# Master Specification
# Part RD-LM-C4

## Sign Installation

**September 2024**

Government of South Australia
Department for Infrastructure and Transport

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# Document Information

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# Document Management

 This is a controlled document and it will be updated and reissued as approved changes are made.

# Contents

# RD-LM-C4 Sign Installation

## 1 General

a) This Master Specification Part sets out the requirements for the supply and selection of sign supports, placement of signs, installation of sign supports and installation of signs including:

i) the documentation requirements, as set out in section 2;

ii) the requirements for the supply of sign supports, as set out in section 3;

iii) the requirements for selection of sign supports, as set out in section 4;

iv) the requirements for the placement of signs, as set out in section 5;

v) the requirements for the installation of sign supports, as set out in section 6;

vi) the requirements for installation of signs, as set out in section 7;

vii) the requirements for records, as set out in section 8;

viii) the Hold Point requirements, as set out in section 9; and

ix) the verification requirements and records, as set out in section 10.

b) This Master Specification Part does not apply to:

i) the manufacture, testing and commissioning of electronic signs, including CMS and VMS, which are otherwise the subject of RD-ITS-S4 “Supply of Electronic Signs” and RD-ITS-C1 “Installation and Integration of ITS Equipment”;

ii) the design and supply of bespoke sign support structures such as gantries, cantilevers and portal frames; or

iii) signs for Temporary Works.

c) The supply and selection of sign supports, placement of signs, installation of sign supports and installation of signs must comply with the Reference Documents including:

i) AGRD Part 6: Roadside Design, Safety and Barriers;

ii) AGRS Part 2: Safe Roads;

iii) AS/NZS 1163 Cold formed structural steel hollow sections;

iv) AS 1397 Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium;

v) AS 1450 Steel tubes for mechanical purposes;

vi) AS 1742.2 Manual of uniform traffic control devices, Part 2: Traffic control devices for general use;

vii) AS/NZS 1867 Aluminium and aluminium alloys - Drawn tubes;

viii) AS 1906.1 Retroreflective materials and devices for road traffic control purposes, Part 1: Retroreflective sheeting;

ix) AS 2700 Colour standards for general purposes; and

x) AS/NZS 4680 Hot-dip galvanized (zinc) coatings on fabricated ferrous articles.

# 2 Documentation

## 2.1 Construction Documentation

In addition to the requirements of PC-CN3 “Construction Management”, the Construction Documentation must include:

a) certificate of compliance for steel sign supports, as required by section 3.1b); and

b) evidence of CHS strength and durability of join welds, as required in section 3.1d).

## 2.2 Quality Management Records

In addition to the requirements of PC-QA1 “Quality Management Requirements” or PC-QA2 “Quality Management Requirements for Major Projects” (as applicable), the Quality Management Records must include:

a) certificate of compliance for aluminium CHS supplied for the Works, as required by section 3.3b);

b) record of each sign installed, as required by section 8a);

c) all records required by RD-LM-S2 “Supply of Signs”, as required by section 8b); and

d) written verification as required by section 10.

# 3 Supply of sign supports

## 3.1 General

a) Steel sign supports must:

   i) comply with either:

      A. AS/NZS 1163 Cold formed structural steel hollow sections; or

      B. AS 1450 Steel tubes for mechanical purposes;

   ii) be manufactured using steel with a yield stress of ≥250 MPa; and

   iii) comply with the dimensions specified in section 4.

b) The Contractor must provide as part of the Construction Documentation a certificate of compliance to AS/NZS 1163 Cold formed structural steel hollow sections or AS 1450 Steel tubes for mechanical purposes (as applicable), for all steel sign supports to be supplied and installed pursuant to this Master Specification Part. The mill supplying AS/NZS 1163 Cold formed structural steel hollow sections product must be third party certified.

c) The Contractor must ensure that steel RHS are drilled in accordance with Appendix 4: Steel sign support - hole spacing.

d) The Contractor must ensure that steel CHS are capped and do not consist of sections welded together, unless the Contractor provides evidence as part of the Construction Documentation that the strength and durability of the join welds meet the loading applicable to the sign support and has a 25-year Design Life.

e) The Contractor must ensure that all supplied proprietary sign supports have a minimum Design Life of 40 years.

## 3.2 Protective coating

a) The Contractor must ensure that a protective coating that complies with the following requirements is applied to steel RHS posts:

i) zinc coated to Class Z275 in accordance with AS 1397 Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium;

ii) zinc alloy coated to Class ZM275 in accordance with AS 1397 Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium; or

iii) hot-dip galvanized accordance with AS/NZS 4680 Hot-dip galvanized (zinc) coatings on fabricated ferrous articles.

b) The Contractor must ensure that a protective coating that complies with the following requirements is applied to steel CHS posts:

i) where a coloured finish is specified, a protective coating must be applied in accordance with the requirements of ST-SS-S2 “Protective Treatment of Structural Steelwork” (the colour must be G61 to AS 2700 Colour standards for general purposes); or

ii) where a coloured finish is not specified:

A. zinc alloy coated ZM275 alloy in accordance with AS 1397 Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium; or

B. hot-dip galvanized in accordance with AS/NZS 4680 Hot-dip galvanized (zinc) coatings on fabricated ferrous articles.

## 3.3 Aluminium CHS

a) The Contractor must ensure that aluminium CHS comply with:

i) AS/NZS 1867 Aluminium and aluminium alloys - Drawn tubes; and

ii) the dimensions specified in section 4.

b) The Contractor must provide as part of Quality Management Records a certificate of compliance to AS/NZS 1867 Aluminium and aluminium alloys - Drawn tubes for all aluminium CHS supplied for the Works.

## 3.4 Proprietary frangible posts

a) The Contractor must ensure that any proprietary frangible posts to be supplied are Principal approved products on the Department Approved Products List or are otherwise submitted to the Principal for approval in accordance with PC-CN3 “Construction Management”.

b) The Contractor acknowledges that for efficiency of maintenance, the required number of types of proprietary frangible posts on the road network must be kept to a minimum.

## 3.5 Identification of sign supports

a) The Contractor must ensure that the sign supports are clearly marked with the supplier / manufacturer’s name, applicable Reference Document, grade, and any other information specified in the applicable Reference Document.

b) The Contractor must ensure that the markings required by section 3.5a):

i) are applied after the application of any surface coating to the sign support;

ii) consist of either indelible lettering or a durable, graffiti resistant, UV stable sticker; and

iii) are visible once the sign support has been installed.

# 4 Selection of sign supports

## 4.1 Small / medium signs

a) The Contractor must ensure that small to medium size signs (i.e. general regulatory or warning type signs of size no greater than in Table RD-LM-C4 4-1) are supported by steel RHS sign supports complying with Table RD-LM-C4 4-1. These sign supports are classified as 'frangible'.

b) The Contractor must ensure that CHS are not used for small to medium size signs under any circumstances.

**Table RD-LM-C4 4-1 RHS supports**

| Post length (mm) | Post size<br>width x depth x wall thickness (mm) |
|---|---|
| ≤3200 | 75 x 38 x 3.0 or 80 x 40 x 1.6 |
| >3200 to ≤4200 | 80 x 40 x 2.5 |

## 4.2 Large signs

a) Except for overhead signs, the Contractor must ensure that large size signs (signs of the size included in Table RD-LM-C4 4-2) are supported by steel CHS sign supports (with a nominal 100 mm diameter) where non-frangible posts are permitted in accordance with this Master Specification Part.

b) Where frangible posts are permitted, the sign support posts must be either:

i) aluminium CHS complying with Table RD-LM-C4 4-2;

ii) steel CHS complying with Table RD-LM-C4 4-2; or

iii) an approved proprietary frangible sign support in accordance with section 3.4.

**Table RD-LM-C4 4-2 Posts deemed to be frangible**

| Speed zone (km/h) | Diameter x wall thickness (mm)(1) |
|---|---|
| Circular steel posts | |
| ≤80 | 80 x 3.3 |
| ≤70 | 90 x 3.3 |
| ≤60 | 80 x 5.0 or 100 x 3.5 |
| ≤40 | 125 x 3.5 |
| Circular aluminium posts | |
| ≤110 | 100 x 4.6 or 5.5 |

**Table notes:**

(1) All circular post sizes are shown as nominal bore (inside dimension).

## 4.3 Number of supports

a) The Contractor must ensure that, where RHS or CHS steel supports are to be supplied and installed, the number and spacing of those steel supports must be in accordance with:

i) Appendix 1: Steel post selection;

ii) Appendix 2: Overview of sign support selection process; and

iii) Table RD-LM-C4 4-3.

b) For the purposes of determining the number of supports required, the sign height will be determined from Appendix 1: Steel post selection. If the sign width is ≤1400 mm, the sign can be installed on one post.

c) Where CHS aluminium supports are to be used, the number and spacing of supports must be determined by the Contractor in accordance with the sign manufacturer's post selection specification. If the sign width is ≤1400 mm, the sign can be installed on one aluminium post.

d) Where other materials or type of supports are used, the Contractor must verify that the posts will comply with applicable Reference Documents.

## 4.4 Support spacing

The Contractor must ensure that the spacing of RHS and CHS supports of signs must comply with Table RD-LM-C4 4-3.

**Table RD-LM-C4 4-3 Support spacing**

| Number of supports | % of sign width | |
|---|---|---|
| | Between outermost support and sign edge | Between supports |
| 1 | 50 | - |
| 2 | 20 | 60 |
| 3 | 15 | 35 |
| 4 | 12.5 | 25 |

## 4.5 Electronic signs

a) The Contractor must ensure that electronic signs that weigh in excess of 100 kg are supported on bespoke supports.

b) The Contractor must ensure that electronic signs that weigh less than 100 kg are supported by steel CHS supports (with a nominal 100 mm diameter).

# 5 Placement of signs

## 5.1 General

a) The Contractor must ensure that signs are installed as close as practical to the locations specified in the Design Documentation.

b) The Contractor must ensure that all signs are positioned to:

i) be clearly legible to all road users with adequate sight distance in accordance with AS 1742.2 Manual of uniform traffic control devices, Part 2: Traffic control devices for general use;

ii) not create a hazard to road users;

iii) comply with required clearances from Utility Services as required by the Utility Service Authorities;

iv) not compete with other traffic signs, traffic control devices or roadside furniture;

v) where appropriate, be placed in locations complying with section 5.3 that allow adequate reading time for all road users and adequate time and travel distance for the road user to act on the message;

vi) not be partially hidden by any roadside objects, furniture or vegetation; and

vii) comply with the requirements in Appendix 5: Sign height and offset details.

## 5.2 Lateral placement

a) Except for overhead signs which are the subject of section 5.2b), the Contractor must ensure that the edge of the sign is placed laterally in accordance with Table RD-LM-C4 5-1.

b) With respect to overhead signs, the Contractor must ensure that the nearest edge of an overhead sign is not further than 5.0 m from the closest running lane.

**Table RD-LM-C4 5-1 Lateral placement of signs**

| Situation | Lateral placement of signs |
|---|---|
| Rigid safety barrier present: | A minimum of 1.0 m from the face of the safety barrier (regardless of kerb position). |
| Wire rope safety barrier present: | A minimum of 1.5 m from the face of the safety barrier (regardless of kerb position). |
| No safety barrier present, frangible post used: | The minimum clearance from the travelled way or kerb is: |
| | a) rural area: 2.0 m |
| | b) urban area (kerb and gutter): 0.3 m |
| | c) urban area (semi mountable kerb): 0.5 m |
| No safety barrier present, non-frangible post used: | Determined by a Network Roadside Risk Intervention Threshold assessment in accordance with AGRD Part 6: Roadside Design, Safety and Barriers |

## 5.3 Longitudinal placement

a) The Contractor must ensure that signs are placed at the following distances in advance of a hazard, decision point or intersection:

i) ≤75 km/h: 80-120 m;

ii) 76 - 90 km/h: 120-180 m; and

iii) >91 km/h: 180-250 m.

b) The Contractor must ensure that the minimum distance between any 2 road signs is:

i) ≤60 km/h: 30 m;

ii) 61 - 70 km/h: 35 m;

iii) 80 - 90 km/h: 50 m; and

iv) 100 - 110 km/h: 60 m.

## 5.4 Vertical clearance

The Contractor must ensure that the vertical clearance from the finish surface level to any part of a sign or structure (including cantilever, gantry or portal type) must be:

a) a minimum of 5.5 m for an overhead sign above a running lane, shoulder or emergency lane;

b) 5.5 m at a minimum for an overhead sign above a parking lane;

c) 2.5 m at a minimum for a roadside sign above a defined pathway or footpath;

d) 2.0 m at a minimum for a roadside sign above an urban environment not subject to pedestrian movements;

e) 2.0 m at a minimum for a roadside sign above a rural environment with pedestrian movements;

f) 1.5 m at a minimum for a roadside sign above a rural area not subject to pedestrian movements; and

g) at a height to be nominated in the Contract Documents for over-dimensional routes.

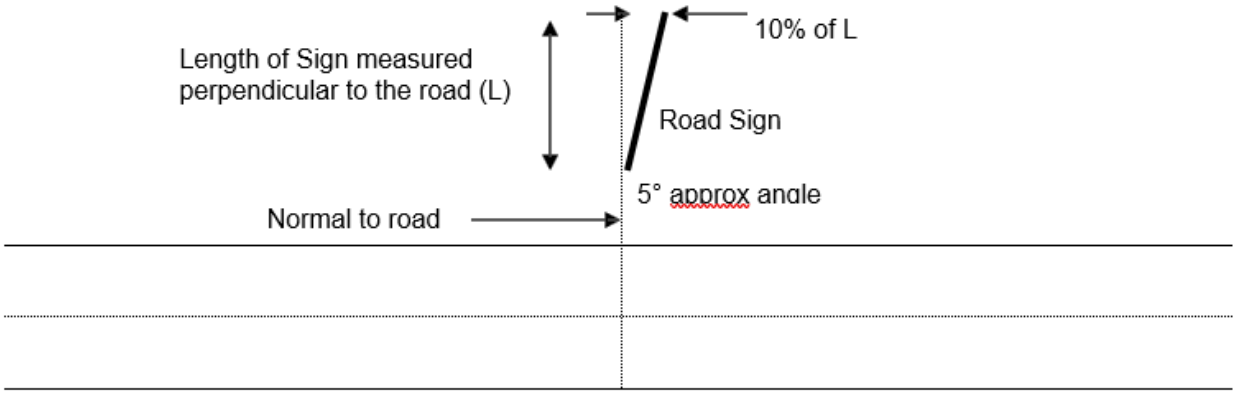
## 5.5 Orientation of signs

a) The Contractor must ensure that signs are angled slightly away from the driver's line of travel in accordance with AS 1742.2 Manual of uniform traffic control devices, Part 2: Traffic control devices for general use.

b) Where a sign is to be installed on a straight section of road, the Contractor must ensure that the sign face is placed at an angle of approximately 5 degrees away from the left edge side of the roadway as shown in Figure RD-LM-C4 5-1.

c) This may be determined by using a longitudinal offset of 10% of the sign length (L) measured perpendicular from the outer edge of the road.

**Figure RD-LM-C4 5-1 Angle of sign along straight road**




# 6 Installation of sign supports

## 6.1 General

The Contractor must ensure that the following requirements are satisfied when installing sign supports:

a) the footings must not interfere with any existing Utility Services;

b) the clearance requirements of the relevant Utility Service Authority must be complied with;

c) footing concrete must be grade N25 or higher, unless specified otherwise in the post manufacturer's installation guidelines, in which case the manufacturer's requirements for footing must be complied with; and

d) the Contractor must remove spoil from the Site.

## 6.2 Footing spikes

a) The Contractor must ensure that footing spikes are not used unless specifically required by the Contract Documents.

b) Any proposal to use spike footings must be supported by the manufacturer's installation guidelines.

c) Submission of a proposal to use footing spikes, including provision of the manufacturer's installation guidelines, constitutes a **Hold Point**. Installation of the footing spikes must not occur until the Hold Point has been released.

## 6.3 Sleeves

a) The Contractor must ensure that breakaway and frangible supports are inserted into sleeved footings to enable replacement of damaged supports without affecting the footing.

b) Where aluminium sleeves are to be placed into concrete surrounded with soils of a highly acidic or alkaline nature, the Contractor must ensure that treatments, including the following, are applied to all surfaces of the aluminium sleeve:

   i) applying by brush 1 full coat of denso primer D, at an average spreading rate of 10 m2/L, and allow to tack off for 10 to 20 minutes;

   ii) applying small cut pieces of denso ultraflex 1500 tape to the socket end cap to cover all edges and surfaces, then spirally wind denso ultraflex 1500 tape, starting at the socket end, to cover all surfaces, ensuring a minimum overlap of 50% between strips. The security bolt section at the top of the aluminium sleeve should be left clear to facilitate fixing of the post; and

   iii) all treatments must be applied prior to transportation of the sign post to the installation site.

c) The Contractor must remove loose debris prior to pouring footing concrete. Steel sleeves must be placed full depth into the pavement with a protrusion of 20 mm above the surrounding surface.

d) Aluminium sleeves must be installed according to the post manufacturer's installation guidelines with a protrusion of 50-90 mm above the surrounding surface. Prior to the installation of the sign the surrounding surface height must be determined in consultation with the Principal.

e) Footing holes must be back filled with poured concrete which must be compacted for the full depth of the footing. Signs must not be attached to the sign supports for a minimum of 24 hours after concrete is poured.

## 6.4 RHS supports

a) The Contractor must ensure that RHS sign supports are installed with a minimum embedded length of 600 mm. The extent of embedment must be proportional to sign size, height above the ground and the soil type.

b) The Contractor must ensure that the footing holes are backfilled with PM2/20 and compacted.

## 6.5 Steel CHS supports

a) The Contractor must ensure that the steel CHS sign supports have a minimum footing of 1 m depth and a minimum of 0.5 m diameter.

b) The Contractor must ensure that footing holes are back filled with poured concrete or dry mix concrete which must be compacted for the full depth of the footing.

c) Signs must not be attached to the sign supports for a minimum of 24 hours after concrete is poured or compacted. The surface level of the footing must be finished such that water is shed to the outer edge of the footing.

## 6.6 Breakaway supports and frangible supports

The Contractor must install breakaway and frangible supports in accordance with the Design Documentation or manufacturer's installation guidelines.

# 7 Installation of signs

## 7.1 General

a) Signs must be erected in accordance with the work method approved under the sign manufacturer's warranty provisions of RD-LM-S2 "Supply of Signs".

b) Where signs are to be installed on new Works, the Contractor must ensure that the signs are installed prior to traffic using the new configuration.

## 7.2 Height of signs

a) The Contractor must ensure that signs are erected such that the lowest edge of the main sign plate is in accordance with the heights specified in section 5.4.

b) The Contractor must ensure that the post does not protrude above the top edge of a sign.

c) If multiple signs are installed, the Contractor must ensure that the gap between each plate is between 50 mm and 150 mm.

## 7.3 Fixing

a) The Contractor must ensure that all sign fittings are hot dipped galvanized to 125 g/m$^2$ in accordance with AS/NZS 4680 Hot-dip galvanized (zinc) coatings on fabricated ferrous articles.

b) The Contractor must ensure that signs are attached to one or more sign supports by:

   i) bolting directly to the sign support;

   ii) means of Unistrut clamps; or

   iii) galvanized steel straps to existing furniture.

c) Unbraced signs must be attached to RHS supports by using galvanized bolts, washers and vandal proof nuts.

d) Braced signs must be attached using galvanized steel clamps compatible with the bracing system, using galvanized bolts, washers and vandal proof nuts.

e) Signs must not be attached to frangible or slip base light poles.

f) All signs affixed to the post (i.e. metal or non-metallic) must not create a punching through effect and must not be affected by wind vibration. Signs attached to other street furniture by means of galvanized steel straps must not damage the support.

## 7.4 Covering

The Contractor must ensure that any temporary covering of the sign face after installation does not void the manufacturer's warranty.

## 7.5 Cleaning

Cleaning of the sign must not damage the sign face or legend.

# 8 Records

a) The Contractor must maintain and submit as part of the Quality Management Records, a record of each sign installed which must include the following (where relevant):

   i) road number;

   ii) maintenance marker point (MMP);

   iii) offset from closest travel lane;

   iv) sign type;

   v) TES drawing number;

   vi) date installed;

   vii) sign support type;

   i) reflectivity test results;

   ii) evidence of compliant positioning in accordance with the Construction Documentation;

iii) evidence of vertical height (both minimum offset from natural surface level and maximum height); and

iv) evidence of height clearances in pedestrian areas.

b) The Contractor must provide all records as required by RD-LM-S2 “Supply of Signs”

# 9 Hold Points

Table RD-LM-C4 9-1 details the review period or notification period, and type (documentation or construction quality) for each Hold Point referred to in this Master Specification Part.

**Table RD-LM-C4 9-1 Hold Points**

| Section reference | Hold Point | Documentation or construction quality | Review period or notification period |
|---|---|---|---|
| 6.2c) | Proposal for use of footing spikes (where relevant) | Documentation | 2 Business Days review |

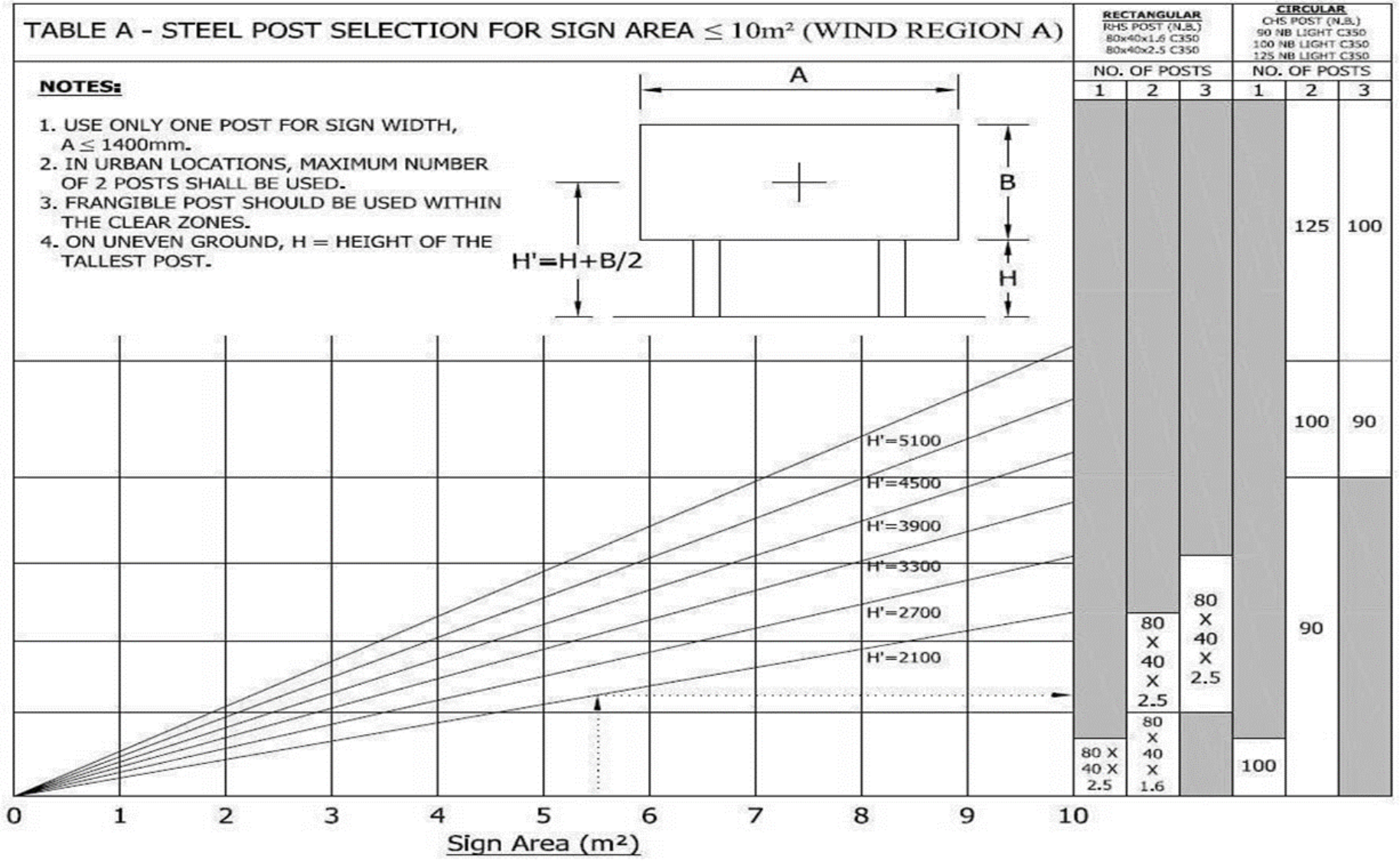
# 10 Verification requirements and records

The Contractor must supply written verification as part of the Quality Management Records that the requirements listed in Table RD-LM-C4 10-1 have been complied with.

**Table RD-LM-C4 10-1 Verification requirements**

| Section reference | Subject | Record to be provided |
|---|---|---|
| 8a) | Installation records | Details of installation |
| 8b) | Records | Evidence of compliance with RD-LM-S2 “Supply of Signs” |
| RD-LM-S2 “Supply of Signs” | Sign manufacturer’s warranty | Retroreflective warranty |

# 11 Appendix 1: Steel post selection



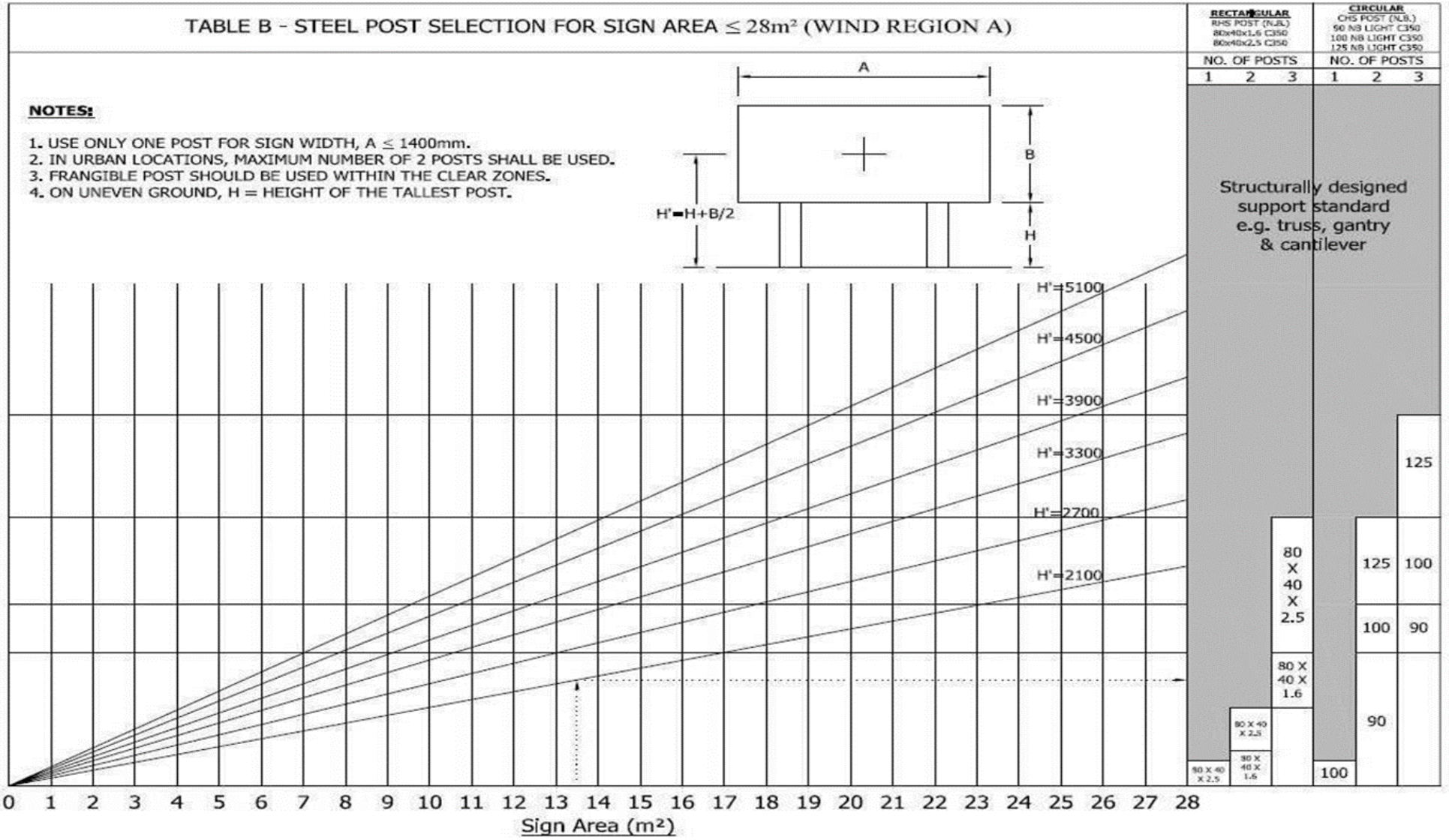


TABLE B - STEEL POST SELECTION FOR SIGN AREA ≤ 28m² (WIND REGION A)
NOTES:
1. USE ONLY ONE POST FOR SIGN WIDTH, A ≤ 1400mm.
2. IN URBAN LOCATIONS, MAXIMUM NUMBER OF 2 POSTS SHALL BE USED.
3. FRANGIBLE POST SHOULD BE USED WITHIN THE CLEAR ZONES.
4. ON UNEVEN GROUND, H = HEIGHT OF THE TALLEST POST.
A
B
H
H'=H+B/2
H'=5100
H'=4500
H'=3900
H'=3300
H'=2700
H'=2100
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
Sign Area (m²)
RECTANGULAR
RHS POST (N.B.)
80x40x1.6 C350
80x40x2.5 C350
NO. OF POSTS
1 2 3
CIRCULAR
CHS POST (N.B.)
90 NB LIGHT C350
100 NB LIGHT C350
125 NB LIGHT C350
NO. OF POSTS
1 2 3
Structurally designed support standard e.g. truss, gantry & cantilever
80 X 40 X 2.5
80 X 40 X 1.6
90 X 40 X 2.5
80 X 40 X 2.5
80 X 40 X 1.6
100
125
125
100
100
90
90

# 12 Appendix 2: Overview of sign support selection process

To determine the number, size and position of the supports and placement of the sign, the process in Table RD-LM-C4 12-1 must be followed.

**Table RD-LM-C4 12-1 Sign support selection process**

| Step no. | Step | Reference |
|---|---|---|
| 1 | Determine Sign Size<br>Dimensions:<br>Width: A, height: B | Design Documentation or<br>AS 1742.2 |
| 2 | Determine lateral clearance | Any contract specific drawings section 5.2<br>Appendix 1: Steel Post Selection<br>Appendix D of AS 1742.2 |
| 3 | Determine frangibility requirement | Sections 3, 4 and 5 |
| 4 | Determine sign vertical clearance<br>Sign ground height: H | Section 5.4 |
| 5 | Calculate for selection of sign post & number<br>Sign area = A x B H`= H + B/2<br>If sign area > 28m$^2$, refer to structural engineer | Appendix 1: Steel Post Selection or manufacturer's installation guidelines |
| 6 | Determine support spacing | Section 4.4 |
| 7 | Order and install | Sections 5 and 6 |

# 13 Appendix 3: Sign support selection example

An example calculation is provided to illustrate the use of these guidelines.

Location = Mawson Lakes

Type of sign = Advance direction sign

## 13.1 Step 1 - Sign size

Determine the dimension of the proposed sign face by measuring the sign width, A and sign height, B.

Normal sign (single panel construction)

Sign width A = 3.75 m

Sign height B = 2.10 m

## 13.2 Step 2 - Vertical and lateral clearance

A site assessment of the location is recommended to determine clearances and other site conditions.

## 13.3 Step 3 - Selection of number and type of support

The selection of number and types of sign posts depends on sign face area. In order to make the right selection, calculate the sign face area (A x B) and the height from ground level to centre of sign, H` = H + B/2. From the calculated sign face area, and H', select the appropriate number and type of support by referring the tables and appendices to this Master Specification Part or to the post manufacturer's guidelines.

i.e. Sign area = A x B

= 3.75 x 2.10

= 7.90 m2

Height from ground level to centre of sign

H' = H + B/2

= 2 + 2.10/2

= 3.05 m

Since the sign width A, is greater than 1.40 m, a minimum of 2 supports should be used. An example from the manufacturer's guideline, the number of posts required can be either one of the following:

Steel CHS posts

2 x 90 NB LIGHT C350

3 x 80 x 40 x 2.5 C350

Aluminium CHS frangible posts (determined from manufacturer's guidelines example)

2 x 90 NB

3 x 80 NB

From these options, select the final number and types of posts that suits your requirements.

## 13.4 Step 4 - Support spacing

Sign width, A = 3.75 m

For 2 supports - 3.75*60/100 = 2.25 m between posts and 3.75*20/100 = 0.75 m overhang

For 3 supports - 3.75*35/100 = 1.31 m between posts and 3.75*15/100 = 0.56 m overhang

# 14 Appendix 4: Steel sign support - hole spacing

## 14.1 RHS post drilling pattern

RHS posts must be drilled in accordance with Figure RD-LM-C4 14-1 and Table RD-LM-C4 14-1, with all dimensions in mm.

**Figure RD-LM-C4 14-1 Sign post**

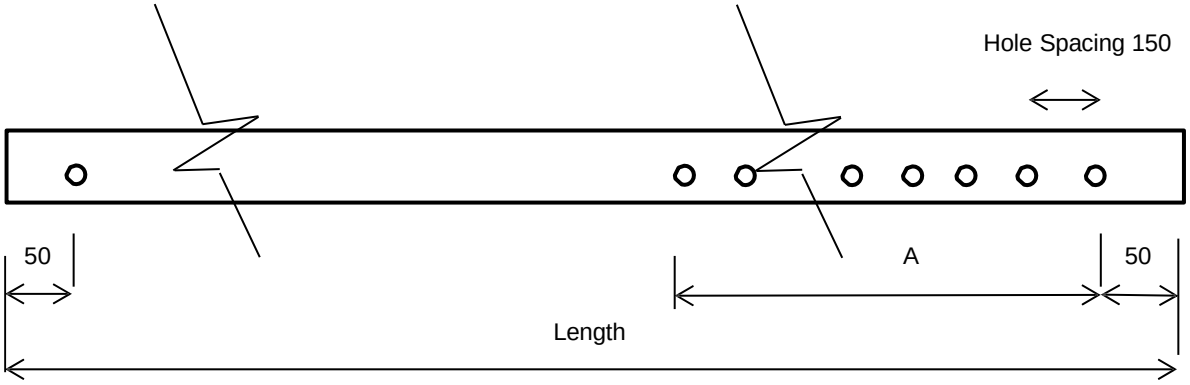



**Table RD-LM-C4 14-1 Steel sign support - Hole spacing**

| Length (m) | Dimension “A” (m) | Number of holes |
|---|---|---|
| 4.2 (max) | 1.35 | 10 |
| 3.7 | 1.2 | 9 |
| 3.2 | 1.65 | 12 |
| 2.8 | 1.05 | 8 |
| 2.1 | 0.9 | 7 |
| 1.7 | 0.9 | 7 |
| 1.3 | 0.9 | 5 |

# 15 Appendix 5: Sign height and offset details

Full-size drawing available from here: https://www.dit.sa.gov.au/__data/assets/pdf_file/0011/312023/Part_R49_Attachment_E.pdf

**Figure RD-LM-C4 15-1 Sign height and offset details**