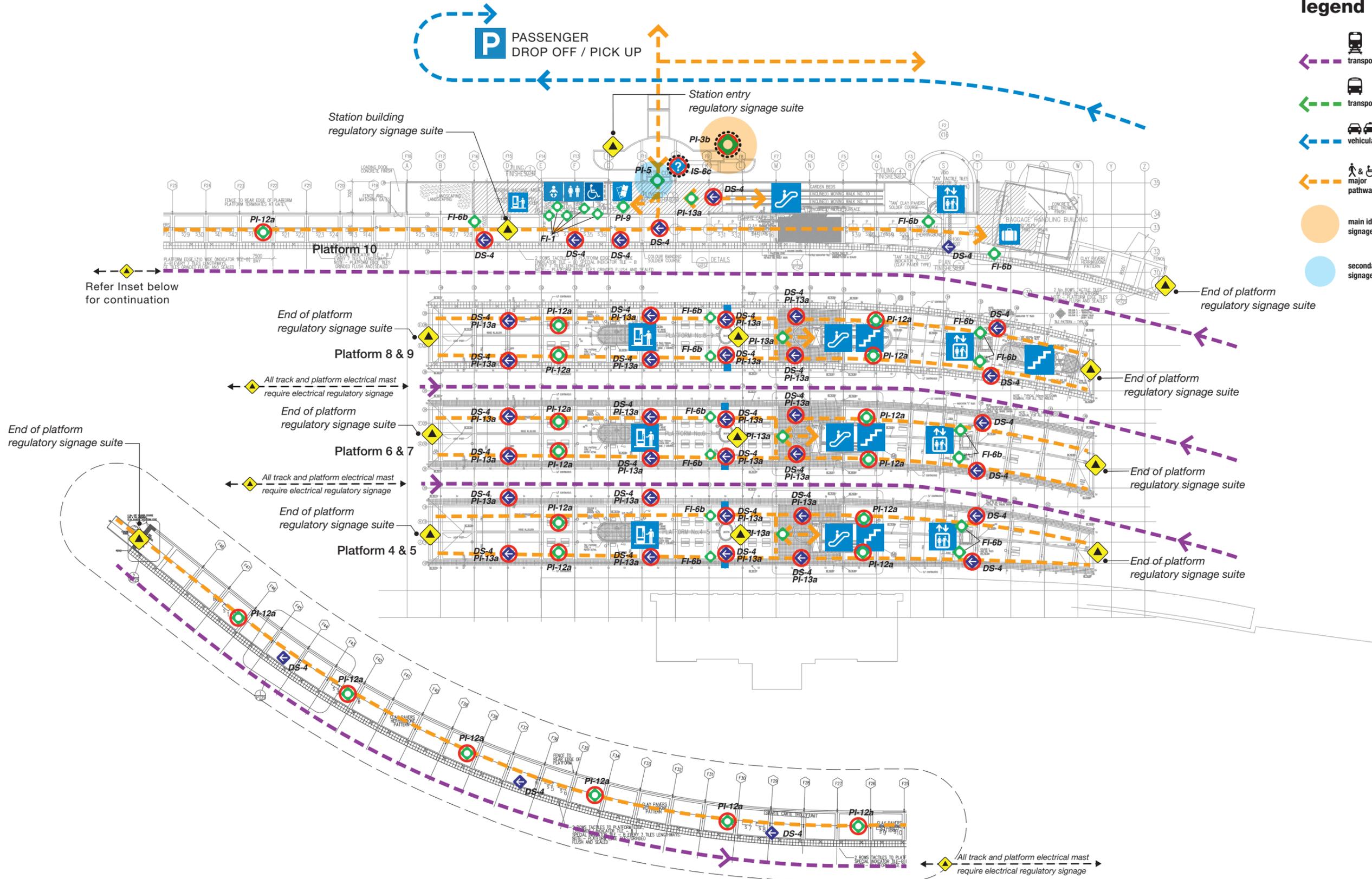


legend

	transport pathway		Identification Sign
	transport pathway		Directional Sign
	vehicular pathway		Information Sign
	major pathways		Regulatory Sign
	main identification signage zone		power required
	secondary identification signage zone		footing required

SIGN TYPES

Typical Sign Location Plan



legend

SIGN TYPES

- Identification Sign
- Directional Sign
- Information Sign
- Regulatory Sign
- power required
- footing required

transport pathway

transport pathway

vehicular pathway

major pathways

main identification signage zone

secondary identification signage zone

Typical Sign Location Plan

Graphic elements

Section



Helvetica Neue 76 Bold Italic
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Helvetica Neue 75 Bold *
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Helvetica Neue 65 Medium *
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Helvetica Neue 66 Medium Italic
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
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Helvetica Neue 55 Roman *
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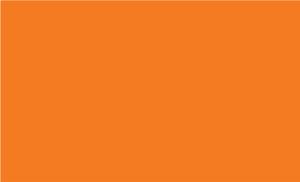
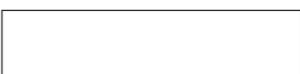
Helvetica Neue 56 Italic
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Helvetica Neue 46 Light Italic
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

The font Helvetica as shown below is to be used for all wayfinding messages, including both visual and Braille and tactile wayfinding signs to align with AS1428.4.2(2018), which is considered current best practice to assist orientation and wayfinding for people who are blind or who have low vision.

Other sign type fonts proposed for compliance with specific existing Australian Standards or Codes (such as Arial) may be used but will be subject to endorsement by the relevant authority / asset owner.

* Note: Use non-italicised font for tactile signs. Ensure minimum 2mm stroke thickness for lettering (max 7 mm). Ensure a minimum of 2 mm space between characters.

	Orange PAINT Resene 'Trinidad' O61-167-048	VINYL Translucent Background = Arlon Orange 44	Opaque Background = Arlon Bright Orange 83
	Light Orange	VINYL Translucent logo = Arlon Tangerine 84	Opaque Logo = Arlon Light Orange 97
	Grey PAINT Resene 'Jon' N38-007-359 Sign structure shadow lines = Resene 'Jon' N38-007-359	VINYL Arlon Dark Grey 52	
	White PAINT Satin White	VINYL Arlon White 02	
	Off White PAINT Resene Rice Cake G94-010-092		
	Black PAINT Satin Black	VINYL Arlon Matt Black 40 or Arlon Black 03 as noted on sign type drawings.	
	Green	VINYL Arlon Brilliant Green 106	
	Blue (accessible signage) PAINT To match AS2700 B21 Ultramarine Blue / Pantone 2945	VINYL Arlon Blue 05	
	Red (regulatory signs) PAINT To match AS2700 Signal Red / Pantone 032C	VINYL Arlon Perfect Match Red 220	
	Yellow (regulatory signs) PAINT To match Pantone 109	VINYL Arlon Primrose Yellow 67	

Generic Standards for TransLink Stations Signage and Wayfinding

The colour selection guide illustrates the identity of TransLink infrastructure in the urban environment in Queensland. The aim of the colour selection guide is to provide the opportunity for design professionals to consider the TransLink identity and station within the wider context built environment around the station location. The following describes the principles of colour selection for TransLink public transport infrastructure facilities.

Signage colour strategy

- Resene '**Trinidad**' (or approved colour match) is used as the primary background colour for signs directing to and identifying public transport. These signs direct to platforms, subway, concourse, bus interchanges/bus stops from one platform to another.
- Resene '**Jon**' (or approved colour match) is the secondary background colour used for all other messages. These signs will:
 - direct to other facilities away from the station.
 - direct to or identify facilities on platform/concourse.
 e.g. help phone, ticket office, toilet.

Signage maintenance

The specific choices made from the colour selection guide must be clearly identified and recorded on a station and stop asset register. The recording of each station component, and part and the specific material, finish and colour will ensure the station and signage can be easily maintained by the relevant organisation should repair or replacement be required.

The colours illustrated are the standard colours used on all TransLink station infrastructure.



Queensland Government logo
Logo applied to dark background = White
Logo applied to light background = Black



TransLink logo
Logo applied to orange background = White
Logo applied to grey background = White



Queensland Rail logo
Print = Pantone 1797C
Vinyl = 3M Tomato Red (180C-13)
Paint (AS2700) = Signal Red R13 (Final colour TBC by Queensland Rail)



Section

Accessible rail station signage guidelines



Why do we need accessible signage?

Accessible signs are used to assist people with mobility and sensory impairments to negotiate their way from entry points to a station to the boarding points of a platform. They allow people to determine their location, work out paths between parts of the station and identify facilities along the way. While accessible signage must cater for people with all types of disability, it benefits most those who have low vision or who are blind.

What is accessible signage?

Accessible signs are those that provide people with a disability direction to and from the station and identify the location of its facilities. Sign content is in Braille, raised text, symbols, pictograms and arrows. Signs are located in places and at heights that people with vision impairments, wheelchair users and people with assistance animals (e.g. guide dogs) can easily view and feel them. Refer to current AS 1428.2, AS 1428.4.2 and NCC requirements.

How are accessible signs located?

The sign designer 'walks' through the station (either virtually or physically) and carefully notes where key directions are needed and where the essential facilities are positioned. Directional signage is located at station entrances, changes of direction and where choices of destinations are required.

Orientation or wayfinding cues are often needed by people who are vision impaired to let them know when they have reached the destination shown on an accessible sign and when they need to look and feel for the next accessible sign. These cues are particularly important on open sections of a platform where there are few structures. Common wayfinding cues include walls, kerbs, TGSI's, and handrails.

Wherever possible, accessible signs should be incorporated into existing general signage. Also the number of static signs can be reduced if audible signs are available on a platform. Audible signs include electronic 'talking signs', lift messages and next train information (NTI) location beeps.

The draft accessible signage design should be consulted on, along with other facility accessible way-finding components, by people with disabilities and subject matter experts to ensure components provided are as meaningful and seamless as possible. The design will be inadequate if the users have difficulty in locating and reading each sign and finding their way to essential station facilities.

Incorporating accessible signage

Significant difficulties occur in the placement of accessible signs if adequate space to access the signs is not included in the architectural and engineering designs of a new or refurbished facility. Areas that need particular consideration are:

- station entrances
- approaches to stairs, ramps and lifts
- lift entrances
- assisted boarding points
- at or around station fixtures such as Help Phone/Service Information console, fare machines, priority seating and electronic ticketing equipment.
- where directions are needed from stairs, ramps and lifts to the assisted boarding point
- where directions are needed from stairs, ramps and lifts to a station exit and accessible car parking bays
- where directions are needed from a station exit to other modes.

There are a number of design elements that restrict the space needed by people in wheelchairs and people with a vision impairment to read accessible signs. They include station entrances less than 2m wide; placing columns, light masts, drinking fountains, rubbish bins and seats at major decision points; clearance to overhead obstructions less than 2m; installing station equipment within high passenger traffic areas; locating assisted boarding points adjacent to stairs; installing lifts that exit within 2.5m of an obstruction; installing doors that cover signs when opened; and placing controls less than 500mm from corners.

Station design should also include structural features that provide fixing points for accessible signs. Columns, posts, walls and fences can be sized so that they are wide enough to attach Braille and tactile signs. Ceiling and soffit heights should be in a height range that permits suspended signs within the viewing zone of people in wheelchairs. In open areas where floor signs such as the Assisted Boarding Point Mat are required drainage grates and pit lids are to be avoided. The design of station floor surfaces where accessible signs are to be located should comply with the gradients, cross falls and slip resistance required under the current AS 1428.1 and the NCC.

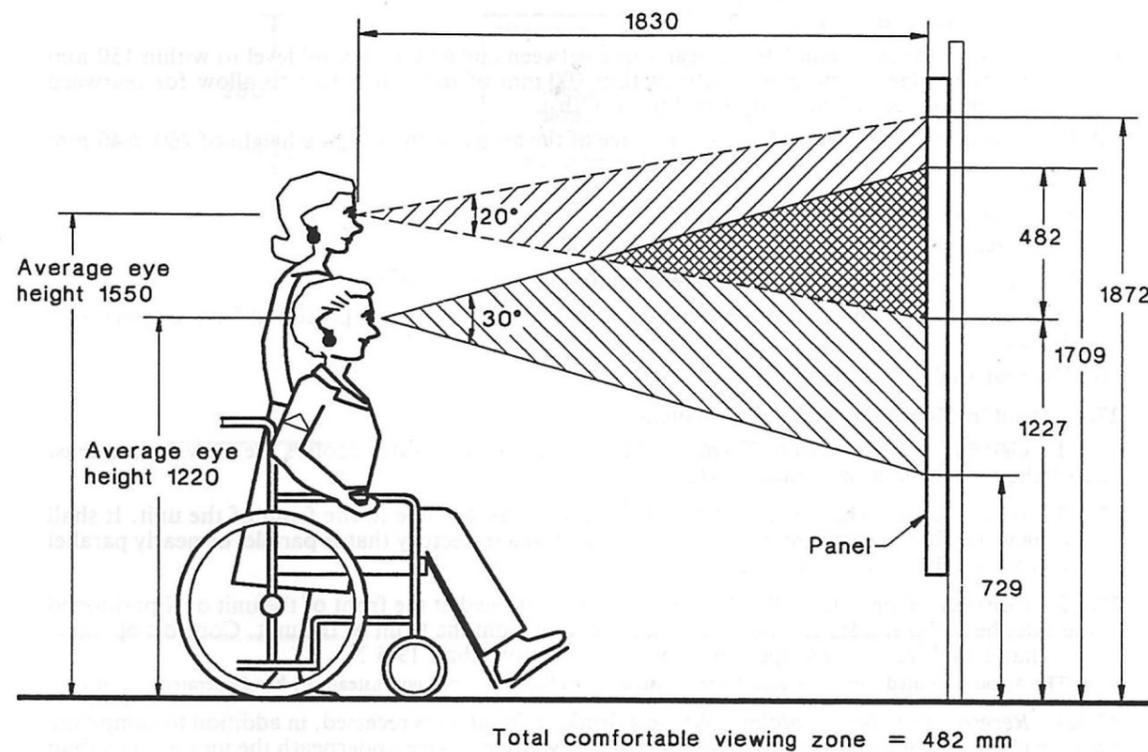
Lighting should be designed so that people with low vision can easily read the text of accessible signs without glare. A minimum of 30% luminance contrast is required at all times for walls, columns, poles and equipment pedestals that are used as a fixing background for accessible Braille signs. Suitable colours are those that have an obvious contrast with Ultramarine Blue, Resene Jon and Trinidad.

Viewing Distances

Figure 30 is an extract from AS1428.2 and provides data to calculate sign height and viewing distance. It identifies common zones for viewing and reading signs by a person in a wheelchair or an able bodied person.

Table 2 provides a reference to calculate text heights to suit viewing distances.

Text and Pictogram signs should be located with reference to common viewing zones and placed within a zone at a height not less than 1400mm and not more than 1600mm above the plane of the finished floor. Where space in this zone is not available, the zone for placement of signs may be extended downward to not less than 1000mm. Where a sign can be temporarily obscured e.g. in a crowd, the sign should be placed at a height of not less than 2000mm above the plane of the finished floor (AS1428.2).



Source: National Endowment for the Arts, Needs Assessment Survey Instrument, produced by National Access Centre, USA

DIMENSIONS IN MILLIMETRES

FIGURE 30 ZONES FOR VIEWING AND FOR COMMON VIEWING

Height of lettering for varying viewing distances

viewing distance	x height
2m	6mm
4m	12mm
6m	20mm
8m	25mm
12m	40mm
15m	50mm
25m	80mm
35m	100mm
40m	130mm
50m	150mm

Table 2
Extracted from AS1428.2

Circulation requirements for people using wheelchairs (text and pictograms)

A three dimensional space is required for a person in a wheelchair to approach a sign, read the information then move their wheelchair away. The 3D dimensions are comprised of:

- The unobstructed viewing to a sign (refer to 3.2 Viewing Distances).
- The height of the sign. (requirements are provided in AS1428.2)
- The circulation space needed to enter and leave the viewing area where the sign is located. Refer to AS 1428.2 for circulation requirements.
- Minimum height below overhead obstructions or where a sign can be temporarily obscured (2000mm)

The 3D solution involves determining the signs location in relation to an access path and then overlaying the four requirements listed above. As shown, three examples of measurement solutions are:

(a) Overhead sign

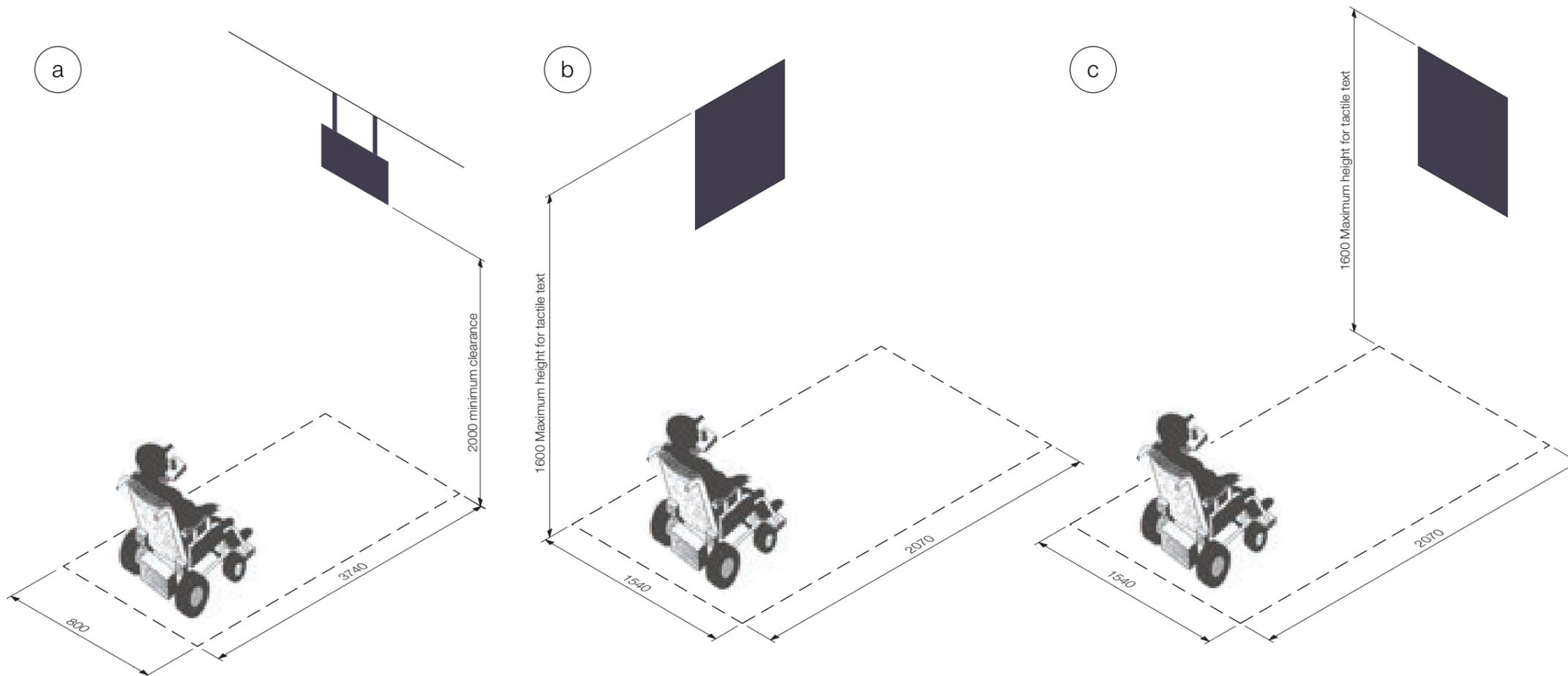
The sign is suspended directly in front of the person on the access path. The minimum measurements required are 3740mm viewing distance x 800mm width x 2000mm height as provided in AS 1428.2. Note: TransLink minimum height from finished floor level to underside of sign is 2300mm. Preferred height 2500mm.

(b) Wall mounted sign located parallel to circulation

The sign is located at right angles to the person along the access path. The person will need to do a 90° wheelchair turn towards the sign, off the path of travel and then back again. The minimum measurements required are 2070mm in the direction of travel x 1540mm width. (AS 1428.2)

(c) Wall mounted sign located perpendicular to circulation

In this case the sign is the person's destination or is a point of interest, for example, a timetable information board. The person will need to move forward to read the sign then turn around 90 – 180° to move along a path of travel. The minimum measurements required are 2070mm viewing distance x 1540mm width. (AS 1428.2)



Requirements of people with low vision (Braille and tactile signs)

Braille and raised text signs should be located with reference to 'useability' in addition to viewing distances for people who are sighted or have low vision. A person who is blind or has low vision will read Braille or raised text through touch and feeling which requires signage to be within easy reach and at a suitable height.

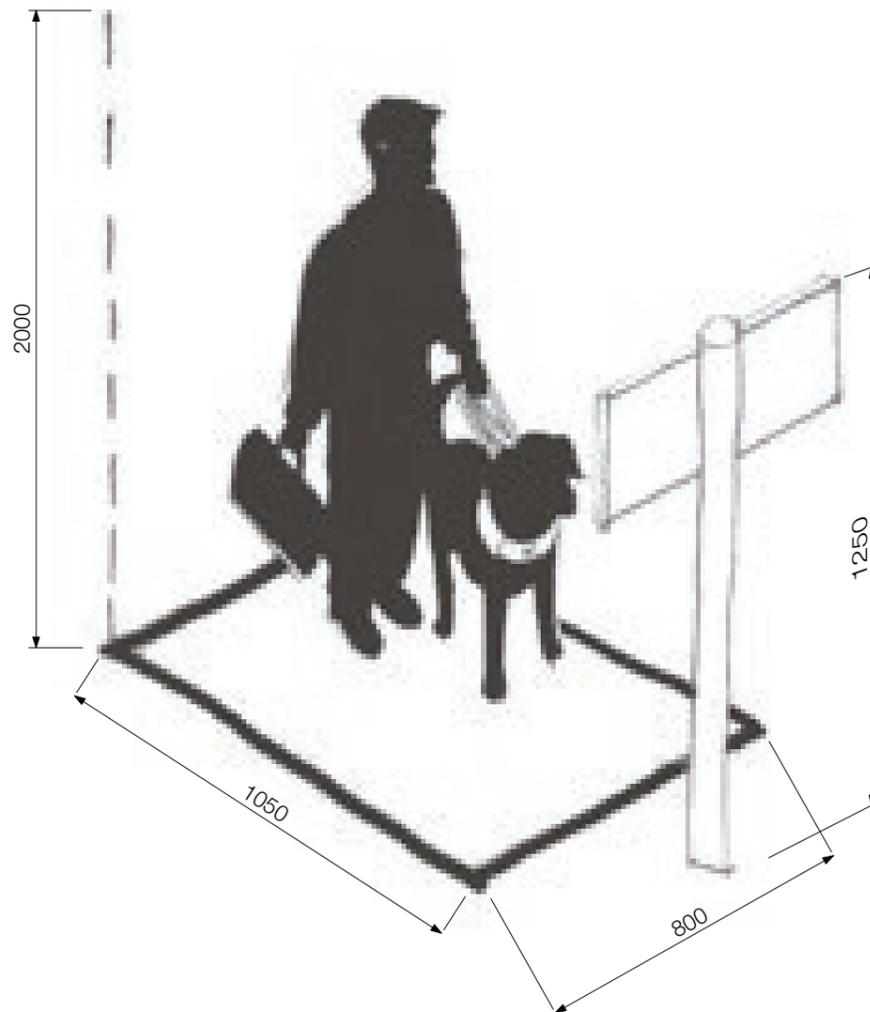
The 3D space required for a person using a white cane or guide dog to use a Braille and tactile sign is comprised of:

- The length of the person and their guide dog (800mm)
- The reach range from the person's body to the sign (250mm)
- Width of the person with their guide dog at their side (800mm)
- Height of the sign (refer to AS1428.2)
- Minimum height below overhead obstructions (2000mm).

The 3D solution to approaching and feeling a sign involves overlaying these pieces of data.

Assuming there are no overhead obstructions the dimensions required to use a Braille and tactile sign are 1050mm long (800mm + 250mm) x 800mm wide x 1600mm maximum height.

Note: Signs with single lines of characters must have the line of tactile characters not less than 1250mm and not higher than 1350mm above finished floor level. Where more than a single line is used Braille and tactile components must be located not less than 1200mm and not higher than 1600mm above finished floor level.



Sign types

Section

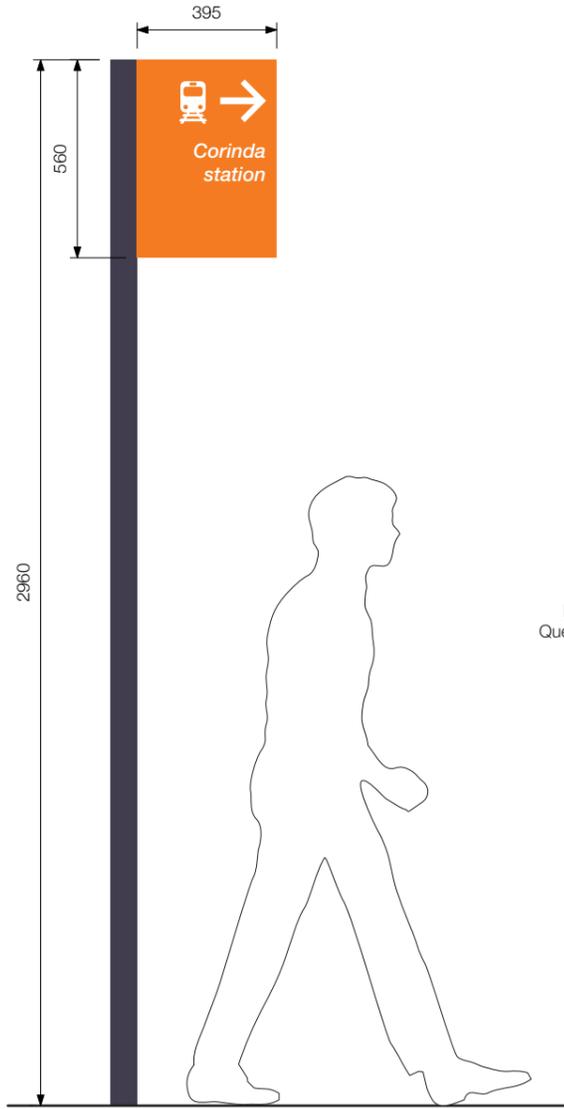




Note typical alignment of text, platform number and justification to arrow

Platform Device - Reference

Scale 1:5

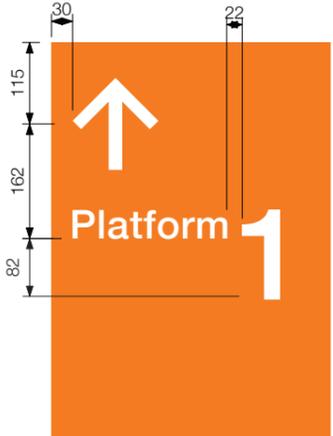
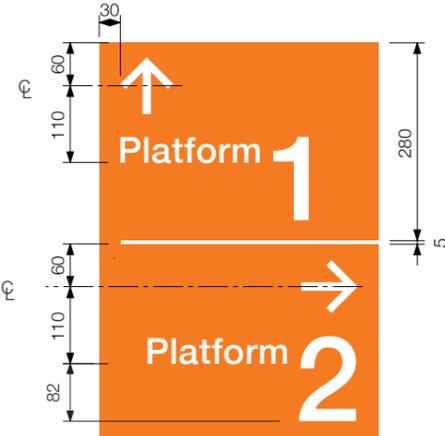


Elevation

Scale 1:20



NOTE: The option to use the destination of last station on the applicable network line is location specific, and is subject to Queensland Rail / TransLink approval



Typical Graphic Layouts

Scale 1:10

DS-1

Minor Directional Sign - Pole Mounted

Purpose

- To direct to general public destinations or station facilities and platforms
- For pedestrian use

Typical location

- Located at minor decision points generally outside the platform environment
- Located on either TransLink or Other's property depending on site constraints
- Sign to be oriented typically with the sign face perpendicular to the main path of travel
- Sign to be located outside required pedestrian paths of travel.
- Proximity of sign locations to suit site specific requirements

Indicative message

- Station
- Accessible pathways
- Community facilities (eg. pool)
- Shops
- Taxi rank
- Kiss 'n' ride

Graphics Detail

FONT
Station name = Helvetica Neue 66 Medium Italic
Other text = Helvetica Neue 65 Medium

SIZE
Single directions
Major Text = 40mm cap X height
Support Text = 23-30mm cap X height (varies to suit message)
Platform number = 120 cap X height
Arrow = 130mm high
Pictogram = 130mm high

Two directions
Major Text = 36mm cap X height
Support Text = 20-30mm cap X height (varies to suit message)
Platform support text = 20mm cap X height (varies to suit message)
Platform number = 120 cap X height
Arrow = 80mm high
Pictogram = 80mm high

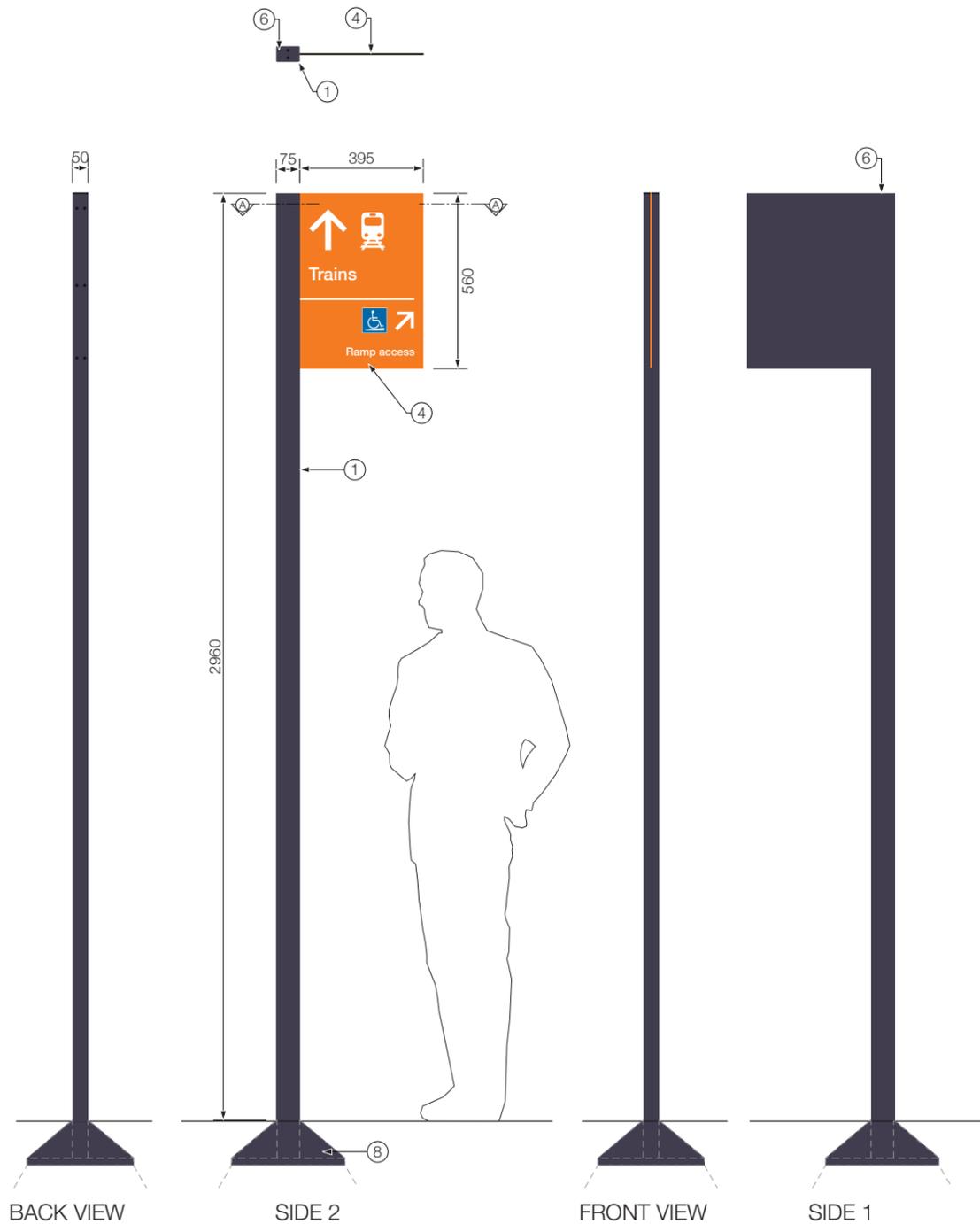
COLOUR
Post = Resene 'Jon' N38-007-359
Transport panel = Resene 'Trinidad' O61-167-048
Other panel = Resene 'Jon' N38-007-359
Divider line = white
Arrow = white
Bus pictogram = white
Access pictogram = white figure on AS2700 B21 Ultramarine Blue background
Text = white

DS-1
Minor Directional Sign - Pole Mounted

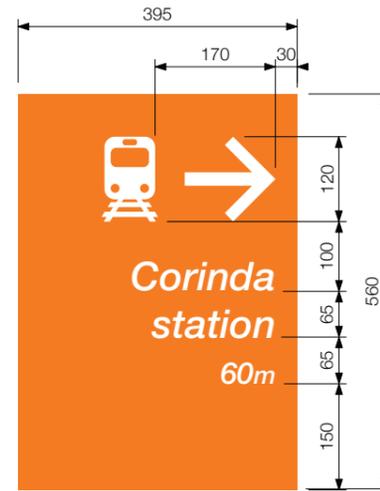
Construction Details

1. 75 x 50 x 4mm RHS galvanised steel pole. Base plate and gussets welded to end.
2. 18 x 18 x 4mm galvanised steel tabs welded to inside of pole. 2 off M6 nuts welded to tabs.
3. Cut out slot allowing 5mm sign panel to slide into pole. (Clearance fit)
4. 5mm thick aluminium sign panel. 557 x 50 x 5mm fixing plate welded to one edge. Anti-graffiti clear coat sprayed over all graphics.
5. M6 stainless steel (316) phillip head self tapping c'sunk screw fixings through post into fixing plate
6. 2mm thick galvanised steel capping to top of post.
7. M6 stainless steel (316) phillip head c'sunk screw fixing to nutserts on sign support plate.
8. Reinforced concrete pad/pier footing to sign makers' specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40.

NOTE - Structural framework and footing details to be confirmed by sign maker's engineer.



Elevations
Scale 1:20



STANDARD LAYOUT + DISTANCE



STANDARD LAYOUT

Graphic Layout
Scale 1:10



Section A-A
Scale 1:2

DS-4

Internal Directional Sign - Suspended

Purpose

- To direct to platforms and facilities
- For pedestrian use

Typical location

- At decision points
- Suspended sign
- Located at decision points within the station property boundaries.
- Fixed to the underside of ceilings / structure.
- Where signs project from walls or ceilings, the bottom of sign must not project below 2.3m above the finished floor level.
- Sign to be oriented typically with the sign face perpendicular to the main path of travel.

Indicative message

- Station name
- Platforms
- Facilities eg bus stops, Kiss 'n' ride, Park 'n' ride, toilets, station office
- Accessible paths

Graphic Details

FONT

- Main text = Helvetica Neue 65 Medium
- Sub-message = Helvetica Neue 55 Roman
- All other text = Helvetica Neue 65 Medium

TYPICAL SIZE

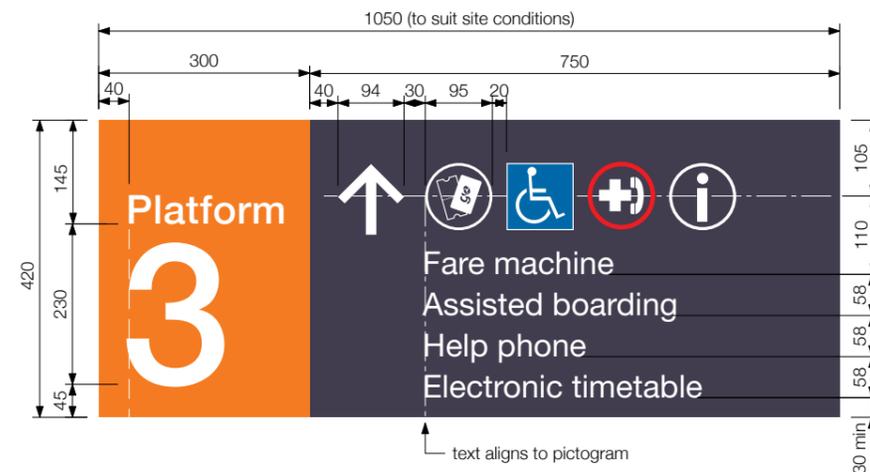
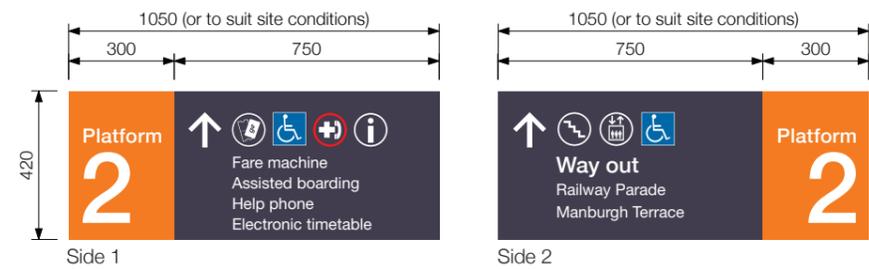
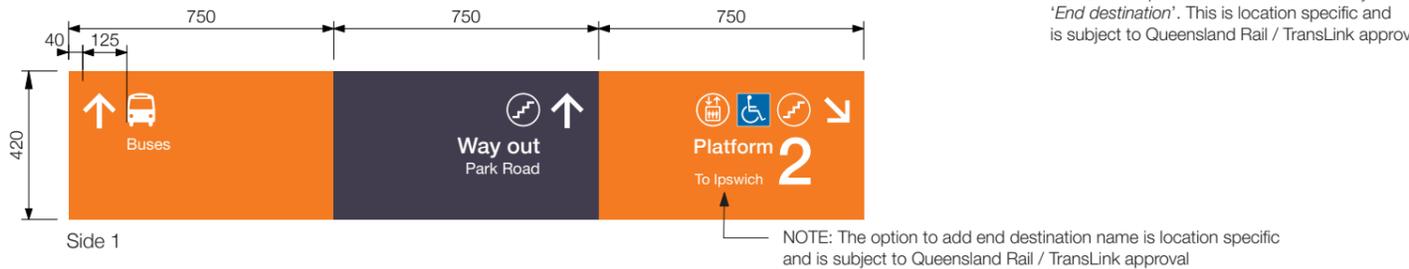
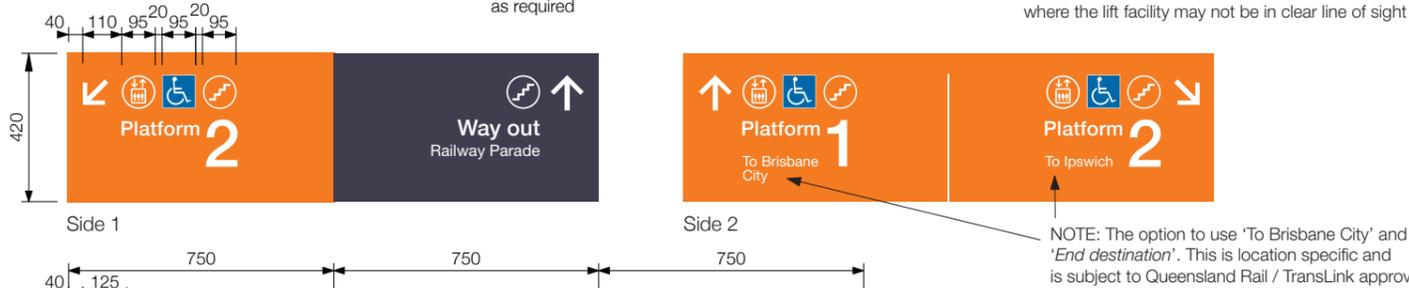
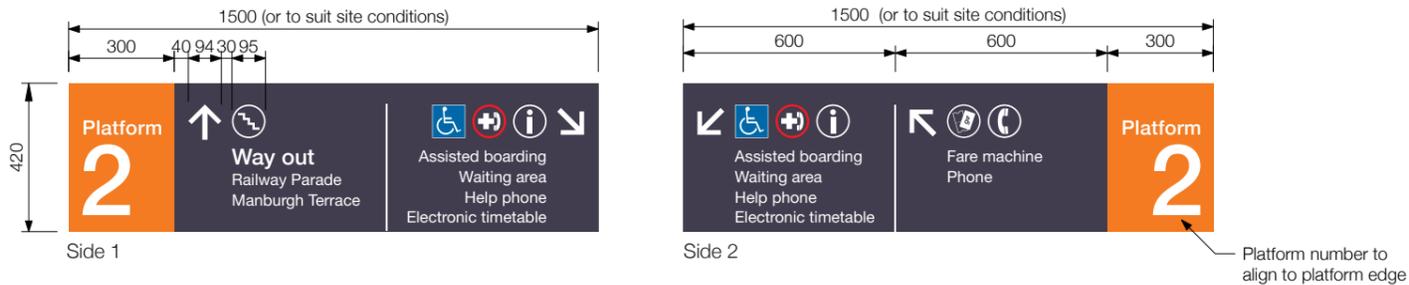
- Platform (orange panel) = 40mm cap X height
- Platform Number (orange panel) = 145mm cap X height
- 'To Brisbane City / Ipswich' = 30mm cap X height
- End destination = 23mm cap X height
- Way out/Platform = 44mm cap X height
- Minor text = 32mm cap X height
- Pictogram = 95mm o/a height
- Arrow = 94 x 100 o/a height

NOTE

Certain text sizes may need to be increased in some situations. Adjustment of letter spacing (tracking) may also improve legibility. Subject to Queensland Rail/ TransLink approval.

COLOUR

- Frame = Painted to match panel
- Transport message panel = Painted to match Resene Trinidad
- Other panel = Resene Jon or approved colour
- Text & Graphics = Arlon White 02 vinyl
- Finished in clear coat (60% gloss)
- Access pictogram = white figure on AS2700 B21 Ultramarine Blue background



Typical Graphic Layout

Scale 1:10

Graphic Layouts

Scale 1:20

DS-4
Internal Directional Sign - Suspended

Construction Details

Suspended internal SHS frame
1. Fully welded 50 x 50mm SHS steel internal frame and droppers. Welded base plate as required. Prime and paint finish.

2. 3mm thick aluminium sign panel with front applied vinyl graphics. Clear anti-graffiti spray coat over. Conceal fix panels to sign frame.

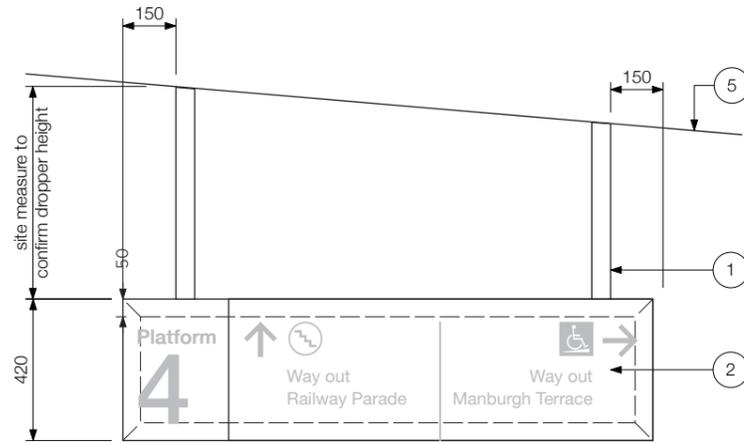
Suspended angle frame
3. 50 x 50 x 6mm aluminium angle bead welded to aluminium sign panel. All visible welds to be dressed, regular and evenly spaced. Prime and paint finish.

4. 5mm thick aluminium sign panel with front applied vinyl graphics. Clear anti-graffiti spray coat over.

5. Station structure.

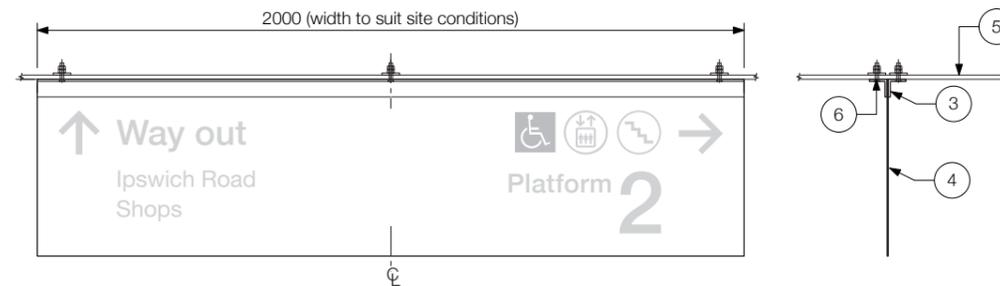
6. Fixings to suit station conditions.

NOTE: Paint out fixing heads to match panel.
Fixing details to be confirmed by sign maker's engineer.



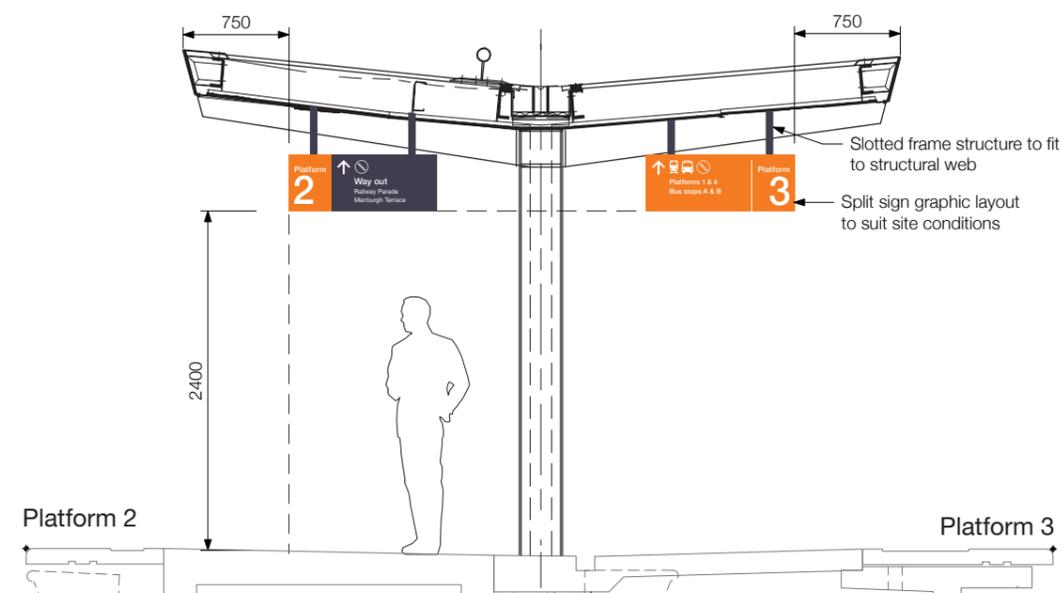
Construction Detail - Suspended SHS frame

Scale 1:20



Construction Detail - Suspended angle frame

Scale 1:20



Sign Location - Suspended frame

Scale 1:50



Typical Location - Angle bracket mounting

Scale 1:100

DS-6a

**Directional Sign - Braille & Tactile
Wall Mounted**

Purpose

- To direct to platforms and facilities
- For pedestrian use

Typical location

- At decision points.
- Wall mounted sign
- Located at entry and decision points within the station property boundaries

SIGN PLACEMENT NOTE - The Braille and tactile sign panel must be located between 1200mm and 1600mm above finished ground level. When the sign panel has only a single line of tactile characters, these characters must be located between 1250mm and 1350mm above finished ground level.

Indicative message

- Platform number
- Facility
- Way out
- Braille message

Graphics Detail

FONT

All text = Helvetica Neue 65 Medium

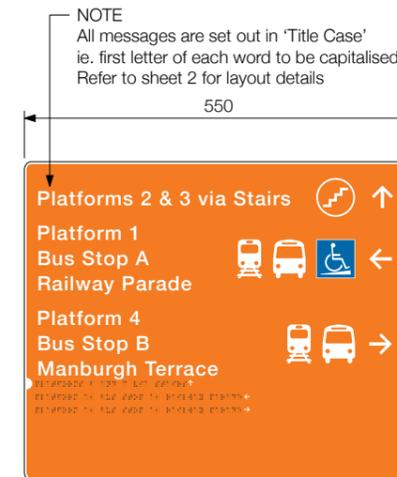
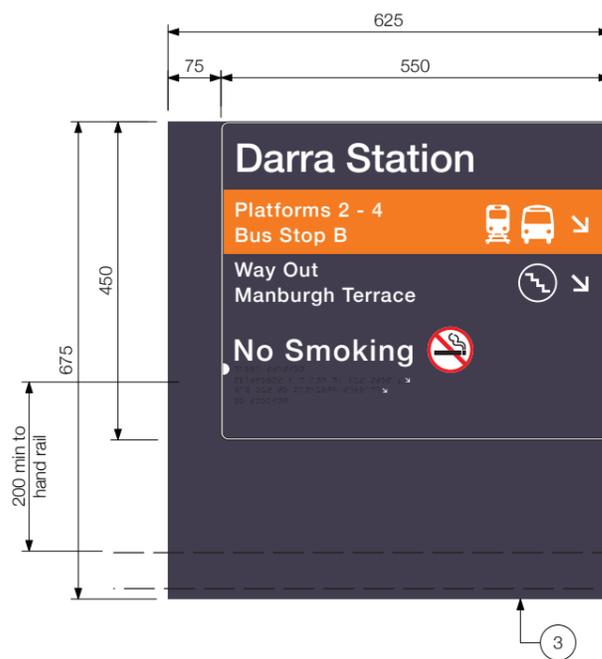
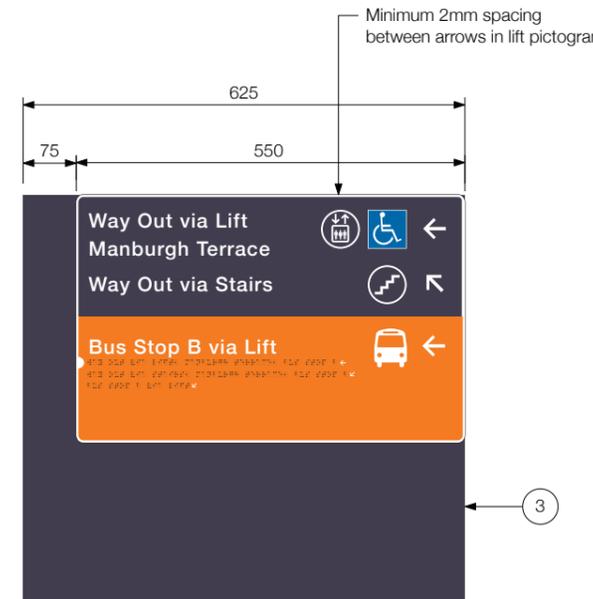
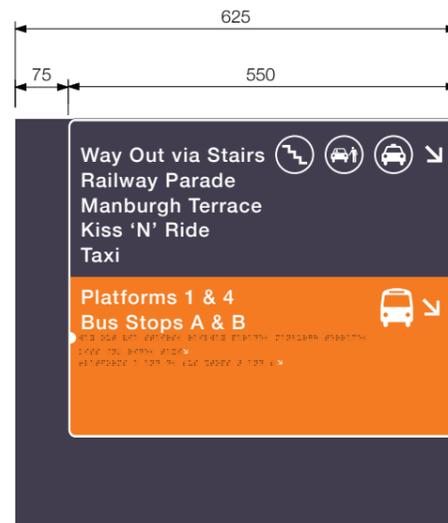
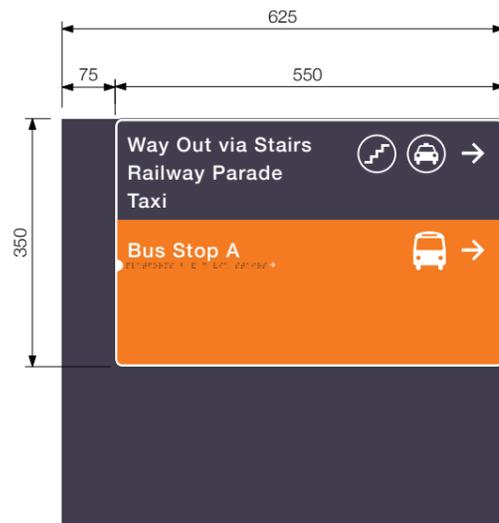
NOTE - All messages to be in 'Title Case'. Major words to be capitalised. Refer to sheet 2 for details.

SIZE

- Station name = 55mm cap X height
- Arrow = 30mm high
- Typical text = 20mm cap X height
- Pictogram = 55mm x 55mm

COLOUR

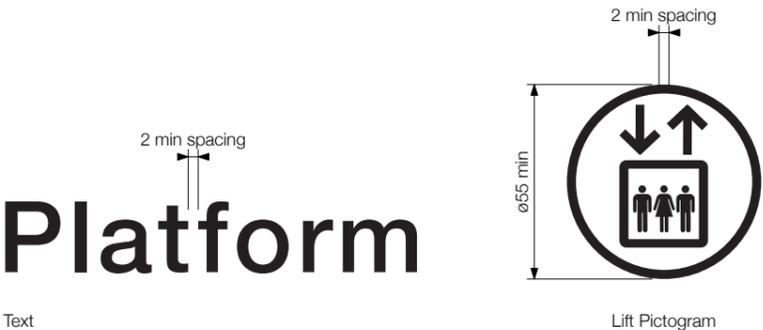
- Transport panel = Resene Trinidad 061-167-048
- Other panel = Resene 'Jon' N38-007-359
- Arrow = White
- Text = White
- Pictogram = White
- Access Pictogram = white figure on AS2700 B21 Ultramarine Blue background



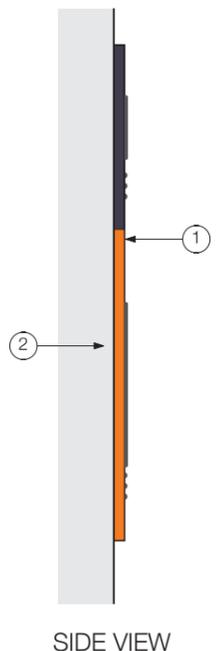
Graphic Layout

Scale 1:10

NOTE
All messages are set out in 'Title Case'
ie. first letter of each word to be capitalised

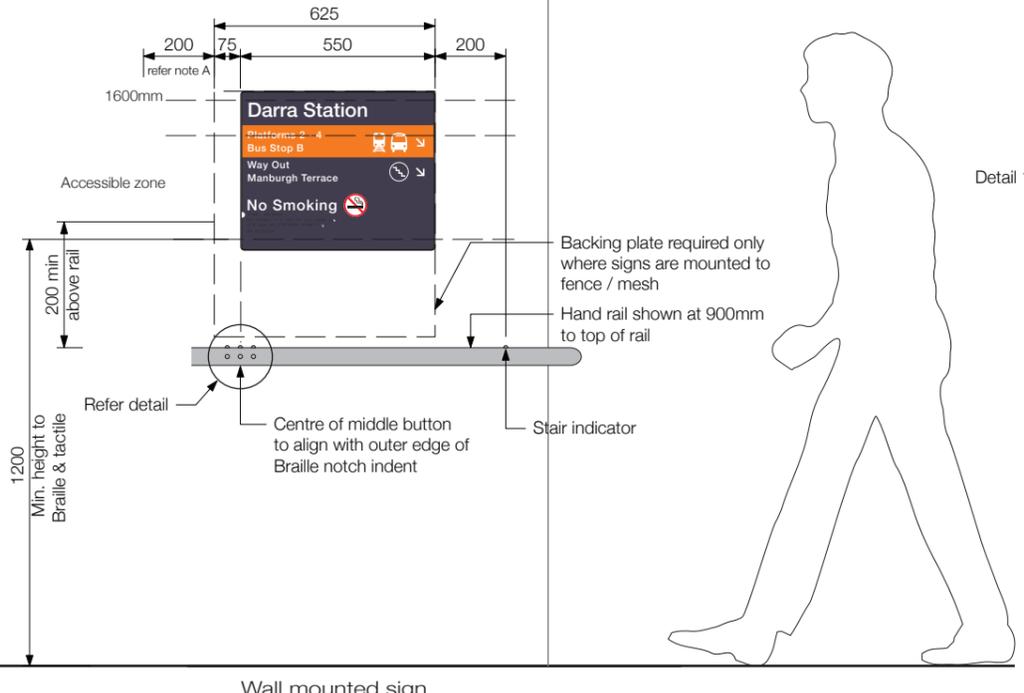


Detail 1 - Braille & Tactile Graphics
Scale 1:2



Braille & Tactile Panel Detail
Not to Scale

NOTE A
Provide minimum 200mm
clearance between directional signs
and stair indicators



Typical Location
Scale 1:20



Graphic Layout
Scale 1:5

DS-6a
Directional Sign - Braille & Tactile
Wall Mounted

Construction Details
1. 1.6mm acrylic sign panel with Braille and tactile graphics. Use approved raised tactile pictograms and text and grade 1 Braille (uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille. Applied to 3mm aluminium panel, all edges rounded.

2. Border and Braille notch / locator may be formed by machining through top layer of panel. Tactile components to be provided to ensure construction method is suitable so that all raised tactile components are robust and cannot be easily dislodged or worn down due to picking or use

FIXING METHODS
Wall mounted
3. Fixed to wall/door with VHB double sided tape and silicone.

Above hand rails on mesh
4. Fit 1.6mm thick painted aluminium backing panel prior to installation of Braille and tactile sign. To ensure optimal adhesion to Braille panel mask off panel area (ie natural finish behind Braille panel).

Fix to mesh fence via peeling / Klamp-tite rivets or approved equal. Rivet size to suit pitch of mesh fence. Provide backing plate/washer as required. Paint out fixing heads and both sides of backing plate.

5. Fix Braille and tactile panel via double sided VHB tape to backing panel.

SIGN PLACEMENT NOTE - The Braille and tactile sign panel must be located between 1200mm and 1600mm above finished ground level. When the sign panel has only a single line of tactile characters, these characters must be located between 1250mm and 1350mm above finished ground level.

DS-6b

Directional Sign - Braille & Tactile Freestanding

Purpose

- To direct to platforms and facilities
- For pedestrian use

Typical location

- At decision points.
- Wall mounted sign
- Located at entry and decision points within the station property boundaries.

Indicative message

- Platform number
- Facility
- Way out
- Braille message

Graphics Detail

FONT
All text = Helvetica Neue 65 Medium

SIZE
Station name = 50mm cap X height
Arrow = 32mm high
Typical text = 20/25mm cap X height
Pictogram = 55mm x 55mm

COLOUR
Transport panel = Resene Trinidad 061-167-048
Other panel = Resene 'Jon' N38-007-359
Arrow = White
Text = White
Pictogram = White
Access Pictogram = white figure on AS2700 B21 Ultramarine Blue background

Construction Details

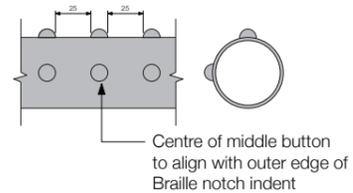
1. 50 x 50 x 3 SHS fully welded internal frame with suitable base plate. 3mm thick painted aluminium cladding with folded returns. Ensure adequate internal support for panel. Countersunk rivet fix cladding to internal frame. Paint out fixing heads to match cladding.

2. Chemset anchor to existing slab or reinforced concrete pad/ pier footing to engineers specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40.

3. 1.6mm acrylic sign panel with Braille and tactile graphics. Use approved raised tactile pictograms / text and grade 1 Braille (uncontracted) to Australian Braille Authority and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille.

4. Fix braille sign panel to cladding with VHB double sided tape and silicone.

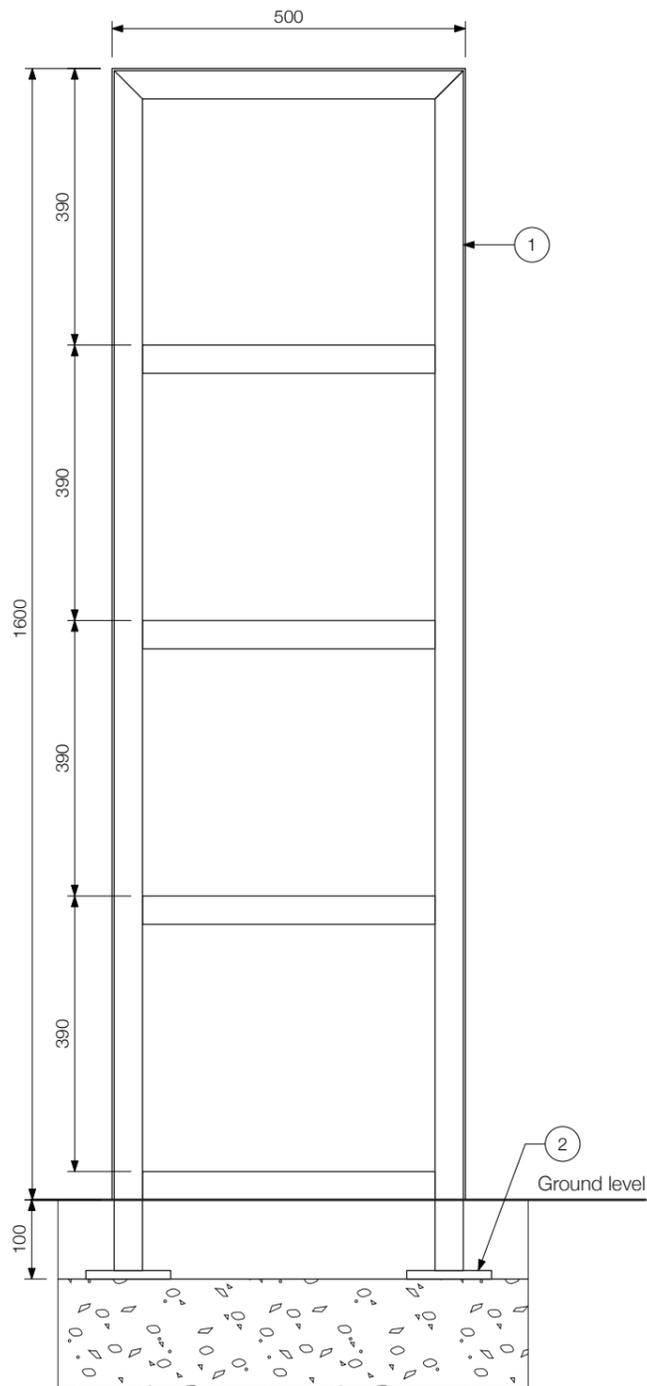
SIGN PLACEMENT NOTE - The Braille and tactile sign panel must be located between 1200mm and 1600mm above finished ground level. When the sign panel has only a single line of tactile characters, these characters must be located between 1250mm and 1350mm above finished ground level.



Handrail detail

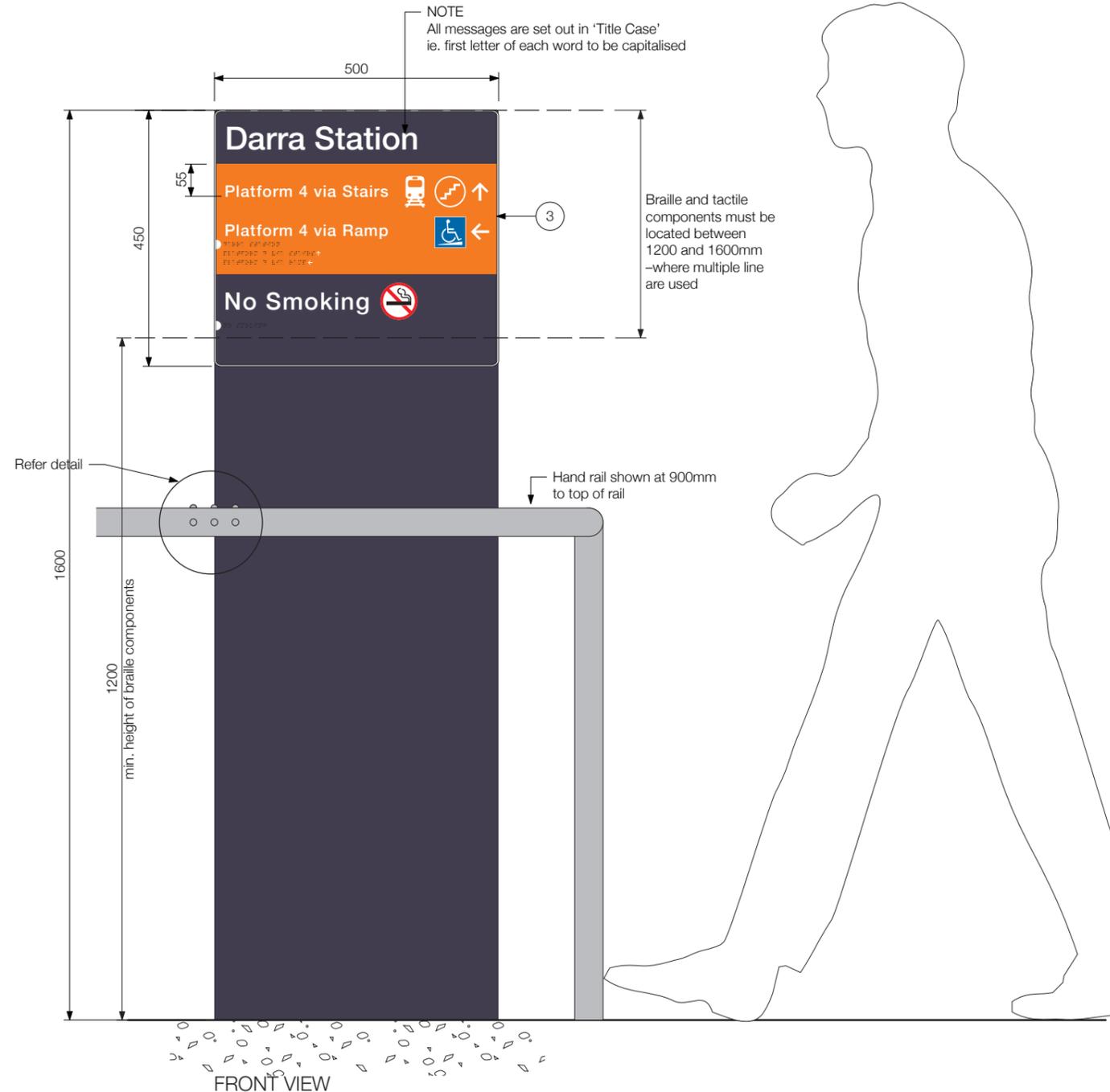
Scale 1:5

NOTE
All messages are set out in 'Title Case' ie. first letter of each word to be capitalised



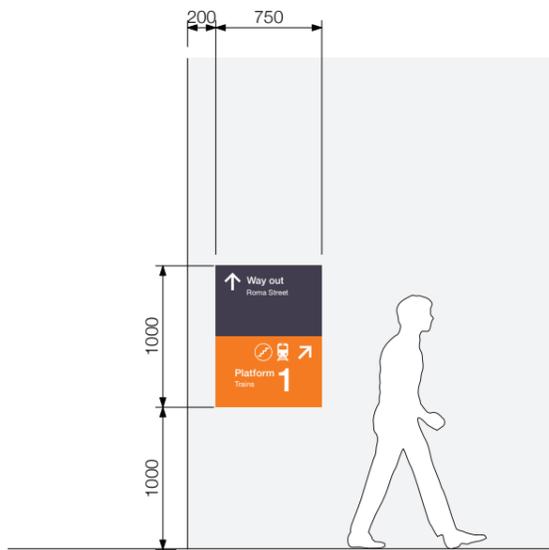
Construction

Scale 1:10

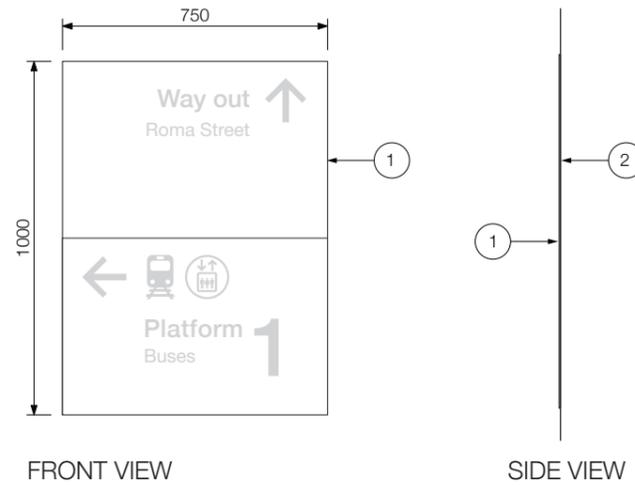


Typical Location

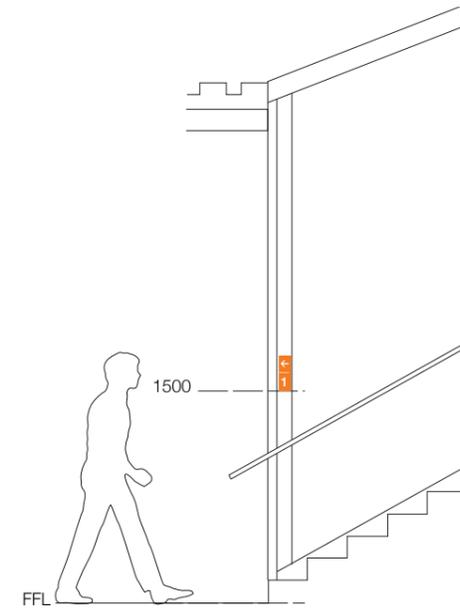
Scale 1:10



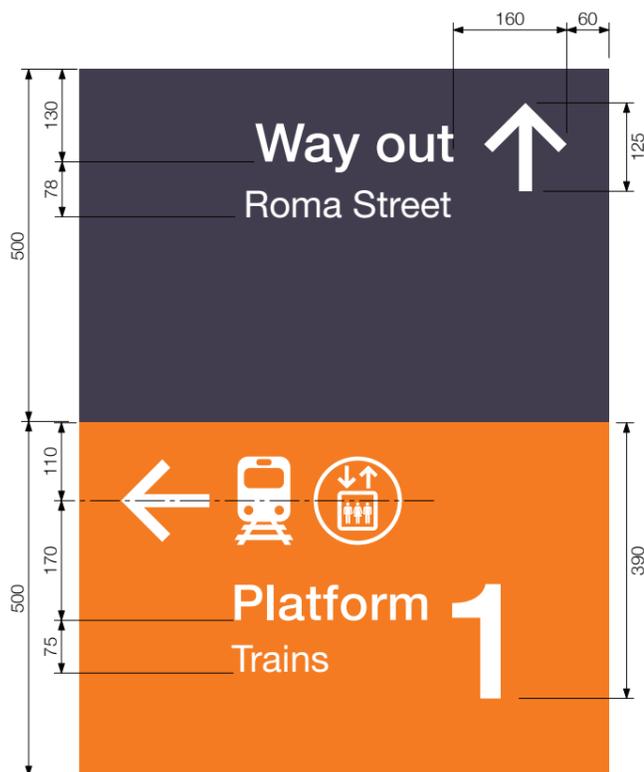
Typical Location - DS-7
Scale 1:50



Construction Layout - DS-7
Scale 1:20

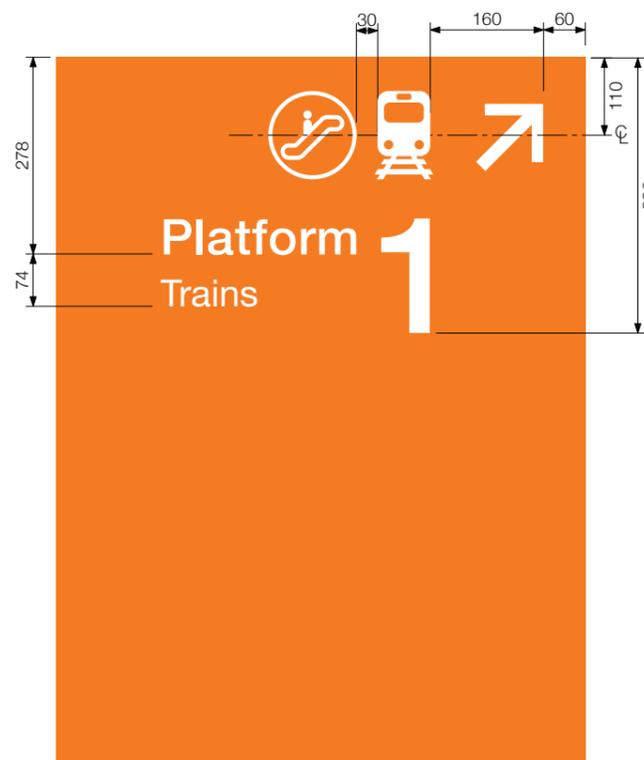


Typical Location - DS-7v
Scale 1:50

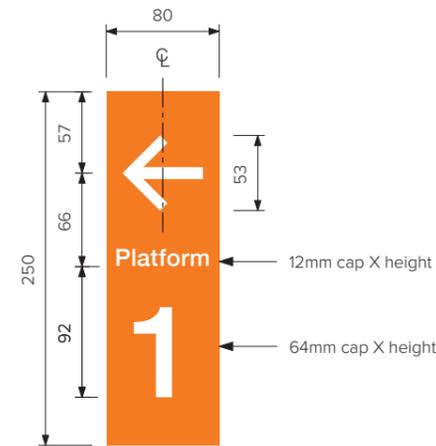


DS-7 Two direction example

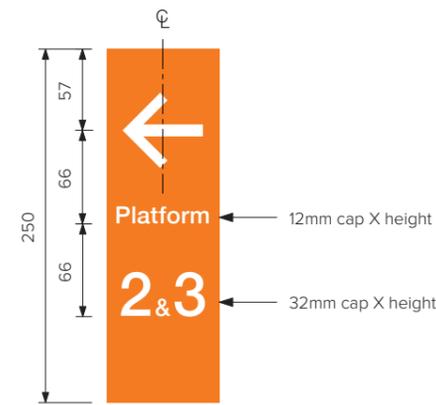
Typical Graphic Layouts - DS-7
Scale 1:10



DS-7 Single direction example



DS-7v Single platforms example



DS-7v Two platforms example

Typical Graphic Layouts - DS-7v
Scale 1:5

DS-7 Internal Directional Sign - Wall Mounted

Purpose
- To direct to platforms and facilities
- For pedestrian use

Typical location
- At decision points.
- Wall mounted sign
- Located at decision points within the station property boundaries.

Indicative message
- Platform number
- Facility

Graphic Details
FONT
All text = Helvetica Neue 65 Medium

SIZE
DS-7 SIGNS
Major text = 50mm cap X height
Support text = 38mm cap X height
Number = 160mm o/a height
Pictogram = 125mm o/a height
Arrow = 115mm o/a height
DS-7v signs = sizes as noted

COLOUR
Platform direction b/ground = Painted to match Resene Trinidad
Other background = Painted to match Resene Jon
Text & Graphics = Arlon 02 White vinyl
Finished in clear coat (60% gloss)

Construction Details
1. 1.6mm thick painted aluminium sign panel with front applied vinyl graphics. Anti-graffiti clear coat sprayed over all graphics.

2. Sign panel mechanically fixed to wall/column. Paint screw heads to match panel colour at fixing locations.

NOTE: Scale graphic layout to suit site conditions.

DS-8

Directional Sign - freestanding

Purpose

- To direct to major destinations, facilities, within and outside train station
- For pedestrian use

Typical location

- At major decision points
- Located at major decision points both within and outside the station property boundaries.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign face perpendicular to the main path of travel.
- Sign to be located outside required pedestrian paths of travel. - Obtain advice from Queensland Rail prior to finalising locations.

Indicative message

- Station name
- Telephone
- Taxi Rank
- Kiss 'n' ride
- Park 'n' ride
- Shopping Centre
- Toilets

Graphics Detail

FONT
Station name = Helvetica Neue 66 Medium Italic
All other text = Helvetica Neue 65 Medium

SIZE
Station name = 40mm cap X height
All other text = 34mm cap X height
Arrows = 88mm high
Pictograms = 88mm high

COLOUR

Transport panel background = Resene 'Trinidad' O61-167-048
Sign structure and other panel backgrounds = Resene 'Jon' N38-007-359
All text = Arlon White 02
Arrows = Arlon White 02
Pictograms = Arlon White 02

Construction Details

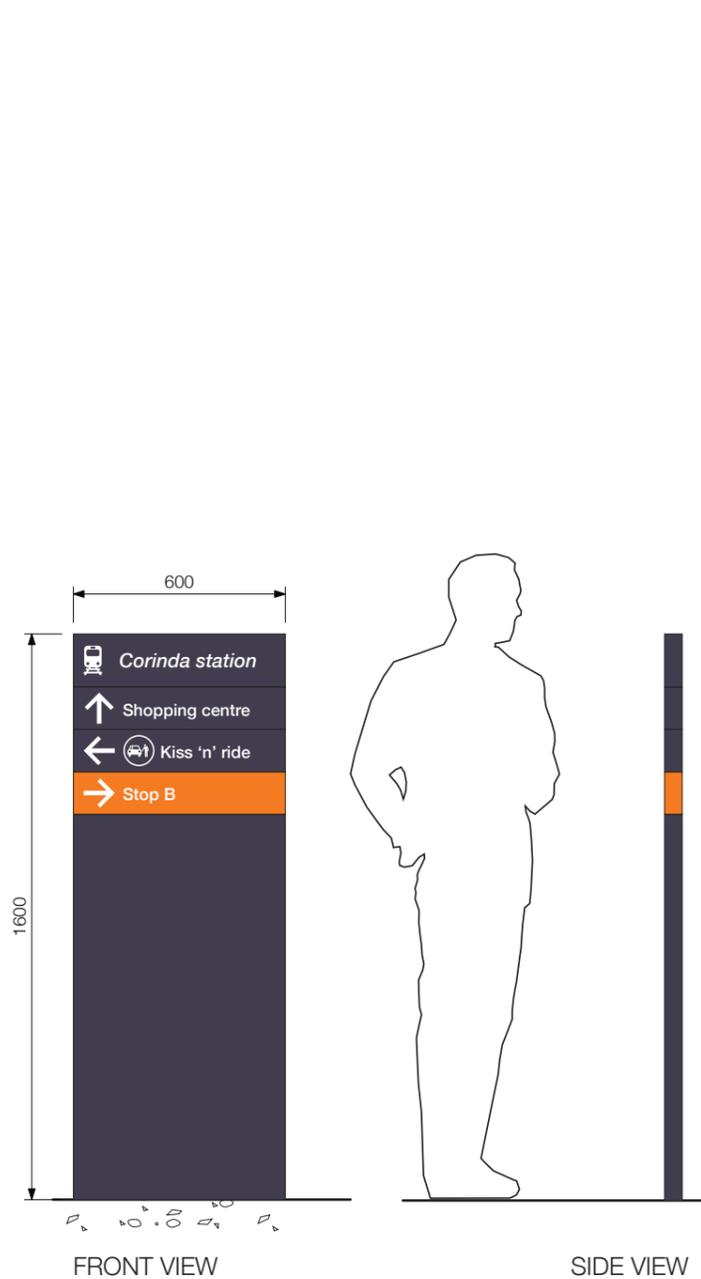
1. 50 x 50 x 3 SHS fully welded internal frame with suitable base plate. 3mm thick painted aluminium cladding with 25mm wide folded returns. Ensure adequate internal support for panel. Countersunk rivet fix cladding to internal frame. Paint out fixing heads to match cladding.

2. Chemset anchor to existing slab or reinforced concrete pad/pier footing to engineers specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40.

3. Front applied vinyl graphics with satin anti-graffiti spray clear finish over.

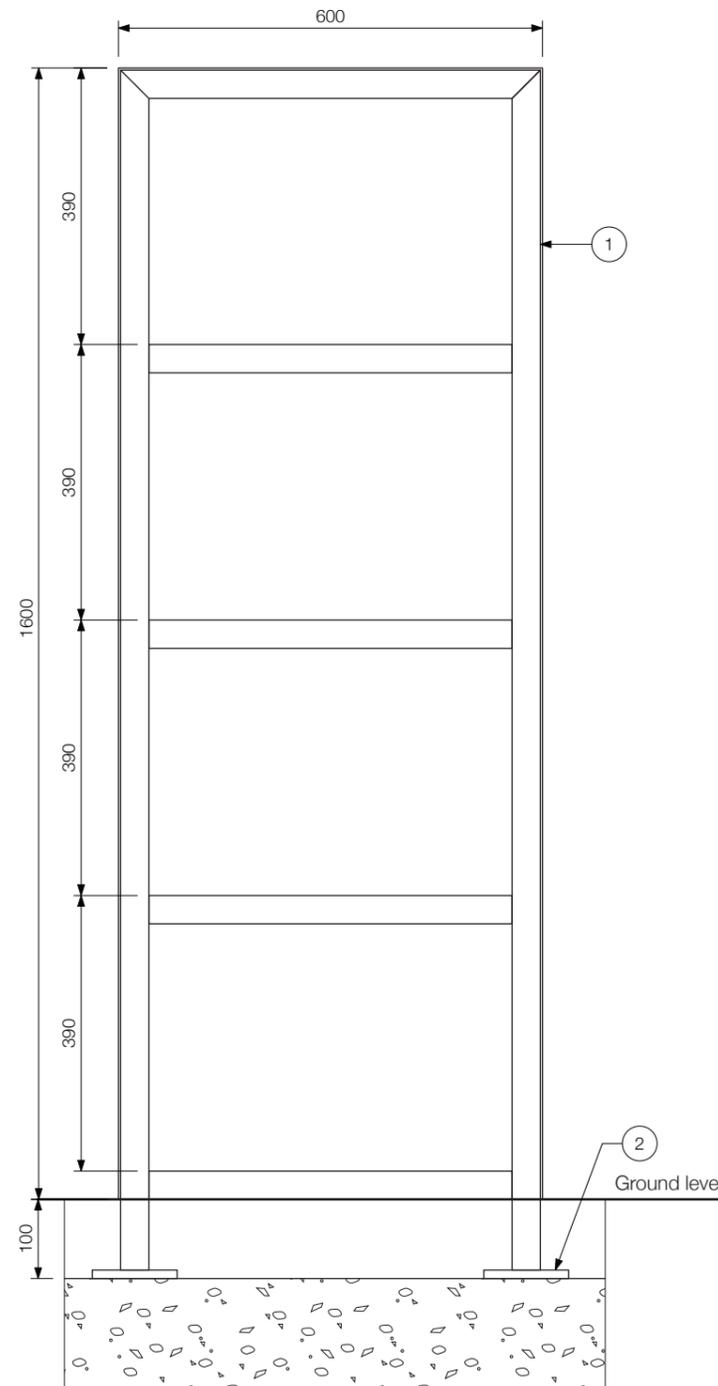
NOTE

- a. Structural framework and footing details to be confirmed by sign maker's engineer.
- b. Sign can be double sided as an option.



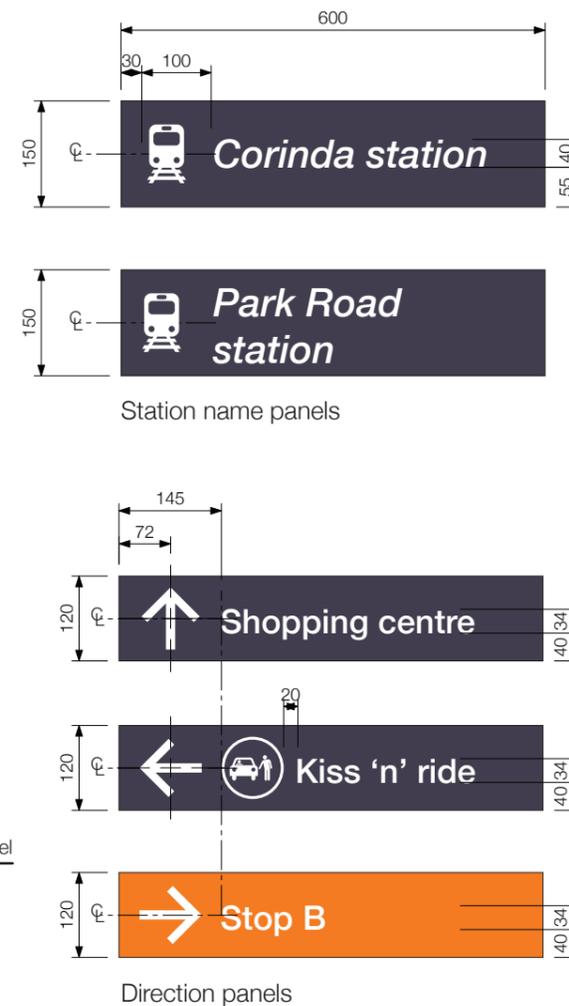
Typical Location

Scale 1:20



Construction

Scale 1:10



Graphic Layouts

Scale 1:10

DS-9
Internal Directional Sign - Projecting

Purpose
- To direct to platforms and facilities
- For pedestrian use

Typical location
- At decision points
- Projecting sign
- Located at decision points within the station property boundaries.
- Fixed to walls (projecting) or to the underside of ceilings / structure.
- Where signs project from walls or ceilings, the bottom of sign must not project below 2.3m above the finished floor level. Preferred height is 2.5m.
- Sign to be oriented typically with the sign face perpendicular to the main path of travel.

Indicative message
- Platform number
- Facility

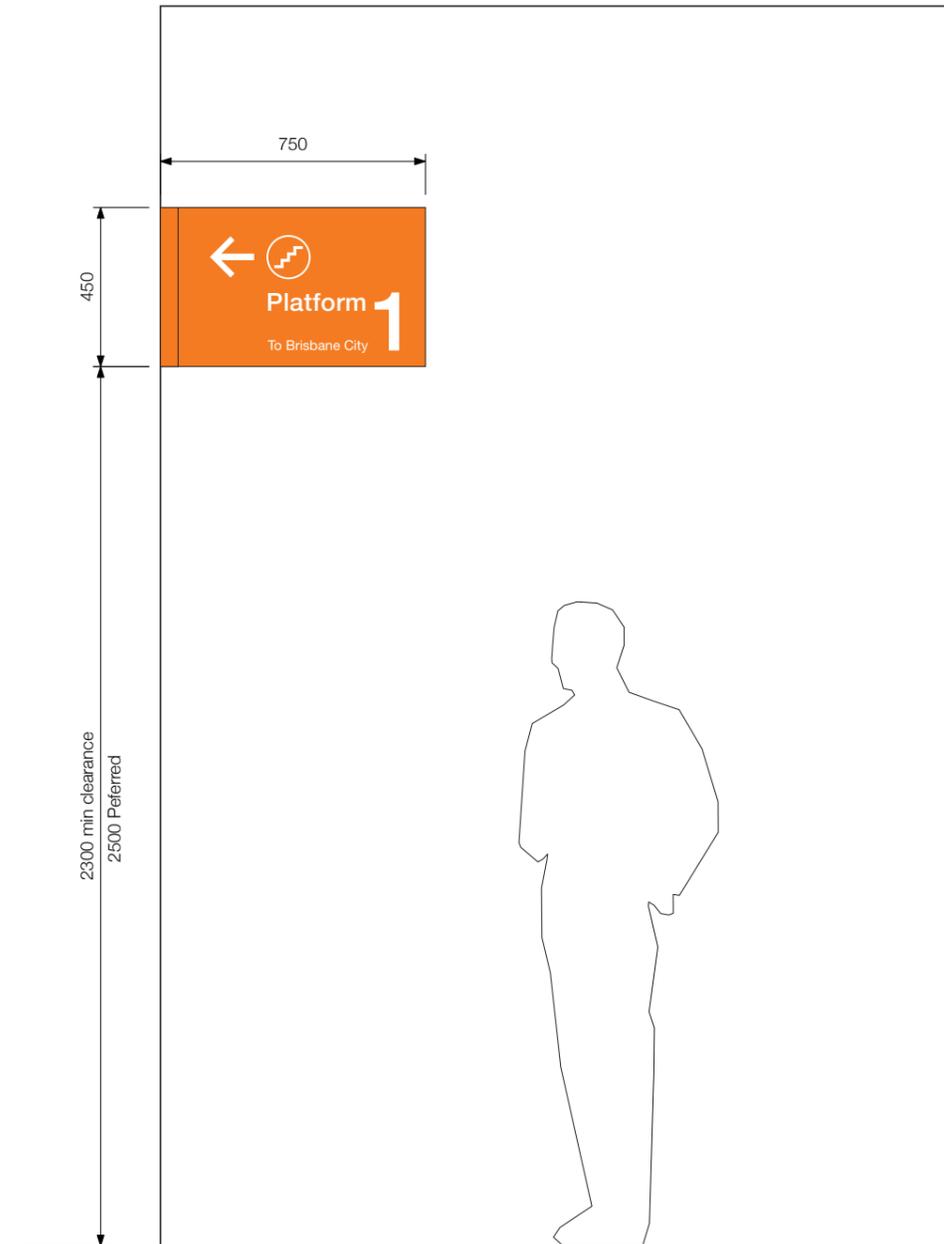
Graphics Detail
FONT
All text = Helvetica Neue 65 Medium

SIZE
Main text = 50mm cap X height
Platform Number = 165mm cap X height
Sub text = 35mm cap X height
Pictogram = 125mm o/a height

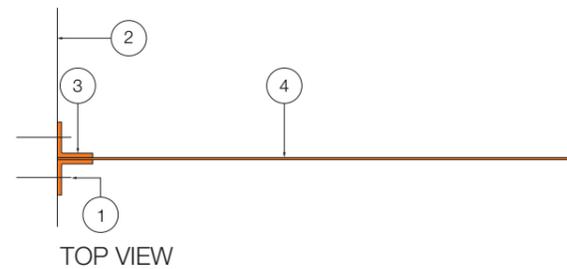
COLOUR
Frame = Painted to match panel colour
Panel = Painted to match Resene Trinidad
Text & Graphics = Arlon 02 White vinyl
Finished in clear anti-graffiti coat (60% gloss)

NOTE: Scale graphic layout to suit site conditions.

Construction Details
1. 4 off suitable fixings to station structure.
2. Station structure.
3. 50 x 50 x 6mm aluminium angle bead welded to aluminium sign panel. All visible welds to be dressed, regular and evenly spaced.
4. 5mm thick aluminium sign panel with anti graffiti clear spray coat over front applied vinyl graphics.



Typical Elevation
Scale 1:20



NOTE: The option to use 'To Brisbane City' is location specific, and is subject to Queensland Rail / TransLink approval

Graphic Layout
Scale 1:10

FI-1a Staff Facility Identification Sign

Purpose
- To identify staff facility
- For staff use

Typical location
- Next to facility door.
- Height to CL of sign - 1500mm
- First preferred sign location is on the wall next to the door on the same side as the door handle.
- Second preferred location (only if the first location is unavailable) is on the wall next to the door on the hinge side.
- Third preferred location (only if the first and second locations are unavailable) is centred on the door.

Indicative message
- Staff only

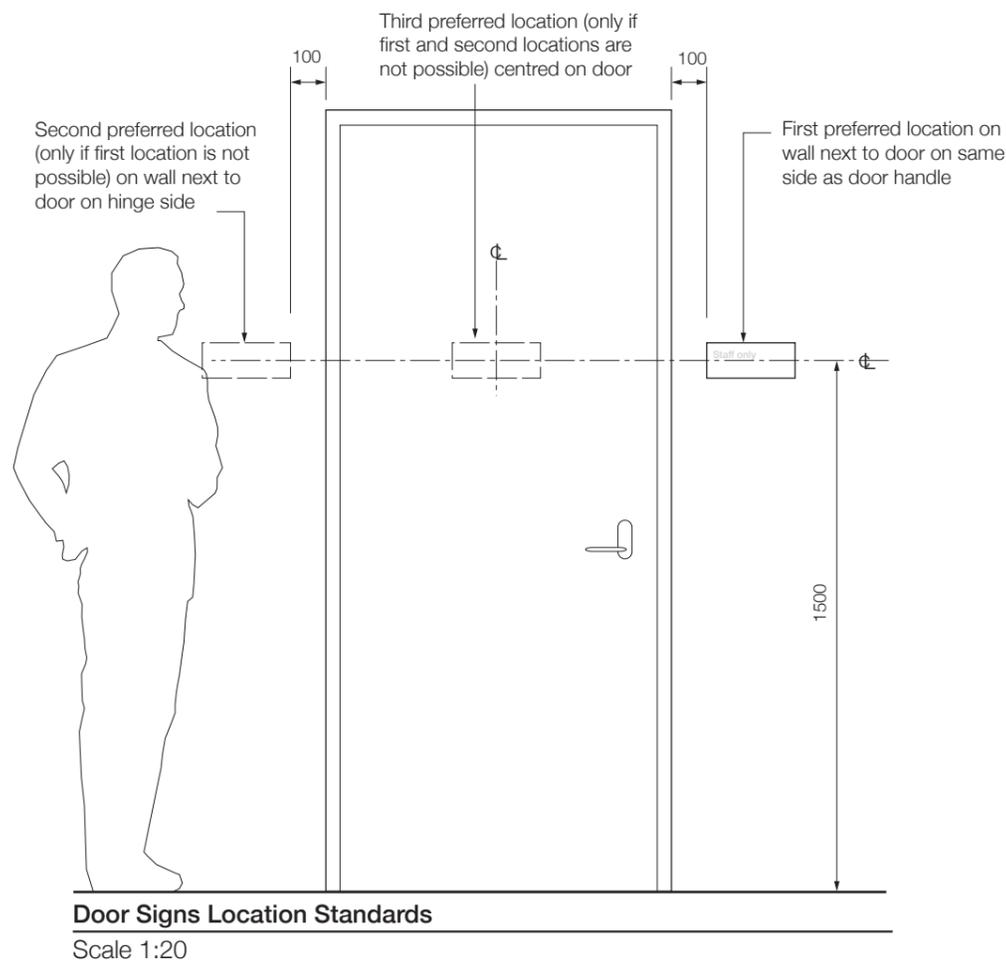
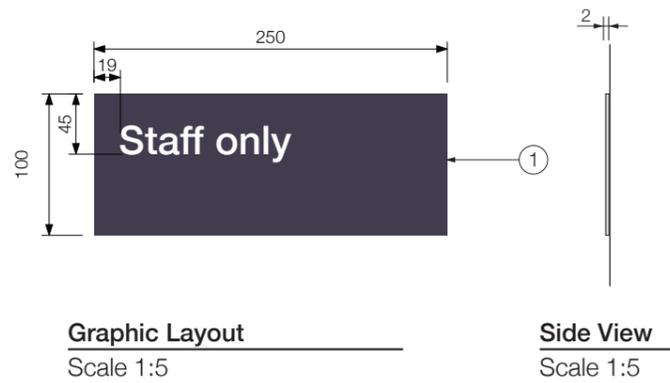
Graphics Detail
FONT
All text = Helvetica Neue 65 Medium

SIZE
All text = 20mm cap X height

COLOUR
Background = Resene Jon
Graphics = Arlon White 02

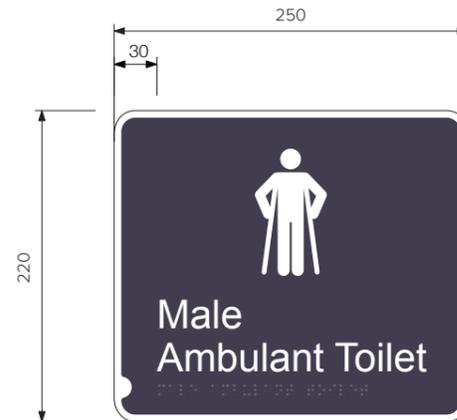
Construction Details

- 1.6mm thick aluminium painted sign panel.
- Front applied vinyl graphics with anti-graffiti spray clear coat painted over.
- Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.
- Mounting surface. Prepare surface free from dust, dirt, oil & grease prior to fixing. Sign panel adhered to wall/door with 3M VHB double sided tape & silicone.





Sign ref FI-1b.1
braille = unisex accessible toilet lh and baby change
NOTE – Handing of toilet to be identified as per AS 1428.1



Sign ref FI-1b.2
Male Ambulant Toilet
braille = male ambulant toilet



Sign ref FI-1b.3
Female Ambulant Toilet
braille = female ambulant toilet

FI-1b
Public Facility Identification Sign

Purpose
- To identify all facilities

Typical location
- Mounted next to facility entrance door
- First preferred sign location is on the wall next to the door on the same side as the door handle.
- Second preferred location (only if the first location is unavailable) is centred on door.

Indicative message
- Male Toilet, Female Toilet, Unisex Toilet
- Relevant pictogram
- Braille message
- Tactile text

Graphics Details

FONT
All text = Arial Regular

SIZE
Main text = 20mm cap X height
'Open...' = 15mm cap X height
Pictogram = 90mm O/A height

COLOUR
Panels = Colour to match Resene Jon
Text and Graphic = White
Border = White
Accessible pictogram = white figure on AS2700 B21 Ultramarine Blue background

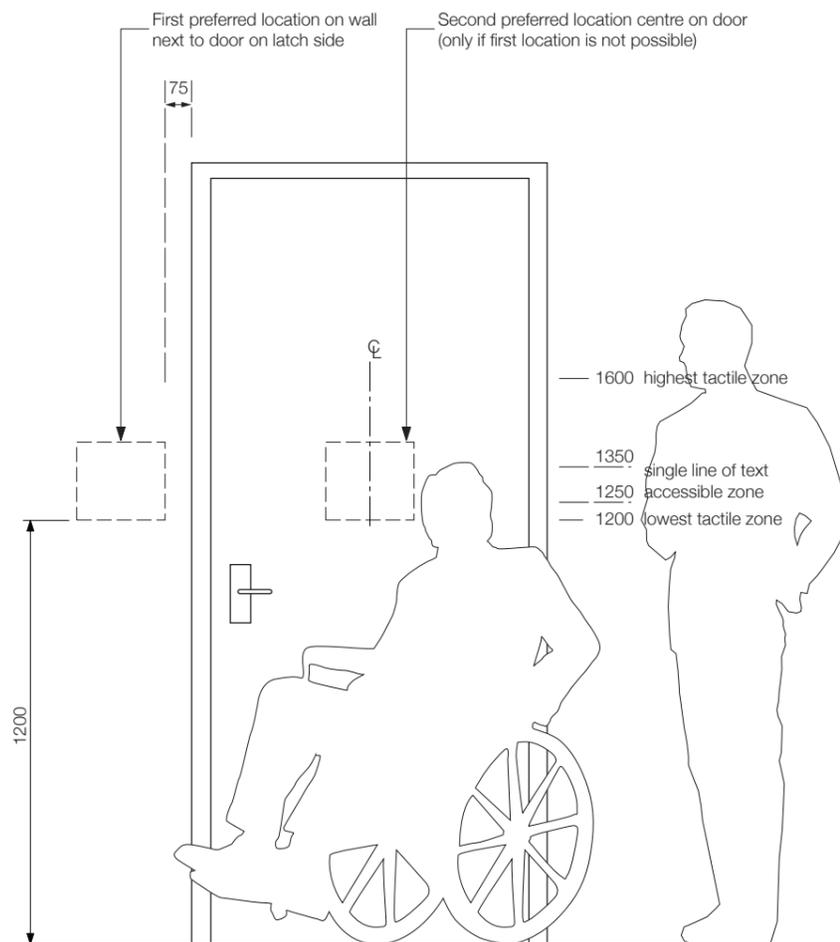
Construction Details

1. 1.6mm acrylic sign panel with Braille and tactile graphics. Use approved raised tactile pictograms and text and grade 1 Braille (uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille.
2. Border and Braille notch / locator may be formed by machining through top layer of panel. Tactile components to be provided to ensure construction method is suitable so that all raised tactile components are robust and cannot be easily dislodged or worn down due to picking or use'.
3. Mounting surface. Prepare surface free from dust, dirt, oil & grease prior to fixing. Sign panel adhered to wall/door with 3M VHB double sided tape & silicone.

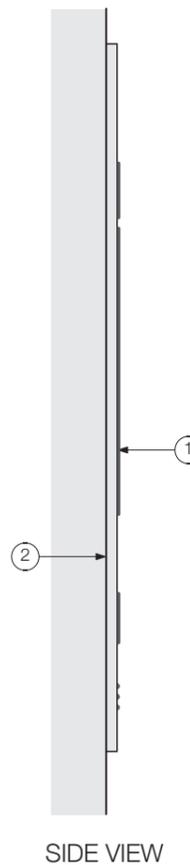
SIGN PLACEMENT NOTE - The Braille and tactile sign panel must be located between 1200mm and 1600mm above finished ground level. When the sign panel has only a single line of tactile characters, these characters must be located between 1250mm and 1350mm above finished ground level

Graphic Layouts

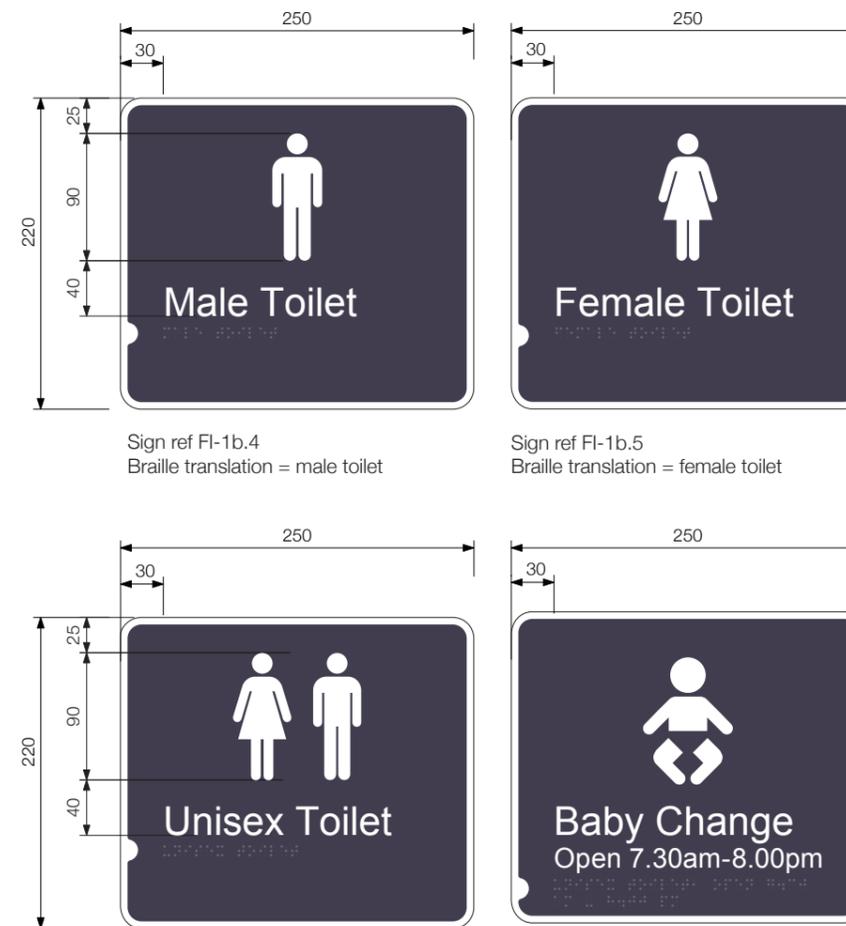
Scale 1:5



Typical Location
Scale 1:20



Braille & Tactile Panel
Scale 1:2



Sign ref FI-1b.4
Braille translation = male toilet

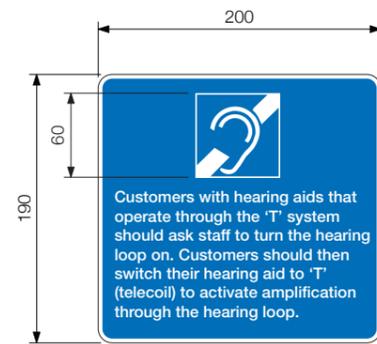
Sign ref FI-1b.5
Braille translation = female toilet

Sign ref FI-1b.6
Braille translation = unisex toilet

Sign ref FI-1b.7
Braille translation = baby change
open 7.30am-8.00pm

NOTE - Hours of operation are to suit facility

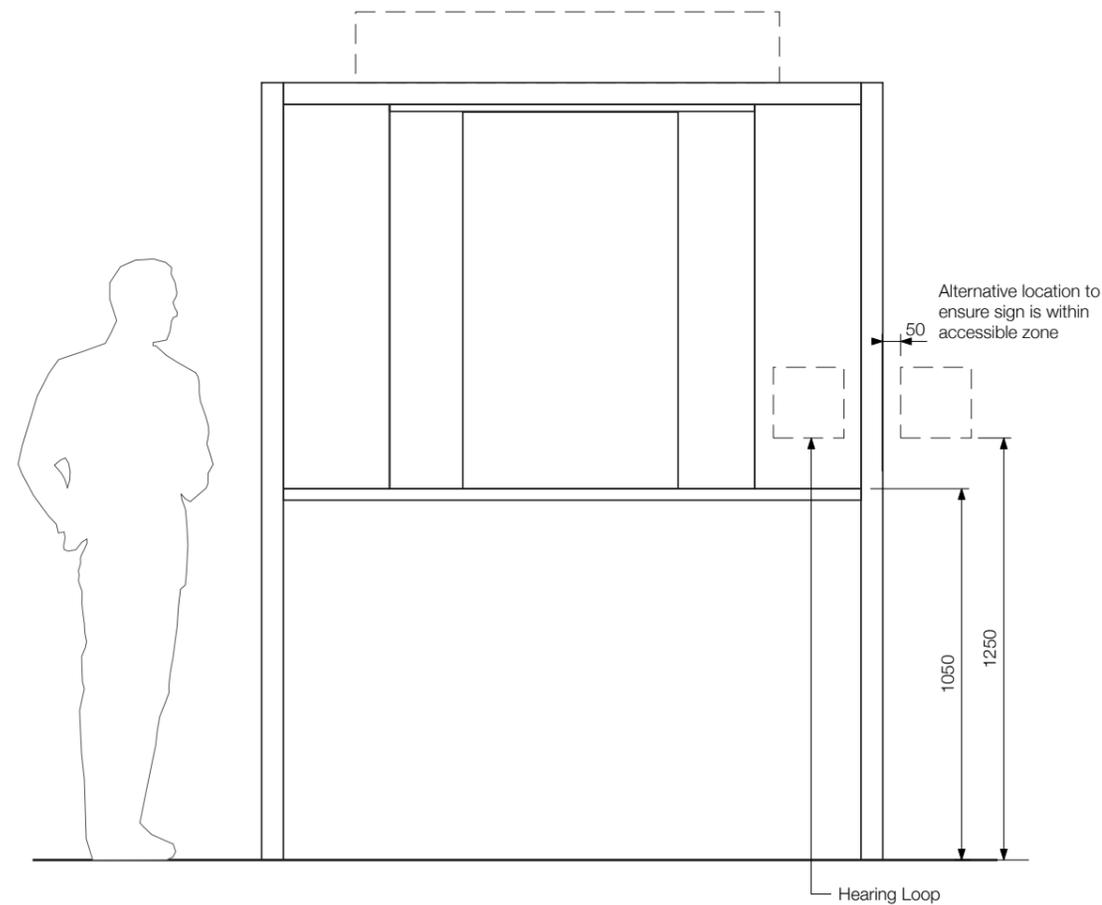
Graphic Layouts
Scale 1:5



Sign ref FI-1c

Graphic Layouts - Hearing Loop

Scale 1:5



Typical Location - customer service office

Scale 1:20

FI-1c

Customer Service - hearing loop signage

Purpose

To identify that a hearing loop is available in this location.

Typical location

At ticket counter on the right hand notice board space.

Indicative message

- Relevant hearing loop pictogram

Graphics Details

FONT

All text = Helvetica Neue 65 Medium

SIZE

All text = 9mm cap X height

Pictogram = As shown

COLOUR

Text & Graphics = White

Panel = AS2700 B21 Ultramarine Blue

Construction Details

1. Painted 1.6mm thick aluminium panel, front applied vinyl graphics with clear anti graffiti coating.

2. Mounting surface. Prepare surface free from dust, dirt, oil & grease prior to fixing. Sign panel adhered to wall/door with 3M 468 double sided adhesive tape.

FI-1e
Priority Seating Area Identification Sign

Purpose
To identify the seating area available for people with a priority need to sit down while waiting on a platform.

Typical location
Mounted on the inside back wall of the core zone platform shelter or suspended above seating area.

Indicative message
“Priority Seating Area. Please Vacate These Seats For People With Disability, Seniors, Pregnant Women and Adults Carrying Children”.

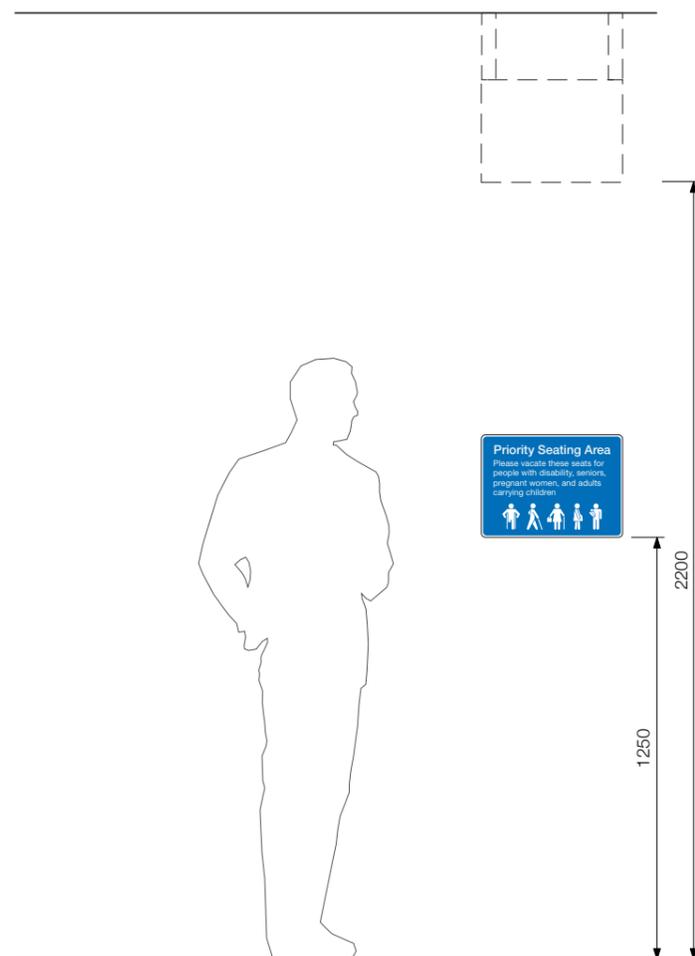
Graphics Details
SIZE
All text = Heading 24.5mm
Other = 17mm
Pictograms = 75mm

COLOUR
Panel = To match AS2700 B21 Ultramarine Blue
Border = White.
Text and Graphic = Arlon White 02
Pictograms = Arlon White 02

Construction Details
Wall mounted
1. Painted 1.6mm thick aluminium panel, front applied vinyl graphics with clear anti graffiti coating. Screw holes in each corner. Sign panel fixed with tamper proof screws or rivets to inside of the back wall of shelter.

Suspended
2. Suitable SHS frame clad with painted 1.6mm thick aluminium with clear anti graffiti coating. Enclosed in aluminium frame with a vertical hanging bracket at the top corner at both ends. Sign frame attached to the soffit of the shelter with bolts.

Sign maker to perform site visit to confirm fixing method.



Typical Location
Scale 1:20



Graphic Layouts - Accessible facility
Scale 1:5

FI-1f
Sharp Disposal Identification Sign

Purpose
To allow people with vision impairment to identify the sharps bin.

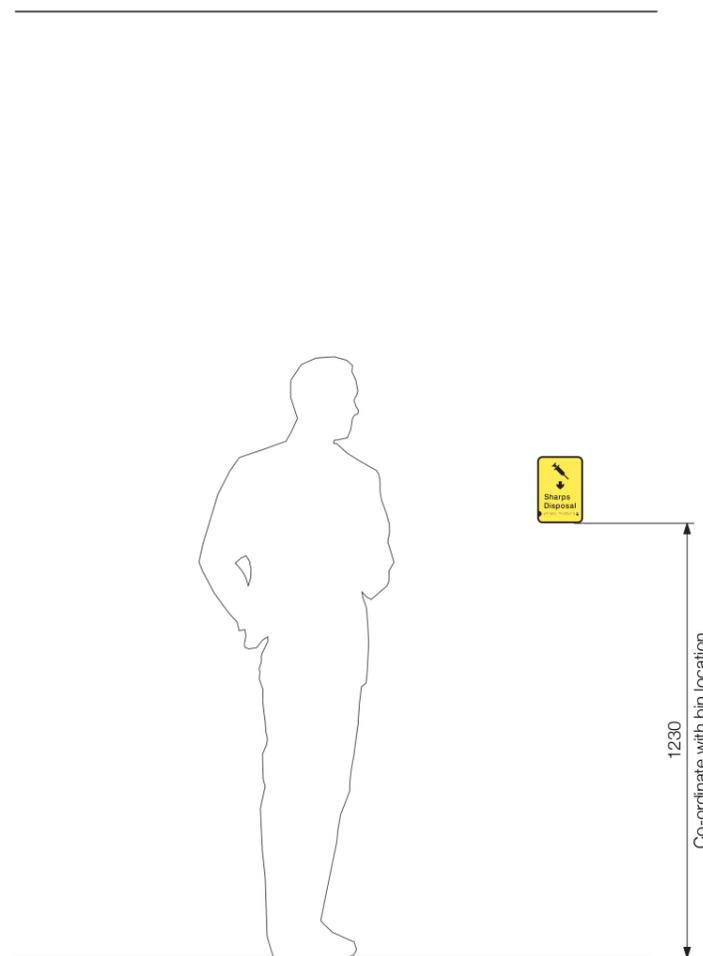
Typical location
Mounted on the front of or above the sharps disposal bin in the toilets.

Indicative message
- "Sharps Disposal".

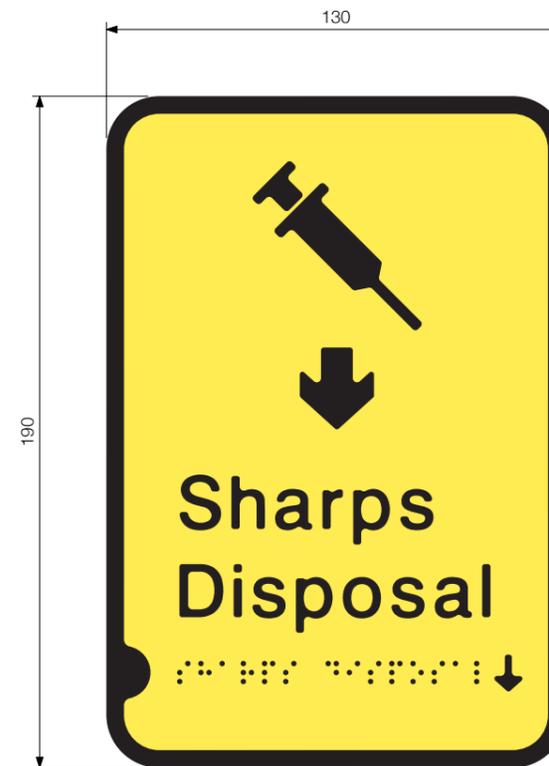
Graphics Details
SIZE
All text = 15mm high.
Pictogram = 47mm wide x 75mm high.
Braille panel text = 6.6mm high.

COLOUR
Panel = Yellow PMS 107 or equivalent.
Border = Black.
Text and Graphic = Black.
Braille = Stainless steel silver.

Construction Details
1. 1.6mm acrylic sign panel with Braille and tactile graphics. Use approved raised tactile pictograms and text and grade 1 Braille (uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille.
2. Fix to wall with 3M 468 double sided adhesive tape and tamper proof screws at each corner.



Typical Location
Scale 1:20



Sign ref FI-1f.1
Sharps Disposal

Graphic Layouts - Accessible facility
Scale 1:2

FI-1g
Help Phone Identification Sign

Purpose
To identify and provide information on Help Phone consoles.

Typical location
Mounted to freestanding console.

Indicative message
- Help phone
- Customer Assistance

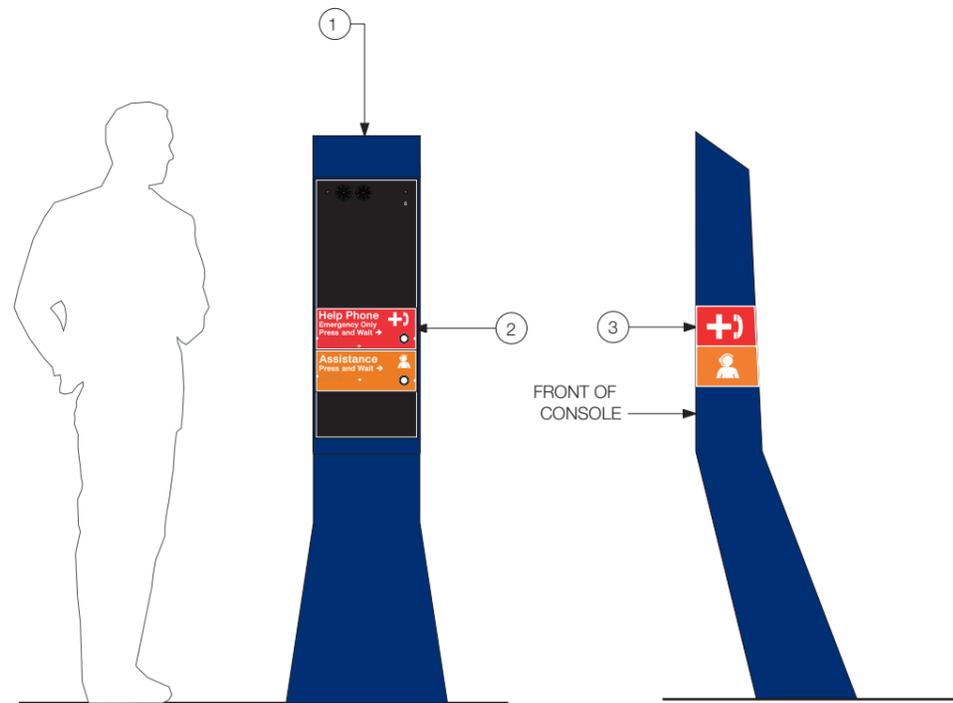
Optional:
- Electronic Timetable
- Hearing Loop

Graphics Details
FONT
All text = Helvetica Neue 65 Medium

SIZE
Sign Border = 5mm typical
Braille notch = 6mm wide x 10mm deep
Help Phone/Assistance text = 35mm high
Emergency Only text = 20mm high
Press and Wait text = 20mm high
Help Phone Pictogram (front) = 40mm high x 60mm wide
Assistance Pictogram (front) = 40mm high x 35mm wide
Help Phone Pictogram (side) = 75mm high x 110mm wide
Assistance Pictograms (side) = 75mm high x 70mm wide
Braille text = as per Australian Standards

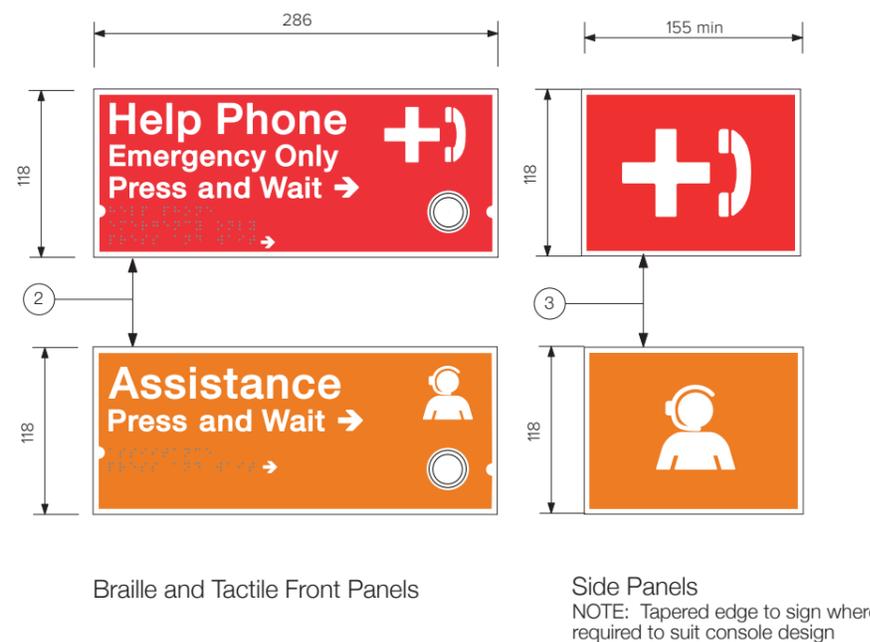
COLOUR
Red Panel = To match Pantone 032C
Orange Panel = To match Resene Trinidad O61-167-048
Outside border = White
Screen border = White
Text and Graphic = White
Symbols = White

Construction Details
1. Freestanding help phone console structure to Queensland Rail Standards.
2. Braille and tactile sign panels, 1.6mm thick aluminium sign panels. Use approved raised tactile pictograms and text and grade 1 Braille (uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille.
3. Side graphic panels, 1.6mm thick aluminium panels with front applied graphics and protective satin clear coat.
4. All panels fixed to cabinet with 3M 468 double sided adhesive tape.



Typical Console Front View
Scale 1:20

Typical Console Side View
Scale 1:20



Braille and Tactile Front Panels

Side Panels
NOTE: Tapered edge to sign where required to suit console design

Typical Graphic Layouts
Scale 1:5

NOTE:
FINAL DETAILS TO BE PROVIDED BY
QUEENSLAND RAIL PRIOR TO
MANUFACTURE AND INSTALLATION

FI-1i
Accessible Lift Identification Sign at Lift Landing

Purpose
To identify that the lift is accessible, how to operate the lift and to discourage its use in a fire.

Typical location
Outside the lift

Indicative message
- Help phone
- Electronic Timetable

Note
- Refer to page 4.16.2 for additional layouts.

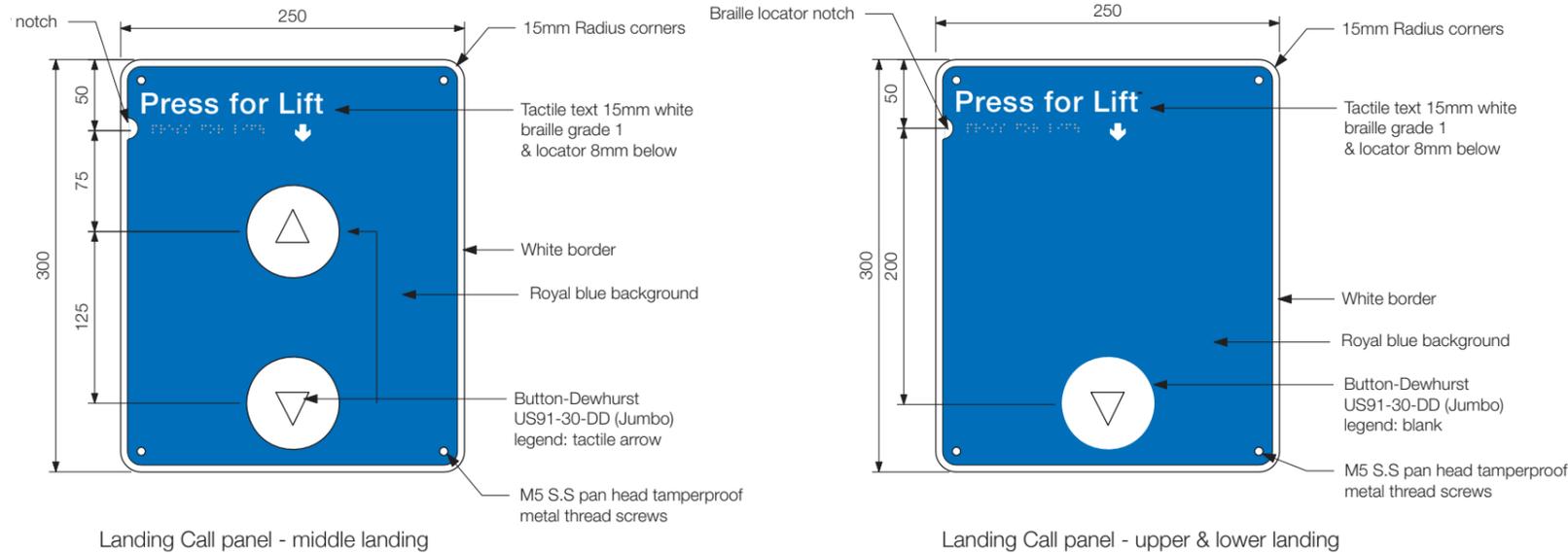
Graphics Details
FONT
All text = Helvetica Neue 65 Medium

SIZE
TEXT
Accessible Lift = 15mm high
Lift / Do Not Use In Fire = 15mm high
Pictograms
International Symbol of Access = 95mm high
Lift = 110mm high

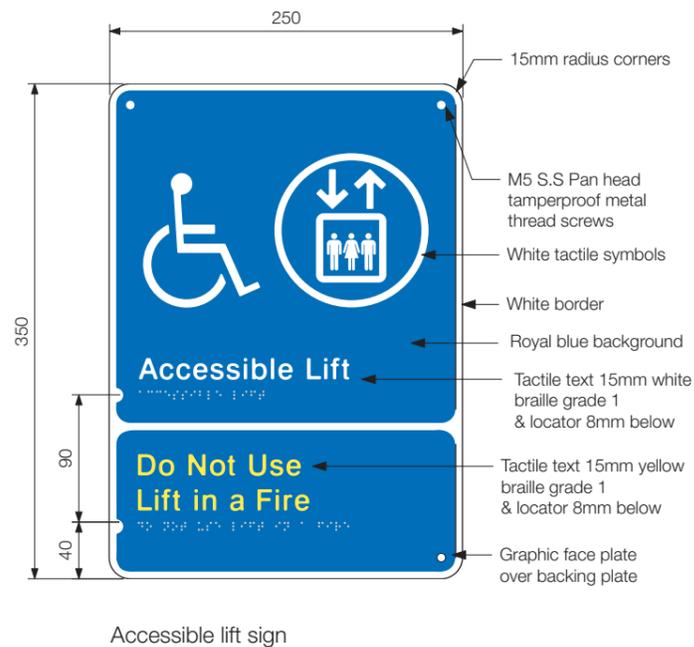
COLOUR
Border = White.
Panel = AS2700 B21 Ultramarine Blue.
Text = White and Pantone Yellow 107.
Graphic = White.

Construction Details
Sign Panel Braille and Tactile
1. 1.6mm acrylic sign panel with Braille and tactile graphics. Use approved raised tactile pictograms and text and grade1 Braille (uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille. All edges to be rounded.
2. Border and Braille notch / locator may be formed by machining through top layer of panel. Tactile components to be provided to ensure construction method is suitable so that all raised tactile components are robust and cannot be easily dislodged or worn down due to picking or use
3. Fix to wall with 3M 468 double sided adhesive tape and tamper proof screws at each corner.

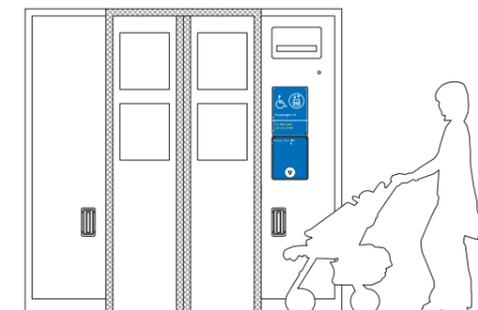
SIGN PLACEMENT NOTE - The Braille and tactile sign panel must be located between 1200mm and 1600mm above finished ground level. When the sign panel has only a single line of tactile characters, these characters must be located between 1250mm and 1350mm above finished ground level.



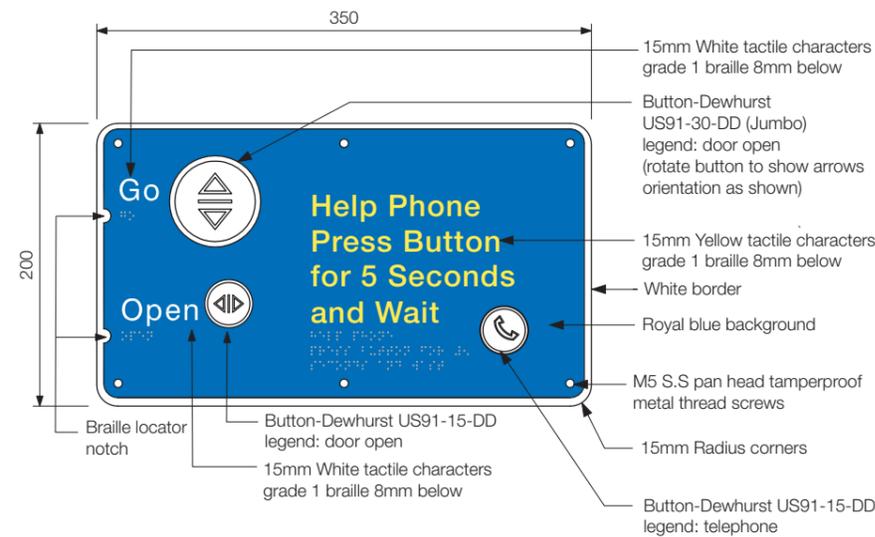
Graphic Layouts - Landing layouts
Scale 1:5



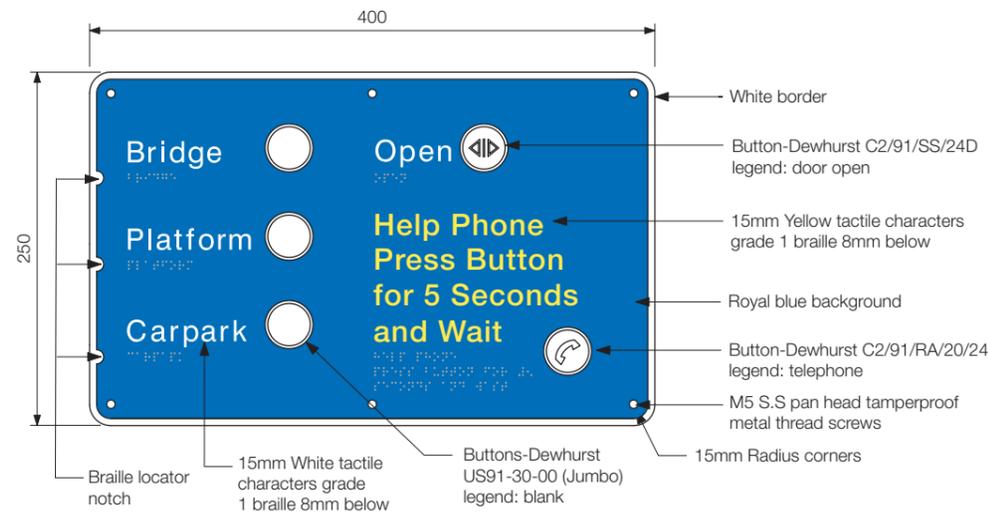
Graphic Layouts - Accessible lift
Scale 1:5



Typical Location
Scale 1:50



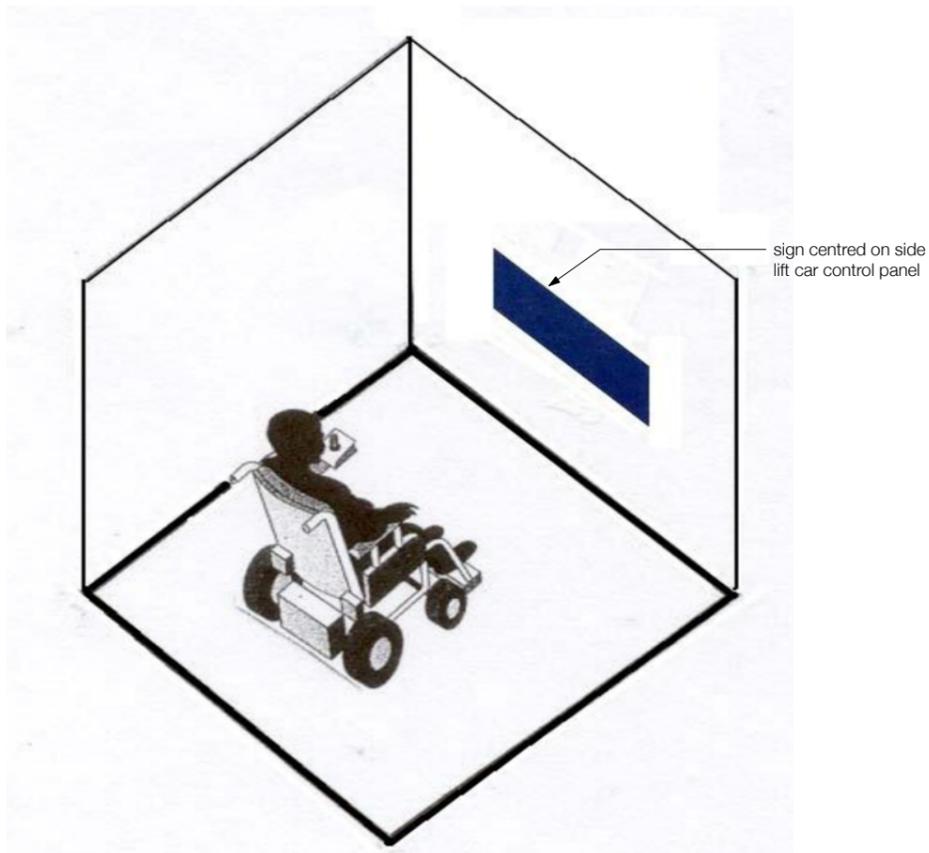
Car Operating panel (C.O.P.) 2 level lift



Car Operating panel (C.O.P.) 3 level lift

Graphic Layouts - Car Operation

Scale 1:5



Typical Location

nts

FI-1j

Accessible Lift Identification Sign

Control Panel

Purpose

To identify lift operation controls and help phone. Provide instruction to use the help phone.

Typical location

Inside the lift car

Indicative message

- Help phone
- Electronic Timetable

Graphics Details (see QR Network drawing 2705)

HELP PHONE

FONT

All text = Helvetica Neue 65 Medium

SIZE

TEXT

All text = 15mm high

COLOUR

Border = White.

Panel = AS2700 B21 Ultramarine Blue.

Text = White and Pantone Yellow 107

Construction Details

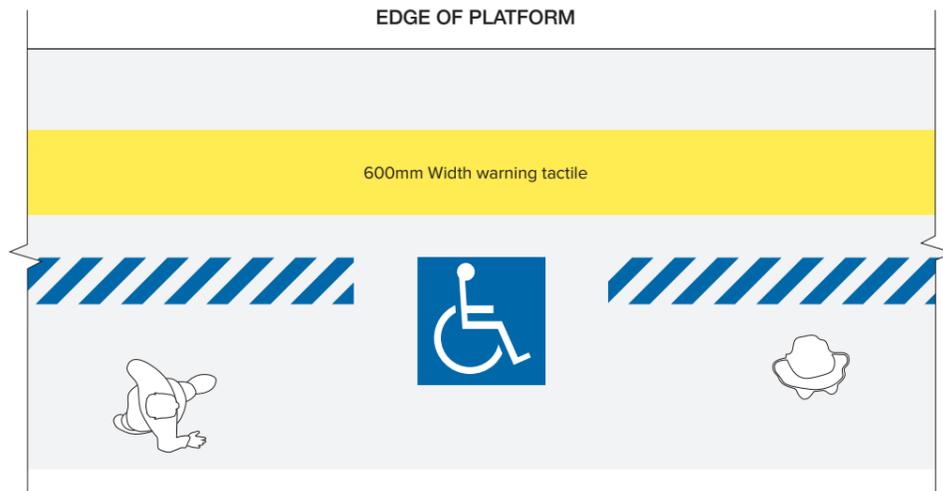
Sign Panel

1. 1.6mm acrylic sign panel with Braille and tactile graphics. Use approved raised tactile pictograms and text and grade1 Braille (uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. Top of Braille to be offset 8mm below letters. Braille locator notch left of first line of Braille. All edges to be rounded.

2. Border and Braille notch / locator may be formed by machining through top layer of panel. Tactile components to be provided to ensure construction method is suitable so that all raised tactile components are robust and cannot be easily dislodged or worn down due to picking or use

3. Fix to wall with 3M 468 double sided adhesive tape and tamper proof screws at each corner.

SIGN PLACEMENT NOTE - The Braille and tactile sign panel must be located between 1200mm and 1600mm above finished ground level. When the sign panel has only a single line of tactile characters, these characters must be located between 1250mm and 1350mm above finished ground level.



Typical Assisted Boarding Point Mat Location - Plan View

Scale 1:50

FI-1k

Assisted Boarding Point Mat

Purpose

To identify the accessible train boarding point.

TYPICAL LOCATION

On the platform surface at the back edge of the TGSIs aligned with accessible train section doors.
Note: Accessible symbol orientation to face right when customers are facing the platform edge.

Graphics Details

Symbols And Pictograms
International symbol of access (No 31 ISO 7001).

Size

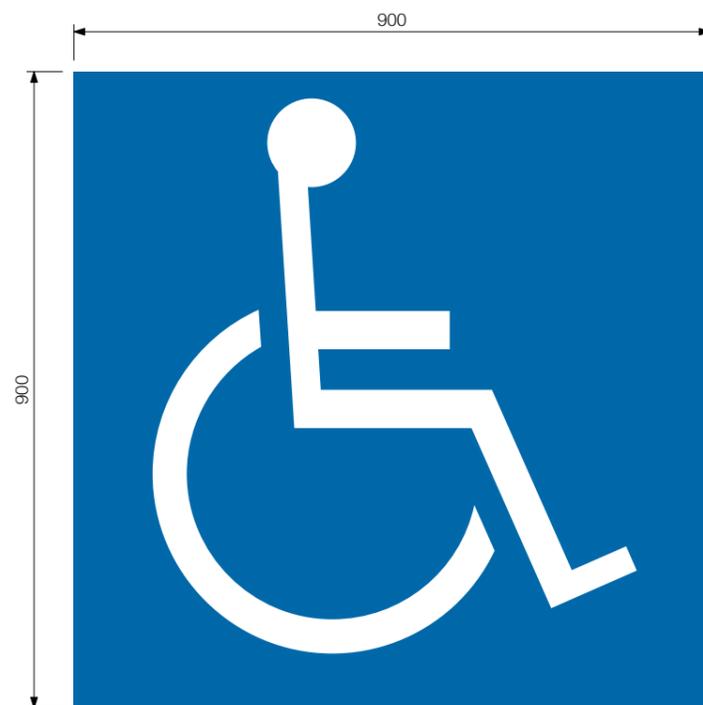
Overall dimension = 900mm x 900mm.
Pictogram = 600mm x 683mm.

Colour

Mat = AS2700 B21 Ultramarine Blue.
Access symbol = White.

Construction Details

Contact Queensland Rail for details for supply and installation.



FI-1k.1
Assisted Boarding Point Mat (with tactile surface)

Graphic Layout - Accessible location

Scale 1:10

FI-3a

Kiss 'n' ride Identification Sign

Purpose

- To identify pick up and drop off zone
- For pedestrian and vehicular use

Typical location

- Located at the head of the Kiss 'n' ride zone.
- Located in either Queensland Rail or local council property depending on site layout and location of facility. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign faces perpendicular to the kerb line, in order that the sign faces are clearly visible from road approaches. Sign to point away from road.
- Sign post to be located outside required pedestrian paths of travel. Obtain advice from Queensland Rail prior to finalising locations.

Indicative message

- Kiss 'n' ride and pictogram

NOTE - This sign is not a regulatory traffic sign and does not replace Manual of Uniform Traffic Control Devices (MUTCD) signage requirement

Graphic Details

FONT

All text = Helvetica Neue Medium

SIZE

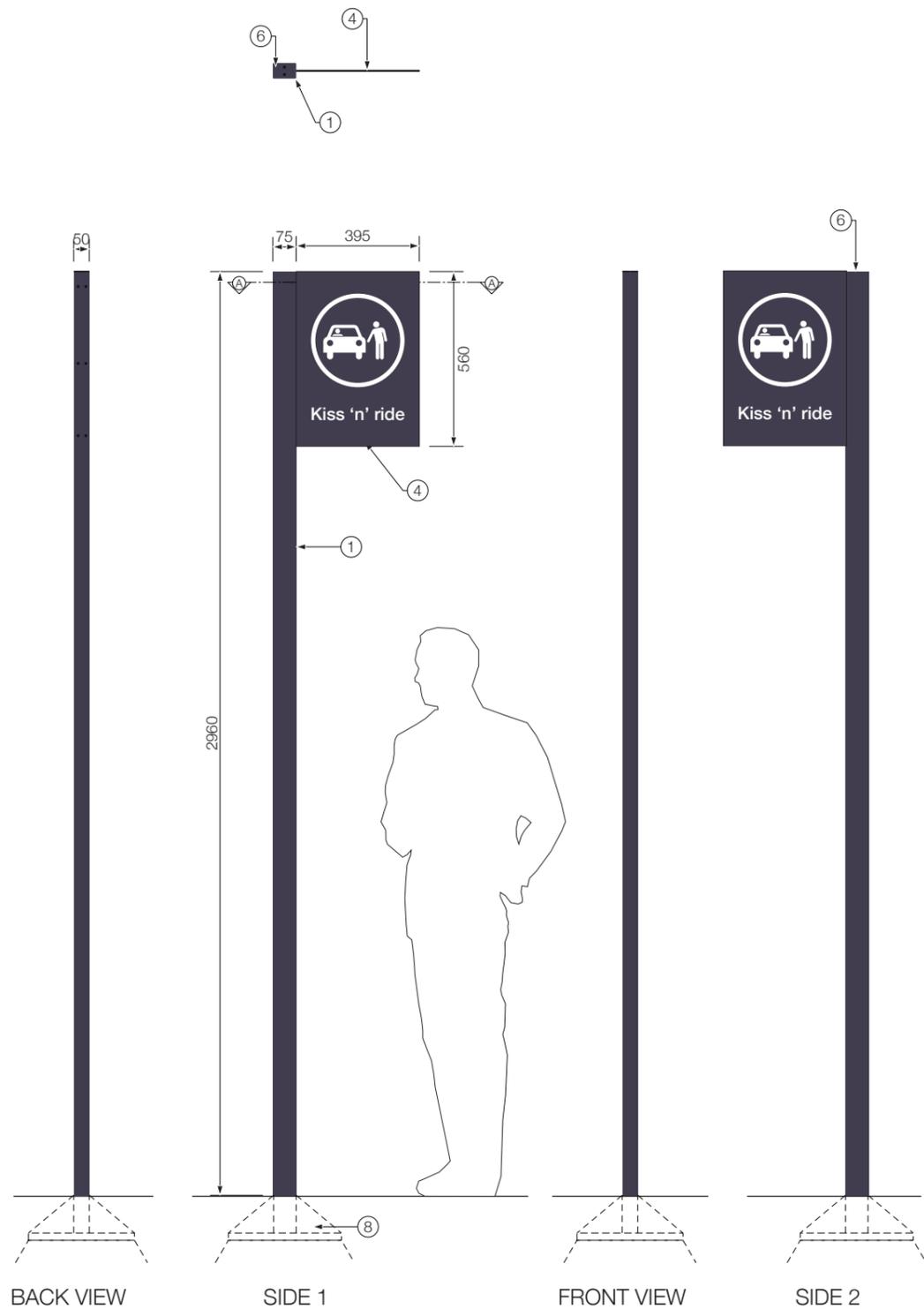
'Kiss 'n' ride' = 40mm cap X height
Pictogram = 300mm x 300 O/A height

COLOUR

Panel = painted to match Resene Jon on both sides.
Post = painted to match Resene Jon or approved colour.

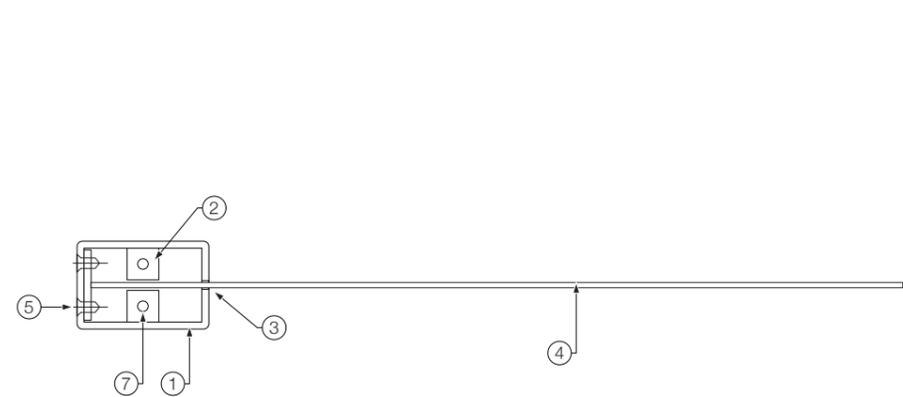
Graphics = Arlon White 02 vinyl
Finished in clear coat (60% gloss).

Refer to Sign Type DS-1 Minor Directional Sign for construction details.



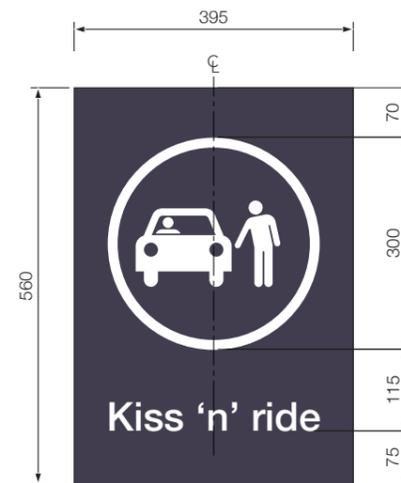
Elevations

Scale 1:20



Section A-A

Scale 1:2



SIDE 1

Typical Graphic Layout

Scale 1:10

FI-3b

Taxi Identification Sign

Purpose

- To identify Taxi zone
- For pedestrian and vehicular use

Typical location

- Located at the head of the taxi zone.
- Located in either Queensland Rail or local council property depending on site layout and location of zone. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign faces perpendicular to the kerb line, in order that the sign faces are clearly visible from road approaches. Sign to point away from road.
- Sign post to be located outside required pedestrian paths of travel. Obtain advice from Queensland Rail prior to finalising locations.

Indicative message

- Taxi and pictogram

NOTE - This sign is not a regulatory traffic sign and does not replace MUTCD signage requirement

Graphic Details

FONT

All text = Helvetica Neue Medium

SIZE

Taxi = 40mm cap X height

Pictogram = 300mm x 300 O/A height

COLOUR

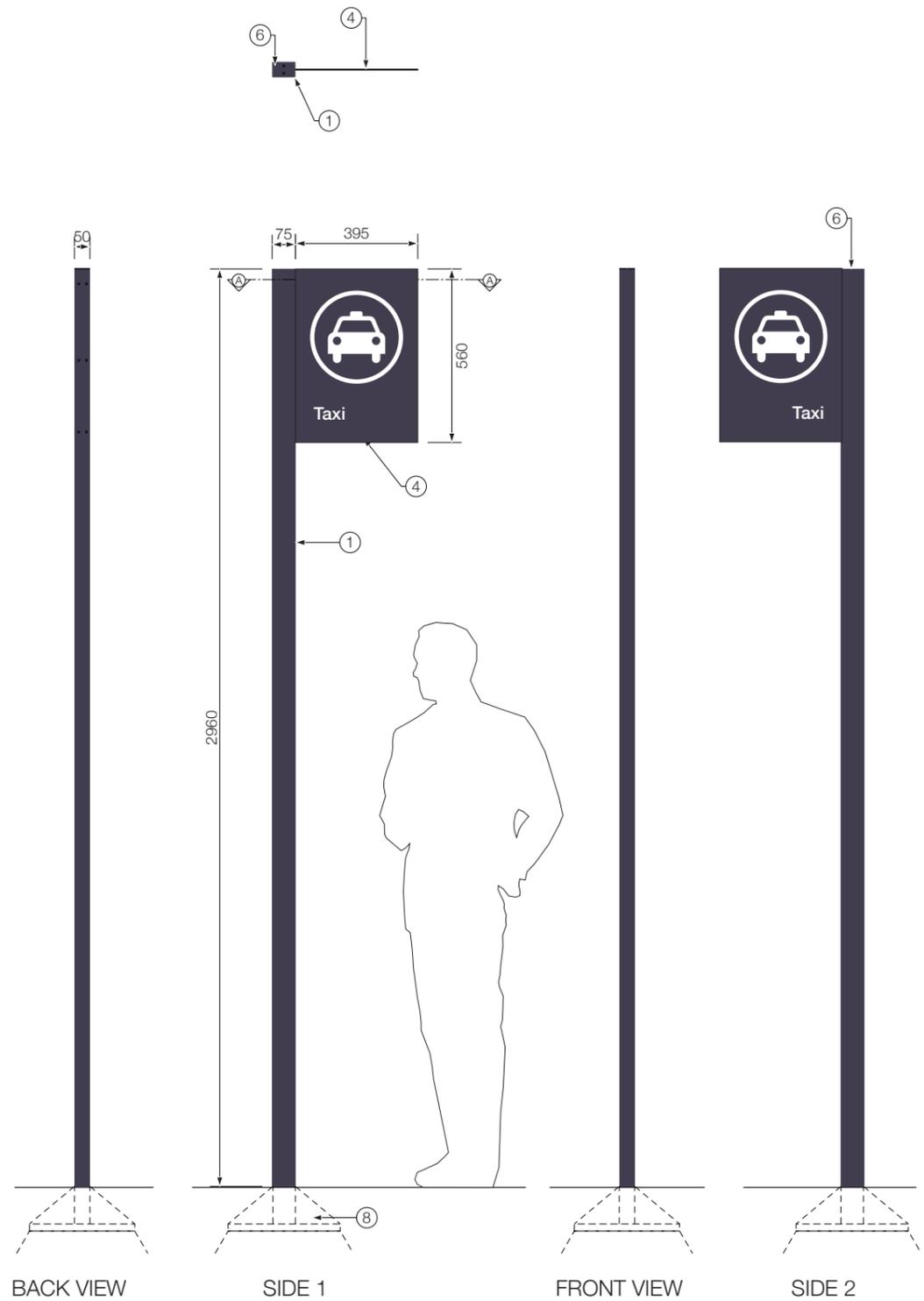
Panel = painted to match Resene Jon on both sides.

Post = painted to match Resene Jon or approved colour.

Graphics = Arlon White 02 vinyl

Finished in clear coat (60% gloss).

Refer to Sign Type DS-1 Minor Directional Sign for construction details.



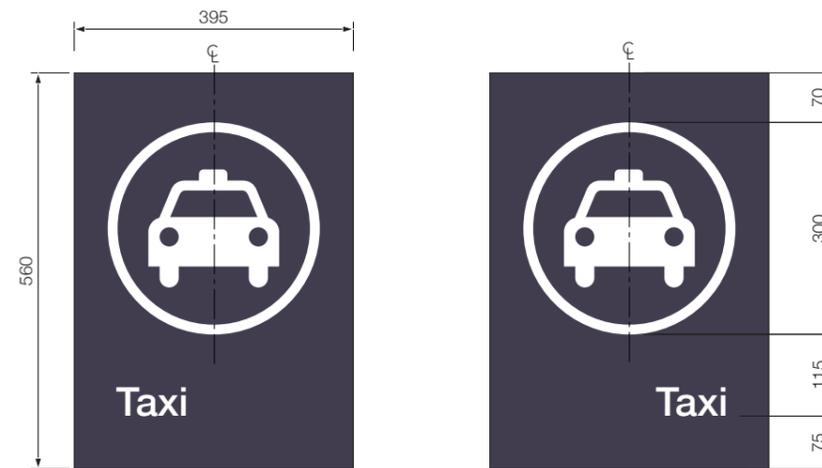
Elevations

Scale 1:20



Section A-A

Scale 1:2

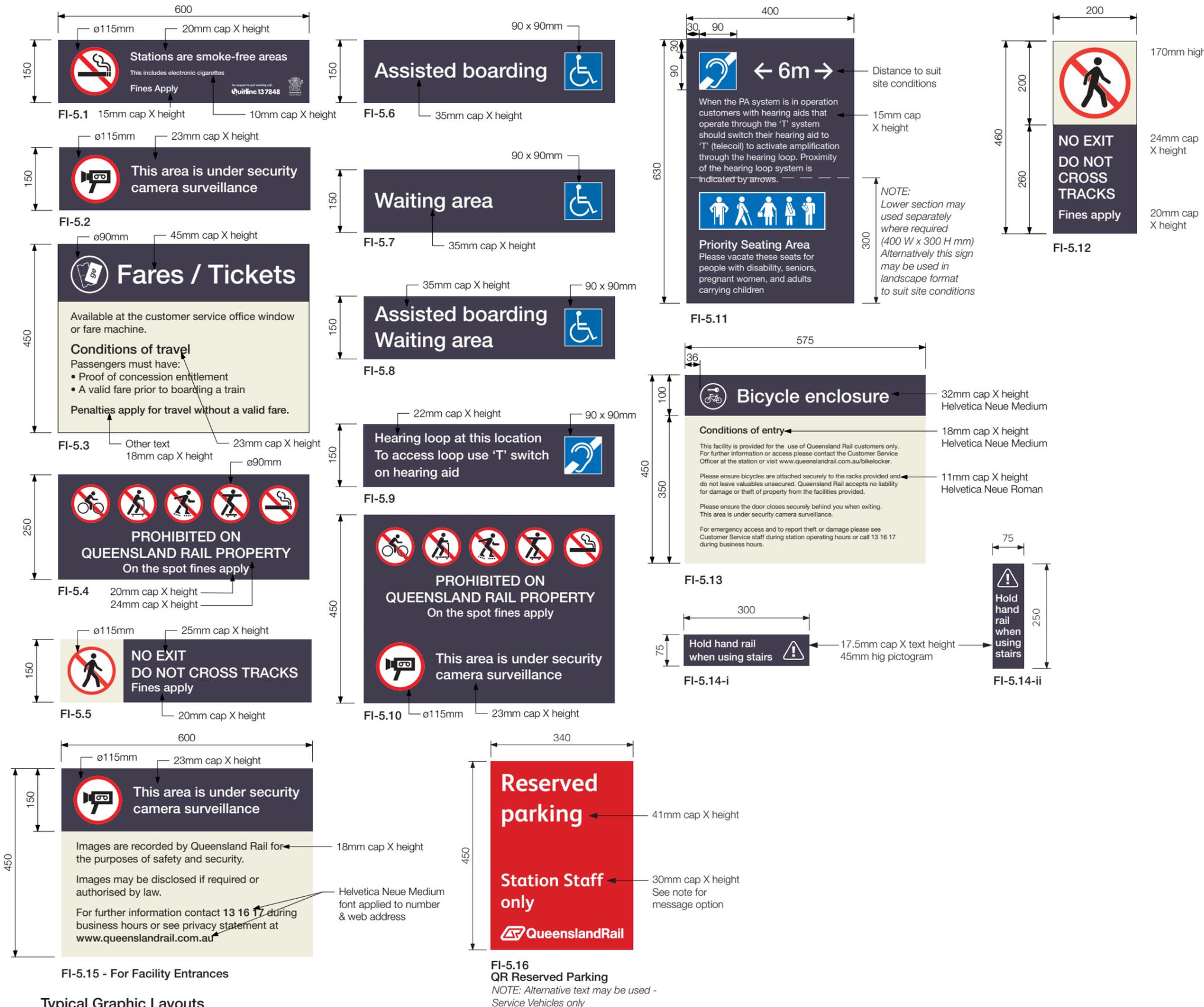


SIDE 1

SIDE 2

Typical Graphic Layout

Scale 1:10



FI-5 Facility & Prohibition Signs

Purpose
- To identify restricted areas, passenger responsibilities and prohibited activities

Typical location
- Mounted at restricted areas
- Wall mounted signs located along main entry points and pathways and waiting areas
NOTE - Placement of Prohibition Signs to be limited to strategic locations

Indicative message
- Prohibited activities eg. smoking, riding bicycles, riding scooters, inline skates, skateboarding, crossing tracks.
- Passenger responsibilities
- CCTV surveillance

Graphic Details
FONT
Main text = Helvetica Neue 65 Medium
Conditions of entry = Helvetica Neue 55 Roman

SIZE
Text heights = As per layouts
Prohibited Pictogram = 115mm o/a height
Other Pictograms = 90mm o/a height

COLOUR
Light background = To match Resene Rice Cake
Dark background = To match Resene Jon
Text on Jon = Arlon White 02
Text on Rice Cake = Arlon Black 03
Prohibited Pictograms = Red and black vinyl on white background.
Other pictograms = Arlon White 02

Construction Detail
1. 1.6mm thick aluminium painted sign panel with front applied external grade vinyl graphics. Anti-graffiti spray clear coat over. Apply 10mm radius to corners.

2. Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.

FIXING OPTIONS
Wall mounted
3. Silicone and VHB tape fixed to wall. To larger signs, mechanically fix sign panel to wall/door. Paint screw heads to match panel colour at fixing locations.

Mesh mounted sign
4. Fix to mesh fence via peeling / Klamp-tite rivets or approved equal. Rivet size to suit pitch of mesh fence. Provide backing plate/washer as required. Paint out fixing heads/ backing plate to match sign face.

Galvanised Fence mounted
5. Signs fixed to galvanised fence 1500mm to underside of panel. Sign panels are blind riveted / mechanically fixed to support bracket eg. standard road traffic sign extrusion or similar.

Post mounted
6. Provide ø60 post (1200mm finished height) and fix sign panel via single two piece saddle bracket or stainless steel strapping to posts with associated bracket and buckle to extrusion.

7. Reinforced concrete pad/pier footing to signmakers' specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement.

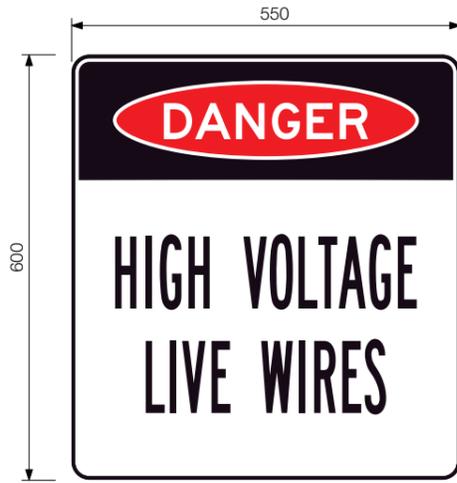
Typical Graphic Layouts

Scale 1:10

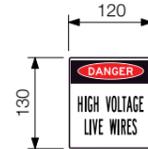
FI-5
Facility & Prohibition Signs

Refer to notes on drawing 4.19.1

1. The FI-5.10 prohibition sign placed next to the FI-5.17 High Voltage Live Wire sign is to be located at platform entries / buildings.
2. The FI-5.17 High Voltage Live Wire sign only to be placed on vehicle / pedestrian rail corridor gates.
3. The FI-5.18 High Voltage Live Wire sign to be placed on electrical masts and at each end of footbridges.



FI-5.17



FI-5.18



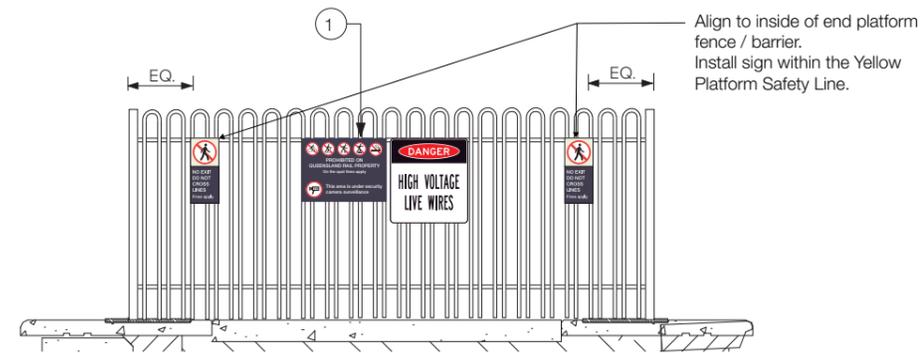
FI-5.19 Image reference



FI-5.19
1:20

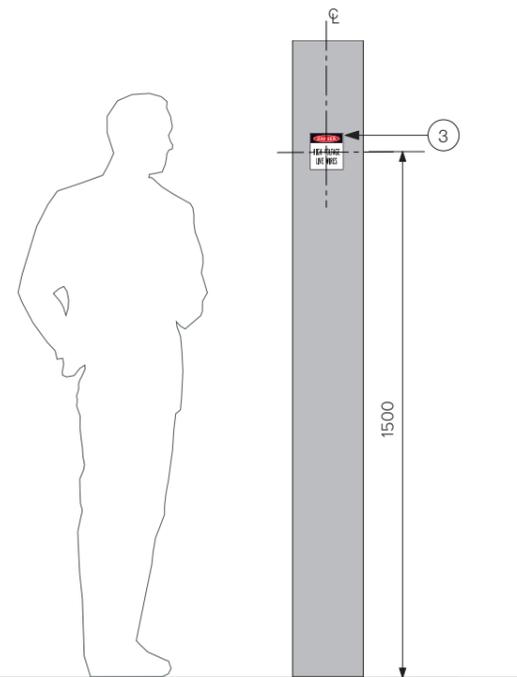
Ground surface sign to be installed flush to platform finish. Signage to be included along each platform coping edge behind TGSIs and at all train door locations. Contact QR for final design specification.

Typical Graphics Layout
Scale 1:10 U.N.O



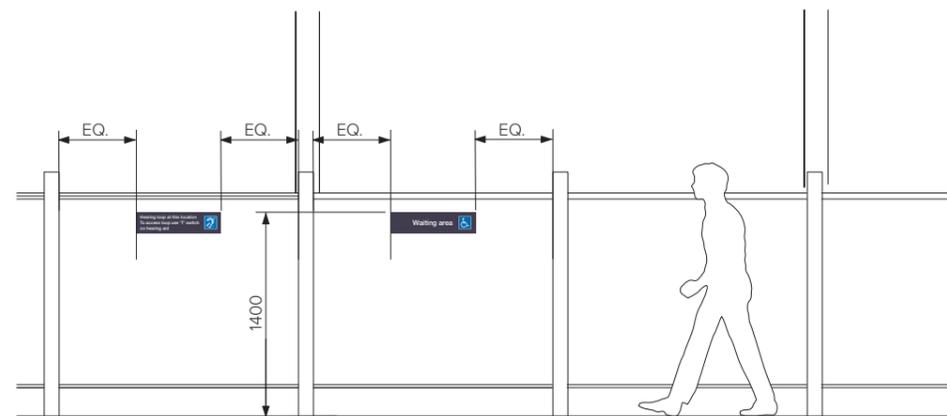
Typical location - End of platform setout - FI-5.10 / FI-5.12 / FI-5.17

Scale 1:50



Typical location - Mast mounted - FI-5.18

Scale 1:20



Typical elevation - Assisted waiting area - FI-5.6 / FI-5.9

Scale 1:50

FI-6a

Facility Identification Sign - Wall Mounted

Purpose

- To identify all public facilities eg. NTI, emergency phone, toilets

Typical location

- Mounted above facility

Indicative message

- Male Toilet, Female Toilet, Accessible Toilet, Lift, Help Phone
- Relevant pictogram

Graphic Details

FONT

All text = Helvetica Neue 55 Roman

SIZE

Lift Pictogram = 150mm o/a height
Other Pictograms = As shown

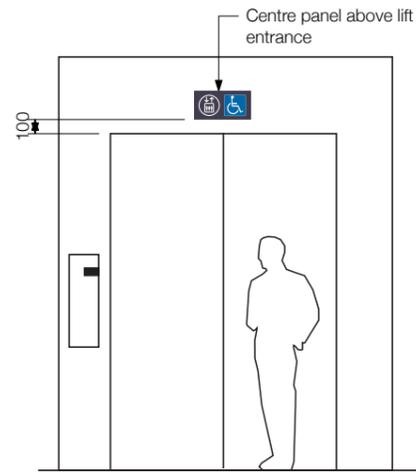
COLOUR

Panel = Painted to match Resene Jon
Graphics = Arlon White 02 vinyl
Access Pictogram = White figure on AS2700 B21 Ultramarine Blue background
Finished in clear coat (60% gloss)

NOTE - Refer to pictograms and arrows section for additional pictograms.

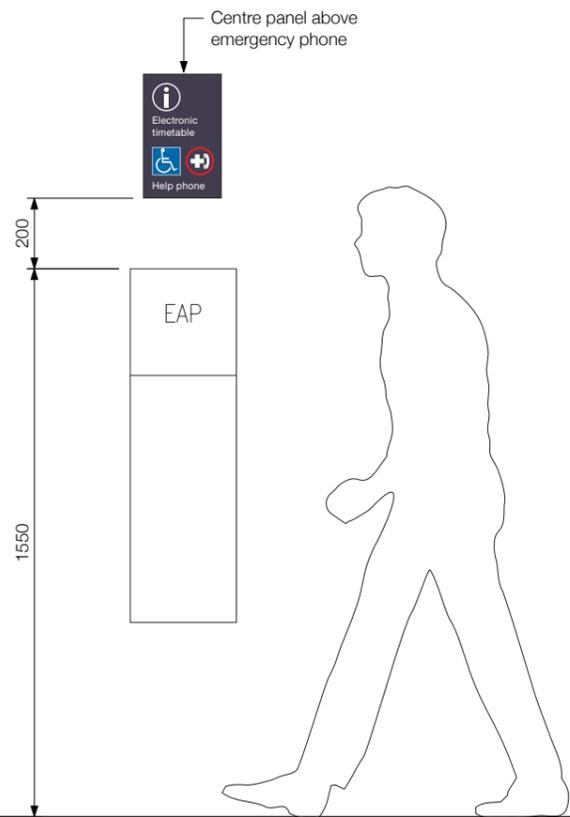
Construction Detail

- 1.6mm thick aluminium painted sign panel with front applied external grade vinyl graphics. Anti-graffiti clear coat over.
- Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.
- Sign panel mechanically fixed to wall/door. Paint screw heads to match panel colour at fixing locations.



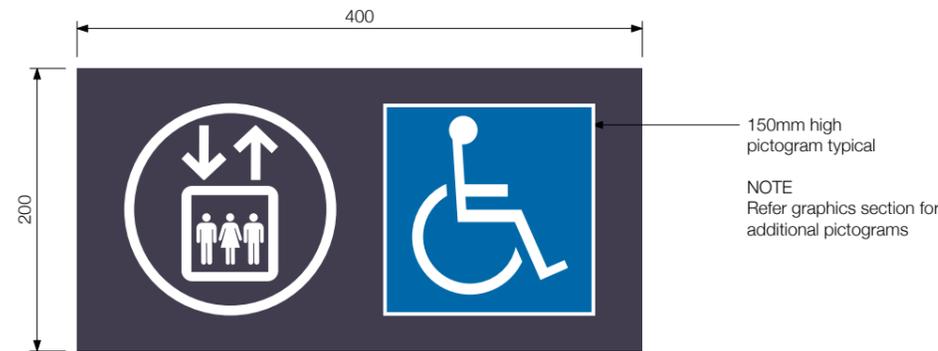
Typical Elevation

Scale 1:50



Typical Elevation

Scale 1:20



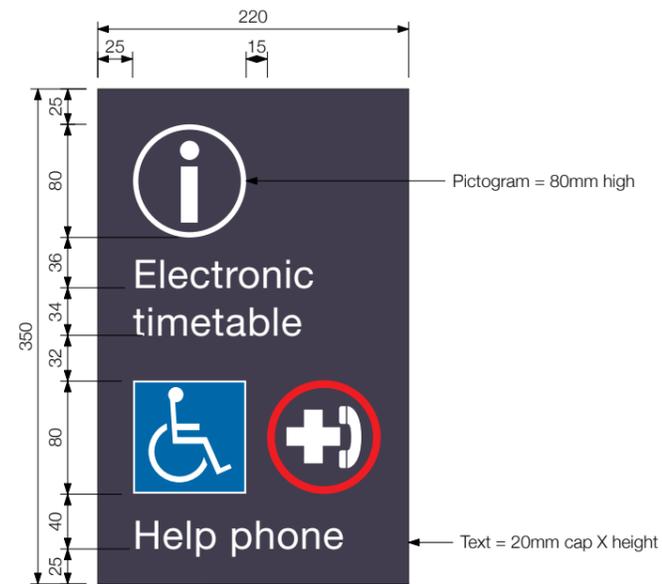
FI-6a-i

150mm high pictogram typical

NOTE
Refer graphics section for additional pictograms



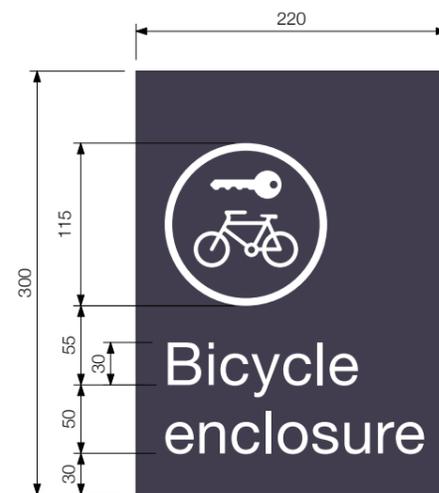
FI-6a-ii



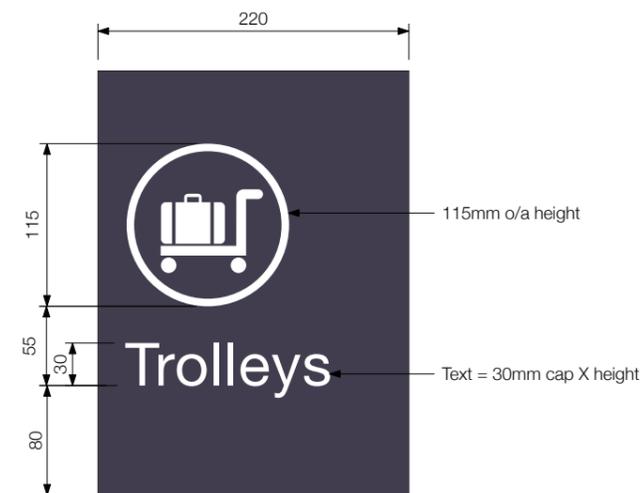
FI-6a-iii

Pictogram = 80mm high

Text = 20mm cap X height



FI-6a-iv



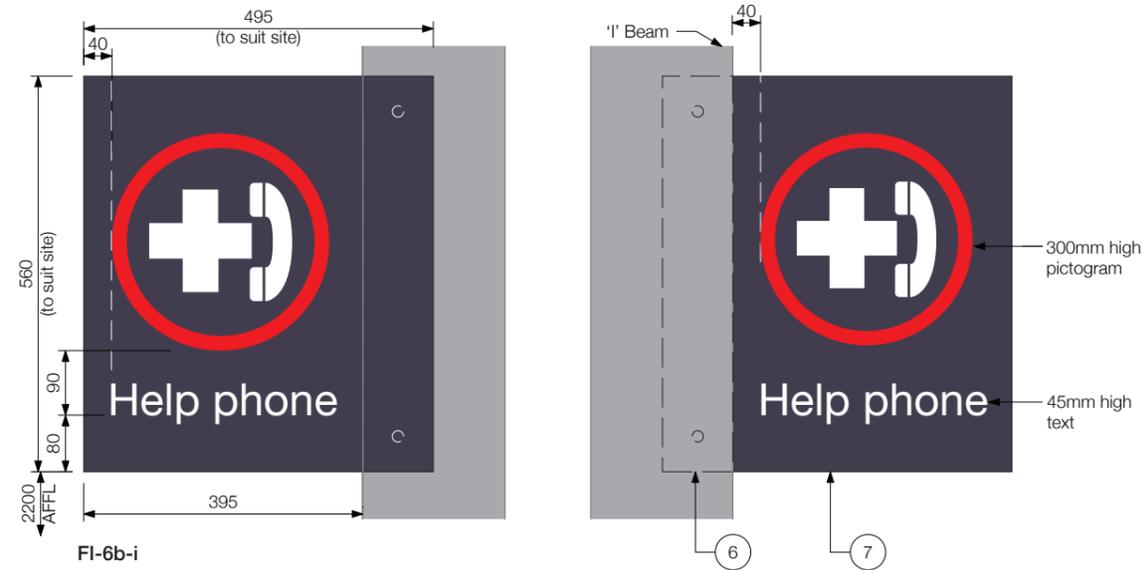
FI-6a-v

115mm o/a height

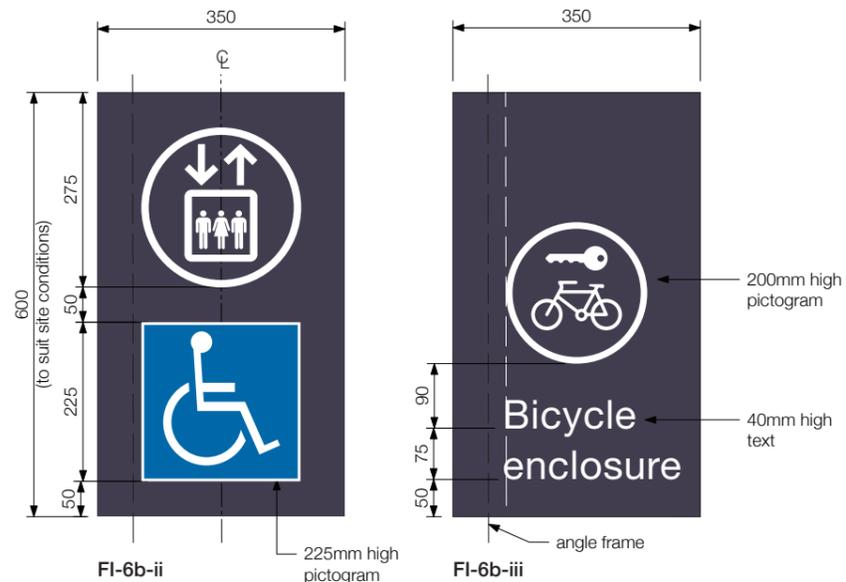
Text = 30mm cap X height

Graphic layout

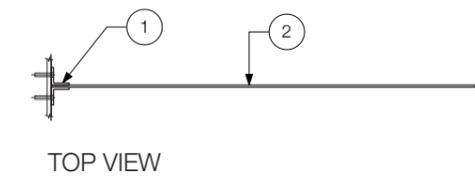
Scale 1:5



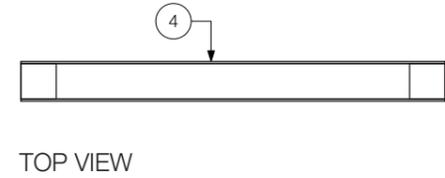
FI-6b-i
Construction - Fixed to I-Beam
 Scale 1:10



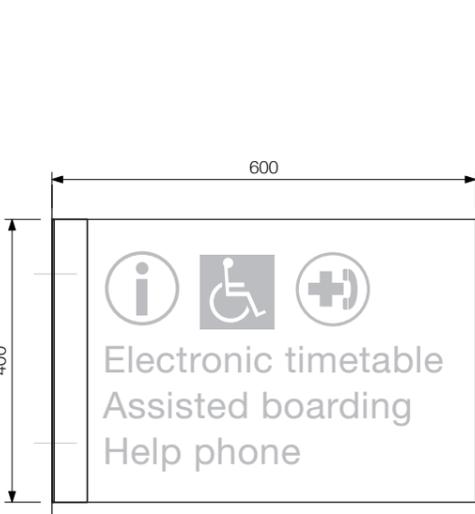
FI-6b-ii **FI-6b-iii**



TOP VIEW

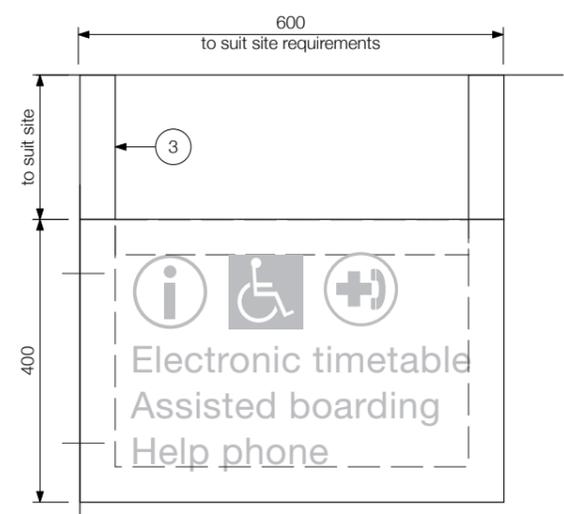


TOP VIEW



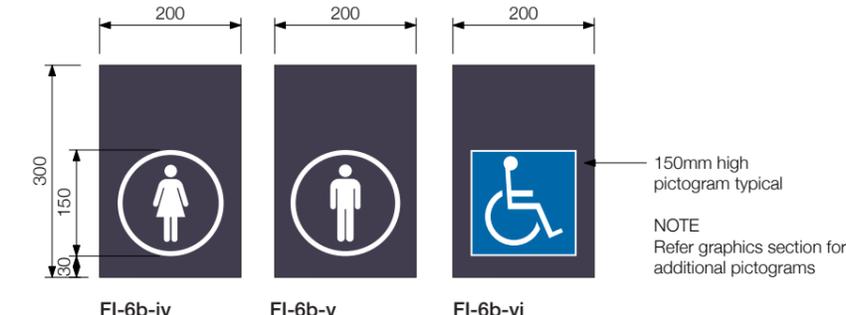
FRONT VIEW

Construction - Projecting
 Scale 1:10

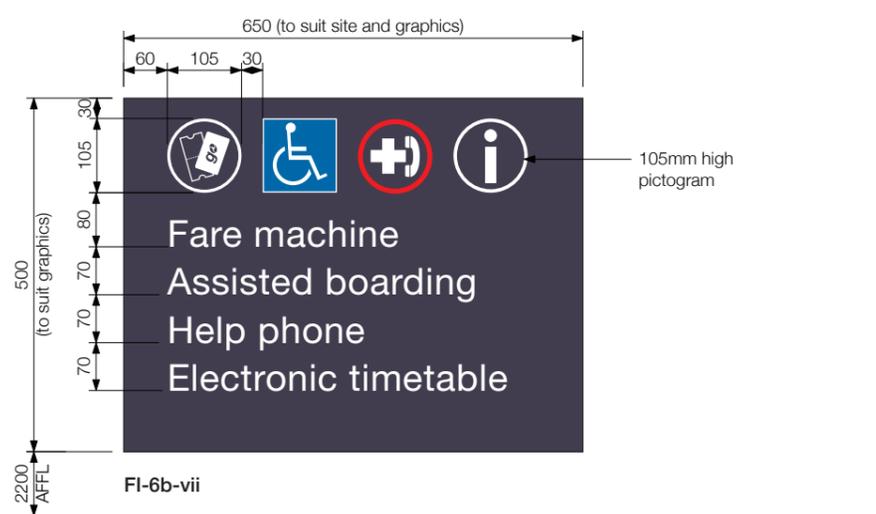


FRONT VIEW

Construction - Suspended frame
 Scale 1:10



FI-6b-iv **FI-6b-v** **FI-6b-vi**



Typical Graphic layout
 Scale 1:10

FI-6b

Facility Identification Sign - Double Sided

Purpose

- To identify all public facilities eg. NTI, emergency phone, toilets

Typical location

- Mounted above facility
 - Where signs project from walls or ceilings, the bottom of sign must not project below 2.3m above the finished floor level (AFFL). Preferred height of 2.5m AFFL.
 - Sign to be oriented typically with the sign face perpendicular to the main path of travel.

Indicative message

- Male Toilet, Female Toilet, Accessible Toilet, Lift, First Aid
 - Relevant pictogram

Graphic Details

FONT

All text = Helvetica Neue 55 Roman

SIZE

Lift Pictogram = 150mm o/a height
 Other Pictograms = As shown

COLOUR

Panel = Painted to match Resene Jon
 Graphics = Arlon White 02 vinyl
 Access Pictogram = White figure on AS2700 B21 Ultramarine Blue background
 Finished in clear coat (60% gloss)

NOTE - Refer to pictograms and arrows section for additional pictograms.

Construction Detail

Projecting frame

1. 50 x 50 x 3mm angle frame. Fix through angle frame to station structure. Painted to match sign faces. Drill and tap station structure to suit fixings.

2. 5mm thick aluminium sign panel welded to angle frame. Front applied vinyl graphics. Clear anti-graffiti spray coat over.

Suspended frame

3. 50 x 50 x 3mm internal SHS frame and droppers. Slot droppers to suit canopy structure. Painted to match sign face. Clearance fit holes in station structure to suit galvanised fixings.

4. 3mm thick aluminium sign panel with front applied vinyl graphics. Sign panel mechanically fixed to wall/door. Paint screw heads to match panel colour at fixing locations. Clear anti-graffiti spray coat over.

5. Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.

Fixed to I Beam column

6. Drill clearance hole in column and fix sign panel with galvanised fixings.

7. 5mm thick aluminium sign panel with front applied vinyl graphics. Sign panel mechanically fixed to wall/door. Paint screw heads to match panel colour at fixing locations. Clear anti-graffiti spray coat over. Fit sign panel with threaded stud to back.

CONTRACTOR TO INSTALL CLEARWAY MARKINGS ON PLATFORM UNDER AN APPROVED WORK METHOD STATEMENT SPECIFIC TO THE STATION.

FI-7a

Safety Signage - Line Marking

Purpose

- To identify 'Clearways' on a platform. Obstruction may be due to station building, ramp or stairs.

Typical location

- Three sets to be installed equidistant on each platform below the coping edge.

Indicative message

- Clearway, No Stopping, Narrow path
- To be used in conjunction with clearway sign panels at each end of the obstruction.

Graphic Details

SIZE
Pattern = 610 x 683mm
Arrow = 1800 x 350mm

COLOUR

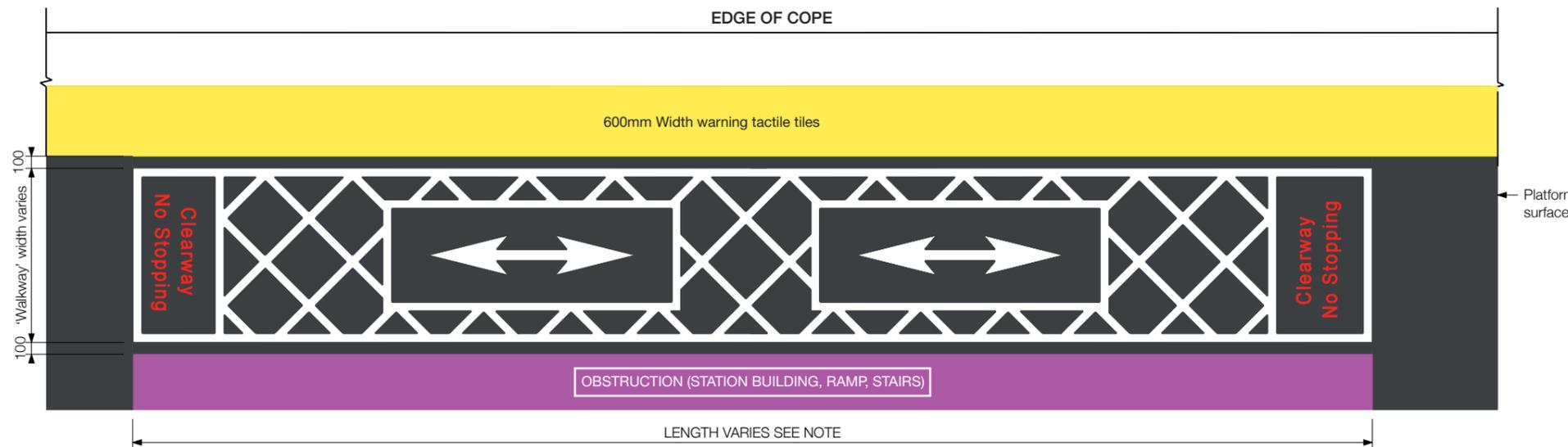
Typical line marking = White
Clearway text = Red
Sign panel
Light background = Painted to match Resene Rice Cake
Dark background = To match Resene Jon
Text and graphics on Rice Cake = Arlon Black 03 vinyl
Text on Jon = Arlon White 02
Clearway = Arlon White 02 applied to Arlon Perfect Match Red 220
NOTE : Line marking to achieve minimum 30% contrast

Construction Detail

Line Marking
1. Mask and roller applied graphics to platform.

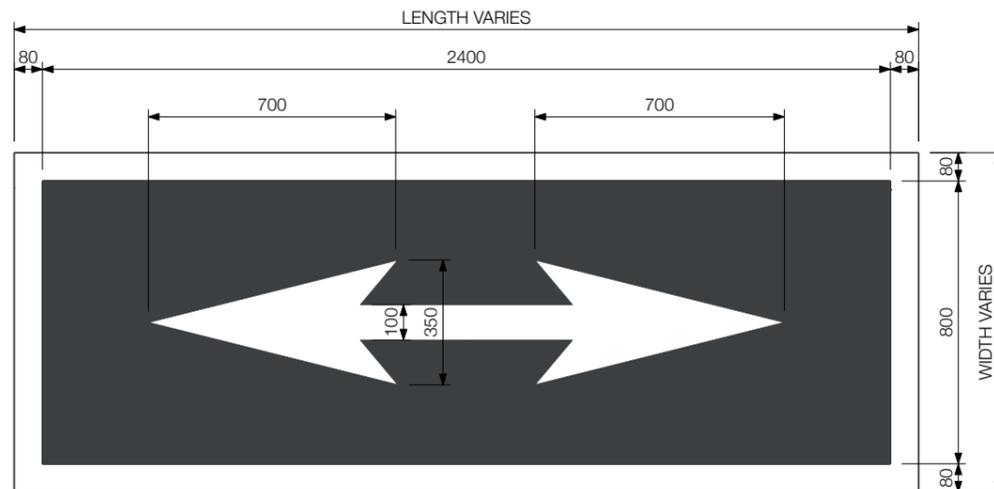
NOTES

1. If length of obstruction is equal to / or less than 2000mm then clearway markings are not required.
2. If length of obstruction is 2000mm and path is equal to /or less than 1200mm wide between TGSI and obstruction, place clearway markings.
3. Text for 'Clearway No Stopping' warning to be Helvetica Neue Medium.
4. On busy stations the above marking may be installed in areas between 1200 - 1800mm where a thoroughfare is required.
5. Line marking to achieve a minimum of 30% contrast to background pavement, eg on AC surface use white line marking at the discretion of the Principle.
6. Text for 'Clearway No Stopping' warning to be Red when used on black AC. Alternative colour should be used on different colour surface to achieve contrast.
7. This drawing provides general standards and can be modified at the Principle's discretion.
8. Non slip paint to be used in accordance with the station design guide. Alternative products must be approved by Principle prior to installation.
9. Where the space is very narrow, marking can be simplified on the ground and supported with signage.
10. SIGNAGE = 1.6mm thick aluminium painted sign panel with front applied external grade vinyl graphics. Anti-graffiti spray clear coat over. Apply 10mm radius to corners.



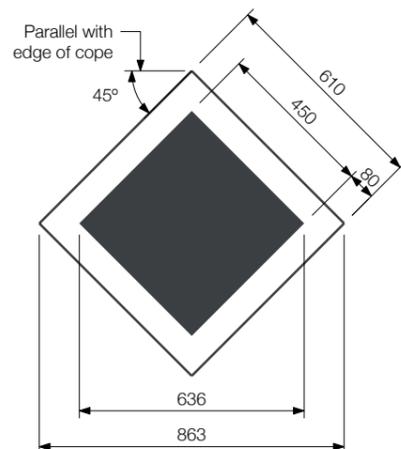
Plan View

Scale 1:50



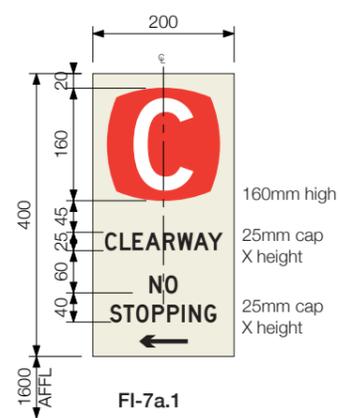
Directional Arrow

Scale 1:20



Pattern

Scale 1:20



Signage - Typical

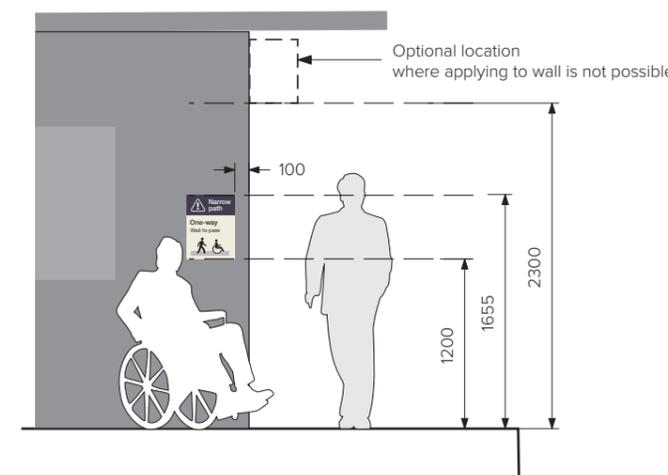
Scale 1:10



FI-7a.2

Graphic Layout

Scale 1:10



Typical Elevation

Scale 1:50

IS-6c
Timetable & Map Sign - Freestanding

Purpose

- To provide a map (and regulatory information if required) at major decision points
- Pedestrian use
- Transport information

Typical location

- At major gathering points
- Located at the principal pedestrian entry point/s of the station.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail and property owner prior to finalising locations.

Indicative message

- Platform, train line and timetable information
- Identify hearing loop zones (if required)
- Map zone (locality map, zone/network map)
- Regulatory information/pictograms (if required)
- Services outside the station boundary (if required)
- General information

Graphics Detail

FONT

All text = Helvetica Neue 65 Medium

SIZE

All text = 55mm cap X height
Information Pictogram = 110mm high

COLOUR

Sign structure = To match Resene 'Jon' N38-007-359
Glazing masking = To match Resene 'Jon' N38-007-359
Information pictogram = To match Arlon White 02

Construction Details

1. 75 x 75 x 3mm posts with mitred corners. Post to have 5mm min radius corners. Allow provision for power conduit. Prime and paint/powder coat finish. Satin finish (60% Gloss level).
2. Proprietary system 'X-Position' XP05 (or approved equivalent) single sided edge lit light box. Powder coat finish to frame. 5mm toughened glass with reverse painted poster masking and 'Information' graphics.

- Internal illumination via 'Cool White' LED
- Front applied security Gargard graffiti film
- Mechanical latch in lieu of gas strut
- Glass retention brackets to top and bottom of panel, colour matched to sign structure

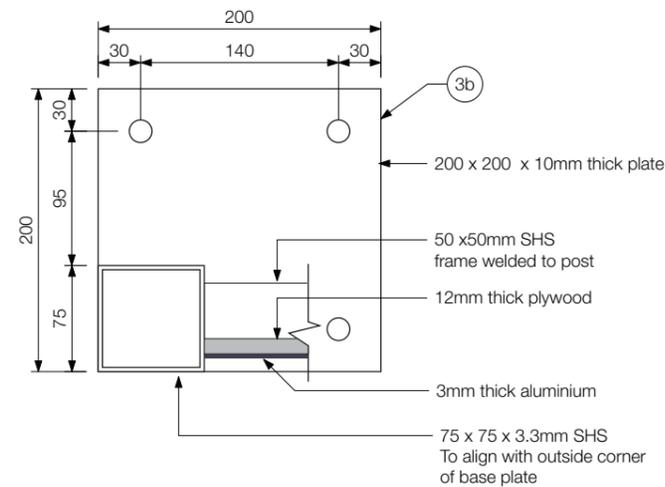
NOTE - Contact Queensland Rail for preferred display unit supply
3a. New footing (option a)

Reinforced concrete pad/pier footing to sign makers' specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40.

3b. Fixing to slab (option b)

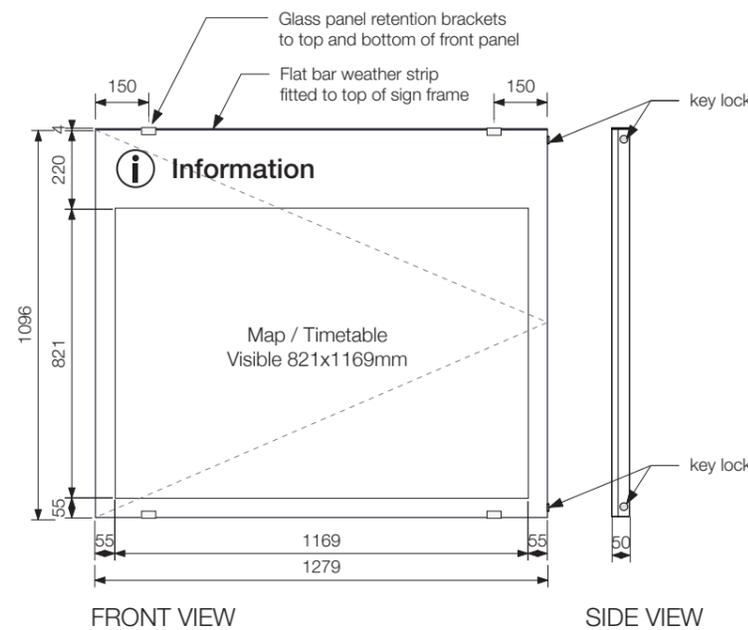
Base plate fixed to chemset sleeves in existing concrete slab via galvanised set screws. 2 pack paint finish to fixing heads.

4. 3mm thick painted aluminium infill. 50 x 50 SHS horizontal support centrally placed. Countersunk rivet fix infill panel to horizontal supports. Provide 12mm thick plywood stiffening. Infill required both sides only where visible.



Base Plate Detail - To suit Above ground installation

Scale 1:5



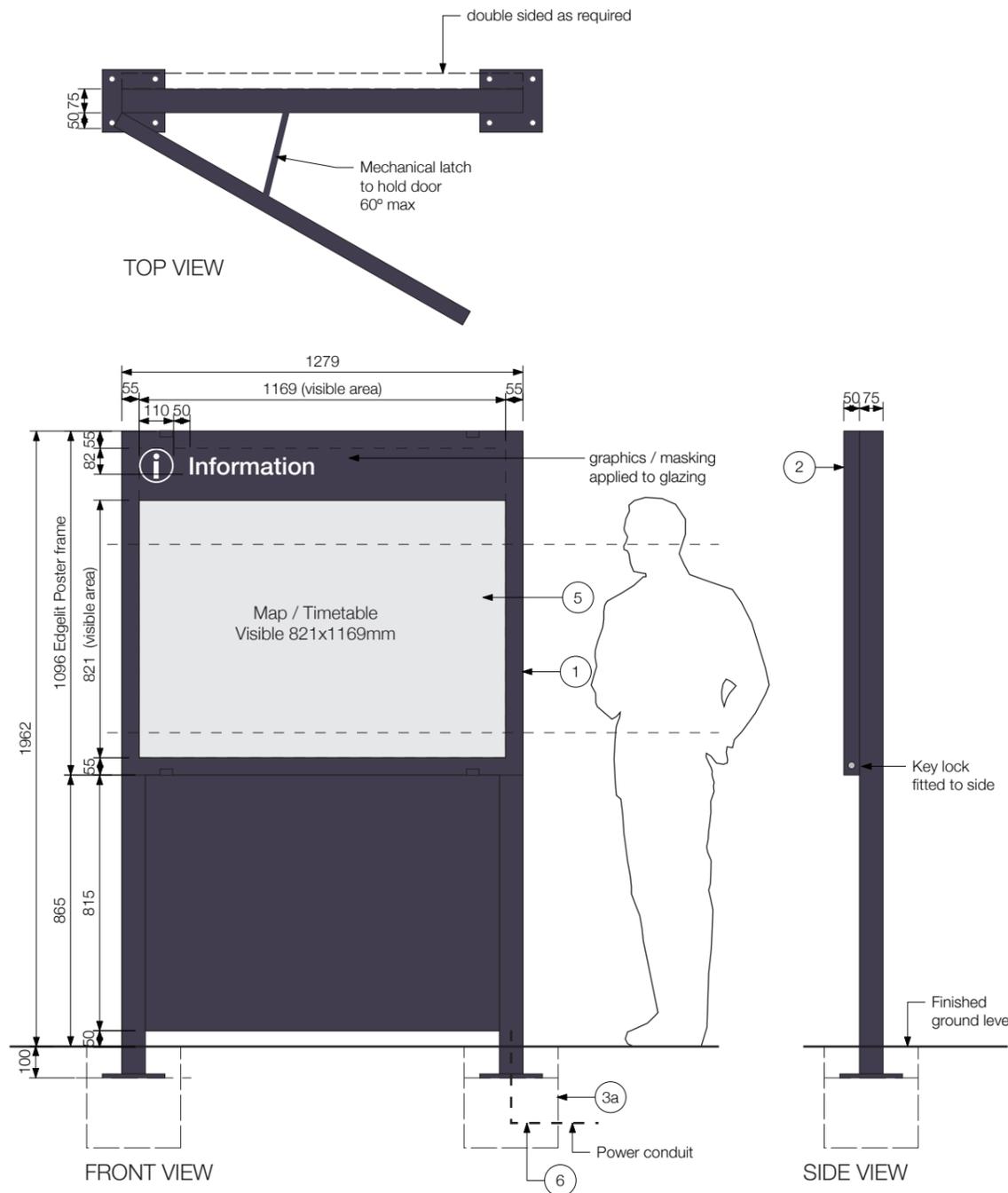
Display Details

Scale 1:20

5. Queensland Rail / TransLink to provide printed timetable cut to A0 (841 x 1189mm). Visible area = 821 x 1169mm.

NOTE

Internal illuminated sign requires isolation switch and circuit breaker / fuse within light box. Sign should operate during all hours of station operation.



Typical Elevation

Scale 1:20

IS-6d

Timetable & Map Sign - Wall mounted

Purpose

- To provide a map (and regulatory information if required) at major decision points
- Pedestrian use
- Transport information

Typical location

- Wall mounted at major gathering points
- Located at the principal pedestrian entry point/s of the station.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail and property owner prior to finalising locations.

Indicative message

- Platform, train line and timetable information
- Identify hearing loop zones (if required)
- Map zone (locality map, zone/network map)
- Regulatory information/pictograms (if required)
- Services outside the station boundary (if required)
- General information

Graphics Detail

FONT

All text = Helvetica Neue 65 Medium

SIZE

All text = 55mm cap X height
Information Pictogram = 110mm high

COLOUR

Sign structure = To match Resene 'Jon' N38-007-359
Glazing masking = To match Resene 'Jon' N38-007-359
Information pictogram = To match Arlon White 02

Construction Details

1. Proprietary system 'X-Position' XP05 (or approved equivalent) single sided edge lit light box. Powder coat finish to frame. 5mm toughened glass with reverse painted poster masking and 'Information' graphics.
- Internal illumination via 'Cool White' LED
- Front applied security Gargard graffiti film
- Mechanical latch in lieu of gas strut
- Glass retention brackets to top and bottom of panel, colour matched to sign structure

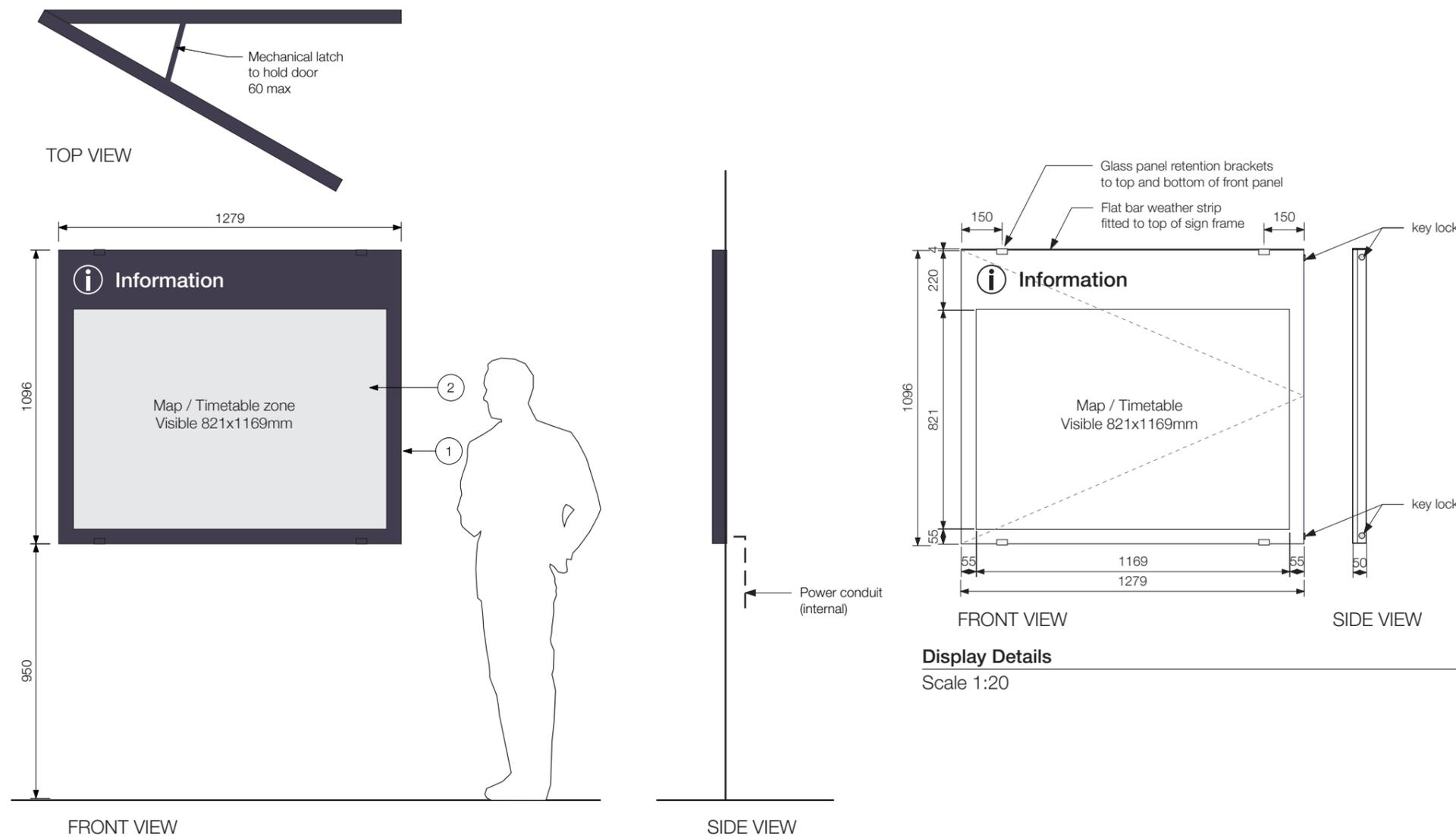
NOTE - Contact Queensland Rail for preferred display unit supply

2. Queensland Rail / TransLink to provide printed timetable cut to A0 (841 x 1189mm). Visible area = 821 x 1169mm.

3. Fixings to be designed and approved by signmaker's engineer. Signmaker to coordinate fixing requirements with Queensland Rail.

NOTE

Internal illuminated sign requires isolation switch and circuit breaker / fuse within light box. Sign should operate during all hours of station operation.



Typical Elevation

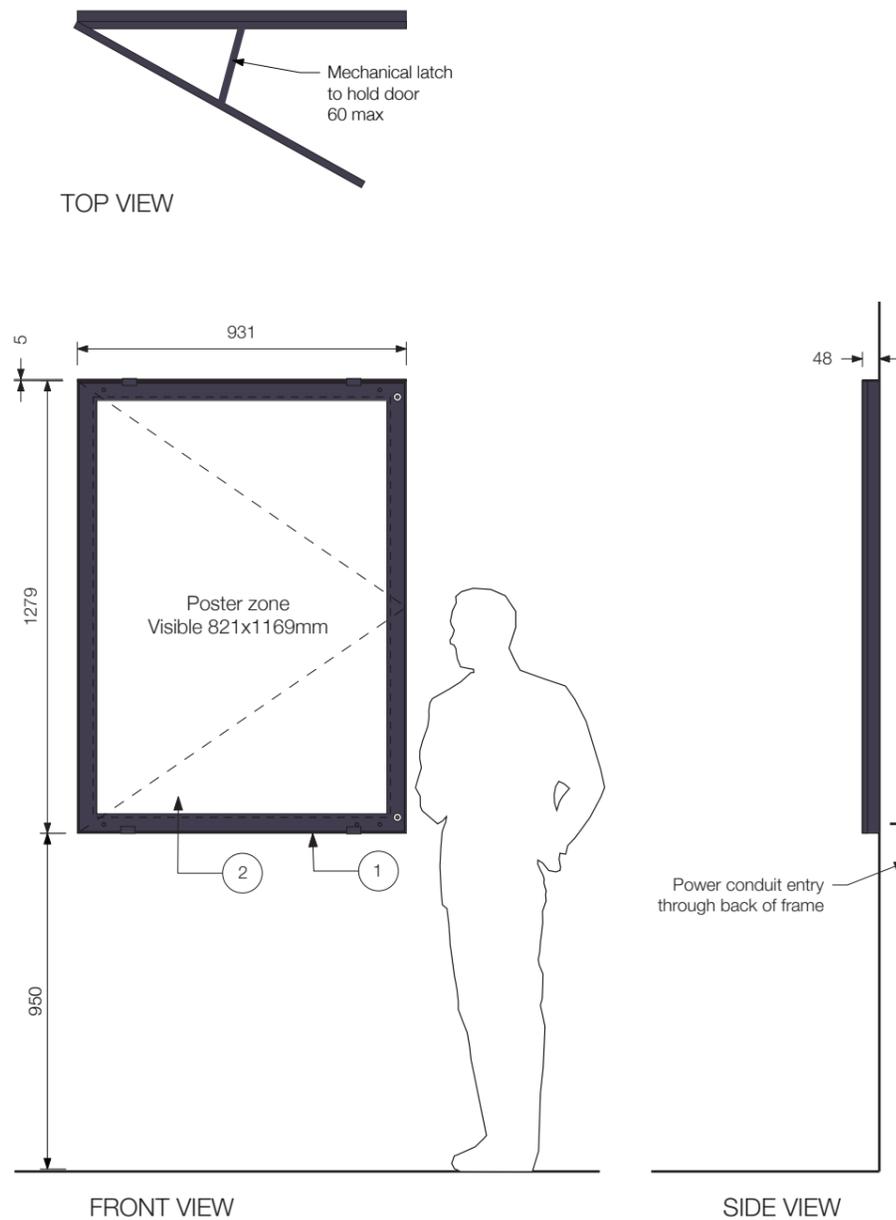
Scale 1:20

Display Details

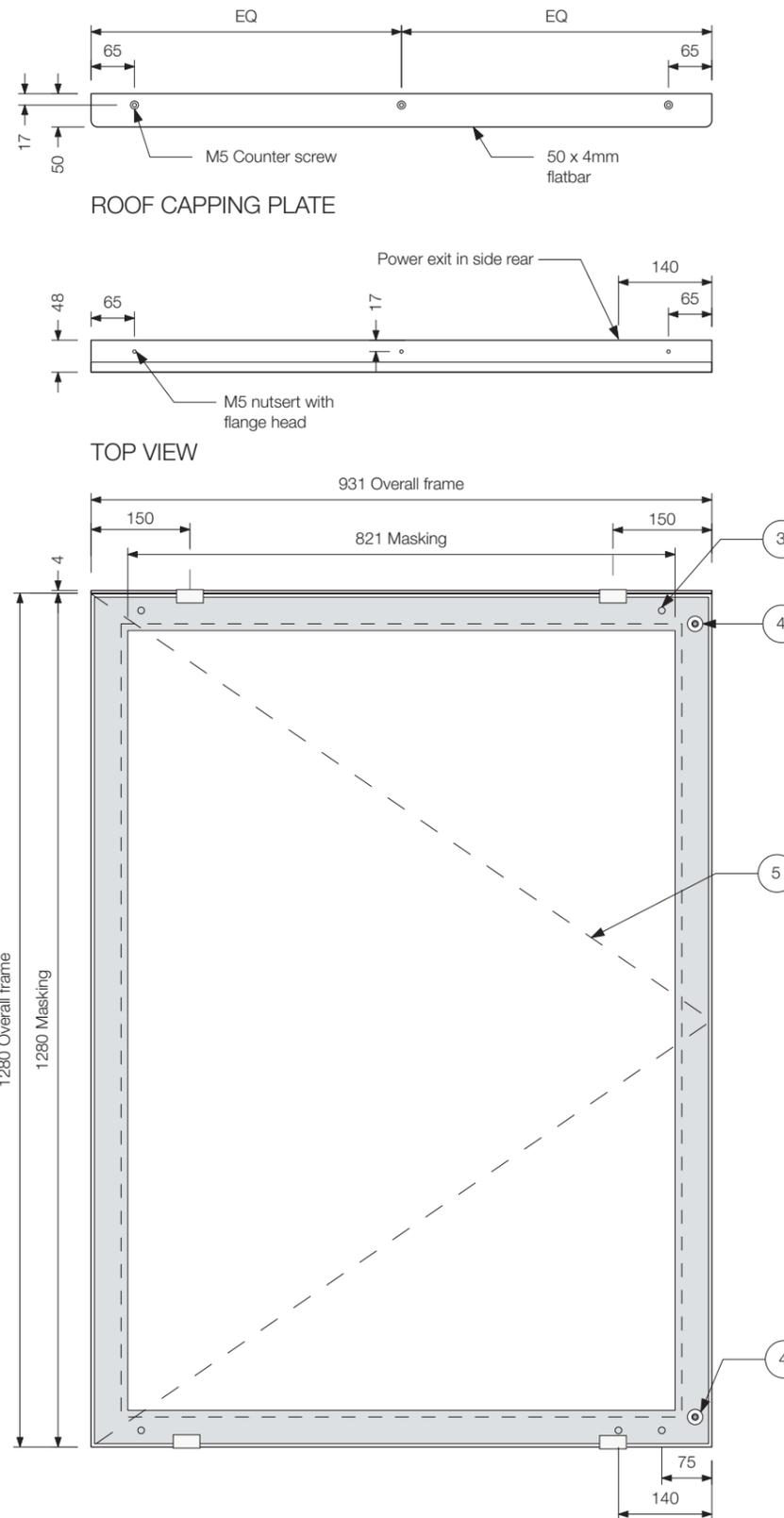
Scale 1:20

SINGLE SIDED XPO5

Overall frame: 931 x 1279 mm (excludes capping)
Poster Size: 841 x 1189 mm
Visual Size: 821 x 1169 mm



Typical Elevation
Scale 1:20



Display Details - A1 Masking
Scale 1:10

IS-6e

Portrait Display Cabinet - A0 Wall mounted

Purpose

- To provide a passenger information at major decision points
- Pedestrian use
- Transport information

Typical location

- Wall mounted at major gathering points
- Located at the principal pedestrian entry point/s of the station.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail and property owner prior to finalising locations.

Indicative message

- Regulatory information/pictograms (if required)
- Services outside the station boundary (if required)
- General information

Graphics Detail

COLOUR
Sign structure = To match Resene 'Jon' N38-007-359
Glazing masking = To match Resene 'Jon' N38-007-359

Construction Details

1. Proprietary system 'X-Position' XP05 (or approved equivalent) single sided edge lit light box. Powder coat finish to frame. 5mm toughened glass with reverse painted poster masking and 'Information' graphics.
- Internal illumination via 'Cool White' LED
- Front applied security Gategard graffiti film
- Mechanical latch in lieu of gas strut
- Glass retention brackets to top and bottom of panel, colour matched to sign structure

NOTE - Contact Queensland Rail for preferred display unit supply

2. Queensland Rail / TransLink to provide printed material cut to A0 (841 x 1189mm). Visible area = 821 x 1169mm.

3. 4 x mounting holes predrilled in frame. Fixings to be designed and approved by signmaker's engineer. Signmaker to coordinate fixing requirements with Queensland Rail.

4. Recessed key lock into 5mm thick glass panel.

5. 5mm thick toughened glass with GATGAURD film applied to face.

NOTE

Internal illuminated sign requires isolation switch and circuit breaker / fuse within light box. Sign should operate during all hours of station operation.

IS-6e
Portrait Display Cabinet - 4 x A3 Wall mounted

Purpose

- To provide a passenger information at major decision points
- Pedestrian use
- Transport information

Typical location

- Wall mounted at major gathering points
- Located at the principal pedestrian entry point/s of the station.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail and property owner prior to finalising locations.

Indicative message

- Regulatory information/pictograms (if required)
- Services outside the station boundary (if required)
- General information

Graphics Detail

- COLOUR
- Sign structure = To match Resene 'Jon' N38-007-359
- Glazing masking = To match Resene 'Jon' N38-007-359

Construction Details

1. Proprietary system 'X-Position' XP05 (or approved equivalent) single sided edge lit light box. Powder coat finish to frame. 5mm toughened glass with reverse painted poster masking and 'Information' graphics.
- Internal illumination via 'Cool White' LED
- Front applied security Gatgard graffiti film
- Mechanical latch in lieu of gas strut
- Glass retention brackets to top and bottom of panel, colour matched to sign structure

NOTE - Contact Queensland Rail for preferred display unit supply

2. Queensland Rail / TransLink to provide printed material cut to 4 x A3 (297 x 420mm). Visible area = 282 x 405mm.

3. 4 x mounting holes predrilled in frame. Fixings to be designed and approved by signmaker's engineer. Signmaker to coordinate fixing requirements with Queensland Rail.

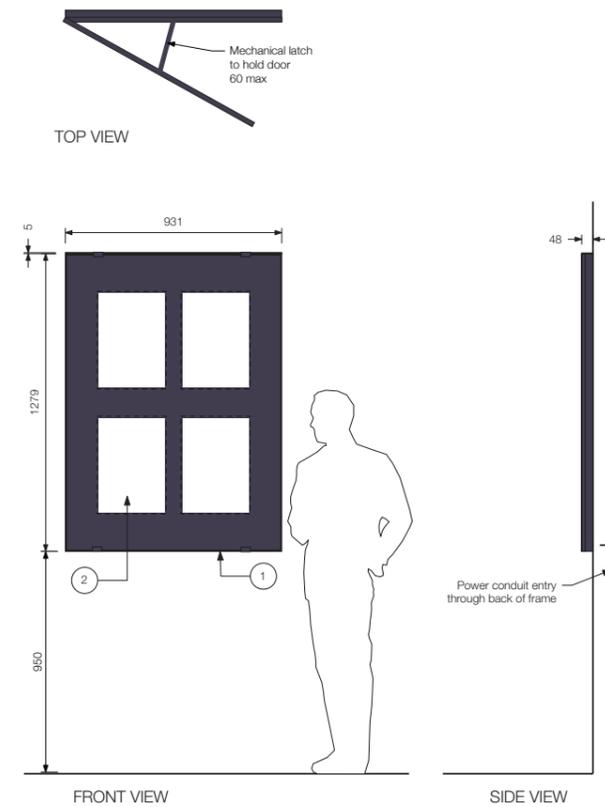
4. Recessed key lock into 5mm thick glass panel.

5. 5mm thick toughened glass with GATGAURD film applied to face.

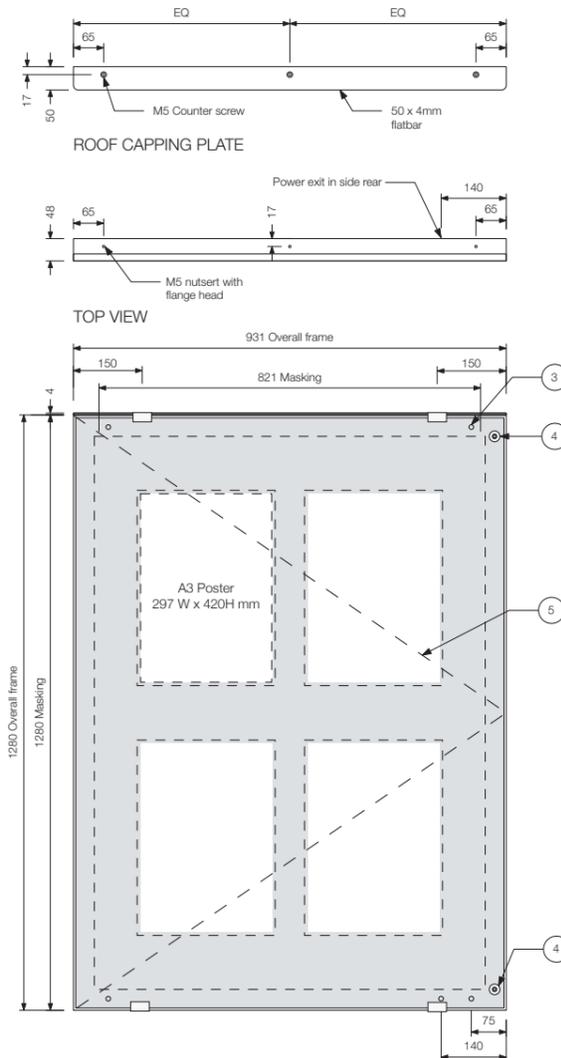
NOTE

Internal illuminated sign requires isolation switch and circuit breaker / fuse within light box. Sign should operate during all hours of station operation.

SINGLE SIDED XP05
Overall frame: 931 x 1279 mm (excludes capping)
4 x Poster Size: 297 x 420 mm
4 x Visual Size: 282 x 405 mm

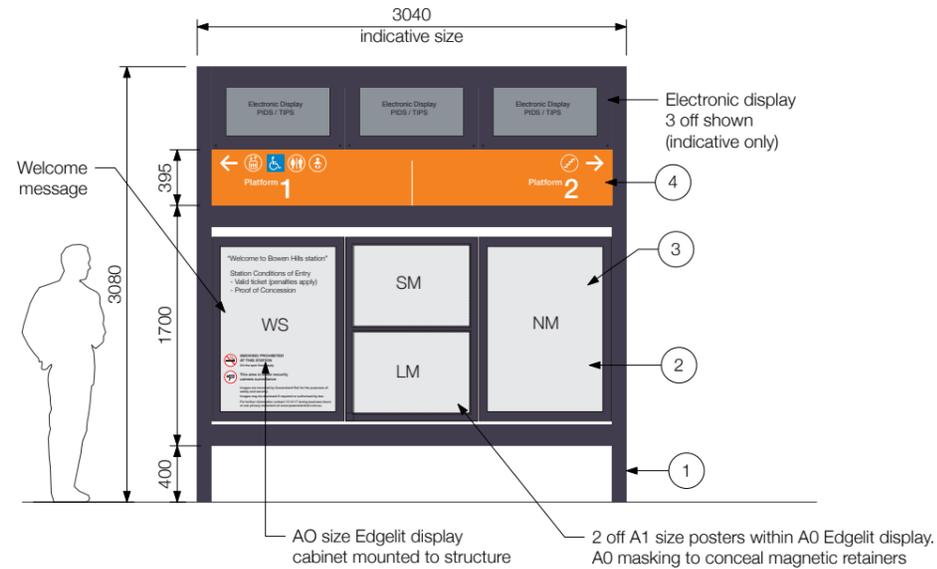


Typical Elevation
Scale 1:20



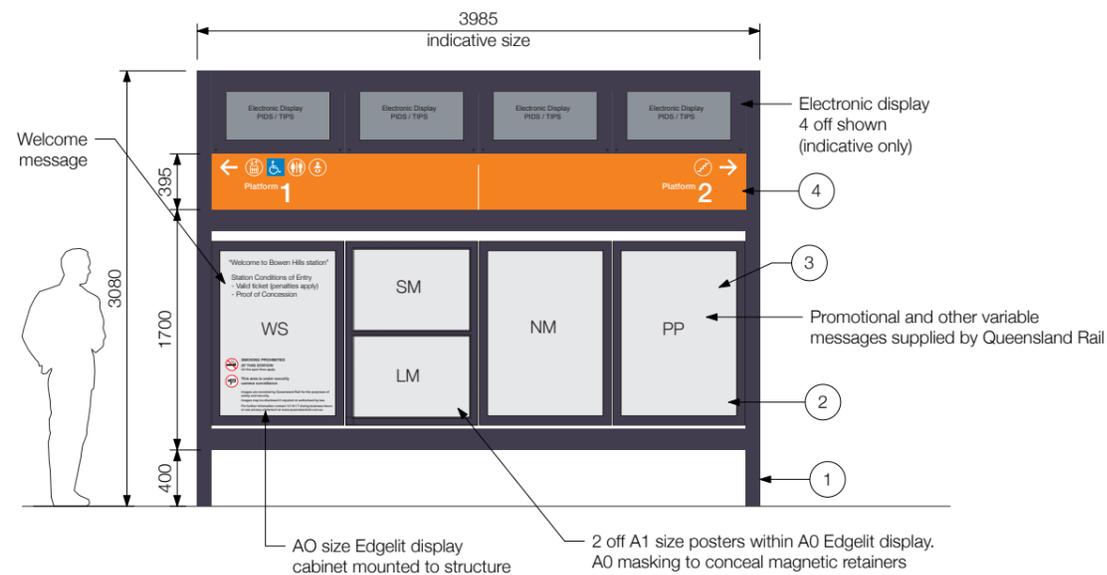
Display Details - 4 x A3 Masking
Scale 1:10

NOTE
INDICATIVE SIZES SHOWN FOR
FUTURE CONSIDERATION AND
DEVELOPMENT



Typical Location - 3 Poster unit

Scale 1:50



Typical Location - 4 Poster unit

Scale 1:50

KEY

NM = Network map (A0 portrait format)
SM = Station map (A1 landscape format)
LM = Locality map - station and surrounding area (A1 landscape format)
WS = Welcome to station message (A0 portrait format)
PP = Promotional poster (A0 portrait format)

IS-8a

Rail Station Entry Information Display Signs

Purpose

- To provide all transport related information eg electronic displays, maps, prohibition and facility information, at the rail station entry
- Pedestrian use
- Transport information

Typical location

- Freestanding at major gathering points
- Located at the principal pedestrian entry point/s of the station.
- Sign to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail and property owner prior to finalising locations.

Indicative message

- PIDS / TIP with electronic timetable information
- Platform, train line and timetable information
- Identify hearing loop zones (if required)
- Map zone (locality map, zone/network map)
- Regulatory information/pictograms (if required)
- Services outside the station boundary (if required)
- General information

Graphics Detail

FONT

Main text = Helvetica Neue 65 Medium
Minor text = Helvetica Neue 55 Roman

SIZE

Sign panel

All text = 42mm cap X height
Platform support text = 28mm cap X height
Pictogram = 125mm high

COLOUR

Transport panel background = Resene 'Trinidad' O61-167-048
Sign structure and facility panel backgrounds = Resene 'Jon' N38-007-359
All text & pictograms = Arlon White 02
Access Pictogram = White figure on AS2700 'Ultramarine' background

Construction Details

1. Steel support structure and footing designed to support displays and electronic displays. Electrical and Data cables to be concealed within structure. 2 pack paint or powdercoat, satin finish.
2. Proprietary system 'X-Position' XP05 (or approved equivalent) single sided edge lit light box. 5mm toughened glass with reverse applied painted poster masking. Powder coat finish. Magnetic poster holders.
 - 936W x 1299H approximate overall size to suit 2 x A1 posters
 - Internal illumination via 'Cool White' LED
 - Front applied security Gargard graffiti film over glass
 - Mechanical latch in lieu of gas strut
 - Glass retention brackets to top and bottom of panel, colour matched to sign structure
 - Contact Queensland Rail for preferred display unit supply

3. Queensland Rail / TransLink to provide maps and promotional posters cut to suit A0 (841 x 1189mm) or A1 (591 x 841mm) as required.

4. 1.6mm thick painted aluminium panels with front applied vinyl graphics. Antigrffiti spray clear over, satin finish (60% gloss level). Conceal fixings to support structures.

5. Electronic information displays. Details TBC by Queensland Rail.
NOTE - Internal illuminated sign requires isolation switch and circuit breaker / fuse within light box. Sign should operate during all hours of station operation.

IS-10a

Bus Stop Blade Sign

Purpose

- To identify bus stop
- For pedestrian and vehicular use

Typical location

- At lead stop end of bus bay zone (in accordance with the setout requirements prescribed in AS 1428.4, Appendix A3)

Indicative message

- Stop name
- Bus route details

Graphics Detail

FONT

* = Helvetica Neue 55 Roman

= Helvetica Neue 65 Medium

Translink logo, website and phone number to brand guidelines

SIZE

All text = as shown for cap X height

COLOUR

Blue background = To match Pantone 533C printed over white Class 2 Reflective sheeting

Blue logo tint = To match Pantone 533C with 70% tint printed over white Class 2 Reflective sheeting

Pink = Logo symbol to match Pantone 2038 C printed over white Class 2 Reflective sheeting

White = White Class 2 Reflective sheeting

Yellow = Yellow Class 2 Reflective vinyl

Construction Details

1. Post

65 NB steel post, C 350 grade, 3.2mm wall thickness, hot dip galvanised, deform base to prevent rotation.

2. Curved display extrusion - CIVIQ or approved equivalent.

3. Header and Footer panels
Sign to be on a 1.0mm thick aluminium plate, single sided. Applied to both sides of sign. Class 2 reflective vinyl with applied graphics applied to both sides of sign.

4. Timetable Display options

Blade "A"

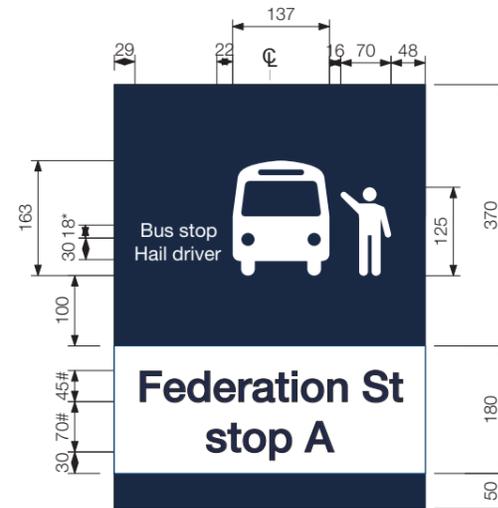
440 x 2400 (with two central panels 650mm high x 440mm wide above and 350mm high x 440mm wide below)

Blade "B"

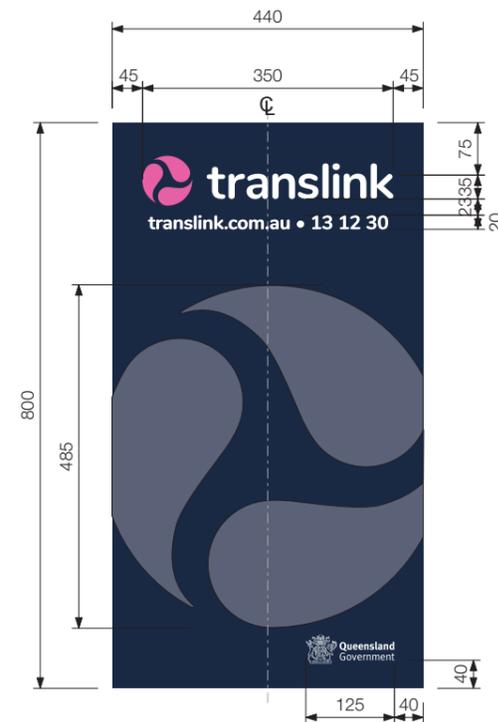
440 x 2400 (with one central panel 1000mm high x 440mm wide). Refer to 4.28.2 for details.

Sign maker to co-ordinate installation with Managing Contractor / TransLink Representative.

NOTE - Graphics shown indicative only.



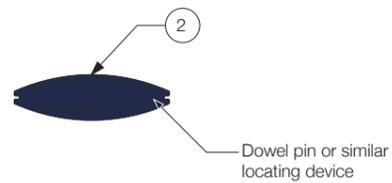
Header Panel



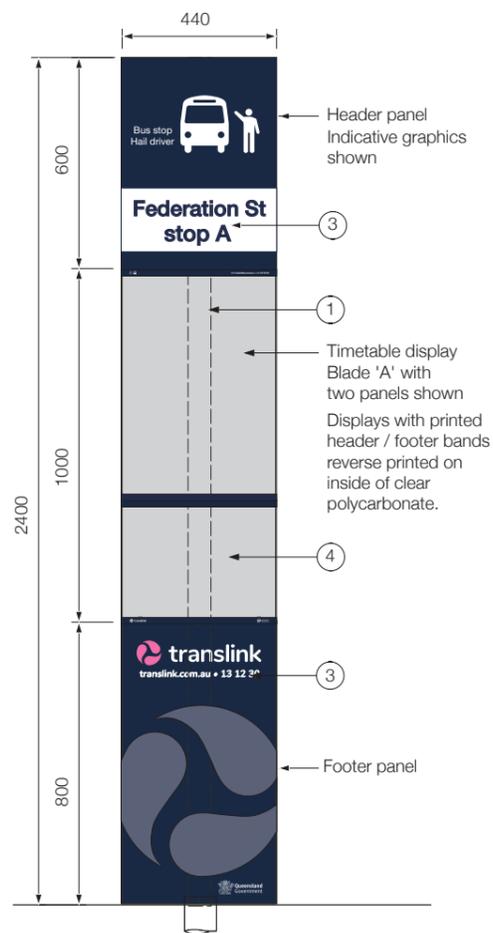
Footer Panel

Graphic Layout

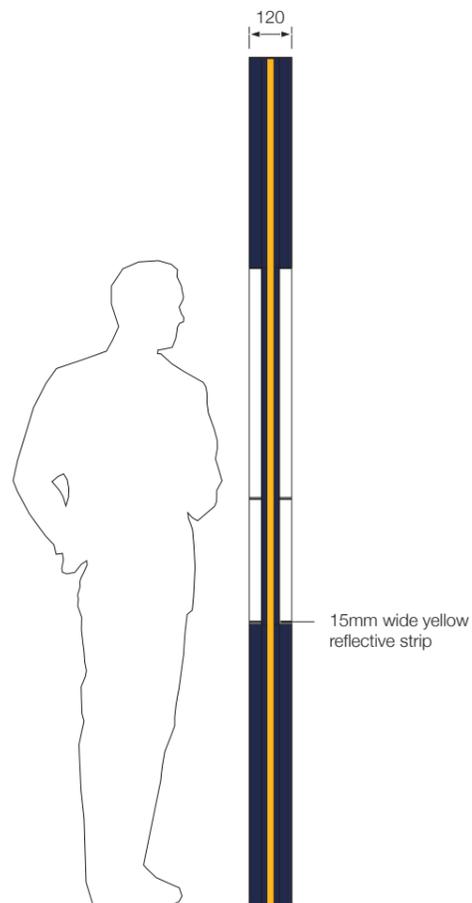
Scale 1:10



TOP VIEW



FRONT VIEW



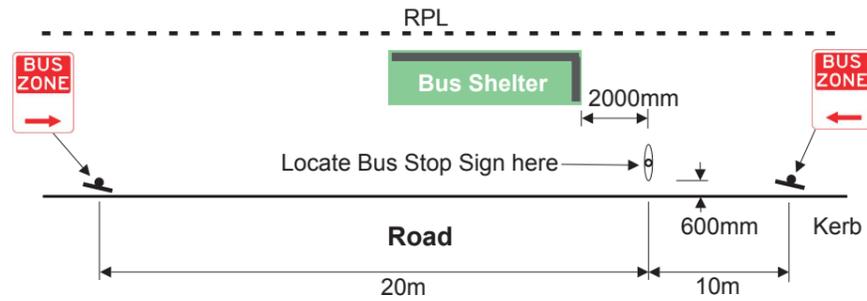
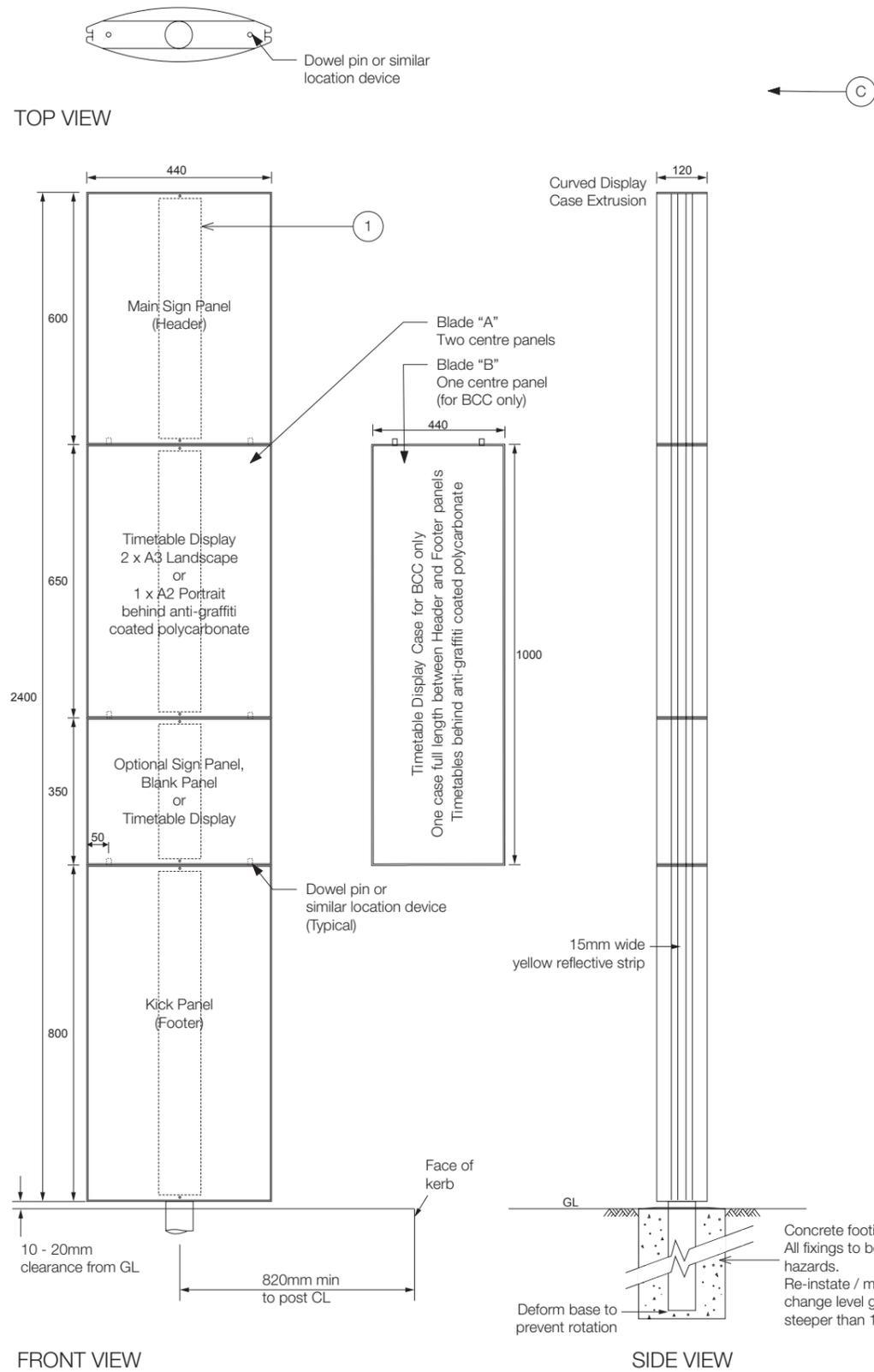
SIDE VIEW

Typical Location

Scale 1:20

IS-10a
Bus Stop Blade Sign

NOTE
Refer to page 4.28.1 for Construction and Graphic details.



NOTE:
The sign should be located at the departure end of the bus stop and perpendicular to the traffic lane or kerb. On kerbed roads, a clearance of 600mm minimum (820mm to post CL) is required from face of kerb to sign.

Location Plan

NTS

FRONT VIEW

Typical Elevation

Scale 1:20

IS-11a

Park 'n' ride Liability Sign - Freestanding

Purpose

- To identify and provide conditions of parking information
- Vehicular use

Typical location

- At entrance of car park
- Free standing away from pathway, eg garden bed.

Indicative message

- Conditions of parking information/pictograms (if required)

Graphic Details

FONT

Main text = Helvetica Neue Medium

Conditions of entry = Helvetica Neue Roman

SIZE

"Park 'n' Ride" = 35mm cap X height

Conditions of Entry text = 25mm cap X height

Pictogram = 100mm o/a height

Regulatory text = 35mm cap X height

COLOUR

Park 'n' ride background = To match Resene Jon

Park 'n' ride text = To match Arlon White 02

Conditions background = Painted to match Resene Rice Cake

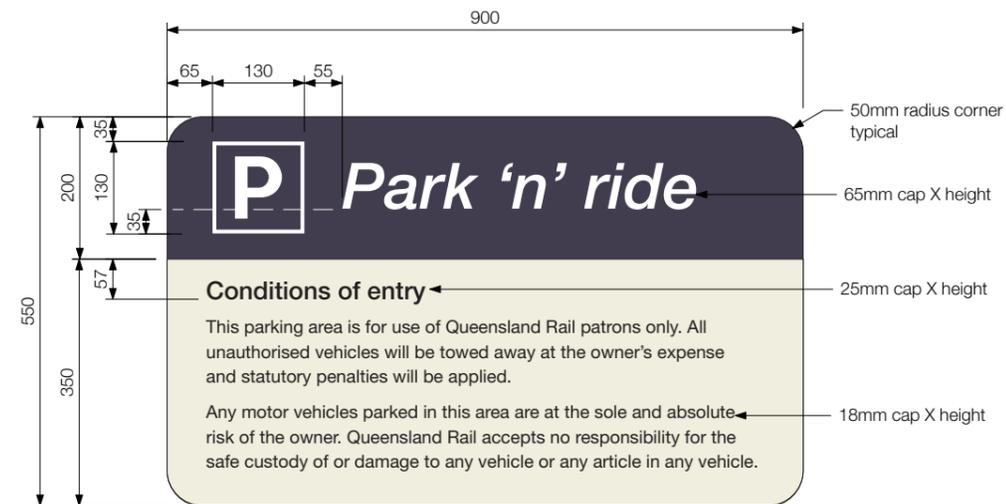
Text = To match Arlon Black 03 vinyl

Post = Galvanised finish

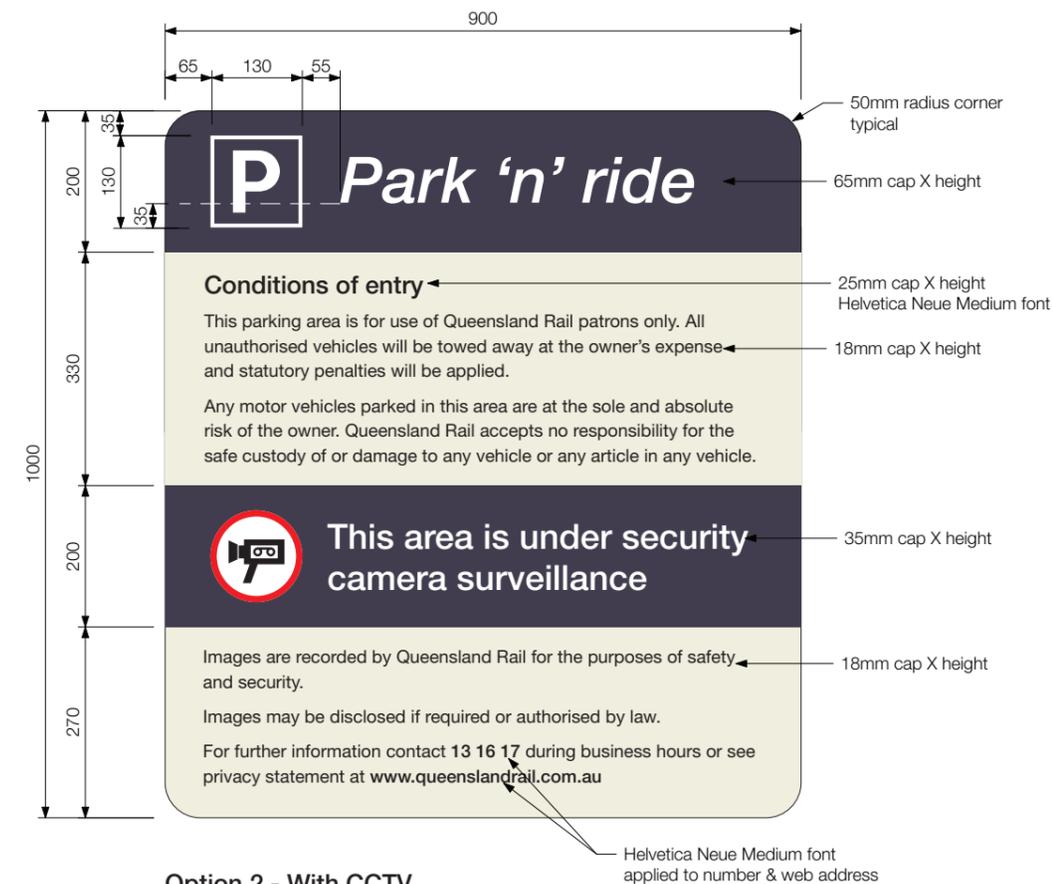
Finished in anti-graffiti spray clear coat (60% gloss)

Construction Details

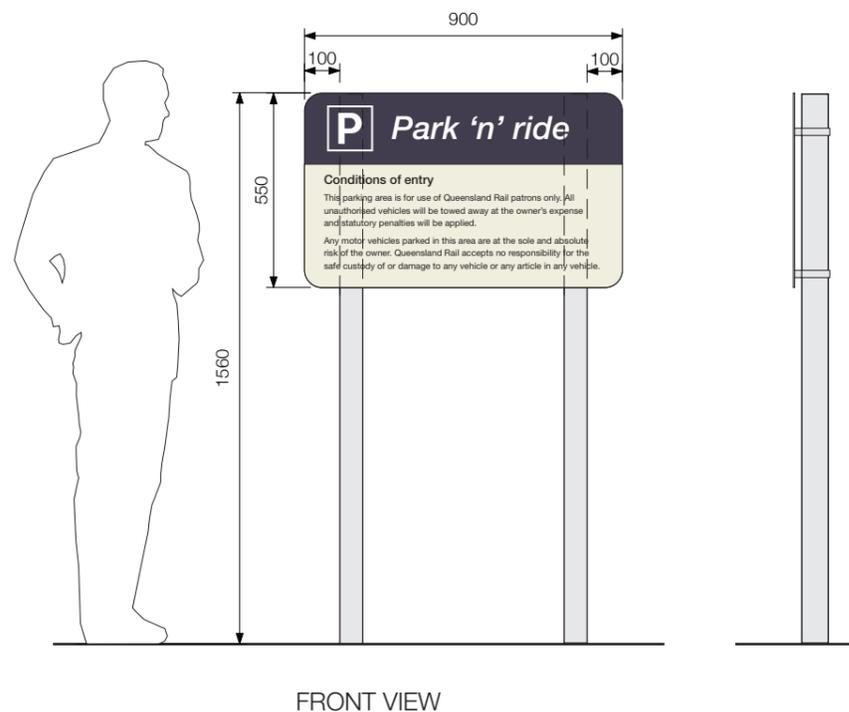
- 1.6mm thick aluminium painted sign panel. Front applied external grade vinyl graphics. Anti-graffiti spray clear coat over. Rivet fix sign panel to 20 x 20 Roadside channel.
- Suitable clamp fixings to galvanised post.
- Galvanised support frame to sign maker's engineer specification.
- Reinforced concrete pad/pier footing to sign makers' engineer specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40.



Option 1 - Without CCTV



Option 2 - With CCTV



Typical Elevation

Scale 1:20

Graphic Layout

Scale 1:10

IS-11b

Park 'n' ride Liability Sign - Wall Mounted

Purpose

- To identify and provide conditions of parking information
- Vehicular use

Typical location

- At entrance of car park
- Free standing away from pathway, eg garden bed.

Indicative message

- Conditions of parking information/pictograms (if required)

Graphic Details

FONT

Main text = Helvetica Neue Medium
Conditions of entry = Helvetica Neue Roman

SIZE

"Park 'n' ride" = 50mm cap X height
'Conditions of Entry' text = 25mm cap X height
Pictogram = 100mm o/a height
Regulatory text = 35mm cap X height

COLOUR

Park 'n' ride background = To match Resene Jon
Park 'n' ride text = To match Arlon White 02
Conditions background = Painted to match Resene Rice Cake
Text = To match Arlon Black 03 vinyl
Post = Galvanised finish
Finished in anti-graffiti spray clear coat (60% gloss)

Construction Details

1. 1.6mm thick aluminium painted sign panel. 2 Pack painted finish. Front applied external grade vinyl graphics. Anti-graffiti spray clear coat over.

Wall mounted

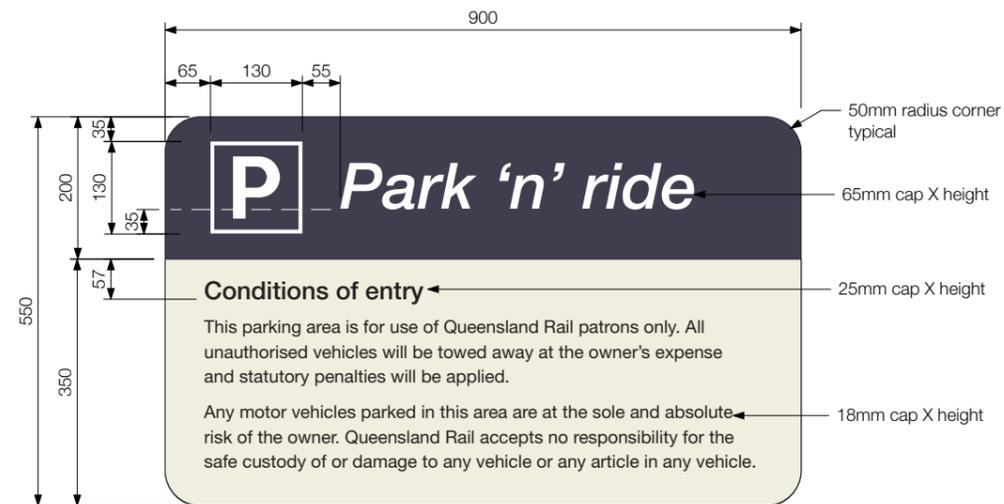
2. Panel fixed to wall with silicone and double sided VHB tape.

Galvanised Fence mounted

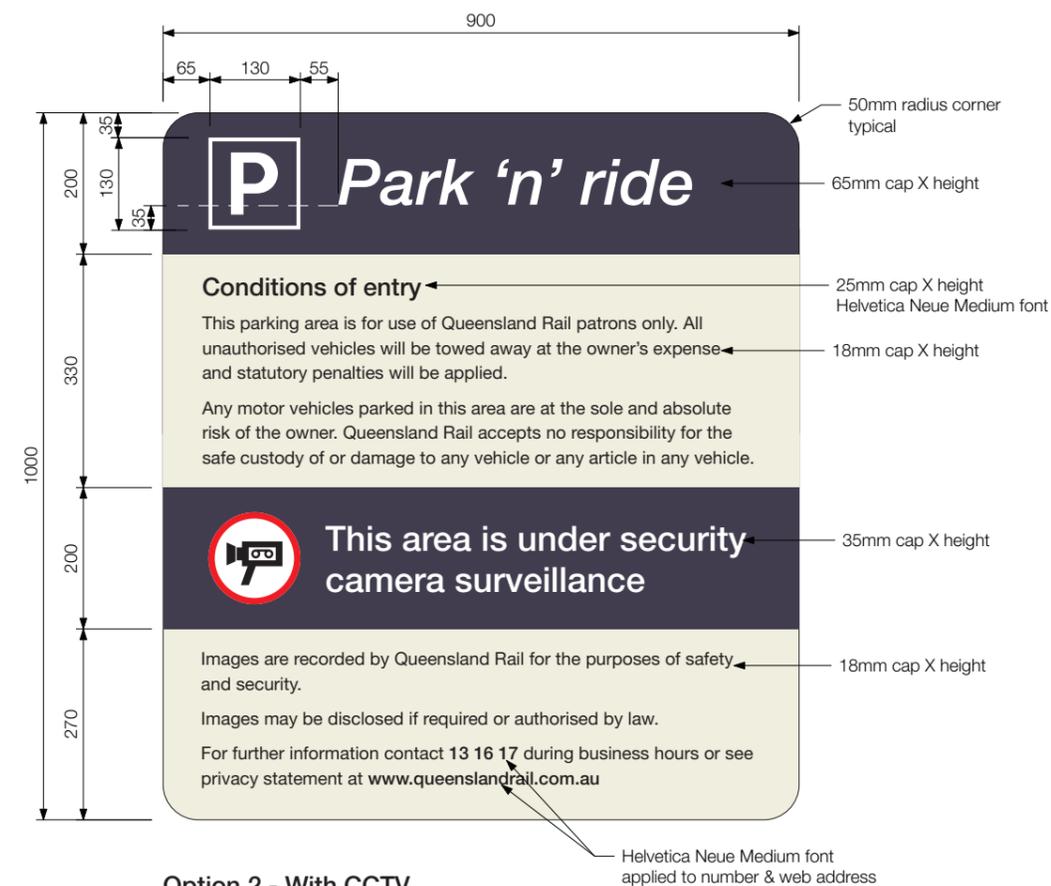
3. Sign panels are blind riveted / mechanically fixed to support bracket eg. standard road traffic sign extrusion or similar and fixed to fence structure.

Mesh Fence mounted

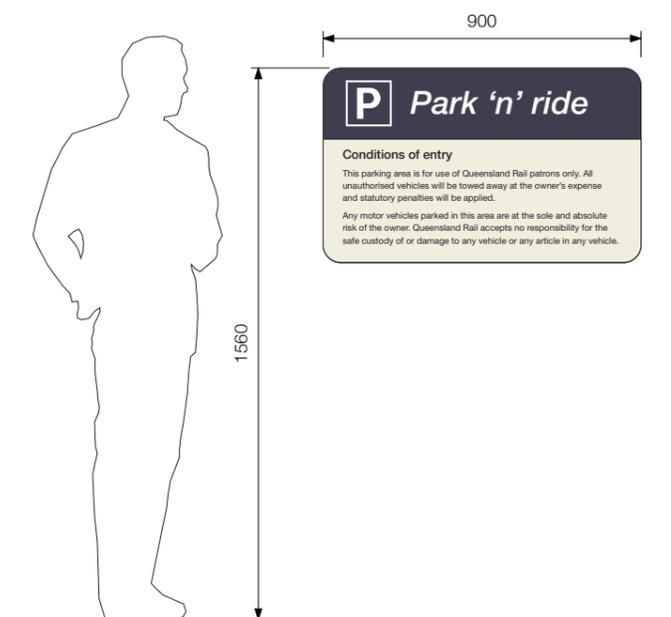
4. Fix to mesh fence via peeling / Klamp-tite rivets or approved equal. Rivet size to suit pitch of mesh fence. Provide backing plate/washer as required. Paint out fixing heads/ backing plate to match sign face.



Option 1 - Without CCTV



Option 2 - With CCTV



FRONT VIEW

Typical Elevation

Scale 1:20

Graphic Layout

Scale 1:10

PI-3b

Major Identification Sign

Purpose

- Main sign to identify site / station from major approaches where power and illumination is possible
- For either pedestrian only or joint pedestrian and vehicle Park 'n' ride entries

Typical location

- Located on the principal road frontage/s of the station in proximity to the principal road / pedestrian entry to the station.
- Where the station is located on a side road off a main road there may be a need to provide additional Major Identification sign/s at the intersection/s of the main road.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign faces perpendicular to the kerb line, in order that the sign faces are clearly visible from road approaches.
- Sign post to be located outside required pedestrian paths of travel. Obtain advice from Queensland Rail and the property owner prior to finalising locations.

Indicative message

- Name of station, pictogram and service operator

Graphic Details

FONT

Text = Helvetica Neue 66 Medium Italic

SIZE

- Station name = 125mm cap X height
- Park 'n' ride = 90mm cap X height
- Pictograms = 220mm high
- Logos = as shown

COLOUR

Panel Backgrounds

- Logo background = Dulux (MTO) Intensity Orange Gloss powdercoat (900-4008G)
- Other background = Resene 'Jon' N38-007-359

Sign Structure

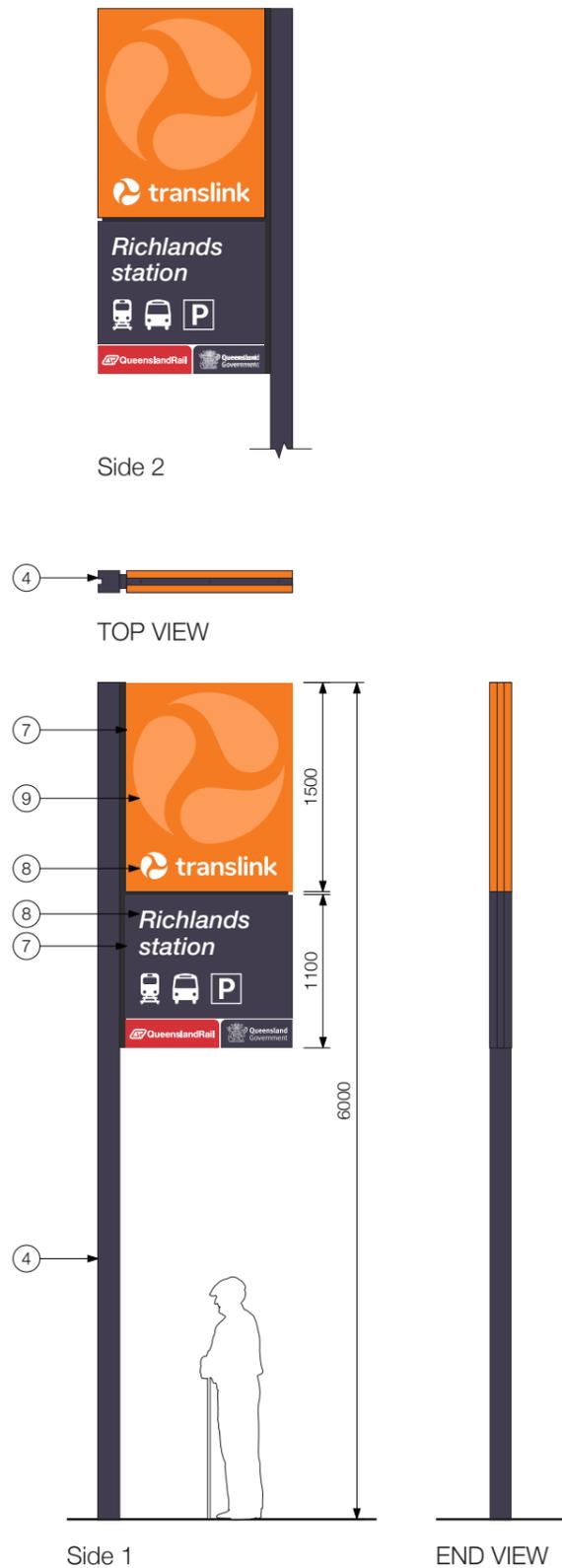
- Sign structure = Resene 'Jon' N38-007-359
- Sign structure shadowlines = Resene 'Jon' N38-007-359

Illuminated graphics

- TransLink logo tint = Arlon Tangerine 84 translucent vinyl
- TransLink logo = Opal
- Station name = Opal
- Pictograms = Opal
- Park n' ride = Opal

Non-illuminated graphics

- Queensland Rail logo = 3M Tomato Red 180C-13 background
- Qld Govt logo = White Vinyl
- Key line = Paint to match opal



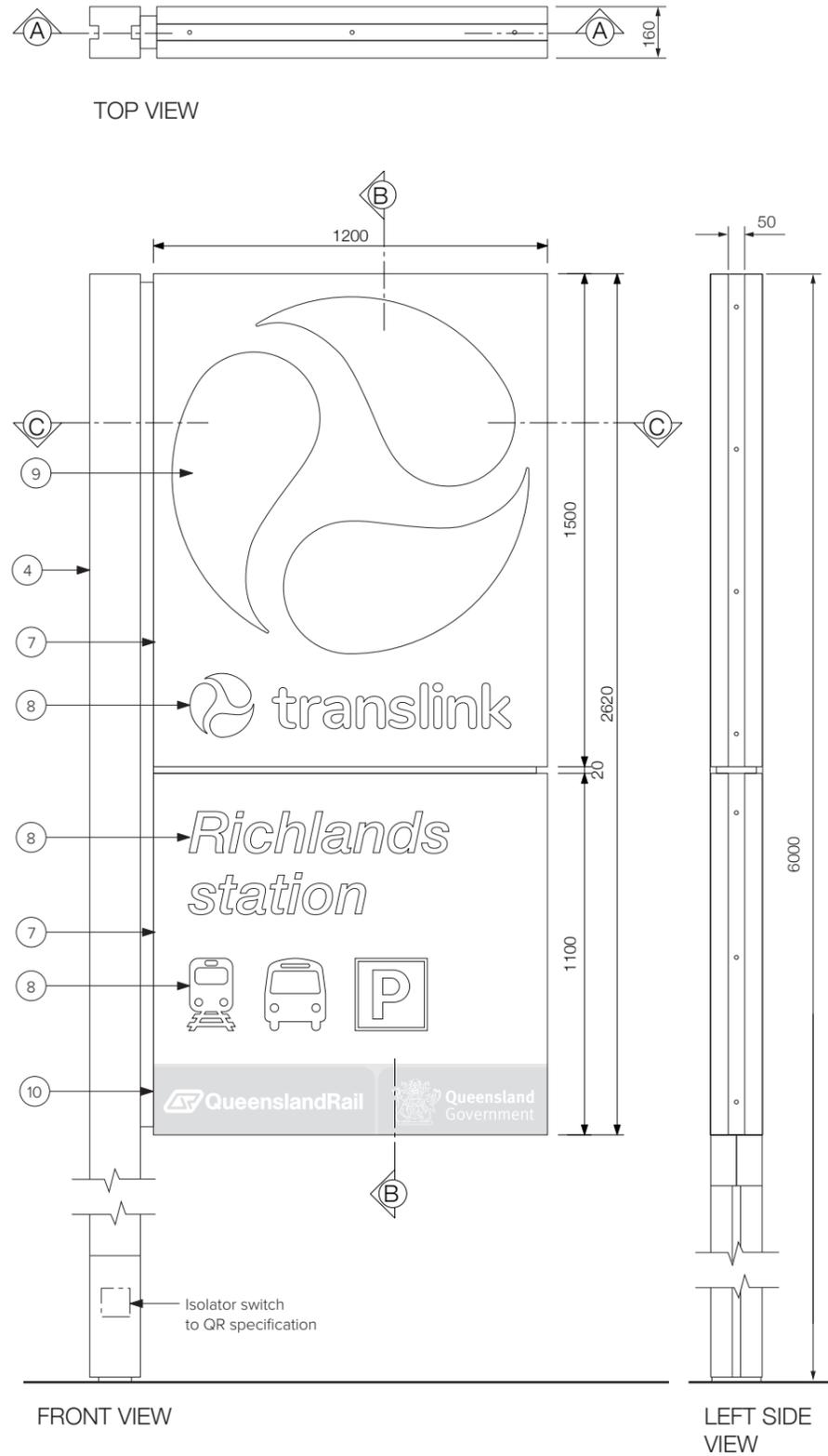
Side 1
Typical Elevations
Scale 1:50



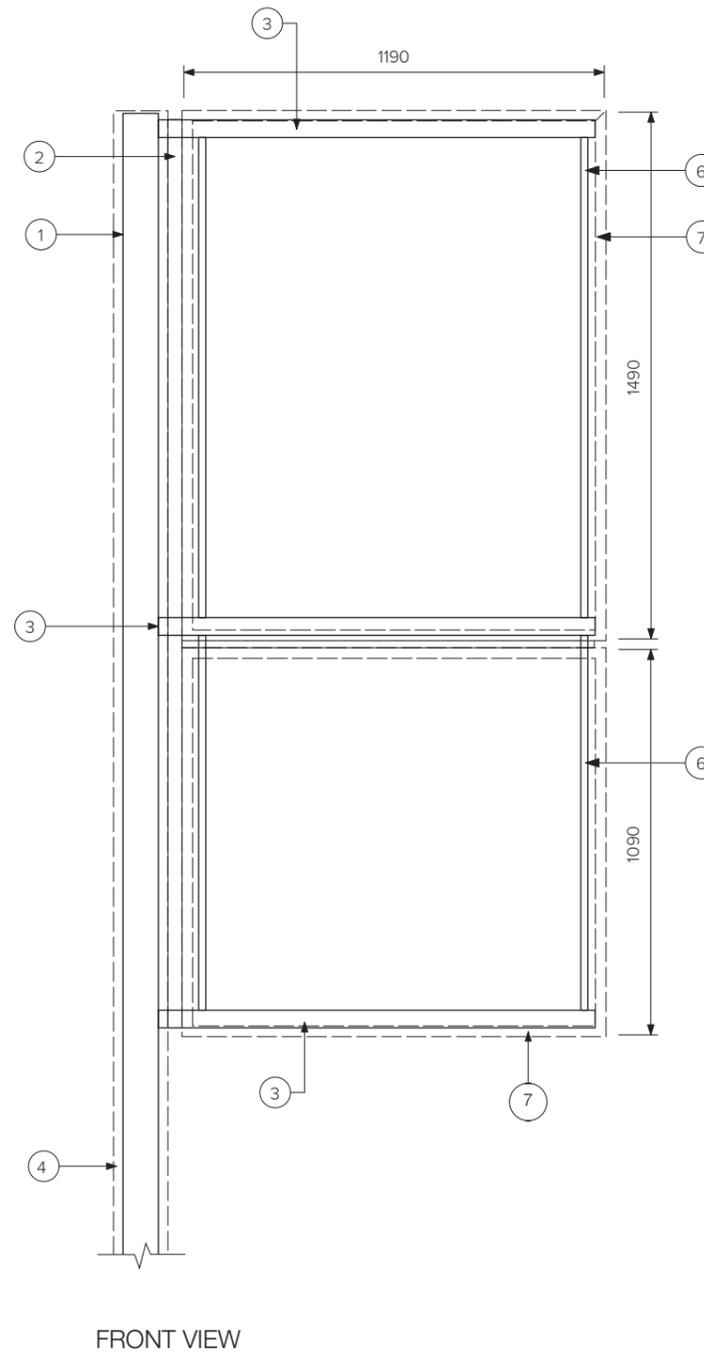
TYPICAL NAME
Graphic Layouts
Scale 1:20

LONG NAME

Identify Park 'n' ride facilities as required



Construction Elevations
Scale 1:20

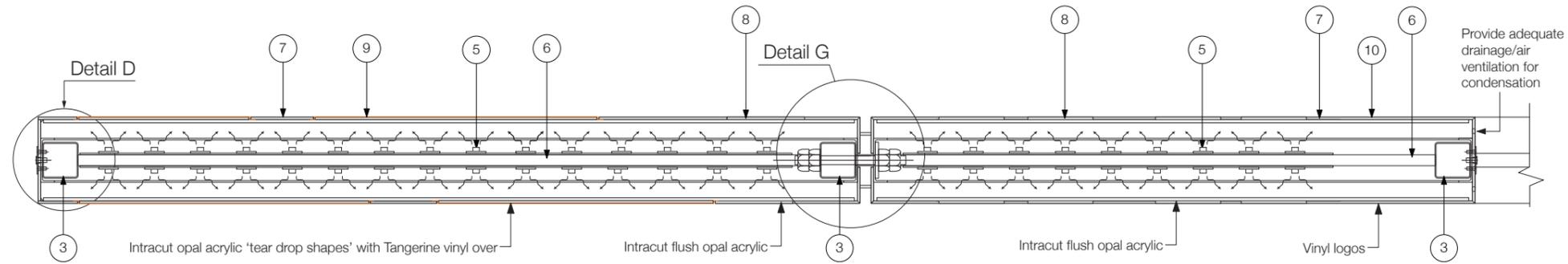


Flagpole Framing
Scale 1:20

PI-3b Major Identification Sign

Construction Details

1. 150 x 100 x 6mm RHS galvanised steel pole with welded capping suitable for lifting lugs.
 2. 100 x 50 x 3mm RHS aluminium spacer with 2mm aluminium capping welded & dressed top & bottom.
 3. 50 x 50 x 6mm SHS galvanised steel horizontal members welded to pole.
 4. 2mm folded aluminium cladding fixed to outside of pole. 5mm minimum radius corners.
 5. Internally illuminated by LED backlight modules mounted to backing panel on both sides. LED layout indicative only. Signmaker to provide control gear. Refer to specification for LED requirements. Sign should be illuminated during all hours of operation.
 6. 20 x 20 x 3mm SHS galvanised steel light supports welded to horizontal members to hold LED backing panels.
 7. Fabricated 3mm thick double sided aluminium sign box. Cut through logo and graphics on both sides of face. Internal channel frame welded inside box to align with horizontal members. Provide adequate drainage / ventilation to prevent condensation.
 8. Intracut 3mm thick opal acrylic letters and logo clear glued to translucent backing panel to sit flush with sign face. All glued to back of sign box with 3M Scotch-Weld Metal Bonder acrylic adhesive. Note: all joints between aluminium and acrylic to be sealed against weather.
 9. Intracut 3mm thick opal acrylic tear drop shapes clear glued to translucent backing panel to sit flush with sign face. Arlon Tangerine 84 translucent vinyl applied to face of tear drop shapes to align with cut outs, provide 10mm extra bleed to allow for shrinkage. Backing panel glued to back of sign box with 3M Scotch-Weld Metal Bonder acrylic adhesive. Note: all joints between aluminium and acrylic to be sealed against weather.
 10. Non illuminated front applied vinyl logos applied to both sides of sign face.
 11. Stainless steel bolts and screws to engineers specification. Provide flashing and spacers as required. Security screw heads to be used where visible, paint out to match background colour.
 12. Power conduits to be concealed within structure. Isolators and control gear to be located in a secure accessible location for service.
 13. Signmaker's engineer to specify base plate, footing and structural details. Signmaker to co-ordinate installation with Managing Contractor / QR Representative. Finish of footing to be coordinated with paving.
- NOTE:**
- Allow to connect to existing electrical supply including all electrical conduits.(Queensland Rail to inform power source.)
 - All joints between aluminium and acrylic to be sealed against weather.
 - Provide timer or photo electric switch to regulate illumination. Queensland Rail to confirm hours of operation.

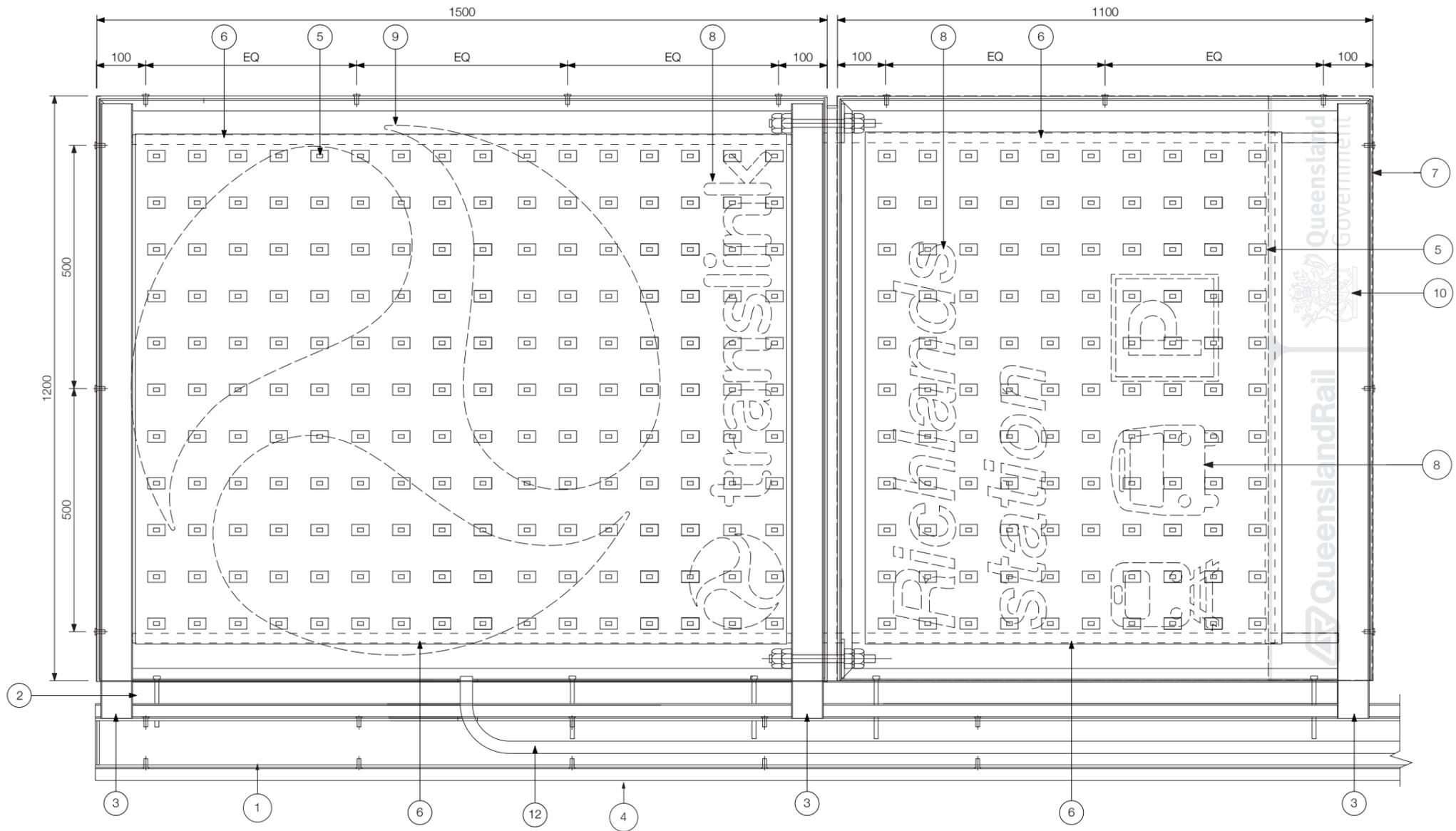


Section B-B
Scale 1:10

PI-3b
Major Identification Sign

Construction Details
Refer 4.31.2 for details.

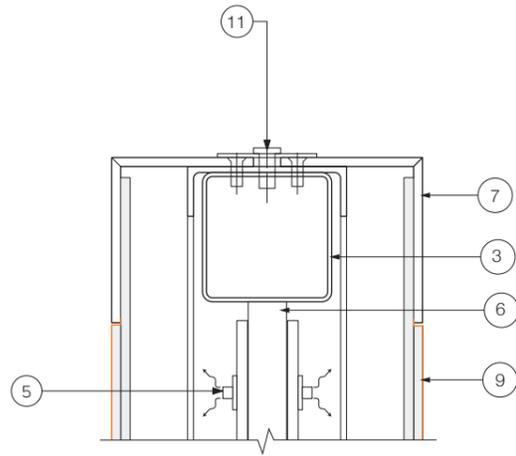
Note: Drawing has been rotated to fit on page.



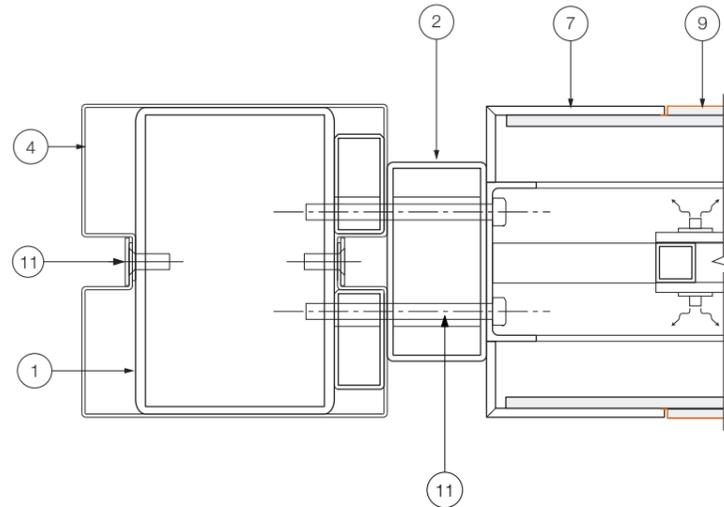
Section A-A
Scale 1:10

PI-3b
Major Identification Sign

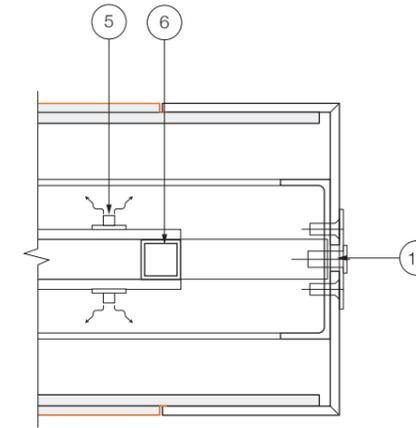
Construction Details
Refer 4.31.2 for details.



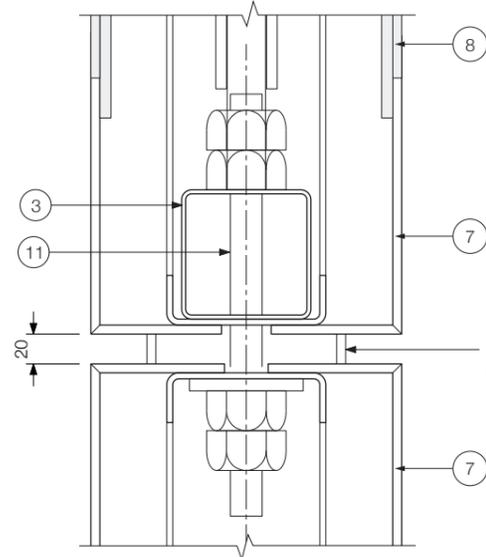
Detail D
NTS



Detail F
NTS

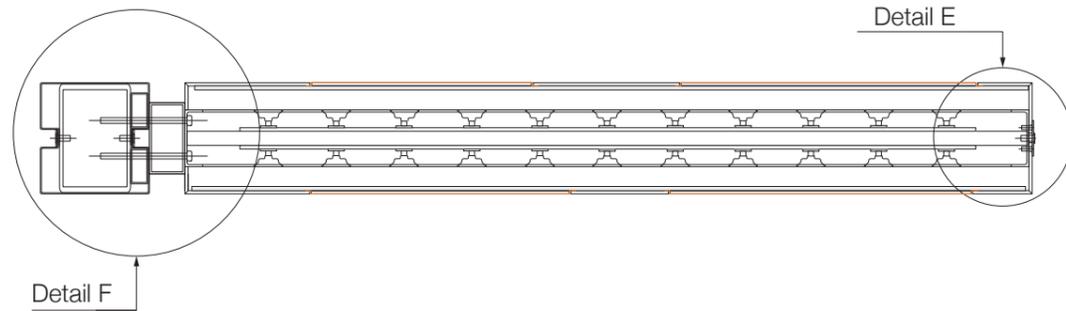


Detail E
NTS

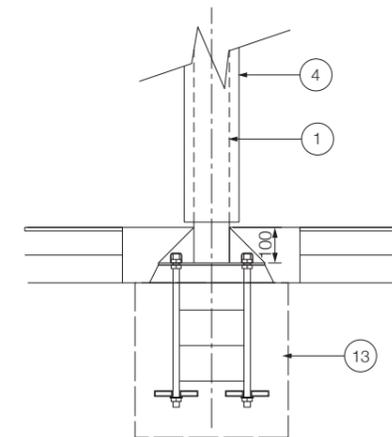


Aluminium plate spaces
between sign boxes

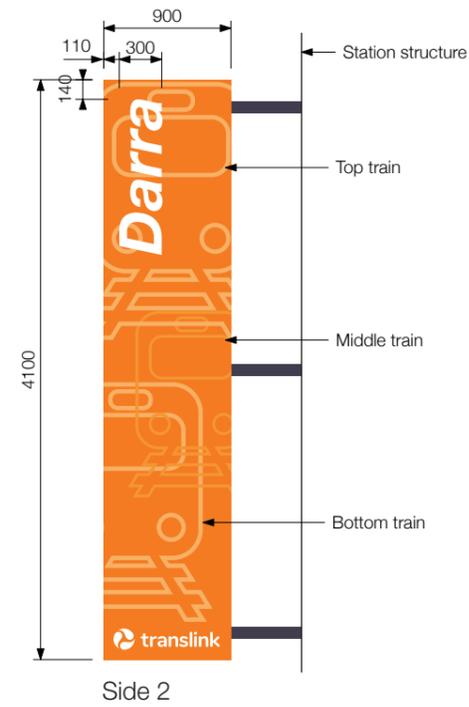
Detail G
NTS



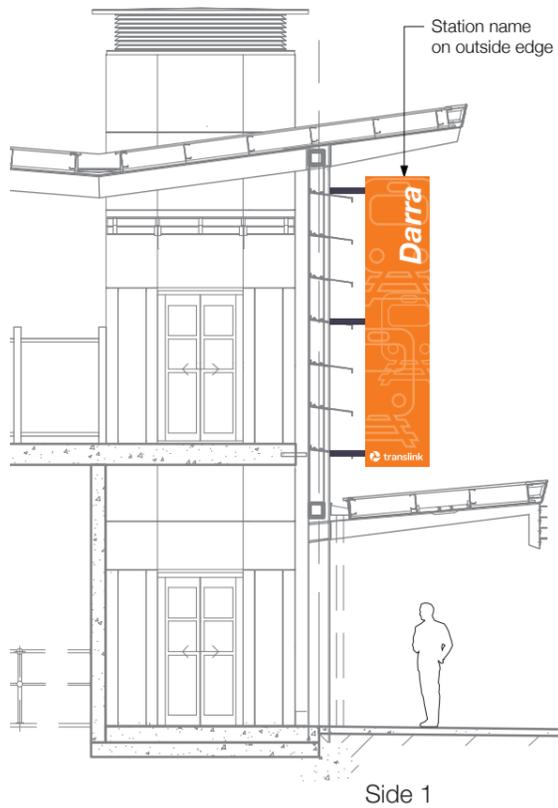
Section C-C
Scale 1:10



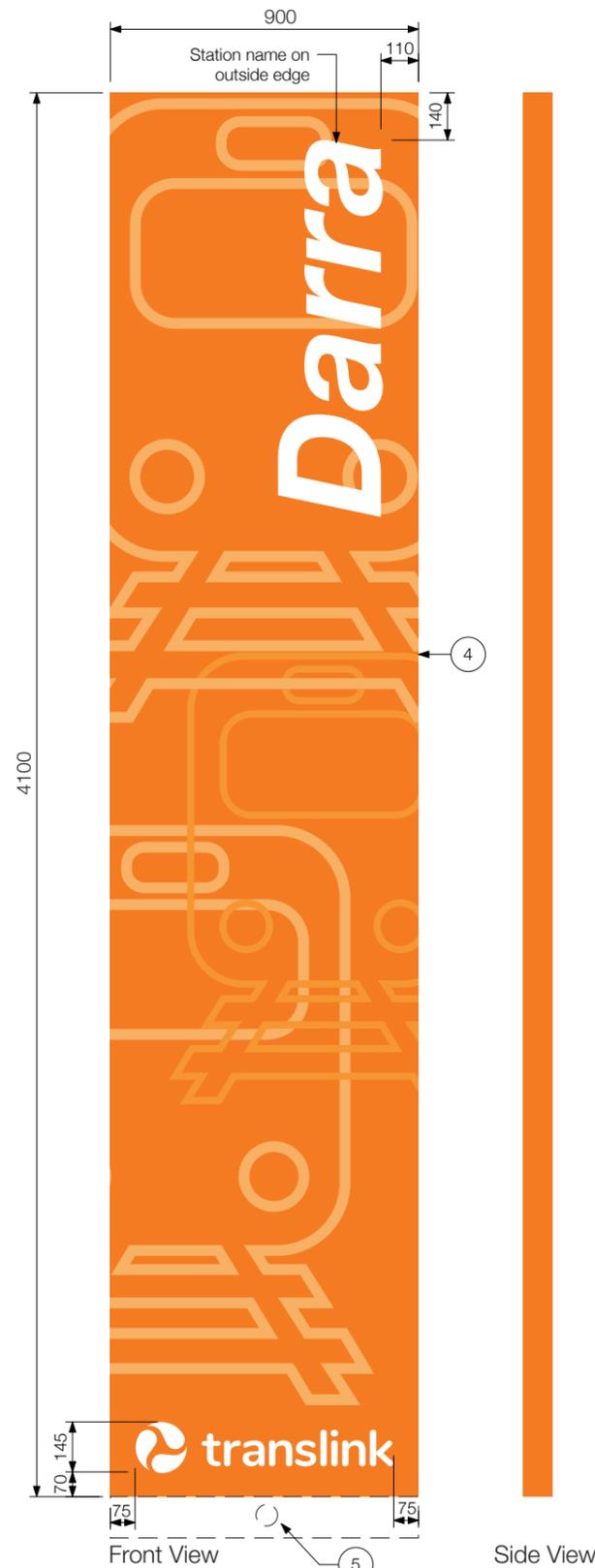
Base Plate Front Elevation
NTS



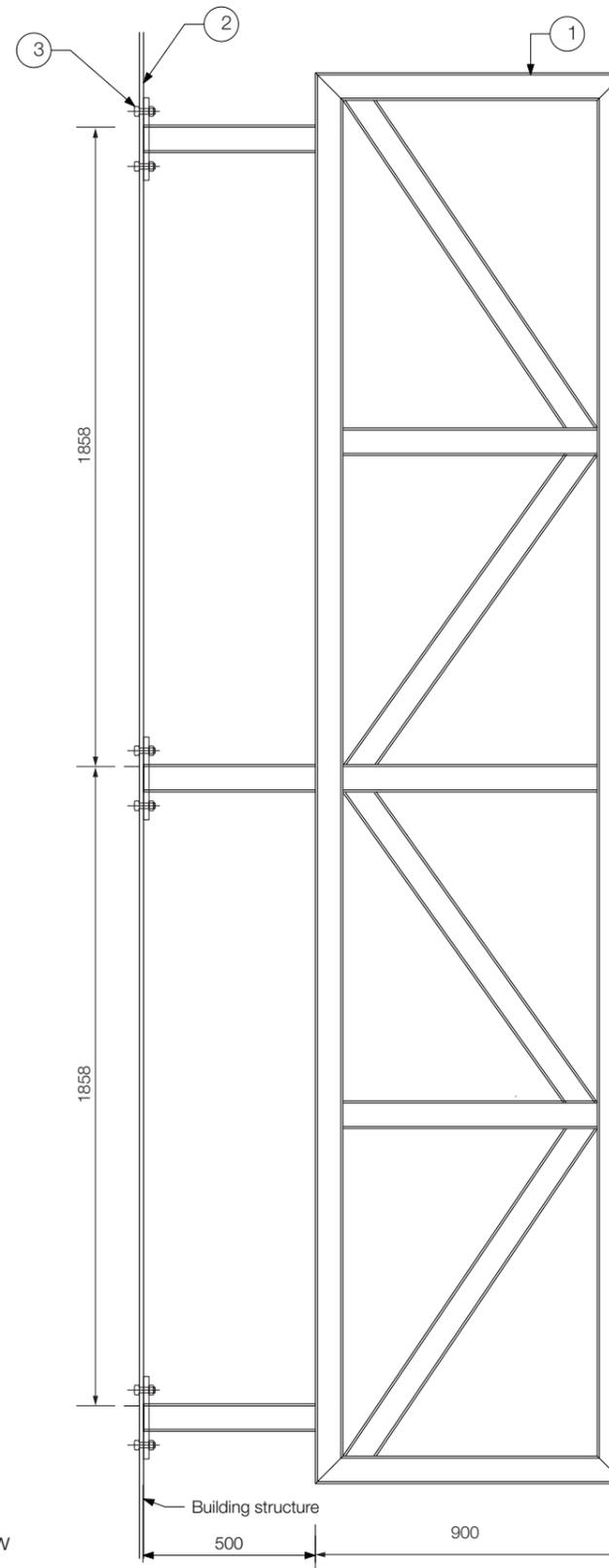
Side 2
Graphic Layout
Scale 1:50



Side 1
Sign location
Scale 1:100



Front View
Side View
Graphic Layout
1:20



Typical Elevation
Scale 1:20

PI-4a Banner Sign - Projecting

Purpose

- Secondary sign to identify station from major approaches
- To be used as a supporting sign to the main identification signs and typically placed in locations near the central station area access.
- For pedestrian and vehicular use

Typical location

- Where possible this sign is fixed to the station structure & located adjacent to pedestrian paths of travel. Obtain advice from Queensland Rail and the property owner prior to finalising locations.
- Located on the principal road frontage/s of the station in proximity to the principal road / pedestrian entry to the station.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign faces perpendicular to the kerb line, in order that the sign faces are clearly visible from road approaches.

Indicative message

- Name of station and pictograms

Graphics Detail

FONT

Station name = Helvetica Neue 76 Bold Italic

SIZE

Translink logo = 145mm high (proportional width)
Station name = 300mm cap X height

COLOUR

Panel background = to match Arlon 'Orange' 44
Translink logo = Arlon White 02
Station name = Arlon White 02
Fixing Frame (outriggers) = Resene "Jon"

Train graphic linework

Top & bottom train = Avery 'Morning Orange' 937
Middle train = Avery 'Sweet Orange' 938

Construction Details

1. Internal frame welded from 89 x 89 x 6mm SHS Mild Steel. Internal framing to reduce distortion. Fully welded fixing plate with clearance holes to suit bolts. Primed and paint finish.
2. Station structure. Predrill suitable clearance holes to suit fixing. Confirm details with Construction Representative.
3. M16 galvanised bolt & lock nut fixing plate to station structure. Paint out bolts on exposed side of column.
4. 3mm aluminium panel with welded returns to fix to internal frame. All visible welds to be dressed. Paint finish and clear anti-graffiti spray coat over vinyl graphics.
5. Provide external uplight source to illuminate sign face. Location of lighting to suit site conditions.

PI-4b

Banner Sign - Freestanding

Purpose

- Secondary sign to identify station from major approaches
- To be used as a supporting sign to the main identification signs and typically placed in locations near the central station area access.
- For pedestrian and vehicular use

Typical location

- To be seen from the principal road frontage/s of the station in proximity to the principal road / pedestrian entry to the station. Obtain advice from Queensland Rail prior to finalising locations.
- Located in either Queensland Rail or local council property depending on site constraints. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign faces perpendicular to the kerb line, in order for sign faces to be clearly visible from road approach.

Indicative message

- Name of station and pictograms

Graphics Detail

FONT

Station name = Helvetica Neue 76 Bold Italic

SIZE

Translink logo = 105mm high (proportional width)
Station name = 220mm cap X height

COLOUR

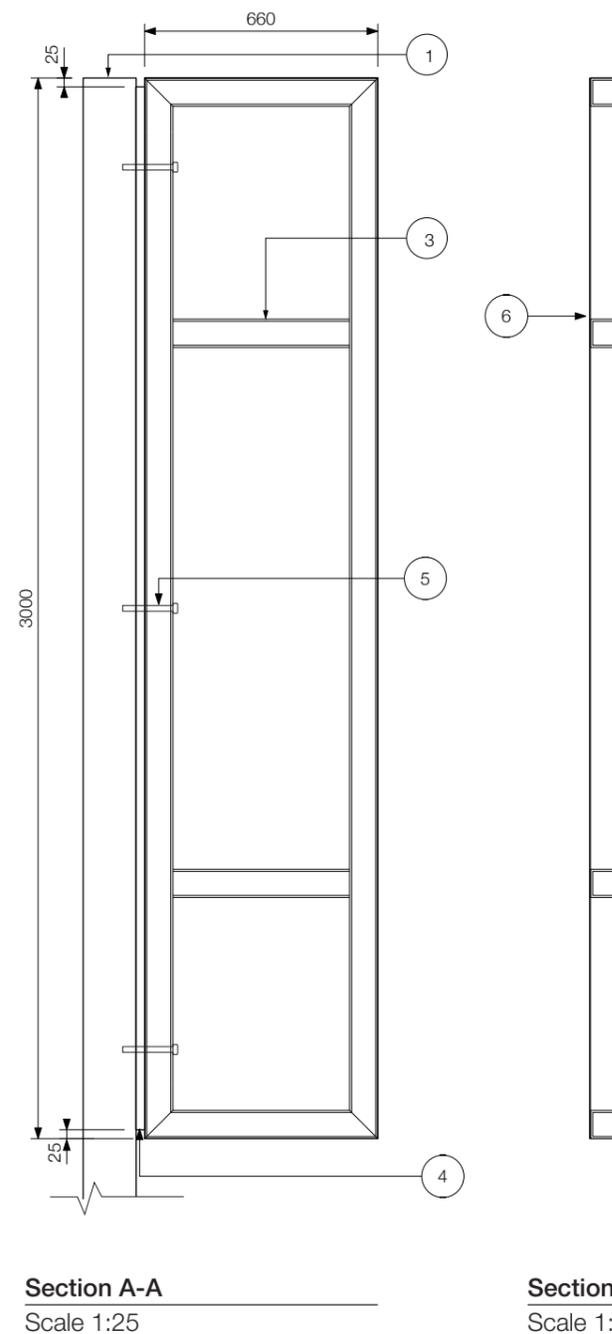
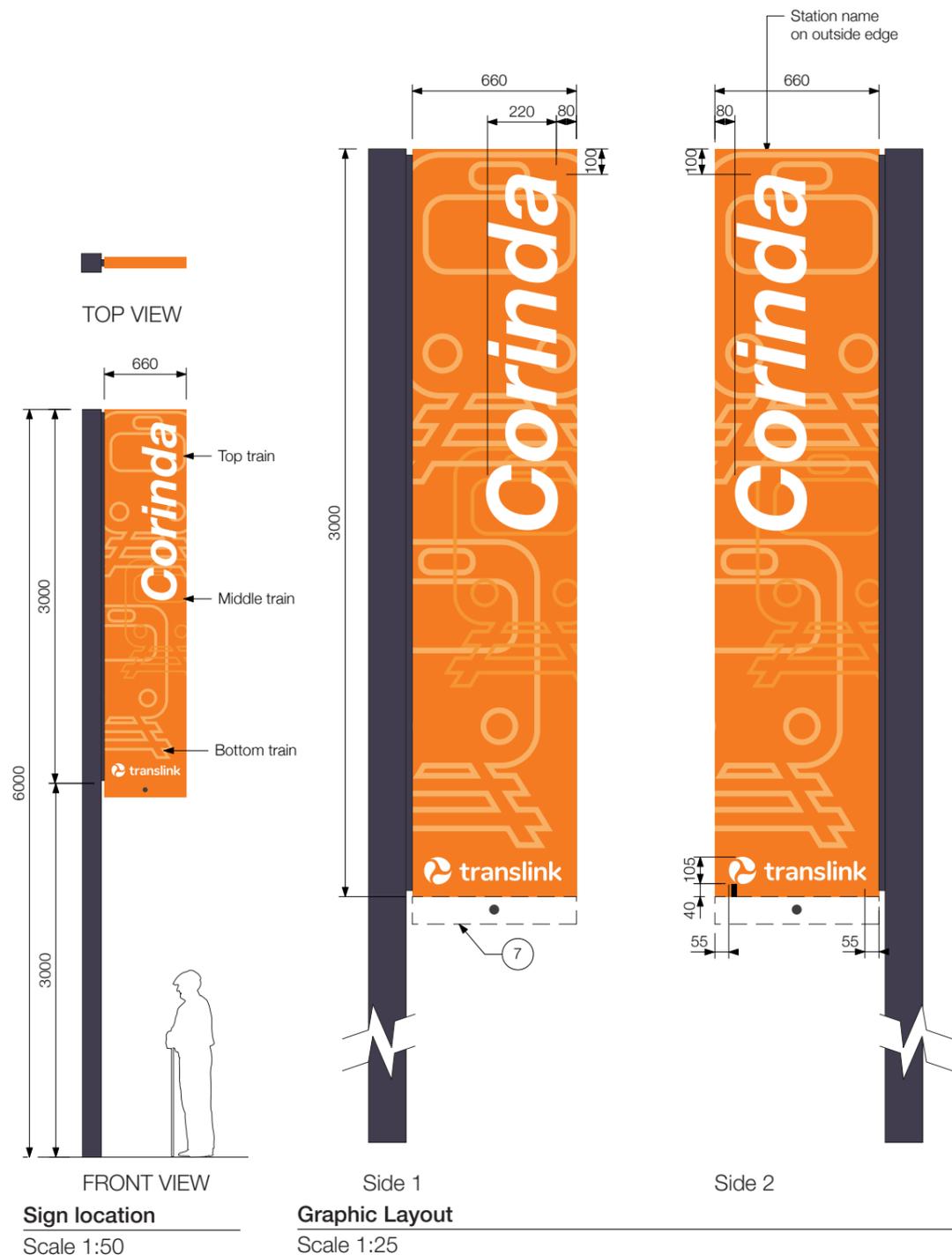
Panel background = To match Resene Trinidad
Sign structure = To match Resene 'Jon' N38-007-359
Sign structure spacer = To match Resene 'Jon' N38-007-359
Translink logo = Arlon White 02
Station name = Arlon White 02

Train graphic linework

Top & bottom train = Avery 'Morning Orange' 937
Middle train = Avery 'Sweet Orange' 938

Construction Details

- 150 x 150 SHS painted galvanised post with suitable base plate and capping.
- Provide reinforced concrete pad/pier footing to sign makers' specification. All fixings shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40. Structural framework and footing details to be confirmed by sign maker's engineer.
- Internal frame welded from 80 x 80 x 6mm SHS aluminium.
- 50 x 25 RHS spacer painted and fixed to internal frame.
- M16 S.S. 316 bolt fixed to threaded holes in support post.
- 3mm aluminium sign panel welded to aluminium frame. All visible welds to be dressed. 2 pack painted sign with front applied graphics, anti-graffiti protective clear coat over.
- Provide external uplight source to illuminate sign face.



PI-5

Entry Identification Sign - Letters

Purpose

- Secondary sign to identify station from major approaches
- To be used as a support to the main identification sign
- For pedestrian and vehicular use

Typical location

- Located on or above main entry awning/structure near the access point to central station areas
- Sign to face approaching pedestrians and/or vehicles from foot-path/setdown points or roadways as appropriate.
- Intent of this sign is to be clearly visible for vehicular and pedestrian approach. Sign face is typically aligned to the kerb in order to achieve this, however setout should also consider visibility along main approach.

Indicative message

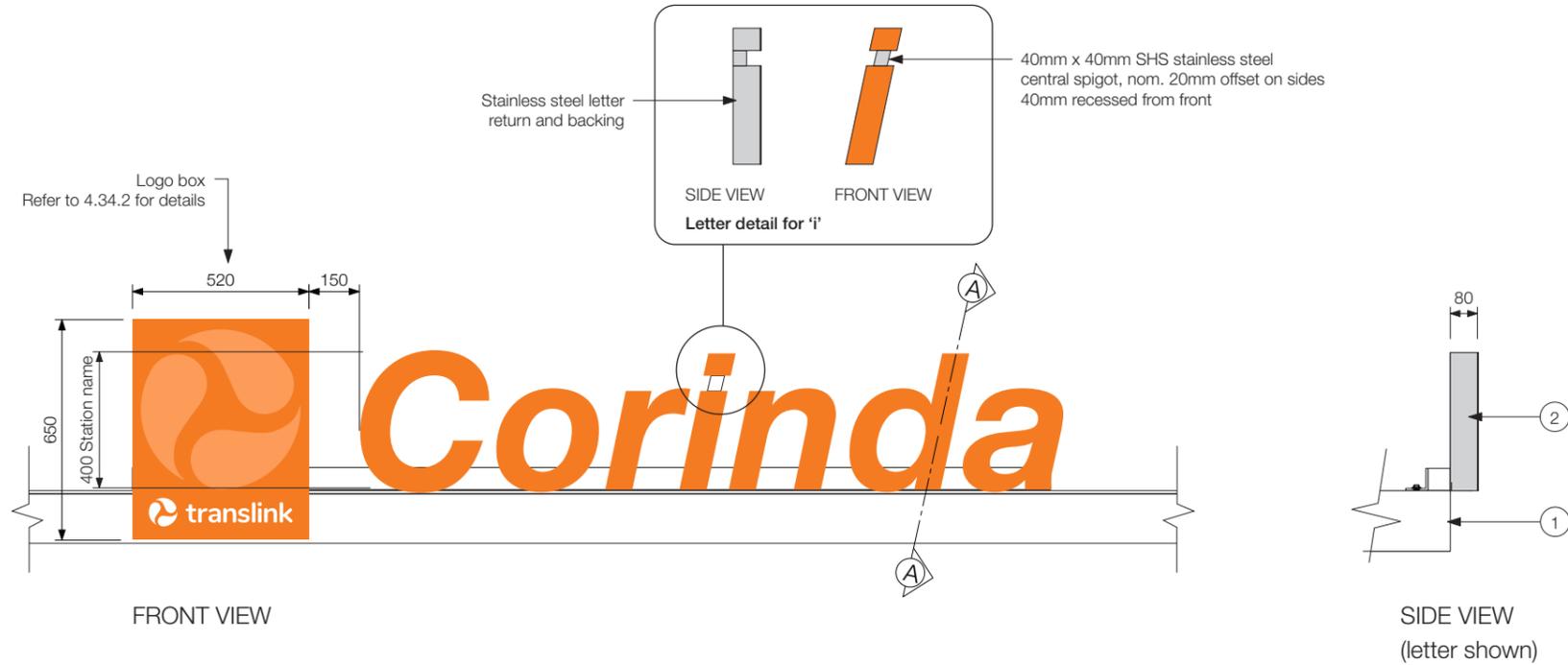
- Name of station
- TransLink logo
- Note that the word 'station' may be added to this PI-5 sign where the facility is underground or hidden from view within the general precinct however this should be a site specific assessment with the relevant authorities.

Graphics Detail

- FONT
Station name = Helvetica Neue 76 Bold Italic
- SIZE
Station name = 400mm cap X height
- COLOUR
Station name letters
Station name = Perspex® Spectrum LED Orange 3TL1
Letter returns = Stainless steel No. 4 linish finish
- Logo light box*
Logo background = Dulux (MTO) Intensity Orange Gloss powdercoat (900-4008G)
TransLink logo tint = Arlon Tangerine 84 translucent vinyl
TransLink logo = Opal

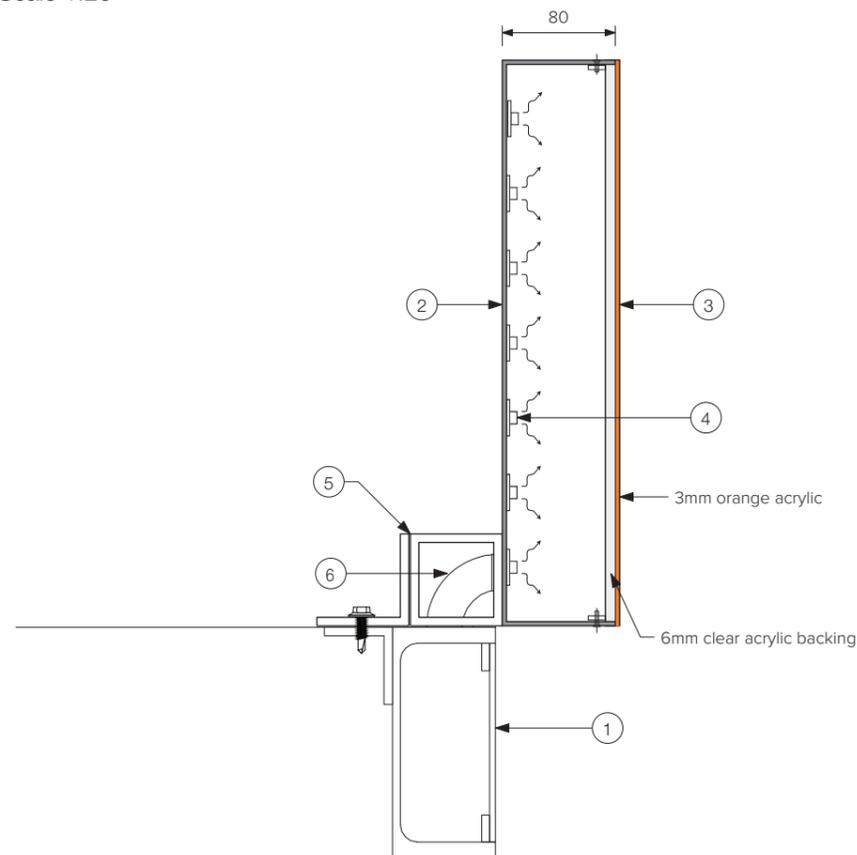
Construction Details - Station name

1. Station structure, confirm all details on site prior to manufacture.
2. Fabricated stainless steel letters. 1.2mm thick backs with 1.0mm thick x 80mm wide folded returns welded to perimeter.
3. 3mm thick Perspex® Spectrum LED Orange 3TL1 faces, with 6mm clear acrylic backing cut to fit inside of letter glued to back. Fixed to face of fabricated letter with concealed M4 SS 316 pan head screws through returns.
4. Internally illuminated with Cool White LED backlights mounted to back of letters. Refer to specification for details.
5. 65mm x 65mm x 3mm SHS fixing rail behind letters to conceal power. Typical 65mm x 65mm x 6mm angle bracket to fix to station structure. Suitable mechanical fixings to secure sign to roof structure. Rail and angle to be painted out to match station structure.
6. Power cable connecting LED to transformer to be concealed within / behind structure. All cabling to be tied back neatly to structure. Seal any penetrations through structure. Transformer location to be coordinated with the Construction Representative. Signmaker to provide circuit breaker / fuse within light box. Sign should operate during evening hours of station operation.



Graphic Layout

Scale 1:20



Section A-A – Typical Letter

Scale 1:5

PI-5

Entry Identification Sign - Logo box

Construction Details - Logo Box

7. Fabricated 3mm thick aluminium sign box. Cut through logo and graphics on face. Provide adequate drainage / ventilation to avoid condensation.

8. Intracut 3mm thick opal acrylic letters and logo clear glued to translucent backing panel to sit flush with sign face. All glued to back of sign box with 3M Scotch-Weld Metal Bonder acrylic adhesive. Note: all joins between aluminium and acrylic to be sealed against weather.

9. Intracut 3mm thick opal acrylic tear drop shapes clear glued to translucent backing panel to sit flush with sign face. Arlon Tangerine 84 translucent vinyl applied to face of tear drop shapes to align with cut outs, provide 10mm extra bleed to allow for shrinkage. Backing panel glued to back of sign box with 3M Scotch-Weld Metal Bonder acrylic adhesive. Note: all joins between aluminium and acrylic to be sealed against weather.

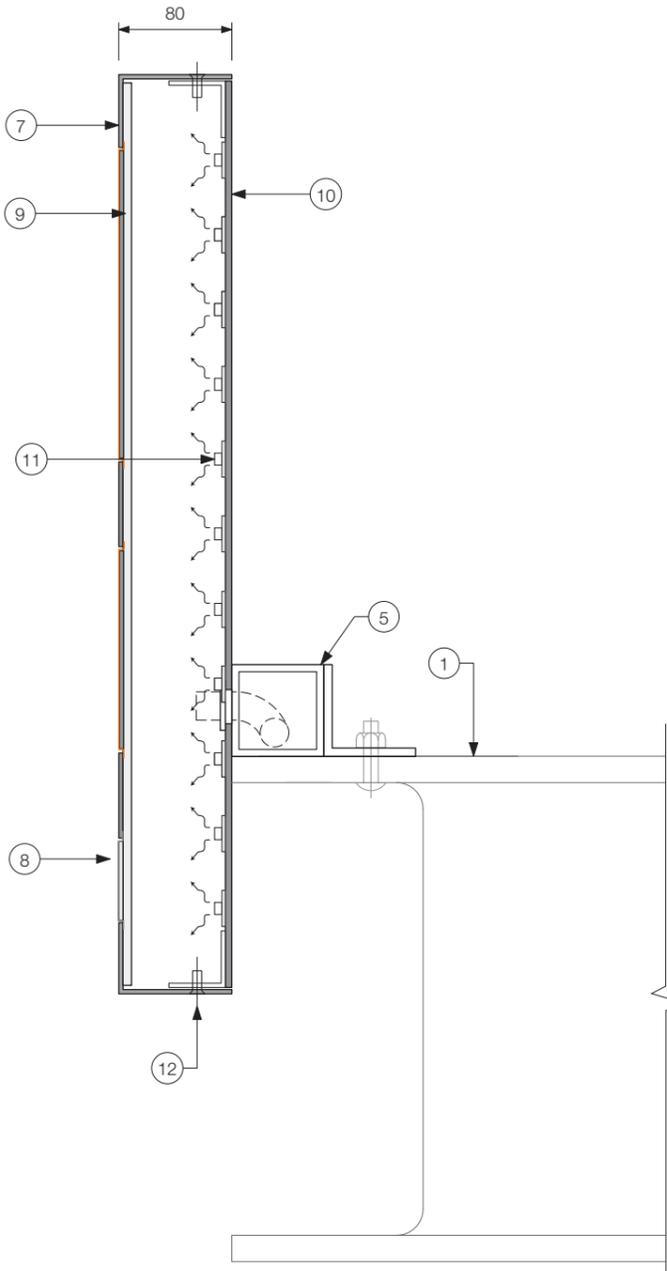
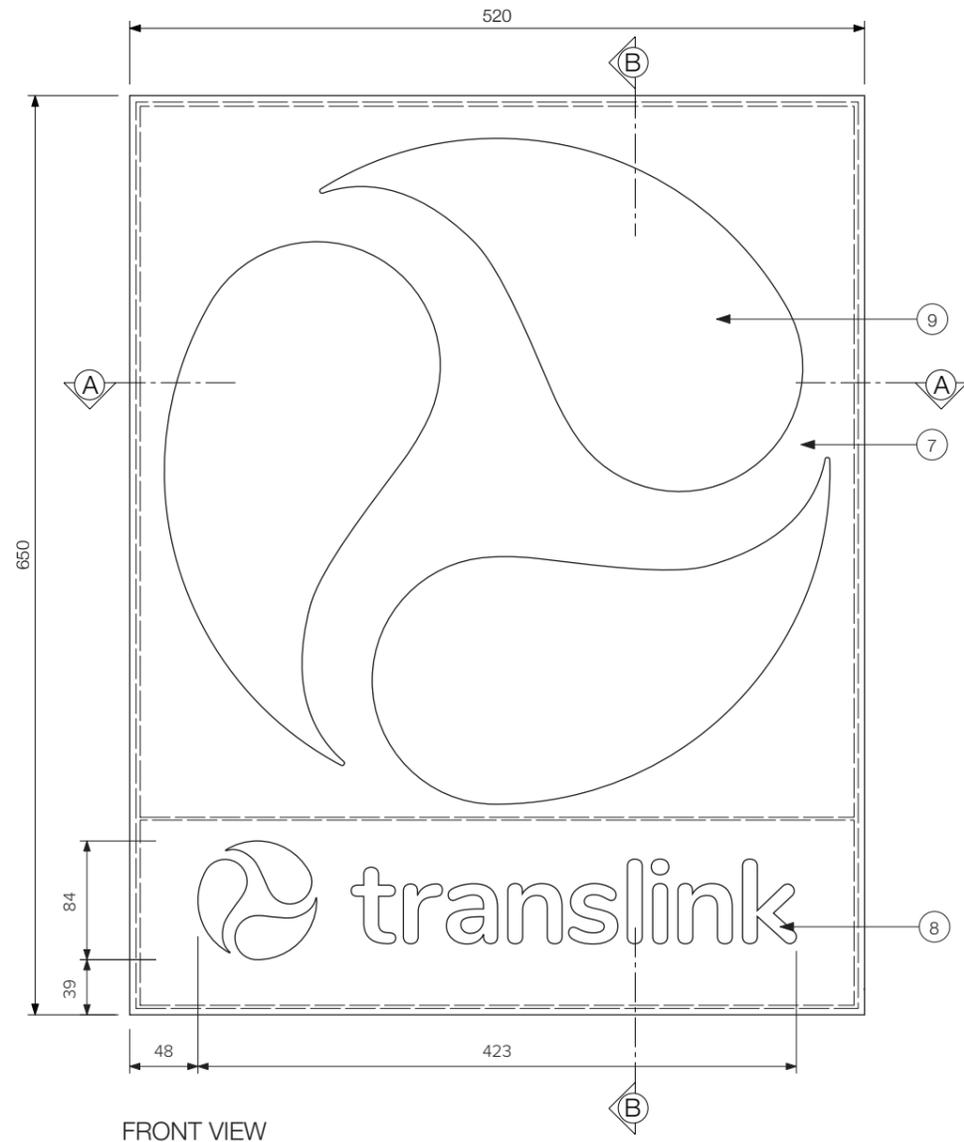
10. 6mm thick aluminium backing plate with 50mm x 50mm x 3mm aluminium angle returns. Fit nutserts to take M8 fixings. Outside to be 2 pack paint finish silver to match letter returns.

11. Internally illuminated with Cool White LED backlights mounted to backing plate. Refer to specification for details.

12. 4 off M8 S.S. 316 counter sunk screws to fix sign box to backing plate angles.

All cabling to be concealed and tied back neatly to structure. Seal any penetrations through structure. Transformer location to be coordinated with the Construction Representative. Signmaker to provide circuit breaker / fuse within light box. Sign should operate during evening hours of station operation.

NOTE
- Signmaker to co-ordinate fixing with Managing Contractor / Queensland Rail representative.

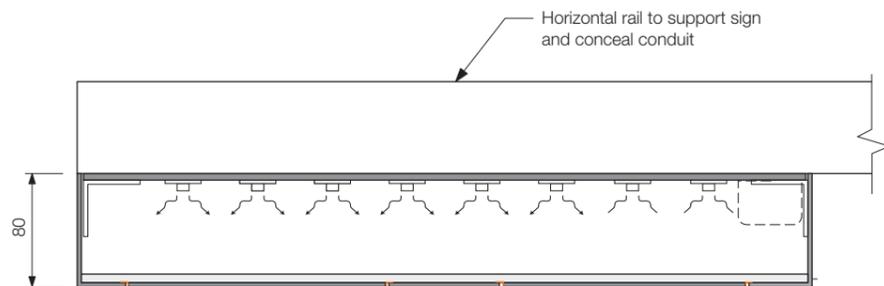


Typical Elevation

Scale 1:5

Typical Section B-B

Scale 1:5

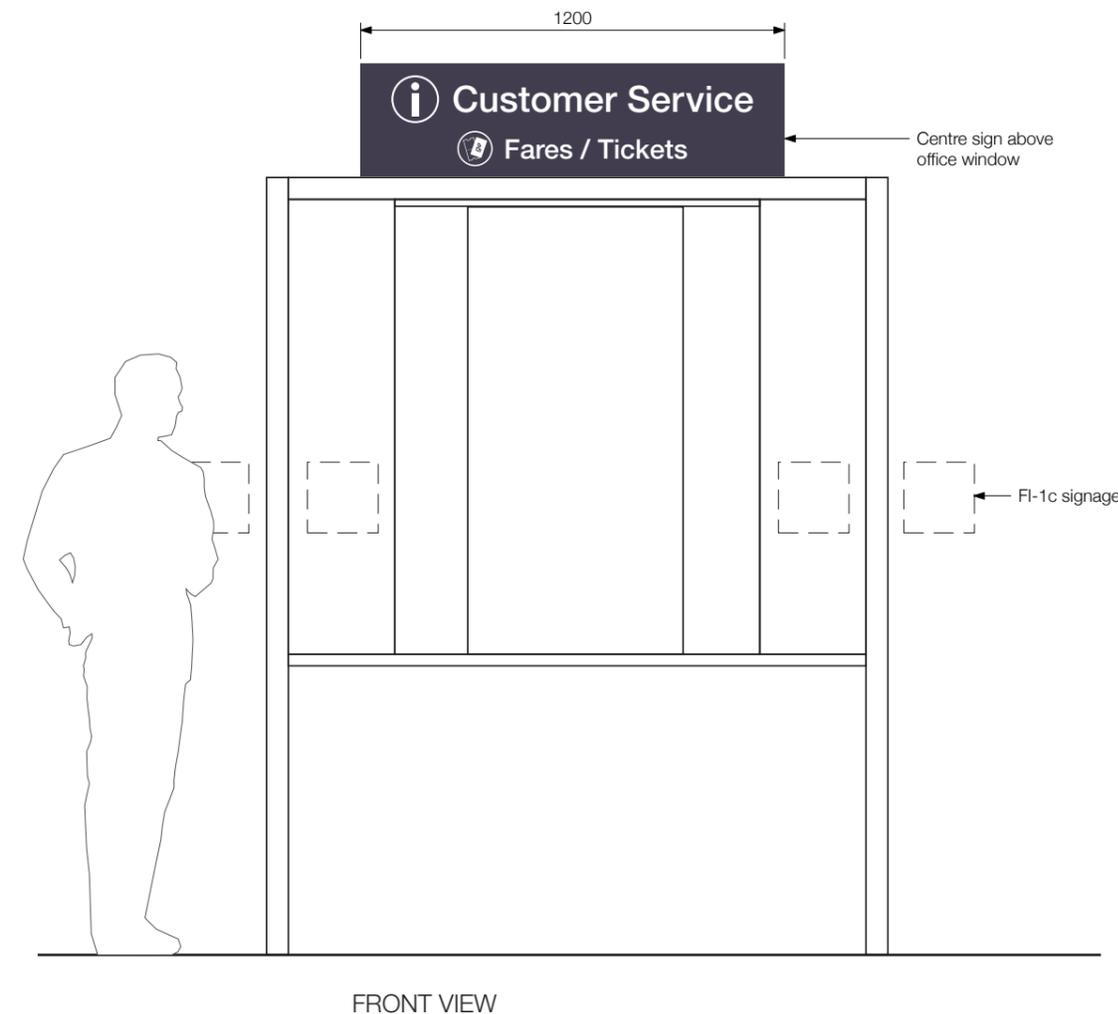


Section A-A

Scale 1:5



Graphic Layout
Scale 1:10



Typical Elevation
Scale 1:20

PI-9

Customer Service & Fares / Tickets Identification Sign

Purpose
- To identify station office, fare / ticket machines

Typical location
- Apply to station structure

Indicative message
- 'Fares / Tickets / Fare machine'
- Relevant pictogram

Graphics Detail
FONT
All text = Helvetica Neue 65 Medium

SIZE
Fares / tickets/ newsagent
Pictogram = 145mm o/a height
Primary Text = 80mm cap X height

Customer service
Customer service panel pictogram = 135mm o/a height
Customer service text = 75mm cap X height
Secondary pictogram = 100mm o/a height
Secondary text = 55mm cap X height

COLOUR
Panel = Painted to match Resene Jon
Text & Graphics = Arlon White 02 vinyl
Finished in clear coat (60% gloss)

- Construction Details**
1. 1.6mm painted aluminium sign panel with front applied vinyl graphics. Satin finish anti-graffiti spray clear coat over all graphics.
 2. Mounting surface. Prepare surface free from dust, dirt, oil & grease prior to fixing. Sign panel mechanically fixed to wall/door. Paint screw heads to match panel colour at fixing locations.

PI-12
Station Identification Sign - Graphic Layouts

Graphics Detail

FONT

Station Name = Helvetica Neue 65 Medium

SIZE

Station name with decender = 125mm cap X height
Station name without a decender = 140mm cap X height

COLOUR

Sign box = To match Resene 'Jon' N38-007-359

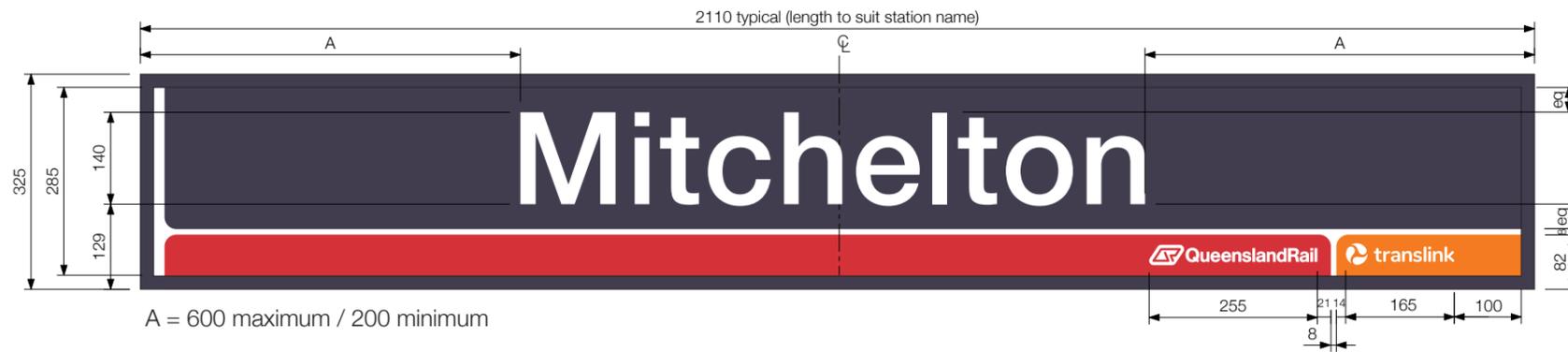
TransLink logo background = Arlon Orange 44 translucent vinyl
TransLink = To illuminate white

Queensland Rail logo = To illuminate white
Queensland Rail logo background = 3M Tomato Red (180C - 13)

Station name background = Resene 'Jon' N38-007-359, Arlon Dark Grey 52

Station name = To illuminate white

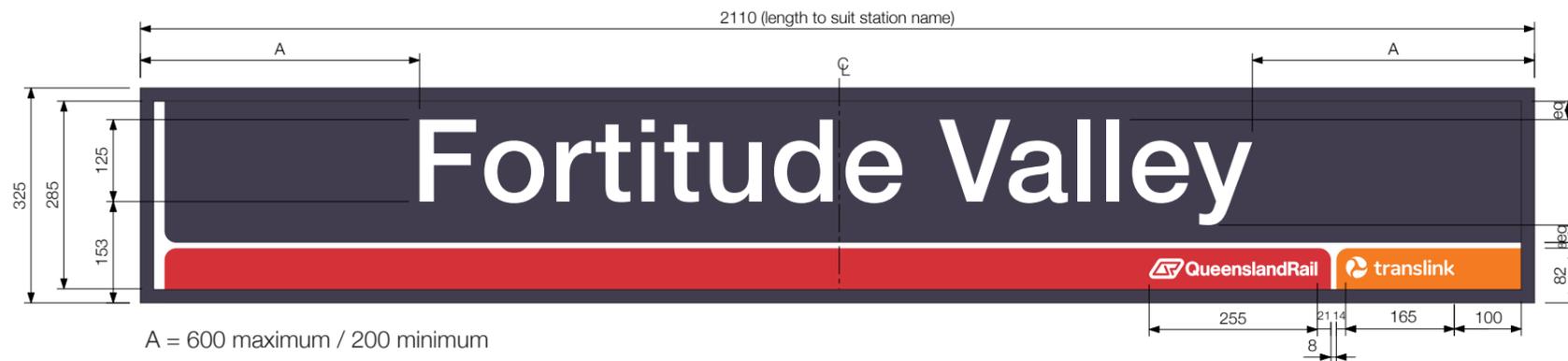
Keyline = To illuminate white



A = 600 maximum / 200 minimum

Graphic Layout - Without decender

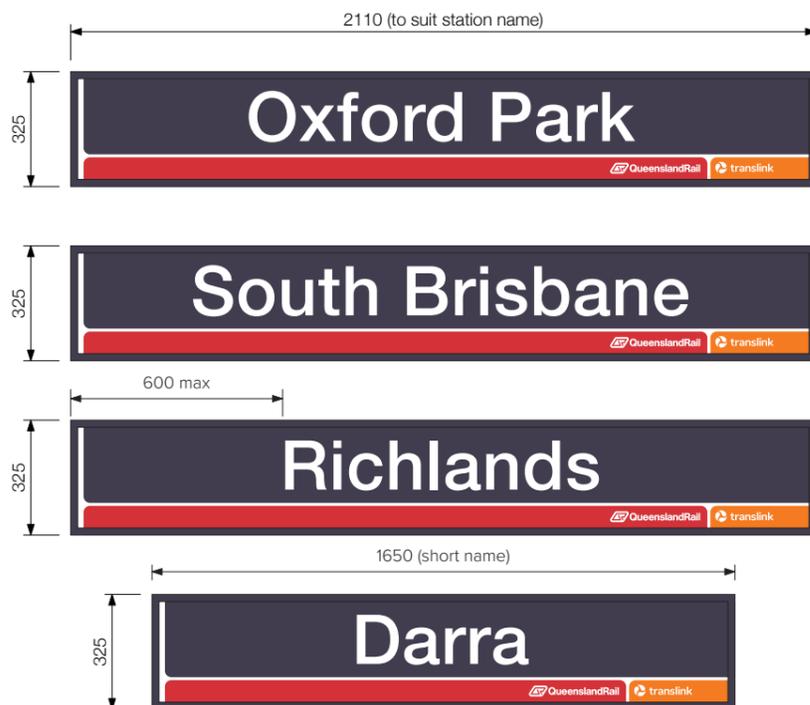
Scale 1:10



A = 600 maximum / 200 minimum

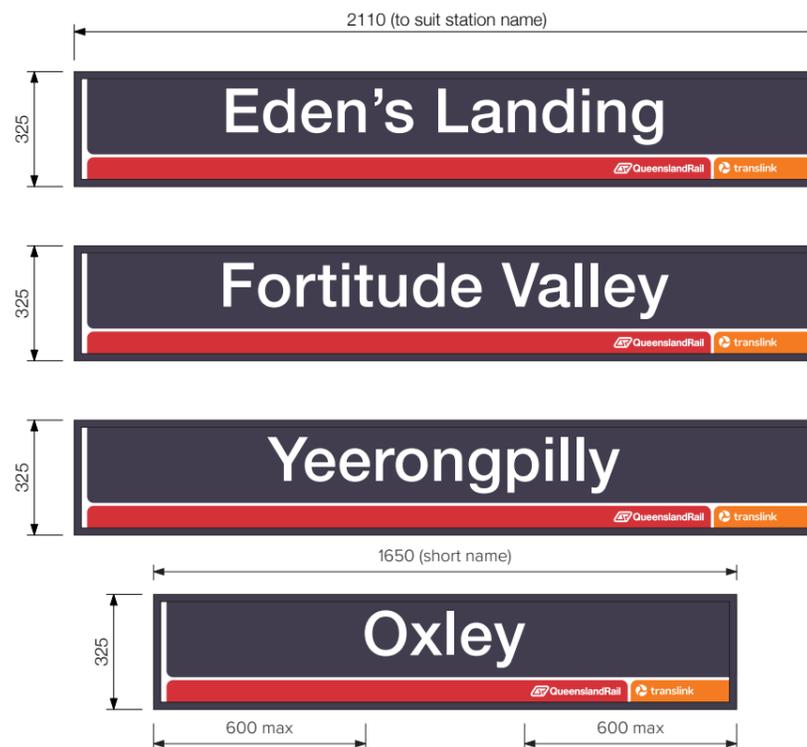
Graphic Layout - With a decender

Scale 1:10



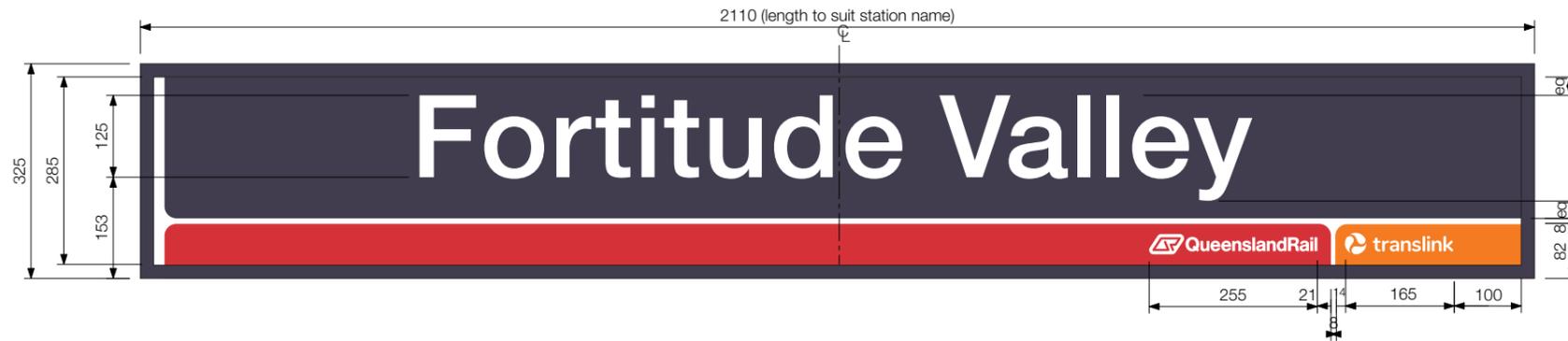
Indicative Graphic Layout - Without decender

Scale 1:20



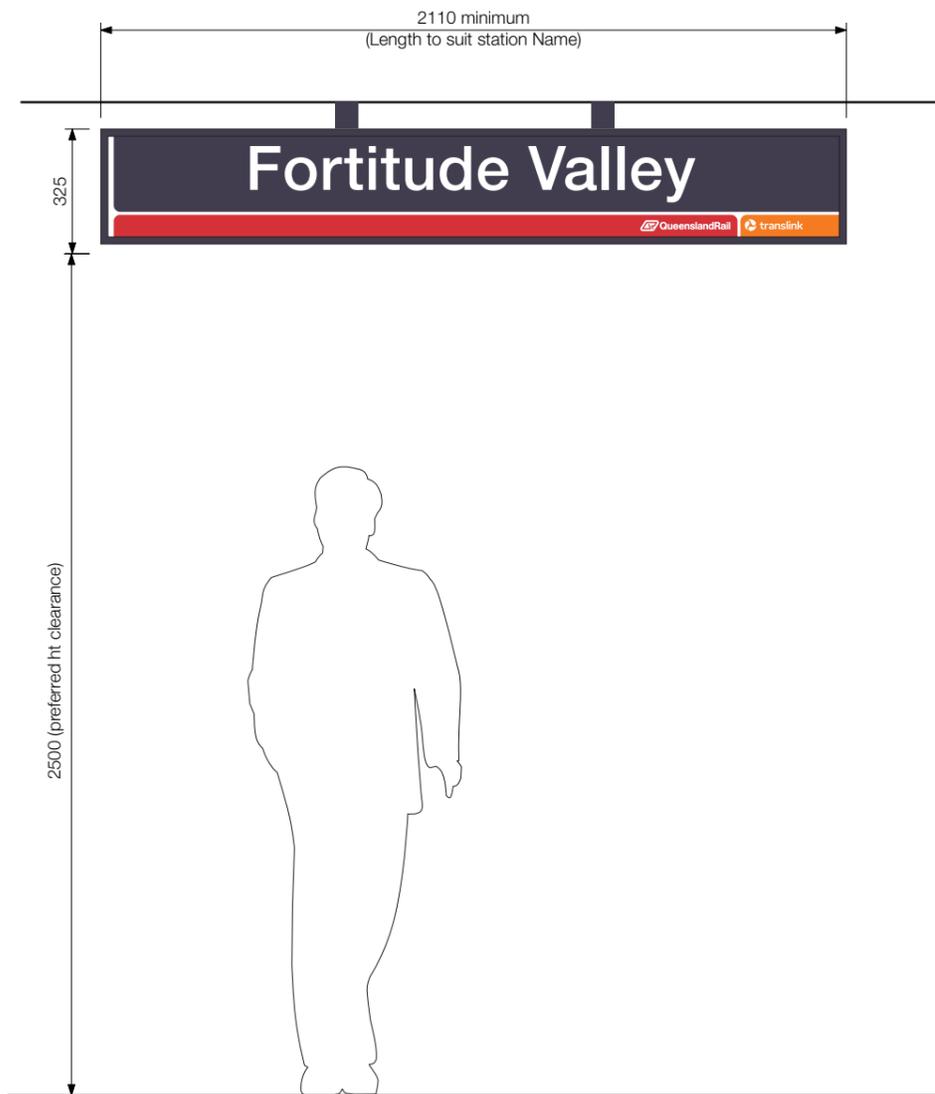
Indicative Graphic Layout - With a decender

Scale 1:20



Graphic Layout - With a decender

Scale 1:10



FRONT VIEW

Typical Elevation

Scale 1:20

NOTE

These signs may be increased in scale to suit larger stations eg Central (600 x 2500mm)

PI-12a

Station Identification Sign - On Platform

Purpose

- To identify station
- For pedestrian & passenger use

Typical location

- Suspended from station structure
- Signs are to be evenly spaced along the length of the platform.
- For example on a 160m long platform 6 signs would be located approx. 17-18m from the end of the platform, while the remaining 4 signs would be evenly spaced in between, at approx. 24m centres.
- Sign to be oriented with the sign face parallel to the edge of the platform.
- The underside of the sign shall be a minimum of 2.3mm above finished platform level. Preferred height of 2.5m AFFL.
- On open island platforms the sign is to be suspended centrally on the platform and may be double sided.
- On open single sided platforms the sign is to be suspended as close as possible against the rear boundary of the platform.
- On sections of platform containing buildings or other non-see through structures signs are to be located on the face of walls that run parallel to the platform edge.
- Signs to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail prior to finalising locations.

Indicative message

- Station name
- Logos

Graphics Detail

Refer to sheet 4.36 for graphic layouts

FONT

Station Name = Helvetica Neue 65 Medium
Station name with decender = 125mm cap X height
Station name without a decender = 140mm cap X height

COLOUR

Sign box & dropper = To match Resene 'Jon' N38-007-359

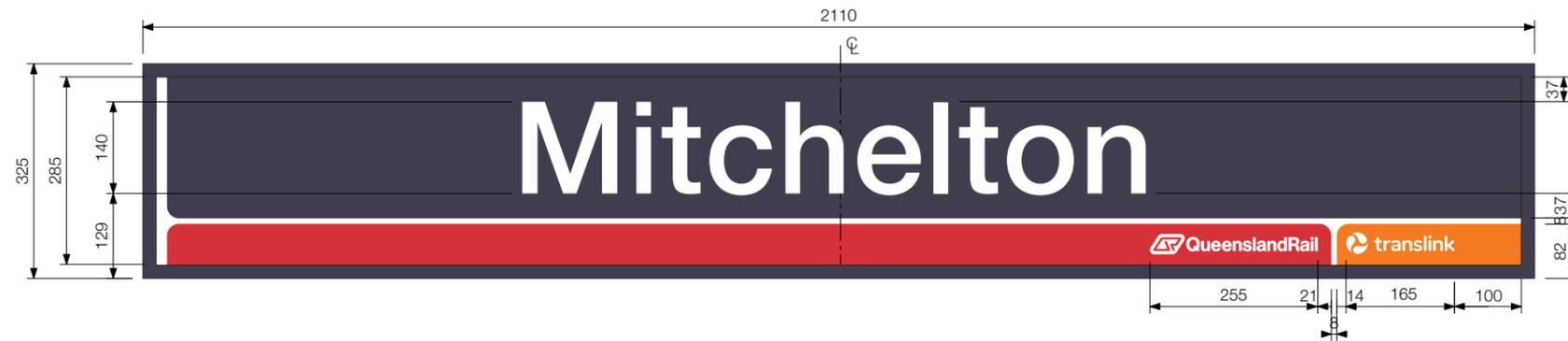
TransLink logo background = Arlon Orange 44 translucent vinyl
TransLink = To illuminate white
Queensland Rail logo = To illuminate white
Queensland Rail logo background = 3M Tomato Red (180C - 13)

Station name background = Resene 'Jon' N38-007-359, Arlon Dark Grey 52
Station name = To illuminate white
Key line = To illuminate white

Construction Details

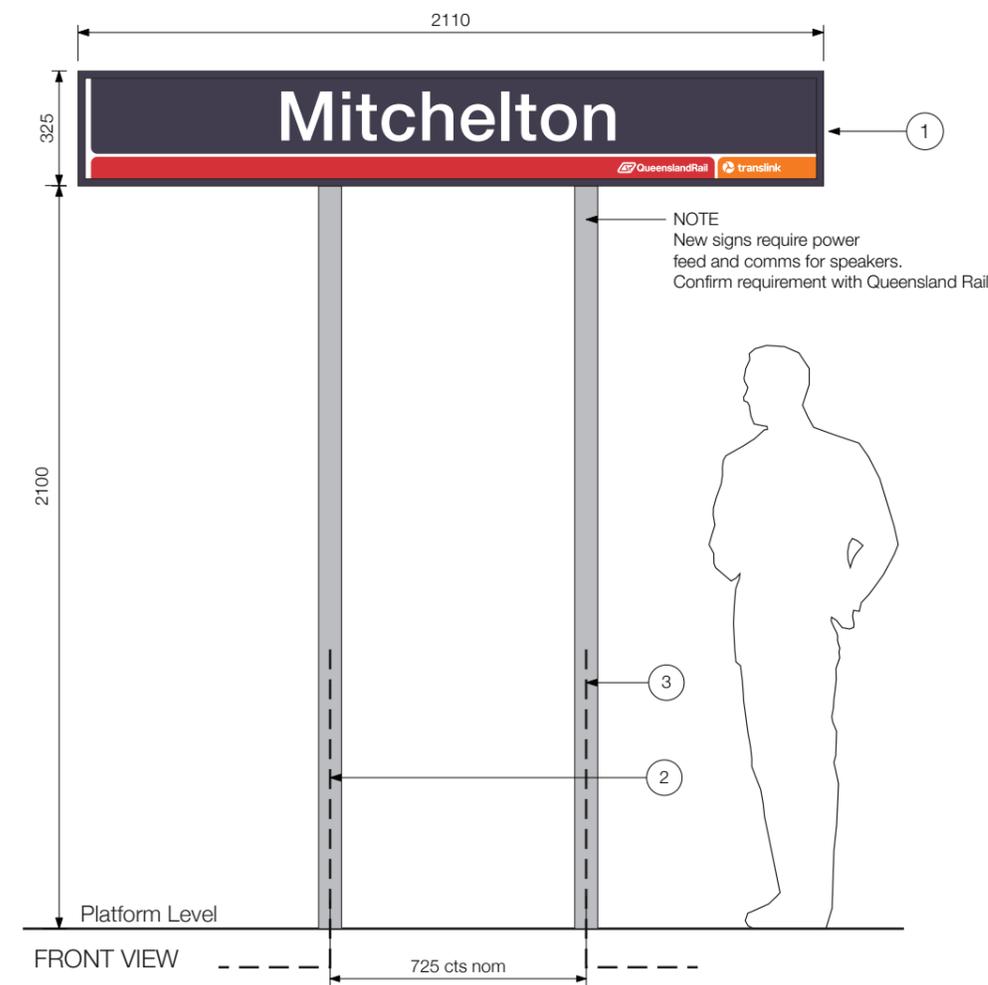
NOTE: Contact Queensland Rail for current construction documentation.
Suspension method is site specific and must be confirmed prior to construction.

1. 4.5mm thick clear polycarbonate sign face with reverse mask and sprayed graphics. Reverse apply vinyl graphics as required. Backspray white to suit internal illumination.
2. Electrical power cabling within SHS droppers.
3. CPAS cabling within SHS droppers.



Graphic Layout - Without decender

Scale 1:10



Typical Elevation

Scale 1:20

NOTE
These signs may be increased in scale to suit larger stations eg Central (600 x 2500mm)

PI-12b Station Identification Sign Freestanding on Platform

Purpose

- To identify station
- For pedestrian & passenger use

Typical location

- Mounted on platform (freestanding)
- Signs are to be evenly spaced along the length of the platform.
- For example on a 160m long platform 6 signs would be spaced as follows: the first signs at each end of the platform would be located approx. 17-18m in from the end of the platform, while the remaining 4 signs would be evenly spaced in between, at approx. 24m centres.
- Sign to be oriented with the sign face parallel to the edge of the platform.
- The underside of the sign shall be a minimum of 2.1m above finished platform level.
- On open island platforms the double sided sign is to be located on posts centrally on the platform.
- On open single sided platforms the sign is to be located on posts as close as possible against the rear boundary of the platform.
- On sections of platform containing buildings or other non-see through structures signs are to be located on the face of walls that run perpendicular to the platform edge.
- Signs to be located outside required pedestrian paths of travel.
- Obtain advice from Queensland Rail prior to finalising locations.

Indicative message

- Station name
- Logos

Graphics Detail

Refer to sheet 4.36 for graphic layouts

FONT

Station Name = Helvetica Neue 65 Medium
Station name with decender = 125mm cap X height
Station name without a decender = 140mm cap X height

COLOUR

Sign box = Resene 'Jon' N38-007-359

TransLink logo background = Arlon Orange 44 translucent vinyl
TransLink = To illuminate white
Queensland Rail logo = To illuminate white
Queensland Rail logo background = 3M Tomato Red (180C - 13)

Station name background = Resene 'Jon' N38-007-359, Arlon Dark Grey 52
Station name = To illuminate white
Keyline = To illuminate white

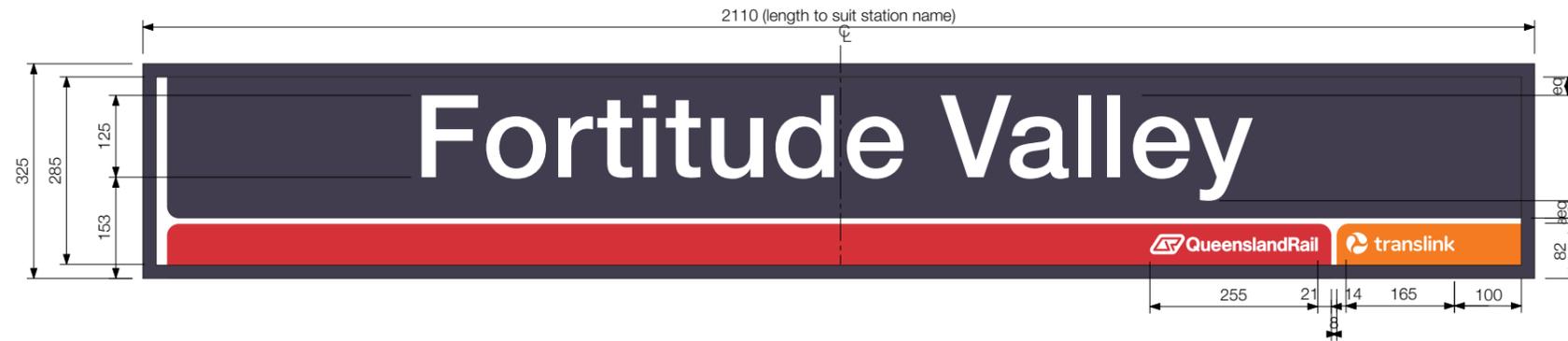
Construction Details

NOTE: Contact Queensland Rail for current construction documentation for new sign boxes and sign posts. Post centres and fixing details must be confirmed prior to construction.

1. 4.5mm thick clear polycarbonate sign face with reverse mask and sprayed graphics. Reverse apply vinyl graphics as required. Backspray white to suit internal illumination.

2. Electrical power cabling within SHS pole.

3. CPAS cabling within SHS pole.



Graphic Layout - With a decender

Scale 1:10

PI-12c

Station Identification Sign - Wall Mounted on Platform

Purpose

- To identify station
- For pedestrian & passenger use

Typical location

- Mounted onto wall on platform
- Signs are to be evenly spaced along the length of the platform.
- For example on a 160m long platform 6 signs would be spaced as follows: the first signs at each end of the platform would be located approx. 17-18m in from the end of the platform, while the remaining 4 signs would be evenly spaced in between, at approx. 24m centres.
- Sign to be oriented with the sign face parallel to the edge of the platform.
- The underside of the sign shall be a minimum of 2.1m above finished platform level.

Indicative message

- Station name
- Logos

Graphics Detail

Refer to sheet 4.36 for graphic layouts

FONT

Station Name = Helvetica Neue 65 Medium
Station name with decender = 125mm cap X height
Station name without a decender = 140mm cap X height

COLOUR

Sign box = To match Resene 'Jon' N38-007-359

TransLink logo background = Arlon Orange 44 translucent vinyl
TransLink = To illuminate white
Queensland Rail logo = To illuminate white
Queensland Rail logo background = 3M Tomato Red (180C - 13)

Station name background = Resene 'Jon' N38-007-359, Arlon Dark Grey 52
Station name = To illuminate white
Keyline = To illuminate white

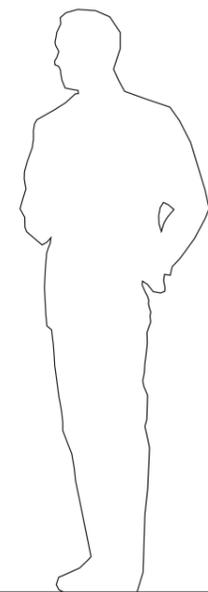
Construction Details

NOTE: Contact Queensland Rail for current construction documentation for new sign boxes and sign posts. Mounting position and fixing details must be confirmed prior to construction.

1. 4.5mm thick clear polycarbonate sign face with reverse mask and sprayed graphics. Reverse apply vinyl graphics as required. Backspray white to suit internal illumination.

2. Electrical power cabling concealed behind light box.

3. CPAS cabling concealed behind light box.



Platform Level

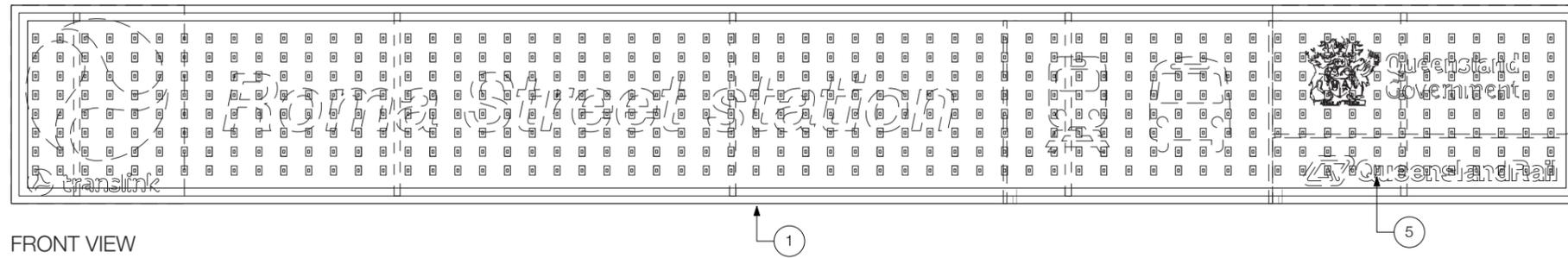
FRONT VIEW

Typical Elevation

Scale 1:20

NOTE

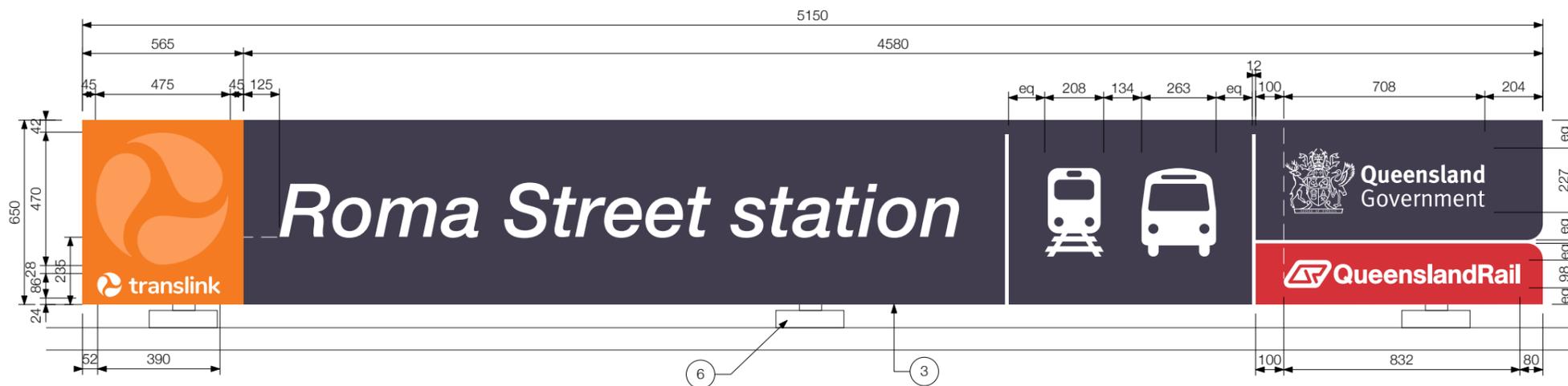
These signs may be increased in scale to suit larger stations eg Central (600 x 2500mm)



FRONT VIEW

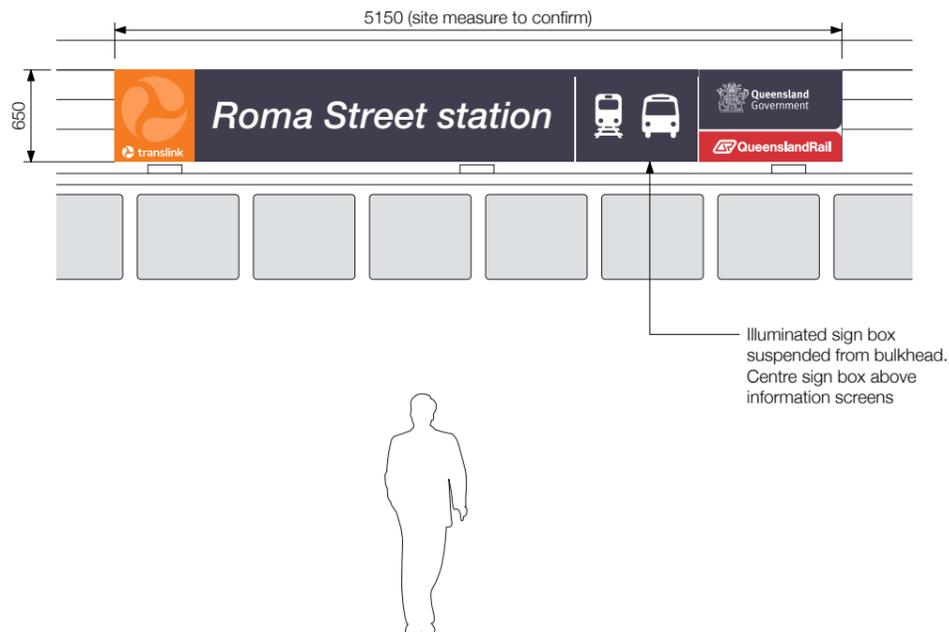
Typical Elevation

Scale 1:20



Graphic Layout

Scale 1:20



Typical Location

Scale 1:50

PI-12d

Station Identification Sign - Landscape format

Purpose

- Main sign to identify station entry from major approaches where power for illumination is possible.
- For pedestrian use

Typical location

- Suspended from building structure/ fixed to bulkhead
- Located perpendicular to direction of travel
- The underside of the sign shall be a minimum of 2300mm above floor level. Preferred 2500mm above finished floor level.

Indicative message

- Station name, pictograms and service provider

Graphics Detail

FONT

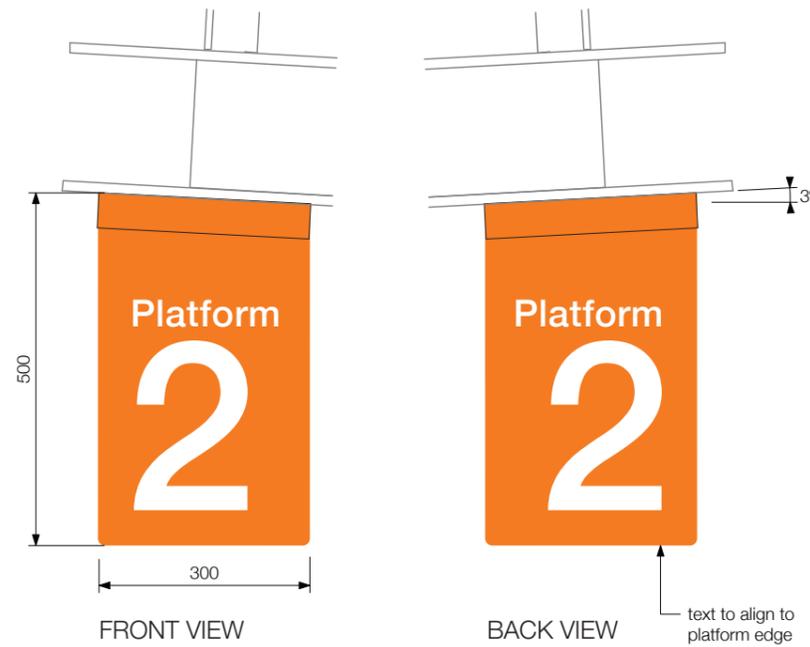
Station Name = Helvetica Neue 66 Medium Italics
SIZE = 103mm cap X height

COLOUR

Sign box = Resene 'Jon' N38-007-359
TransLink logo background = Arlon Orange 44 translucent vinyl
TransLink logo tint = Arlon Tangerine 84 translucent vinyl
TransLink = To illuminate white
Queensland Rail logo = To illuminate white
Queensland Rail logo background = 3M Tomato Red (180C - 13)
Queensland Government logo = Non-illuminated vinyl graphics to corporate specifications.
Station name background = Resene 'Jon' N38-007-359, Arlon Dark Grey 52
Station name = To illuminate white
Keyline = To illuminate white

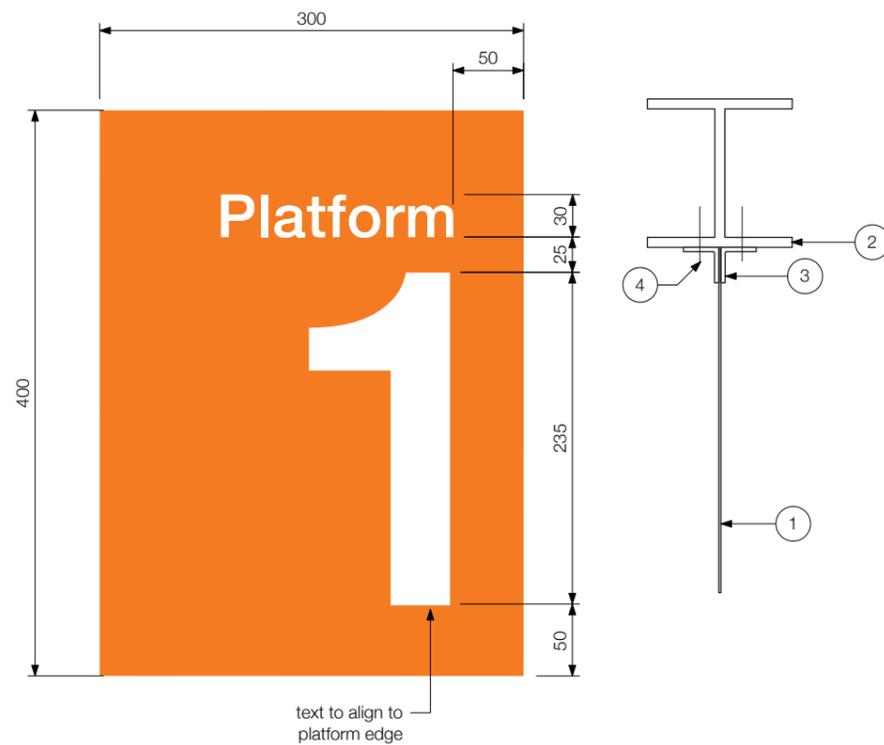
Construction Details

1. Internal aluminium structural frame fabricated to suit flexface bleedface extrusion. 'Bleedface' aluminium extrusion welded to perimeter of face frame.
2. Hinge system along top of internal sign frame connecting to face frame to allow service access to inside of sign. Provide pivoting support arms on sides to hold face up during servicing
3. Front applied graphics to flexface sign face. Station name background with blockout film applied to sign face. Station name and pictograms to illuminate white.
4. Electrical power cabling concealed within signframe.
5. Internally illuminated by LED backlight modules mounted to backing panel. LED layout indicative only. Signmaker to provide control gear. Refer to specification for LED requirements. Sign should be illuminated during all hours of operation.
6. Mounting position and fixing details must be confirmed prior to construction.



Graphic Layout - to suit station structure

Scale 1:10

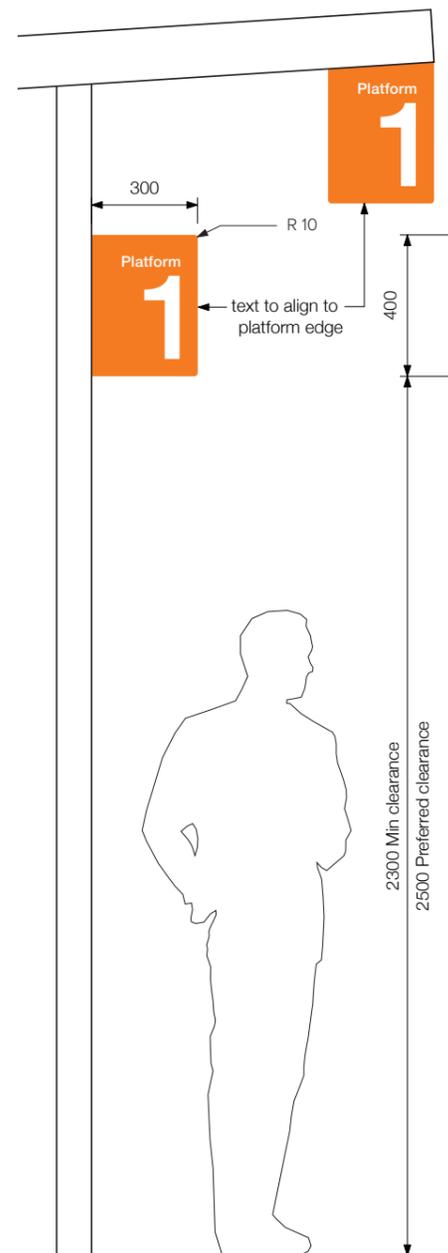


Graphic Layout - Typical

Scale 1:5

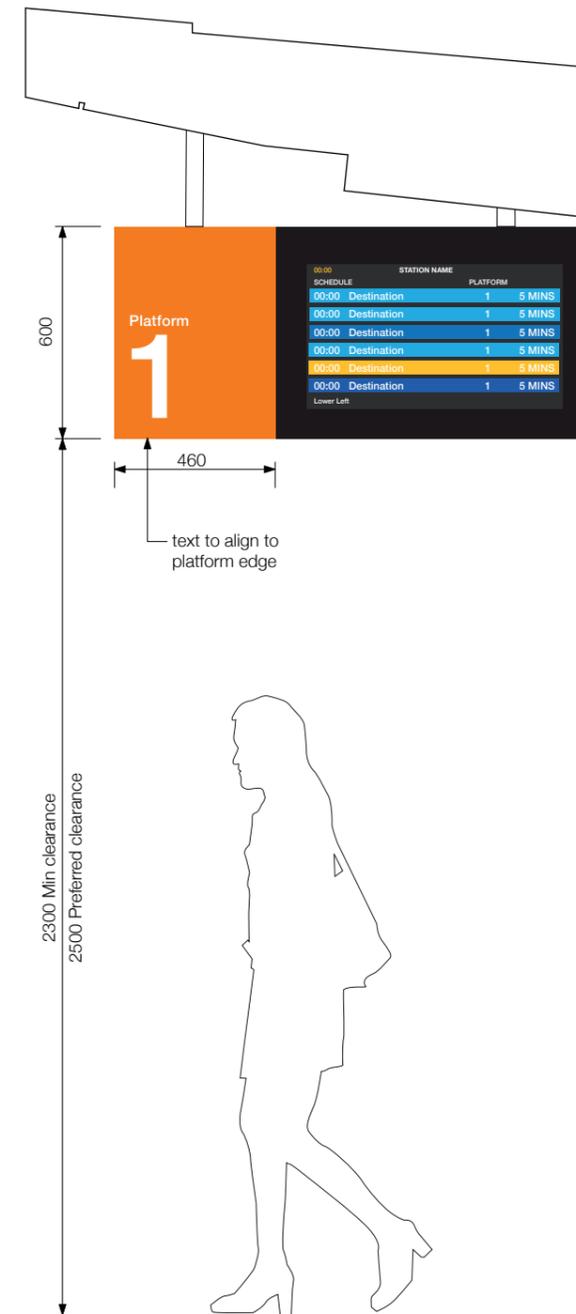
Fixing detail

Scale 1:10



Typical Location

Scale 1:20



Typical Electronic Display Integration

Scale 1:20

PI-13a

Platform Identification Sign - Structure

Purpose

- To identify platforms

Typical location

- Suspended from roof structure
- Optional to project
- Note: Due to the amount of variation in the architectural styles of train stations and the location requirements of platform identification signs several layout and fixing options for the signs are provided.
- Signs are to be evenly spaced along the length of the platform in numbers that ensure patrons standing on the platform between 1200mm and 3000mm from the platform edge are able to see and read at least 1 sign.
- Fixed to; walls (either flat or projecting); or to the underside of ceilings / structure; or to posts where no existing structure is available.
- Where signs project from walls or ceilings, the bottom of sign must not project below 2.3m above the finished floor level. Preferred height of 2.5m AFFL.
- Sign to be oriented typically with the sign face perpendicular to the edge of the platform.

Indicative message

- Platform number
- Refer sign type DS-4 for optional platform identification

Graphics Detail

FONT

Platform no. = Helvetica Neue Medium

SIZE

Platform = 35mm cap X height

Platform no. = 235mm cap X height

COLOUR

Panel = To match Resene Trinidad on both sides

Graphics = Arlon White 02 vinyl

Finished in clear coat (60% gloss)

Construction Details

1. 5mm thick aluminium sign panel with front applied vinyl graphics. Sprayed anti-graffiti coat over graphics.
2. Station structure.
3. 50 x 50 x 6mm aluminium angle welded to top of sign panel. All visible welds to be dressed, regular and evenly spaced.
4. M12 stainless steel 316 socket head c'sunk screws into predrilled and tapped ceiling structure/masonry anchor to slab. Paint out fixing heads to match panel.
5. Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.

PI-13b

Platform Identification Sign - Freestanding

Purpose

- To identify platforms

Typical location

- Freestanding
- Signs are to be evenly spaced along the length of the platform in numbers that ensure patrons standing on the platform between 1200mm and 3000mm from the platform edge are able to see and read at least 1 sign.
- Sign to be oriented typically with the sign face perpendicular to the edge of the platform.

Indicative message

- Platform number

Graphic Details

FONT

All text = Helvetica Neue Medium

SIZE

Platform = 40 cap X height

Number = 310mm cap X height

COLOUR

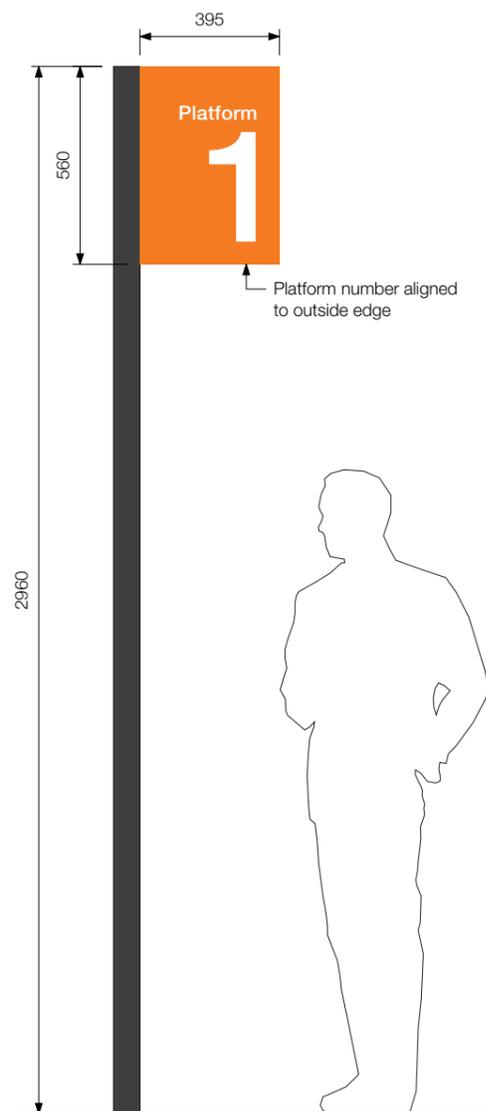
Panel = painted to match Resene Trinidad on both sides
Post = painted to match Resene Jon or approved colour.

NOTE - Colour must provide min 30% contrast with adjacent building structures/ landscape

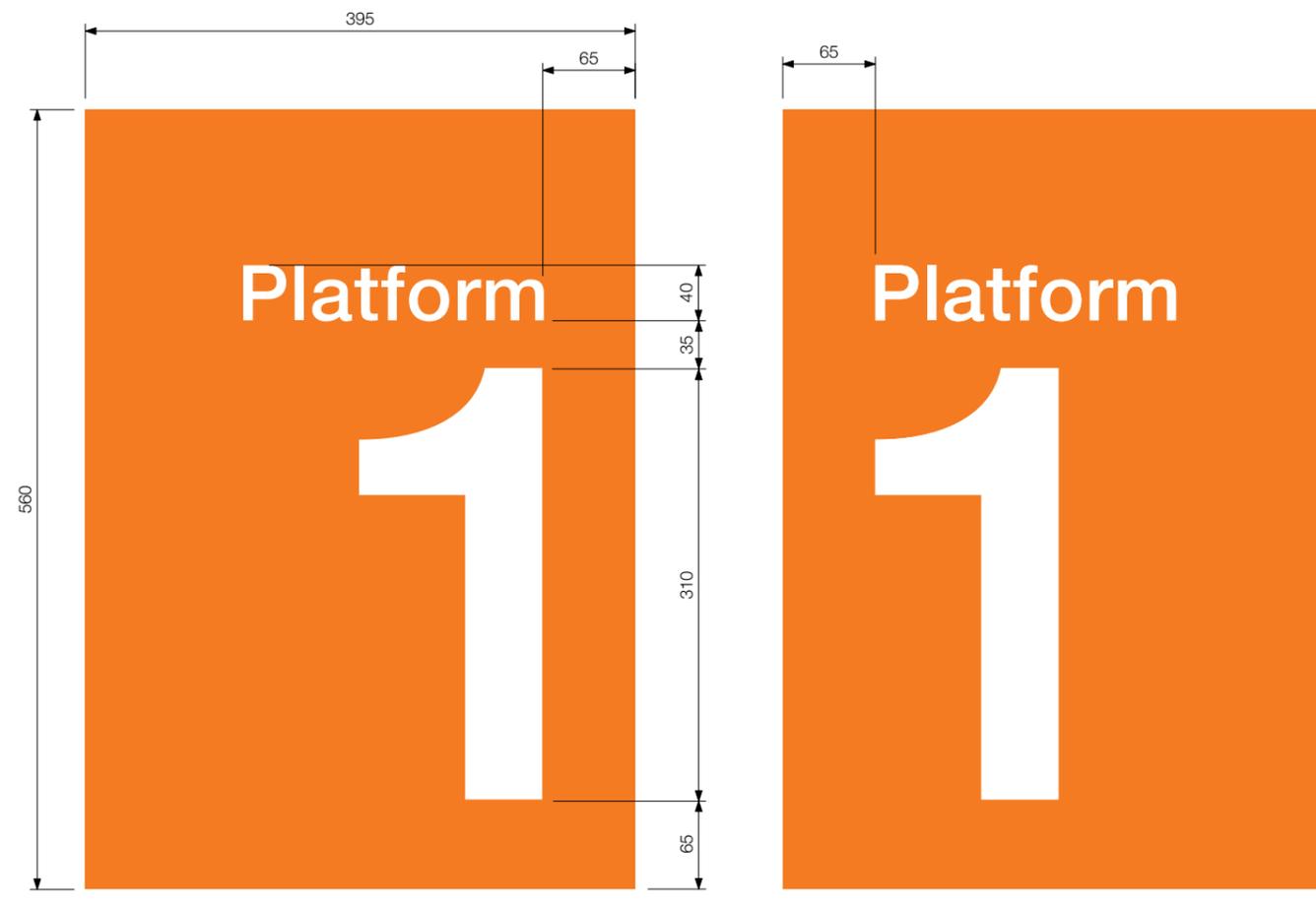
Graphics = Arlon White 02 vinyl

Finished in clear coat (60% gloss)

Refer to Sign Type DS-1 Minor Directional Sign for construction details.



Typical Location
Scale 1:20



Graphic Layout
Scale 1:5

PI-13c

Platform Identification Sign - Wall Mounted

Purpose

- To identify platforms

Typical location

- Wall mounted
- Signs are to be evenly spaced along the length of the platform in numbers that ensure patrons standing on the platform between 1200mm and 3000mm from the platform edge are able to see and read at least 1 sign.
- Sign to be oriented typically with the sign face perpendicular to the edge of the platform.

Indicative message

- Platform number

Graphic Details

FONT

All text = Helvetica Neue Medium

SIZE

Platform = 28 cap X height

Number = 220mm cap X height

COLOUR

Panel = painted to match Resene Trinidad

NOTE - Colour must provide min 30% contrast with adjacent building structures/ landscape

Graphics = Arlon White 02 vinyl

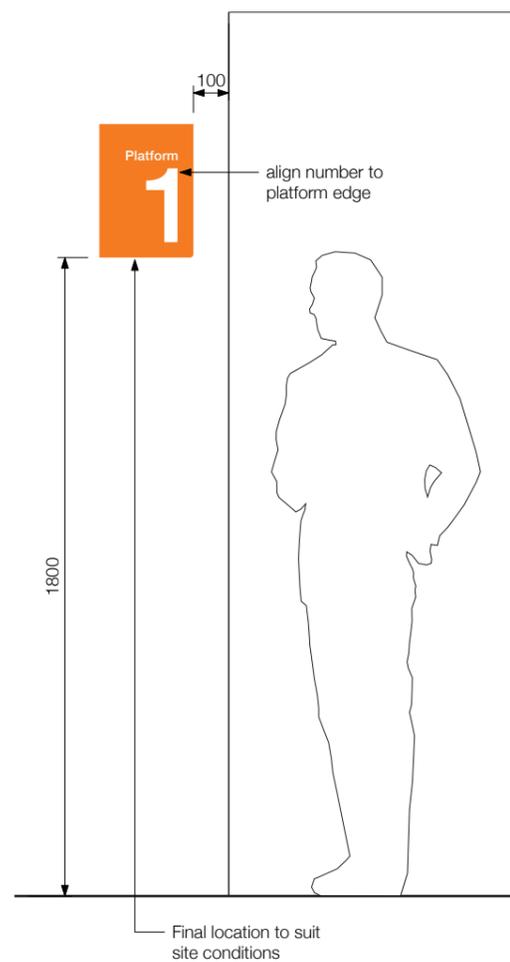
Finished in anti-graffiti spray clear coat (60% gloss)

Construction Details

1. 1.6mm thick painted aluminium sign panel. Front applied vinyl graphics with clear anti-graffiti coat sprayed over.

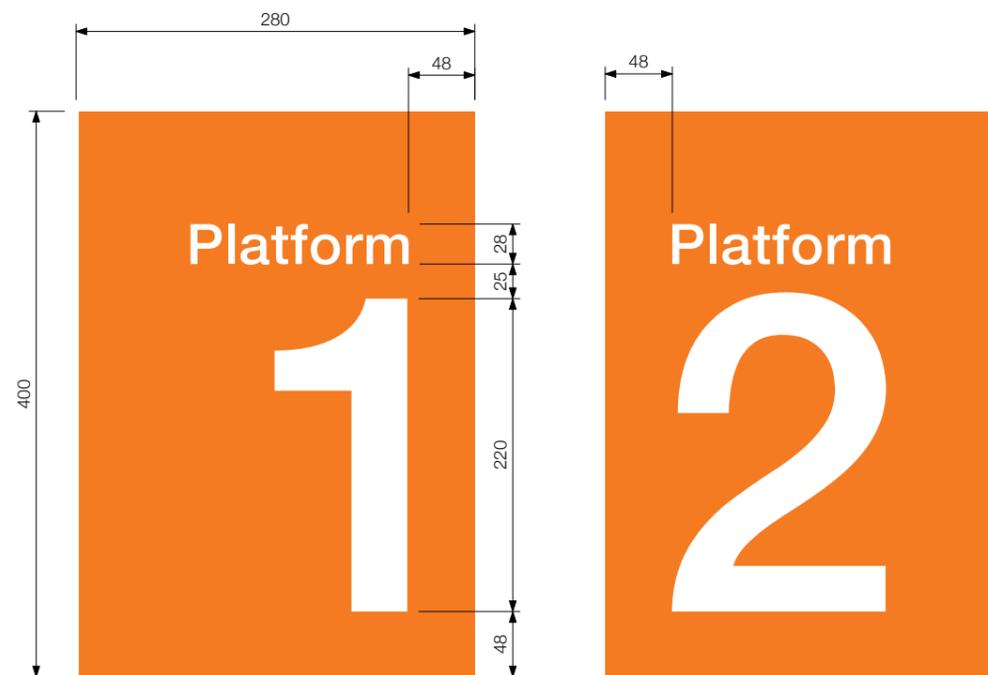
2. Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.

3. Mounting surface. Prepare surface free from dust, dirt, oil & grease prior to fixing. Sign panel mechanically fixed to wall/door. Paint screw heads to match panel colour at fixing locations.



Typical Location

Scale 1:20



Graphic Layout

Scale 1:5

PI-14b

Minor Station & Park 'n' ride Station Sign - Wall Mounted

Purpose

- To identify station and Park 'n' ride facility
- Considered a 'secondary' PI sign to be placed at park n ride entry locations to support 'main' PI signs at key Park 'n' ride entries or approaches
- Placed at entries to facilitate pedestrian and vehicle Park 'n' ride entries
- Provide conditions of parking information

Typical location

- Wall / fence mounted at entrance of car park

Indicative message

- Station name/pictograms (as required)
- Conditions of parking information/pictograms (if required)

Graphic Details

Station name panel

FONT

Station Name = Helvetica Neue 66 Medium Italic

SIZE = 190mm cap X height

Park 'n' ride = 120mm cap X height

Pictogram = 240mm o/all height

COLOUR

Sign panel = Resene 'Jon' N38-007-359

Posts = Galvanised finish

Logo & pictograms = Reflective Class 2 white vinyl

Station name = Reflective Class 2 white vinyl

Conditions of entry

FONT

Main text = Helvetica Neue Medium

Conditions of entry = Helvetica Neue Roman

SIZE

"Conditions of Entry" = 35mm cap X height

Conditions of Entry text = 25mm cap X height

Pictogram = 100mm o/a height

Regulatory text = 35mm cap X height

CCTV text = 18mm cap X height

COLOUR

Text background = Painted to match Resene Rice Cake or Resene Jon

Text = Black vinyl on Resene Rice Cake, White vinyl on Resene Jon

Finished in clear coat (60% gloss).

Construction Details

1. 1.6mm thick painted aluminium sign panel. 2 Pack paint finish with front applied vinyl graphics. Paint out heads to match panel colour. Clear antigraffiti spray coat over.

2. Fix to wall via suitable mechanical anchor as per sign makers' engineer specification.

NOTE

Alternate sizes to suit environment can be submitted for approval.

Optional sizes (Proportionally scaled to suit)

Size A = 900 x 500mm

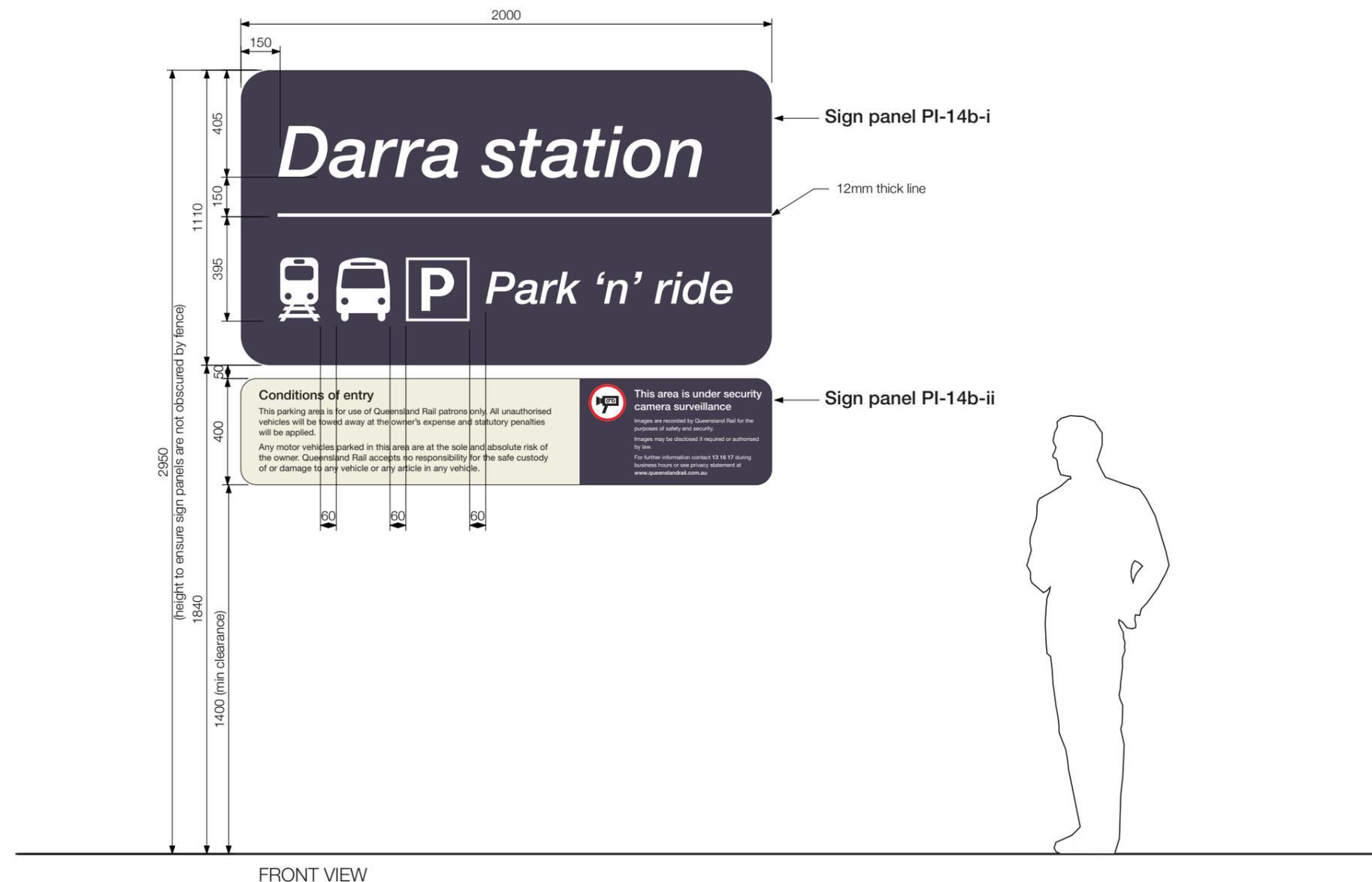
Size B = 1200 x 665mm

Size C = 2000 x 1110mm



Graphic Layout

Scale 1:10



Typical Elevation

Scale 1:20

PI-15a

Station Identification Sign - Non-illuminated

Purpose

- Main sign to identify station / park 'n' ride entries from major approaches
- Used for smaller stations or where power for illumination is not available.
- For pedestrian and vehicular use

Typical location

- Located on the principal road frontage/s of the station in proximity to the principal road / pedestrian entry to the station.
- Located in either Queensland Rail or local council property. Note:- If located outside Queensland Rail property, local council to be consulted on final location.
- Sign to be oriented typically with the sign faces perpendicular to the kerb line, in order that the sign faces are clearly visible from road approaches.
- Sign post to be located outside required pedestrian paths of travel. Obtain advice from Queensland Rail and the property owner prior to finalising locations.
- Minimum clearance above finished floor level to be 2.5m

Indicative message

- Name of station
- pictograms (as required)
- Service provider

Graphic Details

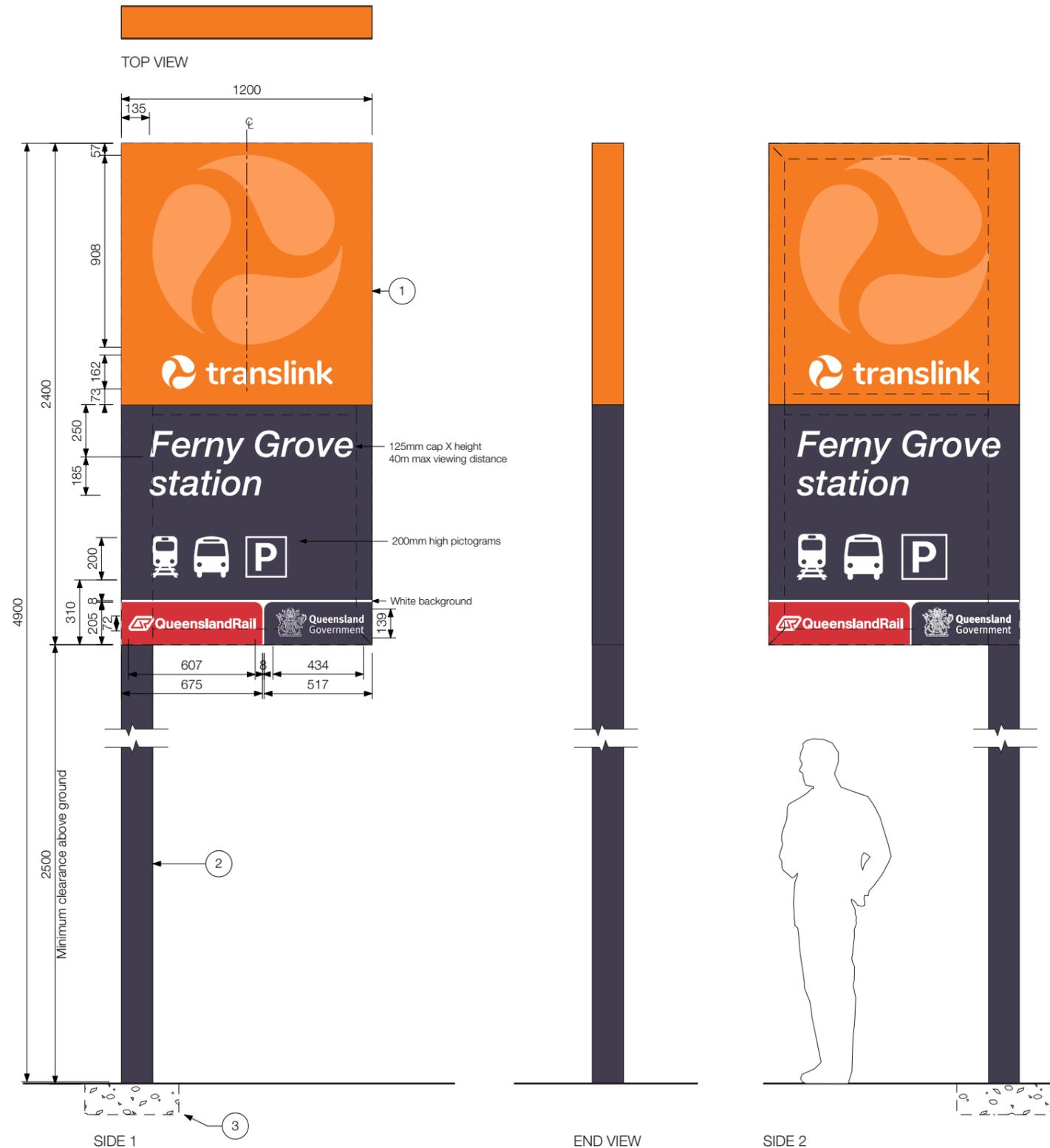
FONT
Station name = Helvetica Neue 66 Medium Italic

SIZE
Station name = 125mm cap X height
Pictogram = 200mm o/all height
Logos = As shown

COLOUR
Logo background = Paint to match Resene Trinidad
Logo swirl = Arlon Light Orange 97
TransLink logo = Reflective Class 2 white vinyl
Grey background = Resene 'Jon' N38-007-359
Text & pictograms = Reflective Class 2 white vinyl
Queensland Rail logo = 3M Tomato Red 180C-13 background with white text
QLD Government logo = White vinyl
Posts = To match Resene Jon N38-007-359

Construction Details

1. 2mm thick painted aluminium sign panel with front applied vinyl graphics. Rivet fixed to internal frame. Paint out heads to match panel colour. Apply 5mm radius to corners
2. 150 x 150 SHS mild steel post with 150mm 'C' section purlin internal frame clad with aluminium panels. All steelwork to be 2 pack etch primed and painted.
3. Reinforced concrete pad/pier footing to signmakers' specification. All fixing shall be below ground level to reduce trip hazards. Re-instate / make good paving or pavement, with no changes of level greater than 3mm and no gradients steeper than 1:40.



Typical Elevation

Scale 1:25

PI-15b

Station Identification Sign - Lift Shaft Wall

Purpose

- Main sign to identify station / park 'n' ride entries from major approaches
- For pedestrian and vehicular use

Typical location

- Typically placed on lift shaft walls at entries to station where external illumination is available.

Indicative message

- Name of station
- pictograms (as required)
- Service provider

Graphic Details

FONT

Station name = Helvetica Neue 66 Medium Italic

SIZE

Station name = 205mm cap X height

Pictogram = 365mm o/all height

Logos = As shown

COLOUR

Logo background = Paint to match Resene Trinidad

Logo swirl = Arlon Light Orange 97

TransLink logo = Arlon White 02 vinyl

Grey background = Resene 'Jon' N38-007-359

Text & pictograms = Arlon White 02 vinyl

Line = Arlon white 02 vinyl

Queensland Rail logo = 3M Tomato Red 180C-13 background with white text

QLD Government logo = Vinyl to corporate standard

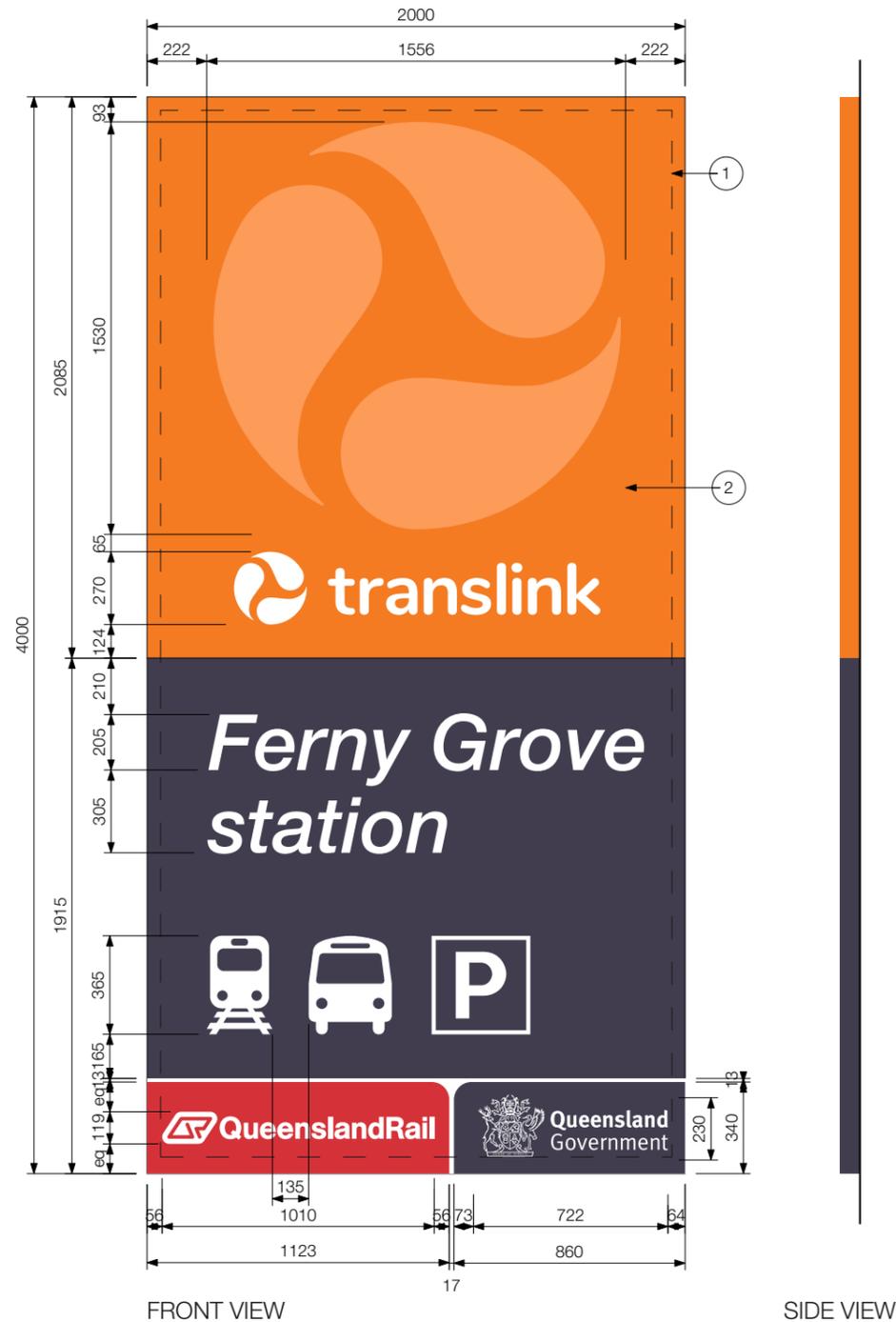
Construction Details

1. Fully welded internal support frame clad with 3mm thick sign face. Horizontal supports as required.

2. 3mm thick fabricated aluminium sign face. Folded returns fixed to internal frame via pan head machine threaded screws. 2 pack painted panel with front applied vinyl graphics.

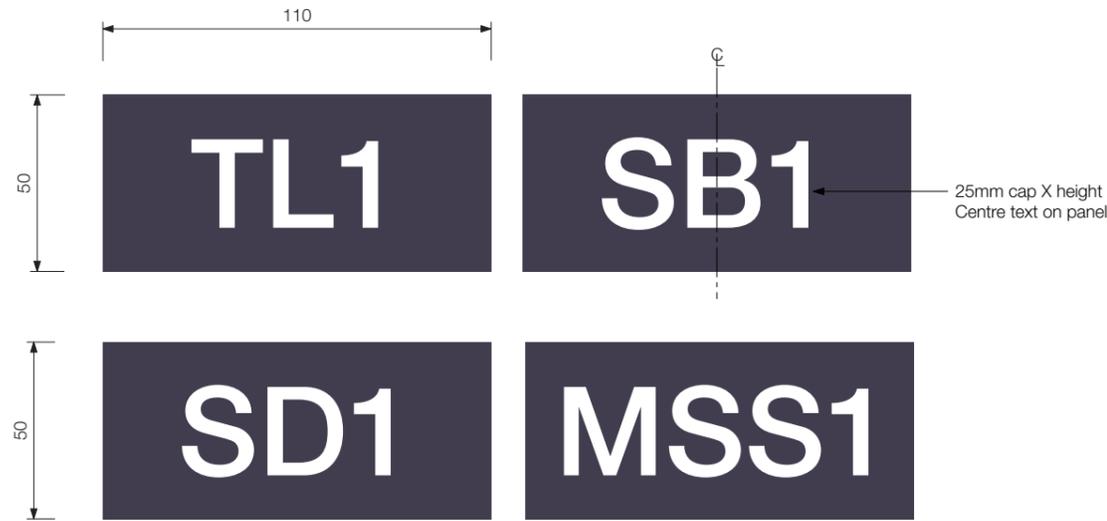
3. Suitable bracket fixed to lift shaft to support sign.

NOTE: Provide suitable roof / structure mounted uplights where required. (Operation to suit station operation times)



Typical Elevation

Scale 1:25



Typical Graphic Layouts – ST-1.1

Scale 1:2

Room / Door type	Code
Electrical Room	E1
Switchboard	SB1
Main Distribution Frame	MD1
Mech Services Switchboard	MSS1
Communications Equipment Room	C1
Signal Equipment Room	SE1
Power Equipment Room	P1
Service Duct/Riser	SD1
Translink Equipment Room	TL1
Lift Motor Room	LM1
Train Management Improvement Officer Room	TMIO
Pump Room	PR1
Fan Motor Room	FM1
Plant Room	PL1

ST-1

Standard Door Sign - Panel

Purpose

- To identify staff or “back-of-house” areas
- For service and maintenance use

Typical location

- Located on door

Indicative message

- Refer to code to identify various service rooms eg. E1

Graphics Detail

FONT

All text = Helvetica Neue 65 Medium

SIZE

All text = 25mm cap X height

COLOUR

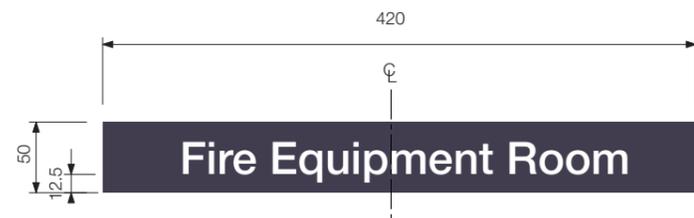
Panel background = Resene ‘Jon’ N38-007-359

All text = Arlon White 02

Construction Detail

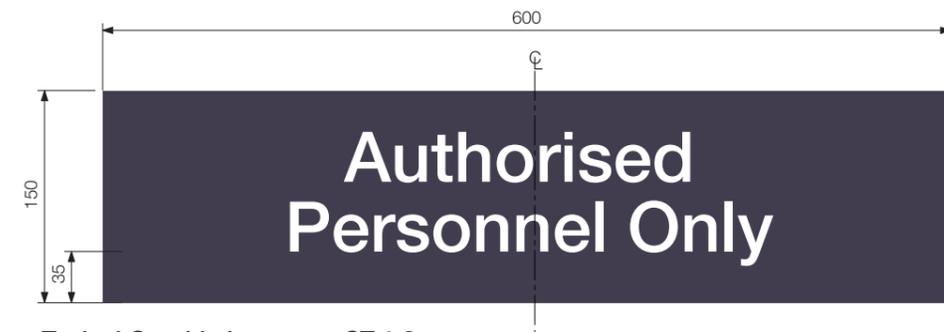
1. 1.6mm thick aluminium sign panel with front applied vinyl graphics. Protective anti graffiti clear coat over.
2. Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety.
3. Mounting surface. Prepare surface free from dust, dirt, oil & grease prior to fixing. Sign panel adhered to wall/door with 3M VHB double sided tape.

Room / Door type	Code
Fire Alarm Panel	FIRE ALARM PANEL
Fire Hose Reel	FIRE HOSE REEL
Fire Hydrant	FIRE HYDRANT
Fire Equipment Room	Fire Equipment Room
Main Switchboard	Main Switchboard



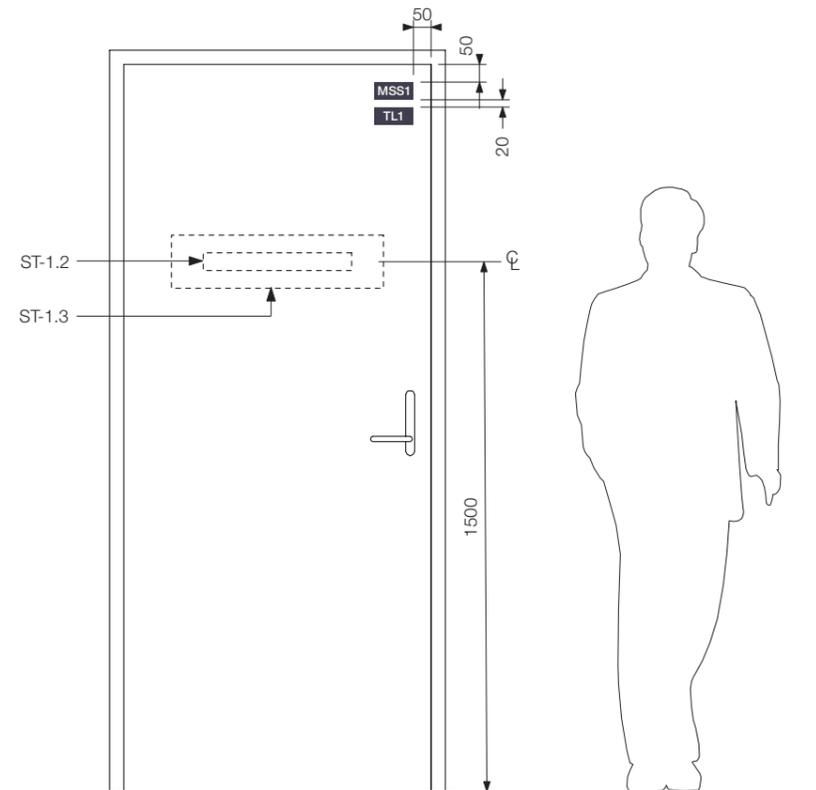
Typical Graphic Layouts – ST-1.2

Scale 1:5



Typical Graphic Layouts – ST-1.3

Scale 1:5

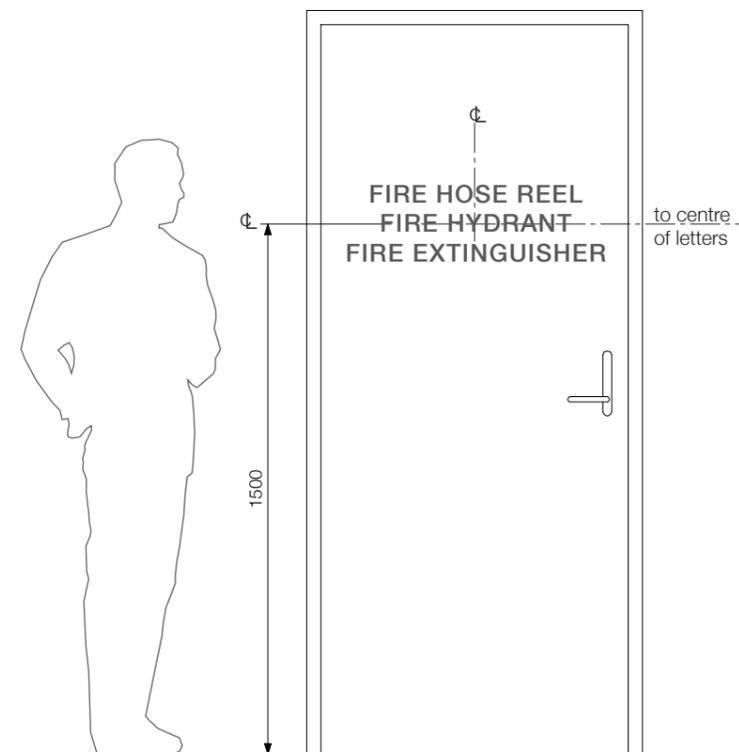


Typical Location

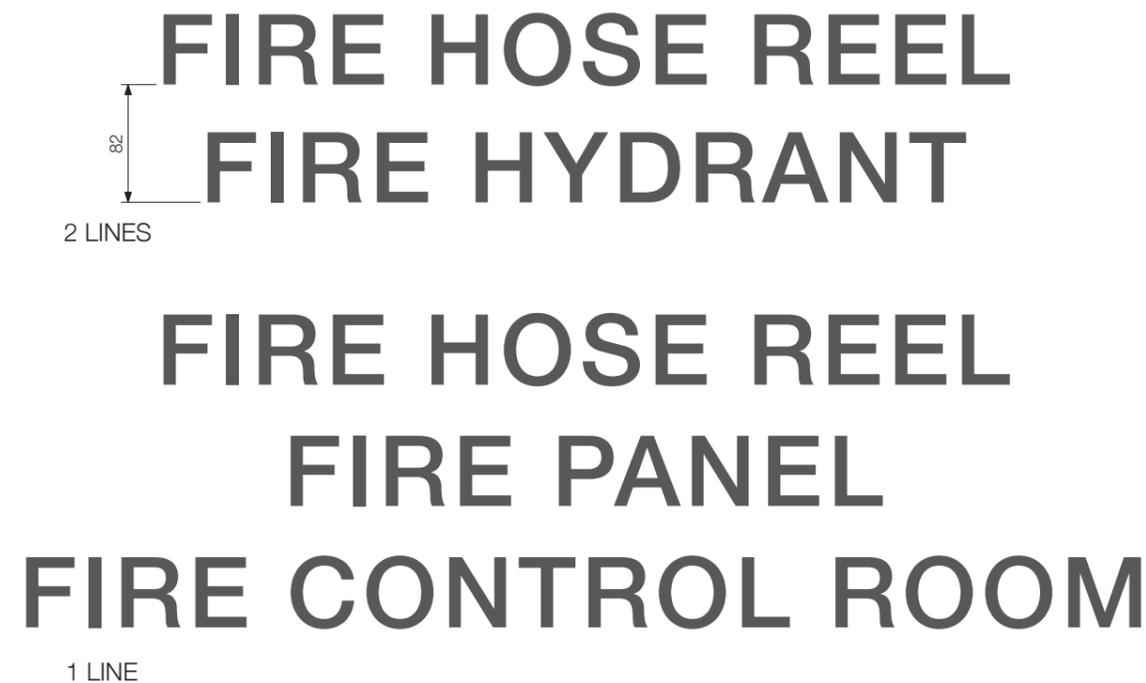
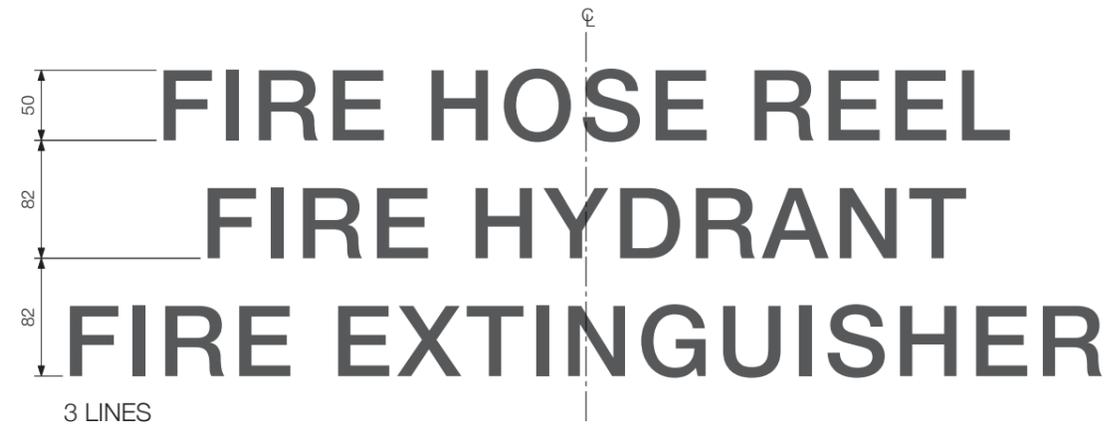
Scale 1:20



Typical Graphic Layouts - Emergency Egress – 25mm TEXT
Scale 1:5



Typical Location
Scale 1:20



Typical Graphic Layouts - Fire Hose Reel Doors/Booster Cupboards – 50mm TEXT
Scale 1:5

ST-2

Statutory Door Sign - Vinyl

Purpose

- To identify statutory doors
- For pedestrian use
- To comply with BCA

Typical location

- Located on door

Indicative message

- Fire Hose Reel, Fire Extinguisher, etc

Graphics Detail

FONT

All text = Helvetica Neue 65 Medium

SIZE

As shown

COLOUR

All text = Arlon Dark Grey 52 (confirm minimum 30% contrast to door prior to production)

Construction Details

1. Front applied vinyl graphics to door.

NOTE: Ensure that vinyl colour has minimum 30% contrast to paint-work.

MESSAGES

All statutory signs for fire doors to comply with BCA 'Signs on doors'.

Signage to be in capitals not less than 20mm high in a colour contrasting with the background and state:

- (i) for an automatic fire door held open by an automatic hold open device -
FIRE SAFETY DOOR
DO NOT OBSTRUCT
- (ii) For a self closing fire door -
FIRE SAFETY DOOR
DO NOT OBSTRUCT
DO NOT KEEP OPEN

- (iii) for a door discharging from a fire isolated exit -
FIRE SAFETY DOOR
DO NOT OBSTRUCT

Technical specifications for manufacture

appendix



1.0 SCOPE

The scope of this Section is the supply and installation of all signage as shown in the Sign Schedule and in the detailed signage drawings. This specification is to be read in conjunction with these documents.

Without limiting the generality of the foregoing, the Contractor shall:

- Visit sites prior to submitting price to inform installation & manufacture. This must be coordinated with Queensland Rail / facility owner.
 - Design supply, manufacture, store, deliver, install, commission and test as appropriate all components of the Works as may be necessary to complete the Works in accordance with the Contract;
 - Provide all materials, labour, supervision, plant (including hoisting), equipment (including scaffold and temporary lighting), fixings and all other incidental items which may be necessary to satisfactorily complete the Works in accordance with the Contract;
 - Provide all specified and all other necessary support structures, frames, brackets or mouldings to support, build and install all signs included in the Works;
 - Allow for all requirements relating to site/safety inductions, work method statements and provision of traffic control and safe working areas. Contact Queensland Rail for coordination. All relevant statutory and facility owner regulations to be adhered to during installation and related works.
 - Verify and be responsible for all dimensions and conditions on the job prior to manufacture, including structural, location, engineering and footing details and the strength and suitability of materials specified for each sign. Where additional load is placed on existing structures, the signmakers engineer is to provide suitable certification.
 - Consult facility owners to coordinate new footings, or wall mounted sign locations. Obtain information on underground pipes and services prior to digging.
- The Contractor shall notify Queensland Rail of any variations from the dimensions and conditions shown by these and any subsequent drawings. If changes are requested they should be submitted as drawings for approval prior to production;
- Provide any alterations required to fix signs to existing structure such as removal of ceiling tiles, plasterboard ceilings or wall sheeting required to install adequate structural fixings for signage. This includes repainting or refurbishing existing panelling, ground surfaces, wall surfaces or electrical fittings where damaged by the Contractor during the construction or installation of a sign;
 - Allow for protection of all signs during transport and installation and protection to all areas of adjacent work during installation, especially protection of tiled surfaces where access equipment is used (e.g., plywood or plastic covering for protection)
 - Allow for development of all artwork files for each individual sign aligned to template of guideline provided.
 - Provide all samples and prototypes specified as per item '3.10 Samples, Prototypes and Engineering Certification' established with Queensland Rail.

2.0 STATUTORY PROVISIONS, STANDARDS AND CODES OF PRACTICE

2.1 STANDARDS

All work and materials shall comply with the Building Code of Australia, the Workplace Health and Safety Act, and, except where otherwise noted in this Specification, comply with the latest editions of all relevant Australian codes or standards (current issue) including but not limited to:

QUALITY MANAGEMENT:

AS/NZS ISO 9001 Quality systems for design/ development, production, installation and servicing

METALWORK:

AS 1170.2 - Minimum design loads on structures – wind loads
 AS 3678 - Structural steel – hot-rolled plates, floor-plates and slabs
 AS 1397 - Steel sheet and strip – hot-dipped zinc-coated or aluminium/zinc-coated
 AS 1444 - Wrought alloy steels – standard and hardenability (H) series
 AS 1449 - Wrought alloy steels – stainless and heat-resisting steel plate, sheet and strip
 AS 1554 - Structural steel welding
 AS 1627 - Metal finishing – preparation and pre-treatment of surfaces Part 1 - cleaning using liquid solvents and alkaline solutions
 Part 2 - power tool cleaning
 Part 4 - abrasive blast cleaning
 Part 7 - hand tool cleaning of metal surfaces
 Part 9 - pictorial surface preparation standards for painting steel surfaces
 AS/NZS 4680 - Hot-dip galvanised (zinc) coatings on fabricated ferrous articles
 AS 1734 - Aluminium and aluminium alloys, flat sheet, coiled sheet and plate
 AS 3569 - Steel wire ropes

FASTENERS:

AS 1214 - Hot dip galvanised coatings on threaded fasteners
 AS 1420 - ISO metric hexagon socket head cap screws
 AS 1421 - ISO metric hexagon socket set screws
 AS 1427 - ISO metric machine screws

SEALANTS:

AS 1527 - Two-part polysulphide based sealing compounds for the building industry
 AS 001543a - Sealing compound silicone rubber base (US specification)

PAINTS AND COATINGS:

AS 1231 - Aluminium and aluminium alloys – anodised coatings for architectural applications
 AS 2310 - Glossary of paint and painting terms
 AS 2311 - The painting of buildings
 AS 2312 - Guide to the protection of iron and steel against exterior atmospheric corrosion
 AS 2700 - Colour standards for general purposes
 ASTM 03363 - Test method for film hardness by pencil

ELECTRICAL EQUIPMENT AND LUMINAIRES:

Queensland Rail - Station Design Guide
 AS 3000 - Electrical installations – building, structures and premises
 AS 2053 - Conduits and fittings for electrical installation
 AS 3008 - Electrical installation selection of cables
 AS 2052 - Metallic conduits and fittings.
 Design and manufacture of electrical gear must be suitable for the application

3.0 GENERAL REQUIREMENTS

3.1 THE INTENT OF THE TECHNICAL DRAWINGS AND SPECIFICATION.

The intent of the Schedules and Specifications set out herein is to describe the dimensions, materials and finishes of the signs and graphics to be consistent with Queensland Rail requirements and design intent.

Construction details not exposed to view may be refined or modified provided that approval of such refinement of modification is requested of Queensland Rail and the proposal is presented in ample time prior to the formal submission of Shop Drawings for the request to be considered.

Approval may be granted at the discretion of Queensland Rail but only on the basis that amongst other considerations, such refinements or modifications do not compromise the design intent, extra costs will not be incurred and the warranties and responsibilities under the contract are not reduced or voided in any way whatsoever.

In all cases the Contractor shall be responsible for ensuring that the finished product is structurally sufficient for the service conditions which would be reasonably expected. This shall include any structural computations as required.

Items where refinements or modifications will not be considered are:

- the text and graphic layout to be incorporated for each sign
- the colours and graphic application
- the overall size of each sign
- the materials and nominated finishes of each sign.

3.2 OTHER TRADES

The Contractor shall coordinate on-site trades as necessary or appropriate. All signs shall be manufactured, supplied and fixed by one approved specialist employing only tradespeople skilled in the required class of work.

3.3 PROPRIETARY PRODUCTS

Where proprietary products are used the manufacturer's instructions and specifications shall be strictly adhered to. Alternatives to specified proprietary products must be supplied to Queensland Rail for approval prior to supply and installation.

3.4 SAMPLES, PROTOTYPES AND ENGINEERING CERTIFICATION

Prototypes shall be provided for all work associated with the signing trade. Where additional load is placed on existing structures the sign makers engineer is to provide certification. All such prototypes shall be submitted to Queensland Rail for approval in sufficient time (minimum 2 weeks) to permit proper evaluation and, where necessary, re-submission in order to allow production to proceed in accordance with the program (refer item 3.10). Approval time to be confirmed with Queensland Rail. All prototypes are submitted as an example of material, finish, colour and workmanship. Approval samples and prototypes shall become the standard against which work will be accepted. An approved sign, if suitably located, may be permitted to be incorporated into the Works. Otherwise identify, protect, retain and store upon completion of the Works.

The required samples are:

Minimum 100 x 100mm section of each nominated vinyl
 Minimum 400 x 400mm panel of each spray painted colour and finish

The required prototypes shall be provided that are representative of the four (4) sign groups. The sign groups are:

- PI - Primary identification
- FI - Facility identification
- DS - Directional Signs

- IS - Information System

Prototype signs to be provided include:

- Entry Station Identification including Pylon, Flag pole Banner and badge sign
- Platform Identification including Station name signs
- Directional signs including under awning types
- Information system signs
- Wall and Under Awning Information
- Platform Information
- Door Plate

3.5 INSPECTIONS

Give the notice specified in '3.10 Production Program' so that Queensland Rail may inspect materials and workmanship at the manufacturing workshop.

3.6 PROTECTION OF WORKS UNDER THE CONTRACT

Protect all materials and workmanship against scratching, marking and other damage at all stages of fabrication, handling, delivery and installation until Practical Completion.

Wrap finished metal surfaces and faces with applied graphics in polythene or similar and apply heavy duty polystyrene, timber and similar packing as appropriate to all faces and edges, liable to damage during storage, transport or installation.

Adjacent work and infrastructure shall be protected from possible damage during the erection of signs. All surfaces shall be protected including walls, floor, windows, doors, hardware, skirtings, handrails and steps in areas in which work is progressing or through which materials are brought.

3.7 MAKING GOOD

All work under the Contract damaged during installation through welding, setting, drilling, site handling or any other cause will be the responsibility of the Contractor and made good in accordance with this Specification.

Any damage caused to the Station environment in the course of installation through any cause will be the responsibility of the Contractor and shall be made good to the satisfaction of Queensland Rail.

3.8 CLEANING UP

Debris and waste material associated with signs shall be regularly removed during installation and the complete area cleaned on completion. Before handing over the work, all signs, carrier supports and other surfaces shall be cleaned using a soft cloth and an approved cleaning fluid.

Any area requiring installation over a period of days will be cleaned regularly during the day and at the end of each day in order to remove any hazards to persons.

3.9 QUALITY OF WORK

The Contractor shall provide QA methodology and implement quality assurance procedures as set out in the Contract.

3.10 PRODUCTION PROGRAM & REVIEW PERIODS

Production Program

The Contractor must submit with their price a written production program detailing the time frame as detailed in the Review Period for:

- shop drawings (sign faces, sign supports, footings, engineering certification)
- sampling (colours and material, prototypes and fittings)
- manufacture / production inspections
- installation

Review Periods

The contractor to allow Queensland Rail review periods in their program as follows:

- critical path matters - 5 working days
- non-critical path matters - 10 working days
- alternative materials / products approval - 10 working days
- approval of shop drawings, samples etc - 10 working days

3.11 CONTRACTORS ACCESS TO SITE

As noted in item 1.0 Scope. Contractor to allow for:

- Site specific inductions as required by facility manager/owners eg Queensland Rail.
- Coordinating works with Facility manager/owner for approvals and permits for performing the works.
- Supply work method statements on sign erection and removal, post installation, on-site painting of posts etc.
- Requirements on separation of the area of works from public.

4.0 FABRICATION, FINISH AND INSTALLATION

Materials shall be generally as follows:

In conformity with the current applicable Australian Standard Code. All materials shall be new, the best of their respective kind and suitable for their purposes. Materials are to be free from corrosion, prime painted and compatible with the final finish, where applicable. Provide all screws, bolts, rivets, pop rivets, plain and countersunk fastenings and washers of a type and material suitable, sufficient and matching in finish and appearance to the components fastened.

Unless otherwise specified, comply with the following where applicable -

Properties: Allow for expansion/contraction of materials, and Electrolysis: Provide insulation between dissimilar metals to prevent electrolysis.

4.1 CONCRETE

Concrete for footings shall be of structural quality and free of defect and constructed to Australian Standard Codes for Concrete Reinforcement and Form work. Neat & uniform surrounds where visible.

4.2 METALWORK

All work shall be of a high standard accurately and neatly constructed and securely fitted and fixed. Prefabricate and pre-assemble items in the workshop to the maximum size practicable in consideration of delivery limitations, site conditions and site access. Similar fabrication techniques and detailing shall be used in all associated fabrications and items to ensure continuity of finished appearance.

4.3 WELDING

All welding shall be carried out in accordance with AS 1554. Welded, brazed or soldered joints on exposed surfaces shall be ground, buffed or polished as applicable to the material and specified finish. There shall be no buckling or visible surface colour variations in exposed material metal finishes.

4.4 ALUMINIUM

All welding shall be carried out in accordance with AS 1665 using techniques to avoid buckling and discolouration. Alloy/temper to AS1865.

4.5 MILD STEEL

All mild steel work to be hot dipped galvanised.

4.6 POLYMERS

Acrylic sheet to be of UV stabilised cast quality high impact Mitsubishi 'Shinkolite', Degussa 'Plexiglas' or equivalent approved by Superintendent. Polycarbonate sheet where nominated to be used in all high impact applications.

4.7 FINISHES GENERALLY

Edges and surfaces should be clean, neat and free from burrs and indentations. Remove sharp edges to a fine pencil around without excessive radiusing. All visible joints in materials shall be even, hairline joints until noted otherwise and approved on shop drawings for specific functional or visual requirements. Where signs are located in reach of a person, all exposed corners are to have 10mm radius for safety. Match colour of sheets, extrusions and heads of fastening in colour finished work.

Unless otherwise noted on the drawings or in this specification all exposed screw heads shall be stainless steel countersunk socket head screws finishing flush with surface.

4.8 PAINT FINISHES

Carry out painting in accordance with manufacturer's recommendations for spray, roller or brush application. Generic or unbranded products shall not be used. Use only branded premium quality lines from Resene/Altex or approved equivalent. All material required for the application of each finish must be manufactured by one approved manufacturer and used in conjunction with priming and undercoats produced by that manufacturer as a total coating system.

4.9 PRE-TREATMENT

The Contractor shall ensure that all surfaces are properly prepared and in suitable condition to receive the coating system prior to the first application as follows:

- Un-primed or damage primed steelwork shall be abrasive blasted, or power tool cleaned to near white metal, immediately prior to priming or spot priming.
- Primed steelwork shall be brushed down and degreased using white spirit.
- Galvanised steelwork scheduled to be paint finished shall be degreased using white spirit, and washed with water.
- Concrete and masonry surfaces shall be cleaned of all oil, grease and loose foreign matter, including efflorescence and dirt, prior to the application of any paint finishes.
- Aluminium should be lightly abraded using fine emery cloth and mineral turpentine as a lubricant. Surfaces should be cleaned with mineral turpentine, washed thoroughly and dried. As soon as surfaces are thoroughly dry, apply self-etching primer to all surfaces. Fine sanding and painting should follow immediately thereafter.

4.10 MIXING AND BLENDING

All paints shall be mixed in accordance with manufacturer's recommendations. Chemically cured coatings shall be blended in exact quantities either by weight or by the use of volume matched containers. Accurate and properly calibrated equipment is required capable of weighing to an accuracy of 5g. The whole contents of volume matched containers shall be blended at once. On no account shall part only of volume matched containers be blended. Each container shall be thoroughly and separately mixed using clean mixing equipment that has not been in contact with the other containers. Blended material shall be poured from mixing container; care being taken not to scrape out materials left adhering to the container.

Application shall be carried out within 1 hour of mixing. Thinning shall only be permitted for spray applications or sealing coats and then only with thinners supplied by the finish manufacturer for this purpose.

4.11 PROTECTION OF OTHER SURFACES

All necessary protection and masking shall be provided to protect adjacent surfaces as finishing proceeds and to ensure accurate cutting in. Care shall be taken to select masking materials that are compatible with the surface to which they are being applied and that any residue of adhesive can be easily removed. Hardware shall be removed prior to finishing and subsequently refixed and adjusted.

All materials subject to corrosion shall be suitably primed or otherwise treated with permanent protection. Undercoats shall be evenly applied to concealed frames and supports prior to assembly. Non corrosive materials are to be preferred in all cases.

4.12 PAINT FINISHES

Apply paint finishes according to the background material as follows:

Aluminium

For aluminium surfaces, etch priming pre-treatment, should be fine sanded and 3 coats of 2-pack polyurethane Altex E-Line 239 Clear (or approved equivalent) shall be applied to colour specified in the colour specifications on Drawings. This surface should be lightly baked prior to application of vinyl or mask and spray painted graphics. Finally apply a clear coat 2-pack polyurethane with UV stabilisers Resene Altex Uracryl 402 (or approved equivalent, satin clear). Clear and lightly bake. All as per manufacturers details and specifications. No visible rounding off on the edges shall occur or surface build-ups generally at any stage of the coating procedure.

Finished gloss level = Satin finish.

4.13 ADHESIVES

Adhesives must be suitable for their application and applied as per manufacturers instructions. Double sided adhesive tape is to be 3M brand 4016 or equivalent approved by Queensland Rail. Silicone adhesive is to be acid free Dow Corning 7932, Sikaflex or equivalent approved by Queensland Rail.

4.14 VINYL GRAPHICS

Type

Exterior grade cast vinyl & Exterior Grade Retro-reflective Vinyl to the relevant Australian Standard for Traffic devices. Ensure only one brand of vinyl is used where multiple layer graphics are required.

Application of vinyl and preparation of surfaces must meet requirements of manufacturer to maintain warranty. Consult manufacturer for application manual for signmaker's guide to usage of products.

Technical Performance Specifications

Cast vinyl colours and performance are to specifically match / equal all colours specified on each sign type drawing, including: Illuminated vinyl:

Arlon (Calon) Orange 44 translucent
Arlon (Calon) Tangerine 84 translucent
Opaque vinyl:

Arlon (Calon) Light Orange

Arlon (Calon) Dark Grey 52

Arlon (Calon) Perfect Match Red 220

Thickness: 0.08mm to 0.10mm thickness range.

Cut from self adhesive vinyl by computer operated flat bed knife cutter or other accurate technique.

Alternative vinyl samples may be submitted for review. Alternatives will need to strictly adhere to the above criteria and be approved by the Superintendent prior to use.

4.15 PROTECTIVE ANTI-GRAFFITI FINISHES

All faces subject to graffiti to have a clear spray anti-graffiti coat (non-yellowing and UV stable) sprayed over the graphics and sign face, satin finish (not gloss).

4.16 WARRANTY

The Sign Maker shall warrant all sign faces and associated works from manufacture defects (including graphics and paint), for a period of at least 10 years. This warranty shall take precedence over any other warranty stated. An alternative warranty period specified by the sign maker and within industry standards may be approved by Queensland Rail.

4.17 FIXINGS

All fixings are to be stainless steel grade 316 with anti-theft heads as shown on drawings. Tek-screw type fixings are not permitted where visible.

5.0 ELECTRICAL WORKS & INSTALLATION

5.1 GENERAL

In general, all illuminated signs shall be electrically powered. New signs requiring electrical power supply to the signs from the switchboard to be connected using only qualified personnel. Coordinate power requirements ie isolation / connection with Queensland Rail.

5.2 NEW MATERIALS

All materials and equipment relating to electrical works shall be new unless otherwise specified.

5.3 MATERIALS, WORKMANSHIP AND SAMPLES

Supply and install all necessary fittings, materials and accessories to complete the works whether or not individually specified on the Drawing(s) or in this Specification.

Written approval from Queensland Rail shall be obtained to vary any of the above items and samples maybe required to obtain approval.

Install all items in accordance with manufacturers' instructions Use only material, fittings, accessories and apparatus complying with the relevant Australian Standard(s) or in the absence of such specification, with the appropriate British Standards(s). Failure to comply with these provisions may result in the rejection of such items after installation.

5.4 TESTS AND INSPECTIONS

Provide all labour, plant, equipment and instruments necessary to carry out all the tests necessary to ensure the correct operation of the new sign system. Where required the tests shall be carried out in the presence of Queensland Rail.

A "Maximum Demand Indication (MDI) Report" shall be submitted (in duplicate) with the "Notification of Electrical Work" to Queensland Rail. The report is to include the printed name, signature and license number of the electrician actually carrying out the test and the printed name, signature and license number of the Contractor's electrical supervisor. The test must be carried out by a qualified electrician.

An "acceptable" MDI Report and duly completed "Notification of Electrical Work (NOEW)" certificate for all Works are to be submitted to and accepted by Queensland Rail prior to the issue of the Certificate of Practical Completion.

5.5 RADIO TELEVISION AND ELECTRICAL INTERFERENCE

Electrical equipment shall be so designed that it will not cause interference with radio, television or other electrical equipment in the same locality. In the event of the inherent characteristics of equipment being such that interference is possible, such equipment shall be provided with effective interference suppressors to eliminate the interference.

Radio and television interference level shall be within the limits as set out in AS 1044. Electrical disturbances shall be within the limits set out in AS 2279.

5.7 ILLUMINATION

Generally: Achieve optimum illumination on all illuminated signs, utilising LED backlights. LEDs are to be spaced as specified by product and manufacturing requirements to achieve an even level of illumination across the full face of the sign. Sign type drawings show indicative LED layout only. All joins to be suitably sealed to prevent light leaks.

Provide internal illumination via LED controlled by transformers / control gear. Protect within by minimum 5A circuit Breaker that switches both active and neutral conductors. Should be wired with minimum V105 rated cabling within signs - all internal cabling within supported.

5.8 LED Systems

LED systems

The LED system shall be GE Lumination Tetra or approved equivalent, based on the following criteria:

- LEDs to be fully enclosed, with enclosure to have a minimum IP66 rating. Exposed printed circuit board LED systems with protective or conformal coating will not be accepted.
- LED temperature should be equivalent to Cool White or approximately between 4000 - 5500 kelvins.
- Lumen maintenance of the LEDs must be at least 70% after 50,000 hours of operation.
- LED system must come with a minimum 4 year warranty on the LED system and a 5 year warranty on the power supplies.

5.9 INSTALLATION STANDARDS

All sign manufacture, installations and related works must comply with relevant statutory and Queensland Rail specific regulations. Site inspections are to be carried out prior to installation to verify locations, confirm all architectural details, mounting conditions and dimensions. All installations to be plumb and level, at the heights indicated, securely mounted with theft-resistant fixings. Locate all signs in the correct position and orientation as indicated on Sign Location Plans.

Work shall be complete with all bolts, rivets and other fittings and adequately transmit the loads and stresses imposed. Where bolting of metal work to concrete is specified, fixings to be into approved masonry anchors of the required size. Proper edge clearances should be observed so there is no risk of possible damage to concrete or structural framing. Packing of fixings is permitted to approved tolerances to level and square installations.

6.0 CONSTRUCTION

Generally - Form graphics items accurately to the specified shapes and surfaces with clean, well defined edges or arrises, free from blemishes. The Contractor shall be responsible for the quality of all materials and workmanship required to manufacture the signs including the materials and workmanship of any firms or individuals who act on behalf of the Contractor and/or suppliers.

6.1 CONSTRUCTION STANDARDS

Construction is to be of the highest of industry standards. Where connection or suspensions are made, plates, bolts, angles and screws are to be concealed as much as possible from view unless otherwise detailed. Box frames or tube shall be extruded and prefinished. Spaces, drilled holes and fixings shall be consistent from one sign to another. Screws, adhesives and silicones shall be concealed and or made flush with the surface. Fit components with care. Graphic standards are to be carefully adhered to.

6.2 STRUCTURAL SUPPORT

Structural support of signs shall be independent of the existing structure except where specifically fixed to walls, floors or ceilings. For all signs, the Contractor is to be responsible for strength and suitability of the structural support and connection of all signs. Where visible plinths are shown on the sign drawings, match details as shown. Internal structure may be amended to suit relevant structural requirements.

- Provide engineering certification that structural supports are adequate for their intended use. Contact facility owners for structural requirements where additional information is required.
- drawings / certification required to be submitted to the Superintendent and facility owner/manager (refer '3.10 - Production Program and Review Periods') prior to manufacture, construction and erection on site.

6.3 SHOP DRAWINGS

Requirement

The Contractor shall submit shops drawings of all sign types for review prior to manufacture to Queensland Rail. Refer production program.

Inclusions

Drawings shall include the following details and information where applicable:

1. Large scale (full size if practical) lettering layouts/spacing templates.
2. Sections and Details of proposed fabrication.
3. Anchorages and Fixings, locations and types.
4. Engineer's Certification on all new structural work and where additional load is place on existing structures. Design wind loading appropriate for the site.
5. Type faces, Colours and Finishes.

7.0 TYPOGRAPHY AND GRAPHICS

7.1 FINAL COPY

Sign messages are to be created from electronic artwork to faithfully reproduce the shapes and typefaces specified. The graphic layouts shall follow the guidelines outlined in the signage and graphic design standards drawings.

The graphics shown in the signage and graphic design standards specification drawings as Adobe Illustrator .ai or .eps files in Macintosh format can be supplied by the Superintendent. These will be provided on CD-ROM for pick up by the sign

maker or sent via e-mail upon request to the Superintendent.

It is the responsibility of the sign maker to ensure that all electronic files are accurately converted and match the graphic specification drawings provided in form, size & colour. Hard copy drawings provided are to be used as the primary reference.

If the Contractor finds any text messages or graphics that are not catered for in the graphic specification drawings, the Contractor shall prepare a layout of the message of all signs at a minimum 1:10 scale and submit the layout for approval prior to production.

Braille and Tactile Graphics

Tactile and Braille signs must comply with the BCA Specification D3.6. Use approved raised tactile pictograms and text and grade 1 Braille(uncontracted) to Australian Braille Authority, NCC and AS1428.4.2(2018) requirements. It is the responsibility of the Contractor to ensure that all Braille is accurately translated and formatted. Consult with Vision Australia where required for guidance and evaluation of messages and signs.

7.2 GRAPHIC STANDARDS

The following rules of graphic quality apply:

- All lettering shall be true to its letter form in face weight and construction.
- All graphics are to be electronically, photographically or mechanically reproduced.
- All colours are as specified in Pantone colour reference system or other specified colour.
- The font family shown on the graphic specification drawings is to be used for all messages, text and numerals except where specifically stated otherwise. No other versions of typefaces will be accepted. It is the responsibility of the sign maker to purchase the font(s) as specified on the graphic reference drawing.
- Only the pictograms, arrows and symbols as shown on the graphic reference drawing are to be used. No other versions will be accepted.

8.0 MAINTENANCE MANUAL

The Contractor is to provide three copies of a maintenance manual containing a description of the supplied items, instructions on how to correctly replace panels, parts or letters as required and details on cleaning and maintenance of the signs. The Contractor is to provide a comprehensive maintenance manual. 2 copies of this manual is to be provided hardbound and an electronic version (PDF format) to be provided on CD Rom. This manual is to contain all information for every aspect of the project and shall include, but not limited to:-

- All working and as-built drawings for all aspects of the works, ie footing details, artwork, individual sign design, bolt cage assemblies, glazing and other details, thus enabling any component to be easily remanufactured if and when required;
- Comprehensive parts list;
- Site plan detailing each sign location, type and artwork details;
- Contractors and suppliers contact list detailing all works performed and materials supplied, for example installation and footing contractor, metal, glass, Braille, paint, adhesive, sealant, vinyl, glazing and fixing suppliers;
- All associated certification documents;
- Sign Installation and removal details;
- Artwork and glass panel replacement instructions;
- All digital photos of the project;
- Replacement procedures for each individual section or replaceable panel of the signage system;
- Cleaning and maintenance instructions;
- Graffiti removal instructions;
- Spare parts list to enable a quick reordering of components including supply time frames.