

PRODUCT CATALOGUE

Signfix[®]
A U S T R A L I A



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BRACKETS & CLAMPS

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BRACKETS & CLAMPS

ALUMINIUM BRACKETS & FIXINGS

Structural aluminium alloy brackets that offer a robust fitting for small flat signs on 50mm NB and 65mm NB poles. Highly resistant to corrosion and impacts.



SINGLE AND DOUBLE SIDED BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|----------|-----------------------------------|-----------|
| TD1SGNFX | 50MM NB ALUM RING BRACKET | 200 |
| TD2SGNFX | 50MM NB D/SIDED ALUM RING BRACKET | 200 |

BOLTS & WASHERS NOT INCLUDED



FRISBEE BRACKET

| CODE | DESCRIPTION | QTY (BOX) |
|-------|------------------------------|-----------|
| RZ200 | 50MM NB FRISBEE HALF BRACKET | 100 |

BOLTS & WASHERS NOT INCLUDED



SINGLE SIDED HEAVY DUTY DOUBLE BOLT UNI-CLAMP

| CODE | DESCRIPTION | QTY (BOX) |
|-------------|--------------------------------|-----------|
| AU060MCH-02 | 50MM NB ALUM UNI-CLAMP S/SIDED | 50 |
| AU076MCH-02 | 65MM NB ALUM UNI-CLAMP S/SIDED | 50 |

BOLTS, WASHERS AND NUTS INCLUDED



DOUBLE SIDED HEAVY DUTY DOUBLE BOLT UNI-CLAMP

| CODE | DESCRIPTION | QTY (BOX) |
|---------------|--------------------------------|-----------|
| AU0060BMCH-02 | 50MM NB ALUM UNI-CLAMP D/SIDED | 50 |
| AU0076BMCH-02 | 65MM NB ALUM UNI-CLAMP D/SIDED | 50 |

BOLTS, WASHERS AND NUTS INCLUDED



SINGLE BOLT UNI-CLAMP BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|-----------|--------------------------------------|-----------|
| TD1UNI060 | 50MM NB TWO PIECE TD1 TYPE UNI-CLAMP | 100 |
| TD1UNI076 | 65MM NB TWO PIECE TD1 TYPE UNI-CLAMP | 50 |

BOLTS & WASHERS INCLUDED



M10 FIXING BOLTS

| CODE | DESCRIPTION | QTY (BOX) |
|--------------|-------------------------------------|-----------|
| M10-HEXCP21 | M10 X 21MM M/G CONE POINT HEX | 100 |
| M10-HEXCP25 | M10 X 25MM M/G CONE POINT SET SCREW | 100 |
| M10-16HEXSET | M10 X 16MM M/G HEX SET SCREW | 100 |
| M10-MGWASH | M10 X 2MM M/G FLAT WASHER | 100 |
| M10-SSWASH | M10 X 1.2MM S/S FLAT WASHER | 100 |

STEEL CHANNEL CLAMPS, BRACKETS & FIXINGS

Signfix clamps, brackets and clips secure signs to posts of every shape and size. Signs installed using Signfix products offer greater on-site flexibility and can be offset with ease.

The stainless steel product range is manufactured using AISI 304 alloy, a highly durable material particularly beneficial when impact resistance and anti-corrosion is important.

The stainless steel fittings have been subjected to ASTM B117 salt-spray testing for 500 hours with no significant corrosion. They are highly suitable in coastal regions.

With a market presence of over 20 years, the Signfix range of superior quality products have proven longevity.



SINGLE BOLT SADDLE BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|----------|-----------------------------------|-----------|
| ARC060CH | S/STEEL BRACKET FOR 50MM NB POLE | 200 |
| ARC076CH | S/STEEL BRACKET FOR 65MM NB POLE | 200 |
| ARC089CH | S/STEEL BRACKET FOR 80MM NB POLE | 100 |
| ARC102CH | S/STEEL BRACKET FOR 90MM NB POLE | 100 |
| ARC114CH | S/STEEL BRACKET FOR 100MM NB POLE | 100 |

BOLTS & NUTS NOT INCLUDED



DOUBLE BOLT SADDLE BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|-----------|--|-----------|
| HDTB140CH | S/STEEL 2 BOLT BRACKET FOR 125MM NB POLE | 50 |
| HDTB165CH | S/STEEL 2 BOLT BRACKET FOR 150MM NB POLE | 50 |

BOLTS & NUTS NOT INCLUDED



MILD STEEL GALVANISED STIRRUP BRACKET C/W NUT & BOLT

| CODE | DESCRIPTION | QTY (BOX) |
|----------|-------------------------------------|-----------|
| STRB060G | GALV STEEL BRACKET FOR 50MM NB POLE | 100 |
| STRB076G | GALV STEEL BRACKET FOR 65MM NB POLE | 100 |

BOLT & NUT INCLUDED

BRACKETS & CLAMPS

STEEL CHANNEL CLAMPS, BRACKETS & FIXINGS



BACK TO BACK CLIPS

| CODE | DESCRIPTION | QTY (BOX) |
|----------|-------------------------------|-----------|
| BBC060CH | S/STEEL CLIP FOR 50MM NB POLE | 400 |
| BBC076CH | S/STEEL CLIP FOR 65MM NB POLE | 400 |
| BBC089CH | S/STEEL CLIP FOR 80MM NB POLE | 400 |
| BBC102CH | S/STEEL CLIP FOR 90MM NB POLE | 400 |

BOLT & NUT NOT INCLUDED



RHS BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|------------|-----------------------------------|-----------|
| LRH5050CH | 50 X 50MM S/STEEL LRH* BRACKET | 100 |
| LRH7550CH | 75 X 50MM S/STEEL LRH* BRACKET | 100 |
| LRH7575CH | 75 X 75MM S/STEEL LRH* BRACKET | 100 |
| LRH3876CH | 38 X 76MM S/STEEL LRH* BRACKET | 100 |
| LRH8989CH | 89 X 89MM S/STEEL LRH* BRACKET | 100 |
| LRH1005CH | 100 X 50MM S/STEEL LRH* BRACKET | 100 |
| LRH1010CH | 100 X 100MM S/STEEL LRH* BRACKET | 100 |
| LRH12575CH | 125 X 75M S/STEEL LRH* BRACKET | 100 |
| HRH1510CH | 150 X 100MM S/STEEL RHS** BRACKET | 100 |
| HRH2010CH | 200 X 100MM S/STEEL RHS** BRACKET | 100 |
| HRH2515CH | 250 X 150MM S/STEEL RHS** BRACKET | 100 |

*LIGHT RECTANGULAR HOLLOW SECTION POSTS **HEAVY RECTANGULAR HOLLOW SECTION POSTS
BOLT & NUT NOT INCLUDED



RSJ M10 TOE CLAMP C/W TEE BOLT, WASHER & NYLOC NUT

| CODE | DESCRIPTION | QTY (BOX) |
|--------|--|-----------|
| RSJ003 | M10 S/STEEL TOE CLAMP C/W 50T BOLT & NUT | 200 |

BOLT & NUT INCLUDED



FIXINGS FOR STAINLESS STEEL CHANNEL CLAMPS & BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|--------------|---|-----------|
| M10-32CHB | M10 X 32MM MECHANICALLY GALVANISED CUP HEAD NUT & BOLT | 100 |
| M10-40CHB | M10 X 40MM MECHANICALLY GALVANISED CUP HEAD NUT & BOLT | 200 |
| M10-32T | M10 X 32MM MECHANICALLY GALVANISED TEE BOLT & NUT | 500 |
| M10-50TNYLOC | M10 X 50MM MECHANICALLY GALVANISED TEE BOLT & NYLOC NUT | 100 |
| M10-50T-SET | M10 X 50MM MECHANICALLY GALVANISED TEE BOLT & HEX NUT | 100 |

ALUMINIUM CHANNEL

The aluminium alloy M10 channel provides a robust structure for Signfix clamps, brackets and fixings.

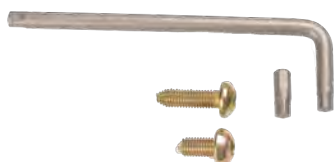


M10 CHANNEL

| CODE | DESCRIPTION | QTY (BOX) |
|---------------|----------------------------|------------|
| M10-CHANNEL/6 | M10 CHANNEL 6M LENGTH MILL | PER LENGTH |

ANTI-THEFT VANDAL PROOF FIXINGS

High performance M10 trilobular fixings to prevent theft and vandalism.



TRILOB SPANNER / TRILOB HEX BIT / TRILOB BOLT

| CODE | DESCRIPTION | QTY (BOX) |
|----------------|--|-----------|
| TRILOBSPAN | M10 TRILOBULAR SPANNER | EACH |
| TRILOBKEY | SECURITY KEY FOR TRILOBULAR SCREW | EACH |
| M10-TRILOB20SS | M10 X 20MM TRILOBULAR COUNTERSUNK SET SCREW ZY | 100 |
| M10-TRILOB21CP | M10 X 21MM TRILOBULAR CONE POINT SET SCREW ZY | 100 |
| M10-TRILOB25ZY | M10 X 25MM TRILOBULAR SET SCREW ZY | 100 |
| M10-TRILOB25SS | M10 X 25MM TRILOBULAR SET SCREW SS | 100 |
| M10-TRILOB40 | M10 X 40MM TRILOBULAR BOLT ZY | 100 |



SHEAR NUTS GALVANISED M10

| CODE | DESCRIPTION | QTY (BOX) |
|-------------|--------------------|-----------|
| M10-SHEARNG | M10 SHEAR NUT GALV | 100 |

BRACKETS & CLAMPS

STREET BLADE BRACKETS

Street blade brackets are available for 50NB & 65NB poles.



SNB 1 WAY

| CODE | DESCRIPTION | QTY (BOX) |
|------------|---|-----------|
| SNB-150-50 | 50MM NB X 150 STREET NAME BLADE BRACKET | EACH |
| SNB-200-50 | 50MM NB X 200 STREET NAME BLADE BRACKET | EACH |
| SNB-150-65 | 65MM NB X 150 STREET NAME BLADE BRACKET | EACH |
| SNB-200-65 | 65MM NB X 200 STREET NAME BLADE BRACKET | EACH |

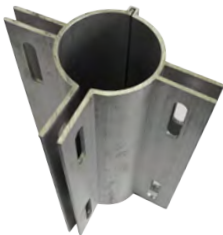
BOLTS, WASHERS AND NUTS INCLUDED



SNB 2 WAY

| CODE | DESCRIPTION | QTY (BOX) |
|-------------|---|-----------|
| SNB2-150-50 | 50MM NB X 150 2 WAY STREET NAME BLADE BRACKET | EACH |
| SNB2-200-50 | 50MM NB X 200 2 WAY STREET NAME BLADE BRACKET | EACH |

BOLTS, WASHERS AND NUTS INCLUDED



SNB 3 WAY

| CODE | DESCRIPTION | QTY (BOX) |
|-------------|---|-----------|
| SNB3-150-50 | 50MM NB X 150 3 WAY STREET NAME BLADE BRACKET | EACH |
| SNB3-200-50 | 50MM NB X 200 3 WAY STREET NAME BLADE BRACKET | EACH |

BOLTS, WASHERS AND NUTS INCLUDED



MINI OFFSET BRACKET

| CODE | DESCRIPTION | QTY (BOX) |
|------------|--|-----------|
| OSBMSNP-01 | MINI OFFSET BRACKET C/W TWO M10 SLOTTED HOLE ANGLE | EACH |

BOLTS, WASHERS AND NUTS NOT INCLUDED



Mini Offset Bracket

BAND-IT® BANDS, BUCKLES & BRACKETS

Signfix offers the sign industry the versatility of stainless steel bands and fittings specially designed and packaged for sign makers and installers. The premium quality stainless steel is compatible with other Signfix materials, suiting small to large diameter poles.



201 GRADE S/STEEL BAND, BUCKLES AND BANDING TOOL

| CODE | DESCRIPTION | QTY (BOX) |
|-------|---|-----------|
| STR13 | 13MM S/STEEL BAND X 30M COIL | 5 |
| STR16 | 16MM S/STEEL BAND X 30M COIL | 5 |
| STR19 | 19MM S/STEEL BAND X 30M COIL | 5 |
| C001 | BANDING TOOL | 1 |
| BUC13 | 13MM S/STEEL BUCKLES (REGULAR) | 100 |
| BUC16 | 16MM S/STEEL BUCKLES (REGULAR) | 100 |
| BUC19 | 19MM S/STEEL BUCKLES (REGULAR) | 100 |
| RB138 | 10MM S/STEEL BAND (REGULAR) X 30M COIL | 1 |
| RS138 | 10MM S/STEEL BUCKLES (REGULAR) | 100 |
| BS192 | PRE-CUT BANDS S/STEEL FOR 150MM OD POLE | 50 |
| BS193 | PRE-CUT BANDS S/STEEL FOR 300MM OD POLE | 50 |

STR13, STR16, STR19 – to calculate the approximate amount of banding required, multiply the pole diameter by 3.14 or pi (π), then add on an extra 120mm for fixing with the Band-It Tool, e.g. 114mm OD pole x 3.14 = 358mm + 120mm = 478mm.

Also available: 316 grade s/steel for coastal regions.



BANDING BRACKETS

| CODE | DESCRIPTION | QTY (BOX) |
|---------|--|-----------|
| UR151 | FLARED 19MM HIGH BRACKET COMPLETE WITH M8 X 12MM SET SCREW AND WASHER MAXIMUM BAND WIDTH 13MM | 100 |
| UR251 | FLARED 27MM HIGH BRACKET COMPLETE WITH M8 X 16MM SET SCREW AND WASHER MAXIMUM BAND WIDTH 19MM | 100 |
| UR251CH | FLARED 29MM HIGH BRACKET COMPLETE WITH M10 X 16MM SET SCREW AND WASHER MAXIMUM BAND WIDTH 19MM | 200 |
| MR135-9 | 135MM LONG S/STEEL BANDING BRACKET | 100 |
| D007 | L BANDING BRACKET | 50 |
| UCC002 | M10 UNIVERSAL CHANNEL CLAMP | 100 |



L Banding Bracket

BRACKETS & CLAMPS

HAZARD BOARD BRACKET KIT

Available from Signfix, Hazard Board Heavy Duty Brackets are designed to mitigate road signs spearing vehicle windscreens. TMR Queensland has developed and tested a new design and issued Standard Drawing 1452. By strengthening the post connections with heavy duty clamps, the risk of sight board signs spearing is reduced as the sign is pulled down with the post on impact, rather than sliding off the post.

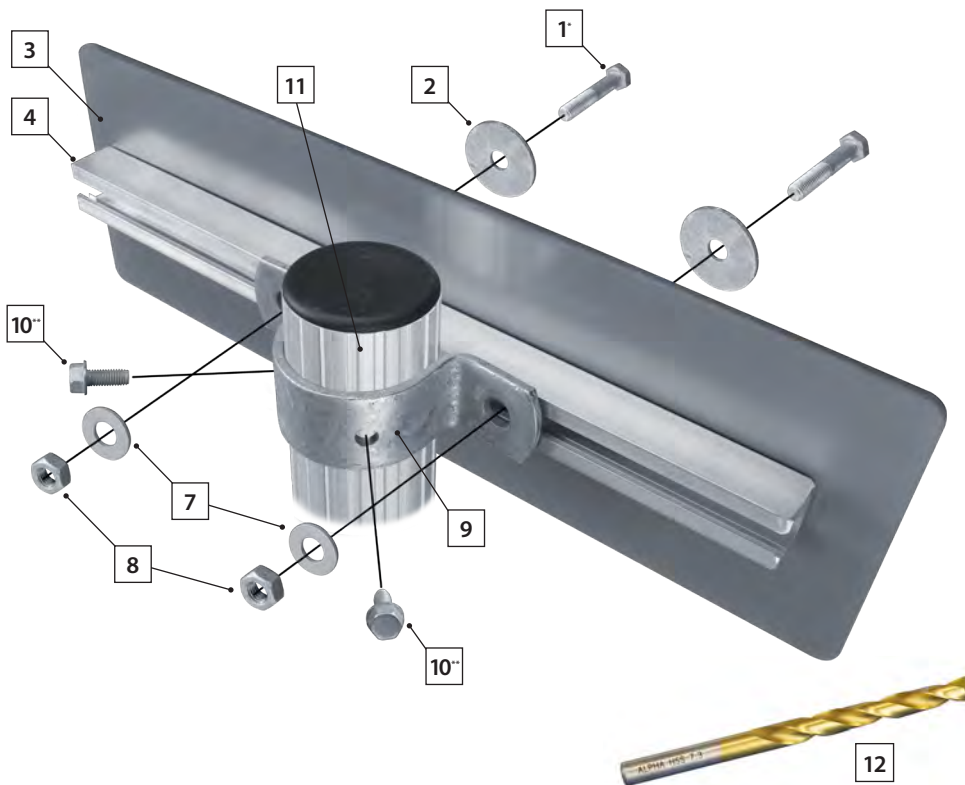
This project was awarded the 2018 Innovation Award at the Department of Transport and Main Roads Engineering Technology Forum

HAZARD BOARD HEAVY DUTY BRACKET KIT

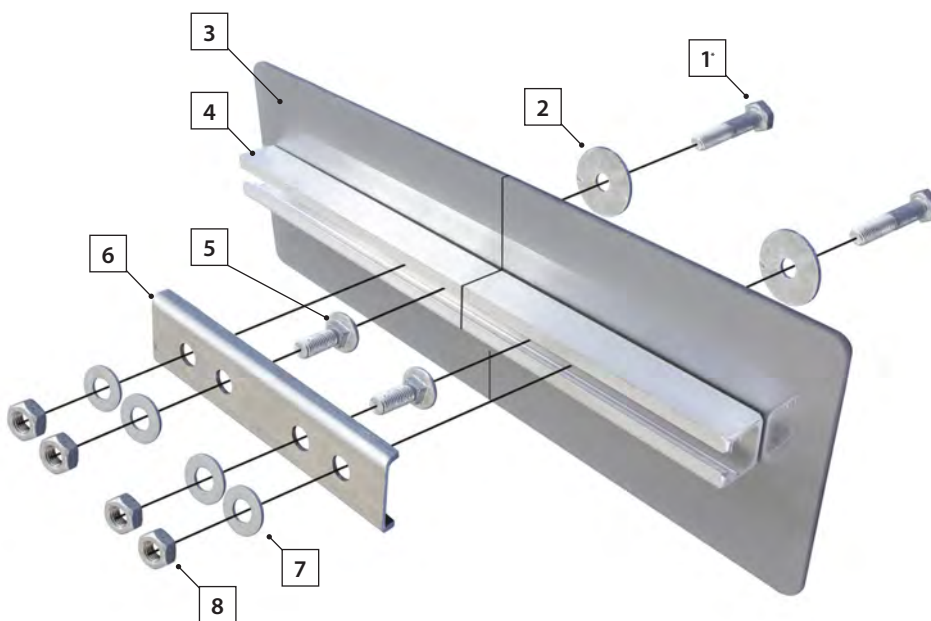
| CODE | DESCRIPTION |
|----------------|--|
| HAZ-BRACKETKIT | HAZARD BOARD HEAVY DUTY BRACKET KIT QLD TMR SPECIFICATION DRAWING SD1452 |



COMPONENT ASSEMBLY



SPLICE PLATE ASSEMBLY CONNECTION AT SIGN JOINT



COMPONENT LIST

| ITEM | DESCRIPTION |
|------|--|
| 1* | M10 X 55 HEX BOLD. GRADE 4.6 GALVANISED |
| 2 | FLAT WASHER 40 OD X 11 ID X 2MM THICK GALVANISED |
| 3*** | ALUMINIUM SIGN FACE |
| 4*** | TYPE 1 ALUMINIUM STIFFENER RAIL |
| 5 | M10 X 30 COACH BOLT. GRADE 4.6 GALVANISED |
| 6 | SPLICE PLATE ALUMINIUM |
| 7 | M10 FLAT WASHER GALVANISED |
| 8 | M10 HEX NUT. GRADE 4.6 GALVANISED |
| 9 | HEAVY DUTY POST CLAMP GALVANISED |
| 10** | M8 X 20 TAPITE HEX SELF-TAPPING SCREW |
| 11 | SIGN POST 60 OD |
| 12 | 7.3MM DRILL BIT |

Notes:

* Drill 10mm dia. holes through stiffener rail and sign face to fit M10 bolts.

** Drill 7.3 dia. holes in post to accept Tapite screws

*** NI = Not Included

FRANGIBLE SIGN SUPPORT STRUCTURES

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FRANGIBLE SIGN SUPPORT STRUCTURES

INTRODUCTION

Signfix™ is Australia's leading frangible aluminium signpost range and used extensively by state and territory road authorities. In addition to its compliant passive safety features, Signfix is popular with construction contractors due to its lightweight design and ease of installation.

The Signfix range can be installed as a single sign support or a multi leg assembly. The system allows up to 16m² single sign dimensions in the major Australia wind zone regions.

We are pleased to introduce **Optimast®** into the market, a complimentary frangible signpost range for larger sign dimensions of up to 40m² across the major Australia wind regions. The increased signage area enables road designers and engineers to specify passive sign structures for large scale traffic messaging such as highway directional signage.

Both the Signfix and Optimast ranges are convenient *out of the box* products, thus requiring very little intervention from sign installation crews or civil engineers.

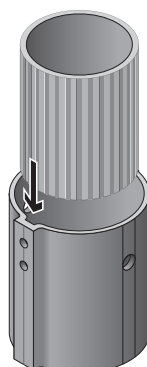


Signfix frangible poles range 60-114mm in outer diameter and hold up to 16m² road signs in Australian wind regions.

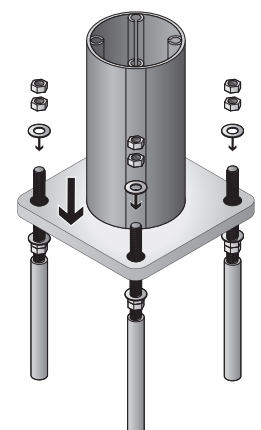


Optimast range 127-244mm in diameter and hold up to 40m² road signs in Australian wind regions

- > Signfix fluted poles come in 3.2m-6.5m lengths, depending on the pole diameter.
- > Pole sizes: Ø60mm, Ø76mm, Ø89mm, Ø102mm, Ø114mm.
- > Poles inserted into corresponding sized aluminium ground sleeve sockets, set in concrete foundations.
- > Ground sleeves vary 300-1000mm in length
- > Upon vehicle impact, the sleeve acts as a shear point, safely breaking away the pole at the socket top.



- > Optimast poles come in 5.0m-8.0m lengths, depending on the pole diameter
- > Pole sizes: Ø127mm, Ø168mm, Ø219mm, Ø244mm.
- > Poles are affixed to base plates with shear bolts.
- > The base plates are attached to anchor cradles set in concrete with foundation bolts.
- > Upon vehicle impact, shear bolts safely breakaway the pole from the base plate.



MASH APPROVAL

Austrroads, the peak body of Australasian road transport and traffic agencies, require new and existing road safety products to comply to the updated testing guidelines of AS/NZS3845.1 (2015) and AS/NZS3845.2 (2017). Road safety products must now be tested to the American Association of State Highway and Transport Officials (AASTO) 2009 Manual for Assessing Safety Hardware (MASH) guidelines. MASH testing supersedes NCHRP 350 testing for Australia and New Zealand road barrier products.

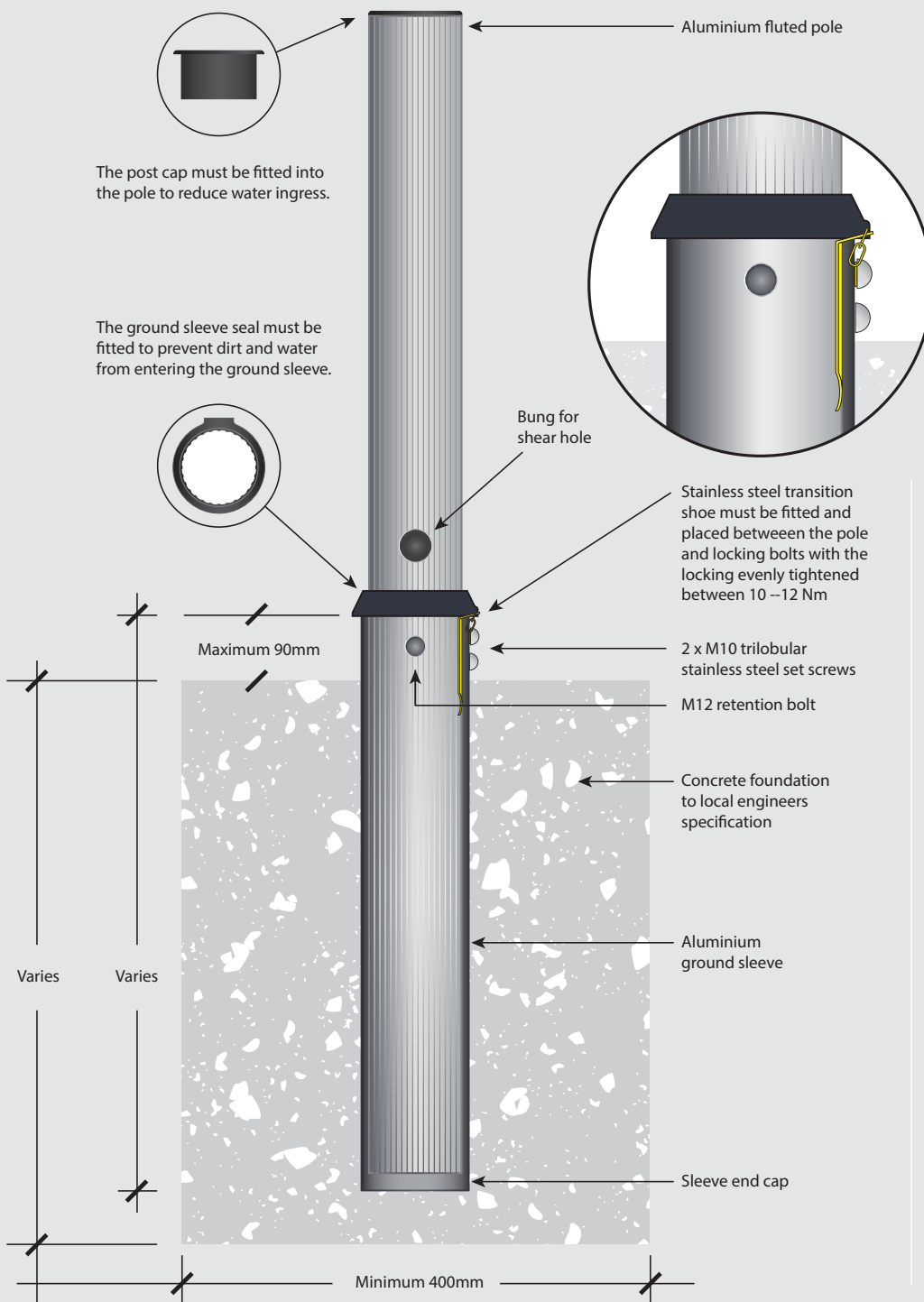
After extensive vehicle impact tests were undertaken on the Signfix and Optimast product ranges by a leading FHWA testing facility, the Signfix and Optimast product ranges are MASH compliant and approved by Austrroads Safety Barrier Assessment Panel (ASBAP) for use on Australia and New Zealand road networks.

Signfix and Optimast product ranges are MASH compliant and approved by Austrroads Safety Barrier Assessment Panel (ASBAP) for use on Australia and New Zealand road networks.



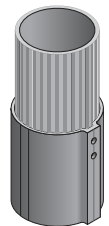
MASH test reports for Signfix and Optimast are available upon request.

FEATURES OF THE SIGNFIX® SYSTEM



The requirement to meet stringent MASH testing guidelines have led to modifications of the Signfix frangible sign support product range as detailed below:

SIGNFIX NCHRP 350 COMPLIANT DESIGN (100NB)

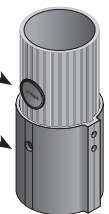


Product Codes
AFP114/6.5
SLV1141000

SIGNFIX MASH COMPLIANT DESIGN (100NB)

2 sealed apertures located 90° each side from facing traffic

Restraint bolt to secure sleeve and pole



Product Codes
AFPM114/6.5
SLVM1141000



ROAD SAFETY

- > Longstanding performance in Australia conditions.
- > The patented Signfix fluted pole and socket system meets or exceeds the MASH testing thresholds for frangible structures.
- > Successfully undertaken rigorous impact testing with 1100kg and 2270kg vehicles at speeds of 30km/h and 100km/h by a leading FHWA accredited testing agency.
- > Occupant Impact Velocity below the preferred 3.0m/s thresholds (4.9m/s maximum).
- > Occupant Ride-down Deceleration well below the preferred 15.0g threshold.
- > Deformations of vehicle occupant department and post impact vehicle trajectory within acceptable limitations.



INSTALLATION

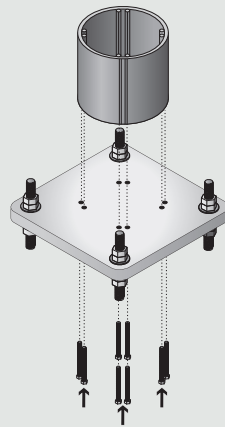
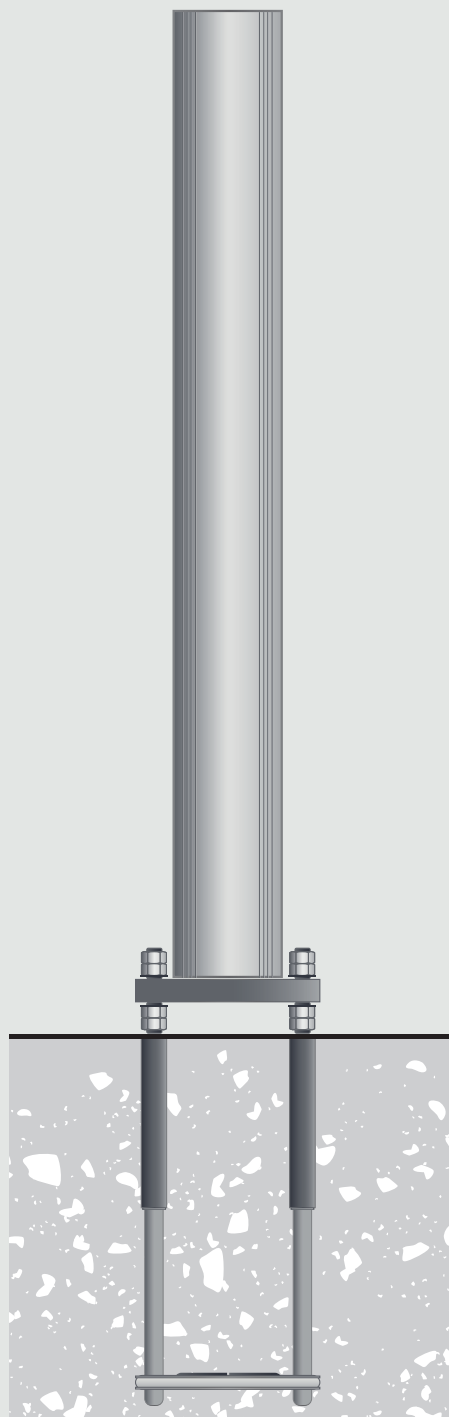
- > The lightweight extruded aluminium components are easy to handle and convenient to transport.
- > Simple to install with no specialist equipment required – props are not required for installing ground sleeves and larger poles during the foundation hardening process.
- > Damaged poles are easily removed, and replacement poles re-installed into existing sleeve foundations.
- > Wind chart system allows installers to easily determine optimal pole configuration (number of poles and size).
- > Clear instruction manuals provided.



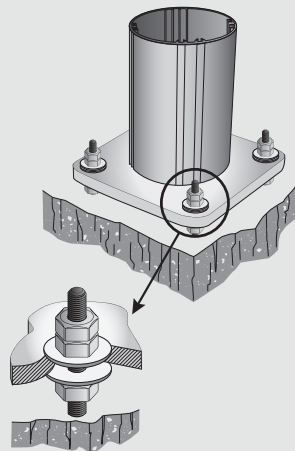
DESIGN

- > Structurally designed to support a sign area of up to 16m².
- > The fluted pole diameter sizes fit all standard bracket types.
- > Lightweight Signfix aluminium frangible poles are similar in strength to steel equivalents.
- > Patented stainless-steel transition shoe is supplied to prevent wear and eliminate any electrolysis action between the locking bolts and pole.
- > Revised MASH design range comes with polymer seals, plugs and caps to prevent water ingress.
- > Corrosion resistance from high quality marine grade aluminium alloy.

FEATURES OF THE OPTIMAST® SYSTEM

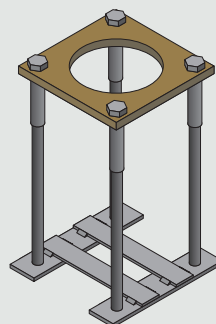


The extruded aluminium mast is delivered assembled with shear bolts attached to the base plate



The foundation bolt arrangements range from:

- > M16 (Ø127)
- > M20 (Ø168, Ø219)
- > M24 (Ø244)



The Anchor Cradle Assembly comprises of a pre-fabricated socket type anchor, a wooden 'template' that can be used for shuttering/battering purposes and 4 securing bolts. These bolts are used simply as an aid to cast the anchor cradle and as a means of preventing site debris from entering the socket(s).



ROAD SAFETY

- > Proven performance in the UK, Germany and France, Optimast complies to BS EN 12767 and has achieved the highest safety accreditation, 100 NE3.
- > The Optimast system meets or exceeds the MASH testing thresholds for frangible structures.
- > Successfully undertaken rigorous impact testing by a leading FHWA accredited testing agency.
- > Occupant Impact Velocity below the preferred 3.0m/s thresholds (4.9m/s maximum).
- > Occupant Ride-down Deceleration below the preferred 15.0g threshold.
- > Deformations of vehicle occupant department and post impact vehicle trajectory within acceptable limitations.



INSTALLATION

- > The extruded aluminium mast (5-8m lengths), shear bolts and base plate are delivered fully assembled.
- > Simple to install base plate with foundation bolts onto an anchor cradle socket set into a concrete foundation.
- > Easy to replace damaged poles, which are easily removed and re-installed onto existing foundations.
- > Wind chart system allows installers to easily determine optimal pole configuration (number of poles and size).
- > Clear instruction manuals provided.



DESIGN

- > Structurally designed to support large directional signs of up to 40m².
- > Signfix provides specialised Optimast clamps with rubber lining to affix mast to sign channel.
- > Strong extruded aluminium cylindrical design has similar strength to steel equivalents.
- > Corrosion resistant high-quality marine grade aluminium alloy.

50NB & 65NB SIGNFIX FRANGIBLE SIGN SUPPORTS

FLUTED ALUMINIUM POLES

The high-strength marine grade alloy used in 50NB and 65NB Signfix fluted aluminium poles is light weight and has excellent corrosion resistance.

Standard pole lengths:

50NB (60OD) > 3.2m, 4.0m

65NB (76OD) > 4.5m

ACCESSORIES AND COMPONENTS

SLEEVE WEDGE

Standard zinc plated wedge. 60OD and 76OD sleeves are designed to be fitted with a standard wedge, allowing sleeves to be installed flush at ground level.

POLY POST CAP & POLY SLEEVE SEAL

To reduce water ingress the poly cap and poly seal tightly form firm fits at the top of the post and sleeve.

RESTRAINT BOLT

Securing the pole in the sleeve retained with a kinmar security nut and SS bolt.

POWDER COATED ALUMINIUM GROUND SLEEVES

Designed to suit both 50NB and 60NB aluminium fluted and galvanised steel poles, Signfix ground sleeves are made from high strength marine grade alloy. The alloy has excellent corrosion resistance and over the years has proven performance with aluminium frangible poles.

GROUND SLEEVE LENGTHS

50NB (60OD) > 300mm, 400mm, 450mm & 600mm

65NB (76OD) > 600mm

Features include:

- > The external shape ensures sleeves will not rotate when set in concrete.
- > Internal dimensions of all sleeves are designed to be a snug fit with the pole.
- > Sleeves are fitted with PVC end caps to prevent concrete entering the sleeve during installation.

Sleeves can be supplied with an M10 tapped hole located 15mm below the sleeve top, to fit either an M10 hex bolt or a trilobular security set screw. This option is ideal for securing PVC poles and in this instance, it is recommended that the sleeves are placed 30mm above ground level.



65NB pole assembly



Poly Cap



Sleeve Wedge



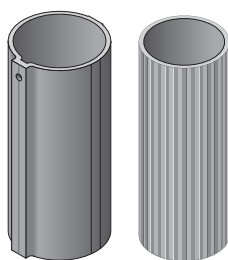
Poly Sleeve Seal



50NB ground sleeves available in 300, 400, 450 and 600mm lengths

Patent protected

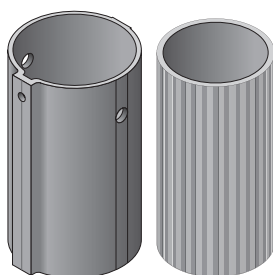
50NB (60OD) SIGNFIX FRANGIBLE POLES



50NB POLES, SLEEVES & ACCESSORIES

| CODE | DESCRIPTION |
|--------------|---|
| AFP060/3.2 | 50MM NB X 3.2M ALUM FLUTED POLE MILL FINISH |
| AFP060/4 | 50MM NB X 4.0M ALUM FLUTED POLE MILL FINISH |
| SLV060300 | 50MM NB X 300MM ALUM GROUND SLEEVE FOR 50MM NB POLE |
| SLV060300-DT | 50MM NB X 300MM ALUM GROUND SLEEVE FOR 50MM NB POLE DRILLED & TAPPED W TRILOB |
| SLV060400 | 50MM NB X 400MM ALUM GROUND SLEEVE FOR 50MM NB POLE |
| SLV060400-DT | 50MM NB X 400MM ALUM GROUND SLEEVE FOR 50MM NB POLE DRILLED & TAPPED W TRILOB |
| SLV060450 | 50MM NB X 450MM ALUM GROUND SLEEVE FOR 50MM NB POLE |
| SLV060450-DT | 50MM NB X 450MM ALUM GROUND SLEEVE FOR 50MM NB POLE DRILLED & TAPPED W TRILOB |
| SLV060600 | 50MM NB X 600MM ALUM GROUND SLEEVE FOR 50MM NB POLE |
| SLV060600-DT | 50MM NB X 600MM ALUM GROUND SLEEVE FOR 50MM NB POLE DRILLED & TAPPED W TRILOB |
| SLVWEDGE060 | GROUND SLEEVE WEDGE |
| POLYCAP060 | 50MM NB POLY POST CAP |
| POLYSEAL060 | 50MM NB POLY SLEEVE SEAL |
| AFPMRST060 | RESTRAINT DEVICE TO SUIT 50MM NB POLE |

65NB (76OD) SIGNFIX FRANGIBLE POLES



65NB POLES, SLEEVES & ACCESSORIES

| CODE | DESCRIPTION |
|---------------|---|
| AFP076/4.5M | 65MM NB X 4.5M ALUM FLUTED POLE MILL FINISH |
| SLV076600M | 65MM NB X 600MM ALUM GROUND SLEEVE FOR 65MM NB POLE |
| POLEKIT076M | 65NB KIT SET C/W POLYCAP076, POLYSEAL076, POLYPLUG076 X 2, M12 X 104MM RESTRAINT BOLT, KINMAR NUT, NYLON WASHER X 2 |
| POLYCAP076 | 65MM NB POLY POST CAP |
| POLYSEAL076 | 65MM NB POLY SLEEVE SEAL |
| AFPRST076 | RESTRAINT DEVICE TO SUIT 65MM NB POLE |
| KINMARSOCKETM | KINMAR DRIVE SOCKET - M12 |

M – Denotes MASH range

80NB, 90NB & 100NB SIGNFIX FRANGIBLE SIGN SUPPORTS

FLUTED ALUMINIUM POLES

The high-strength marine grade alloy used in 80NB, 90NB and 100NB Signfix fluted aluminium poles is light weight and has excellent corrosion resistance.

Standard pole lengths:

80NB (89OD) > 5.5m lengths

90NB (102OD) > 6.0m lengths

100NB (114OD) > 6.5m lengths

ACCESSORIES AND COMPONENTS

TRANSITION WEAR SHOE

80NB, 90NB and 100NB sleeves are designed to be fit with a transition shoe & two trilobular fasteners.

The patented stainless steel transition shoe fits between the aluminium pole wall and M10 trilobular locking bolts, to prevent fracture points and eliminate any electrolysis action. The innovative stainless steel transition shoe **MUST** be placed between the pole and locking bolts and tightened evenly between 10 and 12 Nm.

POLY POST CAP & POLY SLEEVE SEAL

To reduce water ingress the poly cap and poly seal tightly form firm fits at the top of the post and sleeve.

RESTRAINT BOLT (KINMAR)

Calibrated to secure a pole and sleeve to shear safely through stringent MASH vehicle impact tests.

POWDER COATED ALUMINIUM GROUND SLEEVES

Designed to suit 80NB, 90NB and 100NB aluminium frangible poles, Signfix ground sleeves are made from high strength marine grade alloy. The powder coated sleeve has excellent resistance to corrosion and over the years has proven performance with our aluminium poles.

GROUND SLEEVE LENGTHS

80NB (89OD) > 750mm lengths

90NB (102OD) > 850mm lengths

100NB (114OD) > 1000mm lengths

Features include:

- > The external shape ensures sleeves will not rotate when set in concrete.
- > Internal dimensions of all sleeves are designed to be a snug fit with the pole.

Sleeves are fitted with PVC end caps to prevent concrete entering the sleeve during installation.



Kinmar Nut & Socket



Transition Shoe



Poly Cap



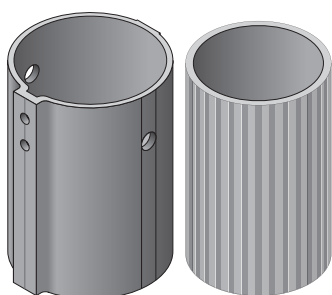
Poly Sleeve Seal



Restraint Bolt Assembly

Patent protected

80NB (890D) SIGNFIX FRANGIBLE POLES

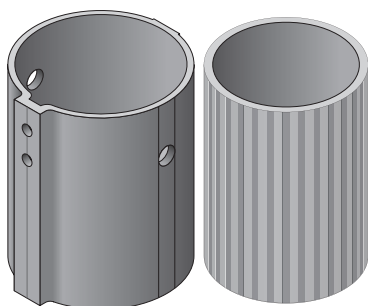


80NB POLES, SLEEVES & ACCESSORIES

| CODE | DESCRIPTION |
|---------------|---|
| AFPM089/5.5M | 80MM NB X 5.5M ALUM FLUTED POLE MILL FINISH |
| SLV089750M | 80MM NB X 750MM ALUM GROUND SLEEVE FOR 80MM NB POLE |
| POLEKIT089M | 80NB KIT SET C/W POLYCAP089, POLYSEAL089, POLYPLUG089 X 2, M12 X 119MM RESTRAINT BOLT, KINMAR NUT, NYLON WASHER X 2 |
| POLYCAP089 | 80MM NB POLY POST CAP |
| POLYSEAL089 | 80MM NB POLY SLEEVE SEAL |
| AFPRST089 | RESTRAINT DEVICE TO SUIT 80MM NB POLE |
| KINMARSOCKETM | KINMAR DRIVE SOCKET - M12 |

M - Denotes MASH range

90NB (1020D) SIGNFIX FRANGIBLE POLES

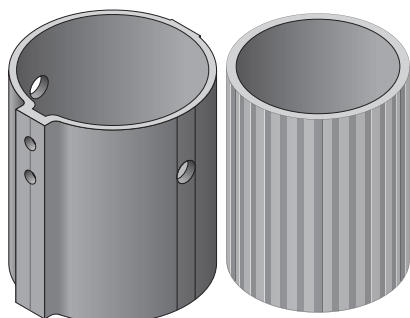


90NB POLES, SLEEVES & ACCESSORIES

| CODE | DESCRIPTION |
|---------------|---|
| AFP102/6M | 90MM NB X 6M ALUM FLUTED POLE MILL FINISH |
| SLV102850M | 90MM NB X 850MM ALUM GROUND SLEEVE FOR 90MM NB POLE |
| POLEKIT102M | 90NB KIT SET C/W POLYCAP102, POLYSEAL102, POLYPLUG102 X 2, M12 X 133MM RESTRAINT BOLT, KINMAR NUT, NYLON WASHER X 2 |
| POLYCAP102 | 90MM NB POLY POST CAP |
| POLYSEAL102 | 90MM NB POLY SLEEVE SEAL |
| AFPRST102 | RESTRAINT DEVICE TO SUIT 90MM NB POLE |
| KINMARSOCKETM | KINMAR DRIVE SOCKET - M12 |

M - Denotes MASH range

100NB (1140D) SIGNFIX FRANGIBLE POLES



100NB POLES, SLEEVES & ACCESSORIES

| CODE | DESCRIPTION |
|---------------|--|
| AFP114/6.5M | 100MM NB X 6.5M ALUM FLUTED POLE MILL FINISH |
| AFP114PCG61M | POWDER COATING GREEN G61 100MM NB POLES |
| SLV1141000M | 100MM NB X 1M ALUM GROUND SLEEVE FOR 100MM NB POLE |
| POLEKIT114M | 100NB KIT SET C/W POLYCAP114, POLYSEAL114, POLYPLUG114 X 2, M12 X 146MM RESTRAINT BOLT, KINMAR NUT, NYLON WASHER X 2 |
| POLYCAP114 | 100MM NB POLY POST CAP |
| POLYSEAL114 | 100MM NB POLY SLEEVE SEAL |
| AFPRST114 | RESTRAINT DEVICE TO SUIT 100MM NB POLE |
| KINMARSOCKETM | KINMAR DRIVE SOCKET - M12 |

M - Denotes MASH range

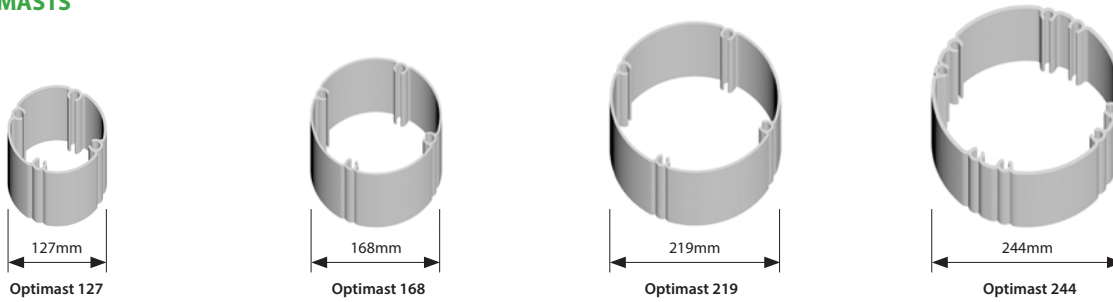
OPTIMAST FRANGIBLE SIGN SUPPORT SYSTEM COMPONENTS

Structurally designed to support signs of up to 40m², Optimast is the largest & strongest frangible support system available in Australia.

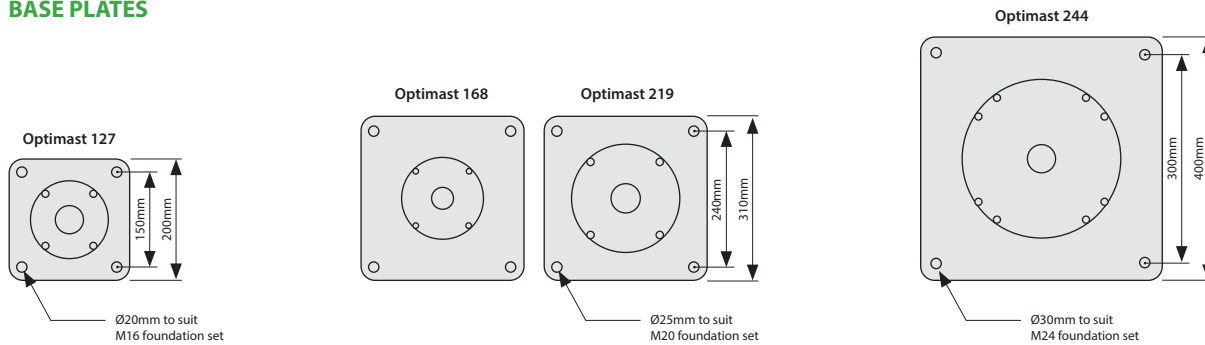
Optimast is constructed using recyclable aluminium and offers pole dimensions of 127mm, 168mm, 219mm and 244mm, suiting a large range of sign sizes.

Optimast is designed so that the pole breaks away at the shear bolt when impacted by a vehicle, leaving the baseplate, foundation bolts and anchor cradle intact. The anchor cradle and concrete foundation should remain undamaged and the baseplate can be easily removed – thus a new mast can be installed onto the existing anchor cradle foundation.

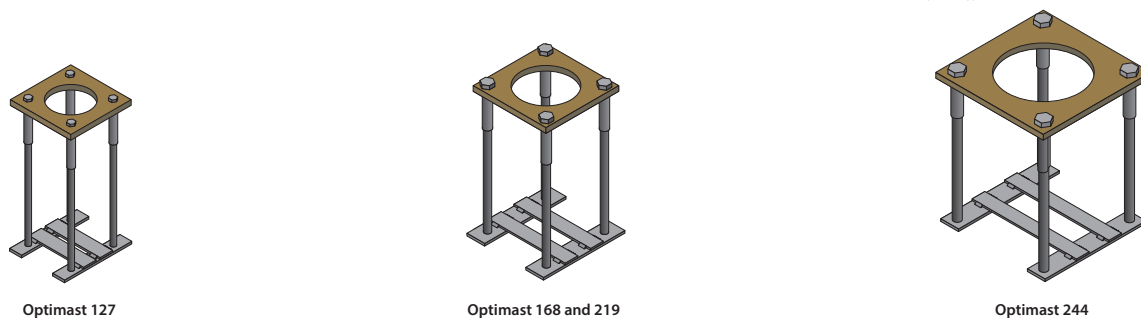
MASTS



BASE PLATES



FOUNDATION ANCHOR CRADLES



127 OPTIMAST FRANGIBLE MAST C/W BASE PLATE



127 POLES & BASE PLATE

| CODE | DESCRIPTION |
|--------------|--|
| OPTI127X5000 | 127MM OD X 5M ALUM SIGN MAST POLE, C/W FITTED CAP & BASE PLATE |

HEAVY DUTY 2-BOLT 'D' BRACKETS (FOR OPTIMAST SIGN POLES)

| CODE | DESCRIPTION | QTY (BOX) |
|---------------|---|-----------|
| OPTIFIXING127 | HEAVY DUTY S/STEEL 2-BOLT 'D' CLIP WITH RUBBER INSERT FOR 127 OPTIMAST POLE | 50 |

| CODE | DESCRIPTION |
|-------------|---|
| M10-50T-SET | M10 X 50MM MECHANICALLY GALVANISED TEE BOLT & HEX NUT |

168 OPTIMAST FRANGIBLE MAST C/W BASE PLATE



168 POLES & BASE PLATE

| CODE | DESCRIPTION |
|--------------|--|
| OPTI168X5500 | 168MM OD X 5.5M ALUM SIGN MAST POLE, C/W FITTED CAP & BASE PLATE |

HEAVY DUTY 2-BOLT 'D' BRACKETS (FOR OPTIMAST SIGN POLES)

| CODE | DESCRIPTION | QTY (BOX) |
|---------------|---|-----------|
| OPTIFIXING168 | HEAVY DUTY S/STEEL 2-BOLT 'D' CLIP WITH RUBBER INSERT FOR 168 OPTIMAST POLE | 50 |

| CODE | DESCRIPTION |
|-------------|---|
| M10-50T-SET | M10 X 50MM MECHANICALLY GALVANISED TEE BOLT & HEX NUT |

219 OPTIMAST FRANGIBLE MAST C/W BASE PLATE



219 POLES & BASE PLATE

| CODE | DESCRIPTION |
|--------------|--|
| OPTI219X6000 | 219MM OD X 6M ALUM SIGN MAST POLE, C/W FITTED CAP & BASE PLATE |

HEAVY DUTY 2-BOLT 'D' BRACKETS (FOR OPTIMAST SIGN POLES)

| CODE | DESCRIPTION | QTY (BOX) |
|---------------|---|-----------|
| OPTIFIXING219 | HEAVY DUTY S/STEEL 2-BOLT 'D' CLIP WITH RUBBER INSERT FOR 219 OPTIMAST POLE | 50 |

| CODE | DESCRIPTION |
|-------------|---|
| M10-50T-SET | M10 X 50MM MECHANICALLY GALVANISED TEE BOLT & HEX NUT |

244 OPTIMAST FRANGIBLE MAST C/W BASE PLATE



244 POLES & BASE PLATE

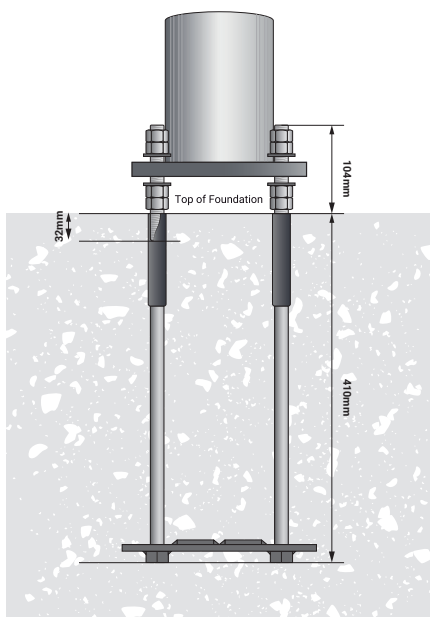
| CODE | DESCRIPTION |
|--------------|--|
| OPTI244X8000 | 244MM OD X 8M ALUM SIGN MAST POLE, C/W FITTED CAP & BASE PLATE |
| OPTI244X7500 | 244MM OD X 7.5M ALUM SIGN MAST POLE, C/W FITTED CAP & BASE PLATE |

HEAVY DUTY 2-BOLT 'D' BRACKETS (FOR OPTIMAST SIGN POLES)

| CODE | DESCRIPTION | QTY (BOX) |
|---------------|---|-----------|
| OPTIFIXING244 | HEAVY DUTY S/STEEL 2-BOLT 'D' CLIP WITH RUBBER INSERT FOR 244 OPTIMAST POLE | 50 |

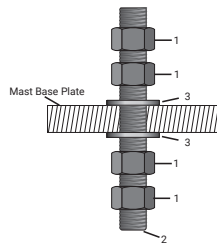
| CODE | DESCRIPTION |
|-------------|---|
| M10-50T-SET | M10 X 50MM MECHANICALLY GALVANISED TEE BOLT & HEX NUT |

127 ANCHOR CRADLE AND FOUNDATION STUD SET



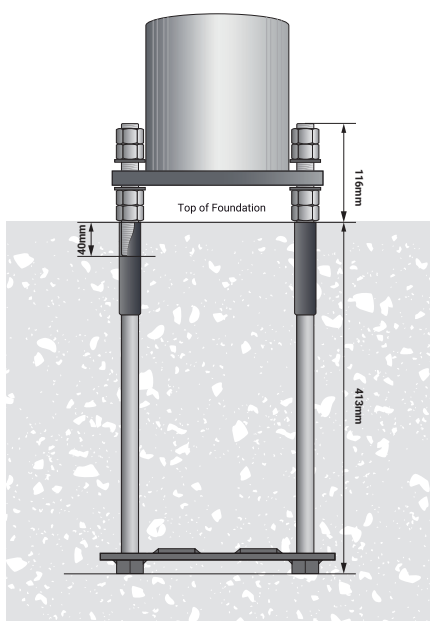
127 ANCHOR CRADLE

| CODE | DESCRIPTION |
|-----------------|---|
| OPTI127ANCRADLE | 127MM OD ANCHOR CRADLE ASSEMBLY C/W 4 X M16 FOUNDATION SOCKETS |
| M16FBS | M16 FOUNDATION BOLT SET C/W 16 X M16 HEX NUTS, 4 X M16 X 136MM STUD AND 8 X M17 X 45 X 6 S/S WASHER |



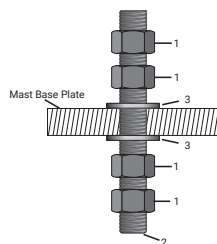
| ITEM NO. | PART NUMBER | QTY. |
|----------|---------------------|------|
| 1 | M16 HEX NUT | 16 |
| 2 | M16 X 136 STUD | 4 |
| 3 | M17 X 45 X 6 WASHER | 8 |

168 ANCHOR CRADLE AND FOUNDATION STUD SET



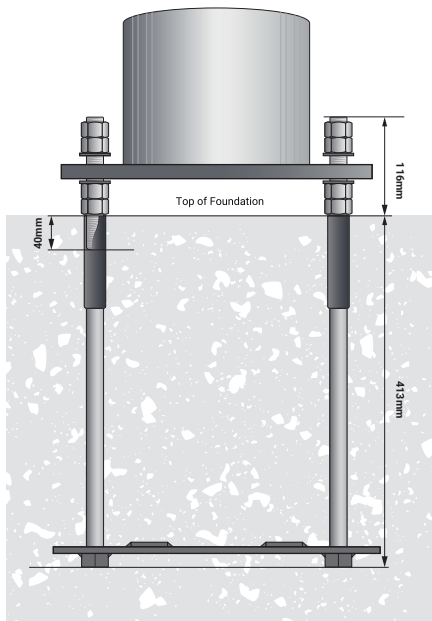
168 ANCHOR CRADLE

| CODE | DESCRIPTION |
|-----------------|---|
| OPTI168ANCRADLE | 168MM OD ANCHOR CRADLE ASSEMBLY C/W 4 X M20 FOUNDATION SOCKETS |
| M20FBS | M20 FOUNDATION BOLT SET C/W 16 X M20 HEX NUTS, 4 X M20 X 156MM STUD AND 8 X M21 X 50 X 6 S/S WASHER |



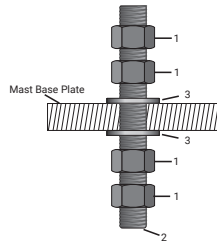
| ITEM NO. | PART NUMBER | QTY. |
|----------|---------------------|------|
| 1 | M20 HEX NUT | 16 |
| 2 | M20 X 156 STUD | 4 |
| 3 | M21 X 50 X 6 WASHER | 8 |

219 ANCHOR CRADLE AND FOUNDATION STUD SET



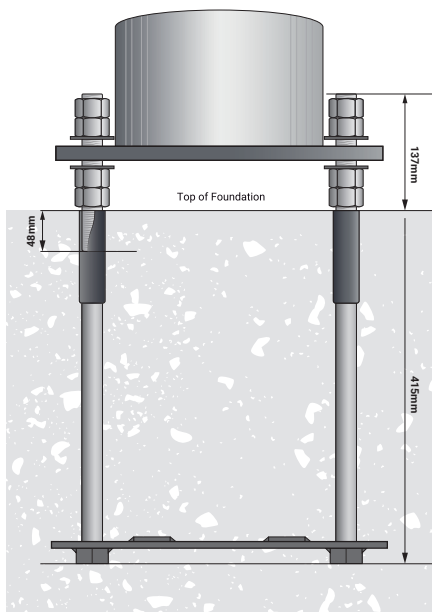
219 ANCHOR CRADLE

| CODE | DESCRIPTION |
|-----------------|---|
| OPTI219ANCRADLE | 219MM OD ANCHOR CRADLE ASSEMBLY C/W 4 X M20 FOUNDATION SOCKETS |
| M20FBS | M20 FOUNDATION BOLT SET C/W 16 X M20 HEX NUTS, 4 X M20 X 156MM STUD AND 8 X M21 X 50 X 6 S/S WASHER |



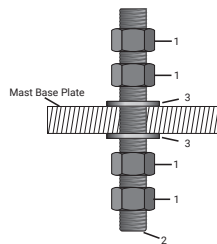
| ITEM NO. | PART NUMBER | QTY. |
|----------|---------------------|------|
| 1 | M20 HEX NUT | 16 |
| 2 | M20 X 156 STUD | 4 |
| 3 | M21 X 50 X 6 WASHER | 8 |

244 ANCHOR CRADLE AND FOUNDATION STUD SET



244 ANCHOR CRADLE

| CODE | DESCRIPTION |
|-----------------|---|
| OPTI244ANCRADLE | 244MM OD ANCHOR CRADLE ASSEMBLY C/W 4 X M24 FOUNDATION SOCKETS |
| M24FBS | M24 FOUNDATION BOLT SET C/W 16 X M24 HEX NUTS, 4 X M24 X 186MM STUD AND 8 X M25 X 60 X 8 S/S WASHER |



| ITEM NO. | PART NUMBER | QTY. |
|----------|---------------------|------|
| 1 | M24 HEX NUT | 16 |
| 2 | M24 X 186 STUD | 4 |
| 3 | M25 X 60 X 8 WASHER | 8 |

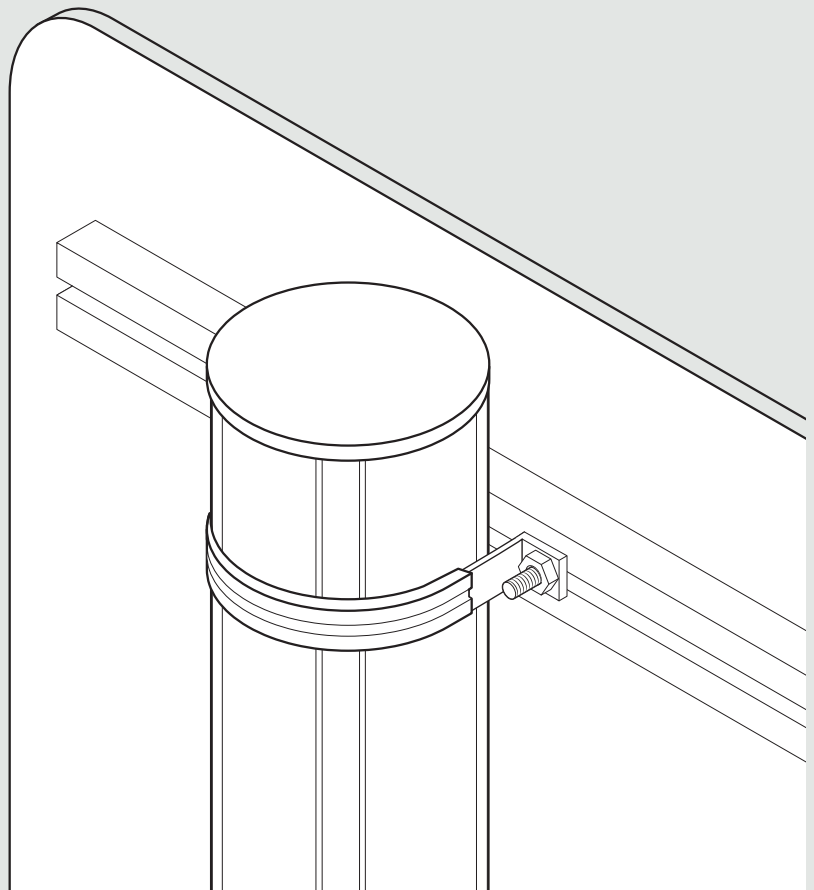
OPTIMAST SIGN FIXING

Sign installation must take place immediately after the mast has been installed.

The Optimast heavy duty 2-bolt D brackets with rubber insert, M10 x 50T bolt and nut must be used when attaching the sign.

When the sign is mounted in the current position, the fixings are to be tightened to the correct torque settings of 18 Nm.

We advise threads to be lubricated with Rocal anti-seize stainless lubricant or similar.



FRANGIBLE SIGN SUPPORT INSTALLATION

| | |
|-------------------------------|-----------|
| SIGNFIX® INSTALLATION | 32 |
| OPTIMAST® INSTALLATION | 36 |

SIGNFIX INSTALLATION

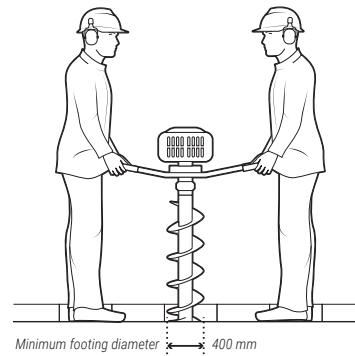
1. GROUND WORK

1.1 Excavate the hole

For multi-pole installations, start with the pole closest to the curb.

Foundations should be excavated to a minimum diameter of 400mm¹ and a depth equal to the ground sleeve length.

Remove all loose debris from the footing before pouring concrete.

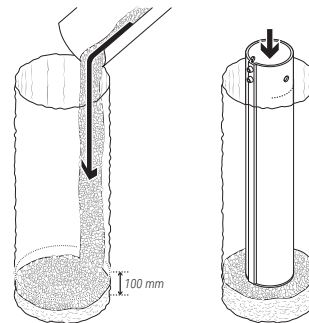


1.2 Pour concrete

Concrete must be a minimum strength of 28Mpa.

Pour 100mm of concrete into the footing then bed the sleeve base into the centre of the footing, ensuring the embedment depth line is at ground level. The top of the sleeve will be 50-90mm above ground level, depending on sleeve size.

The trilobular locking bolts must face the oncoming traffic.

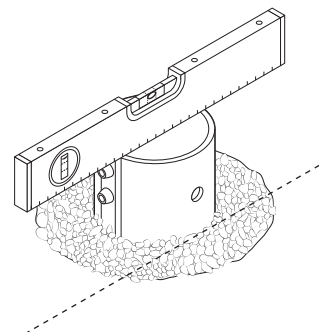


Ensuring the sleeve remains perpendicular and centred with a spirit level, pour concrete around the sleeve to the embedment depth line.

The ground sleeve may float vertically up during this concrete pour. To prevent this, maintain downward pressure on the sleeve to ensure the correct position is maintained above ground.

Once the kerbside sleeve is in place, repeat the process with the remaining sleeves.

Once all the sleeves are installed, cover and leave concrete to cure for 24 hours.



¹Diameter of excavation may differ by engineer's recommendations and state road authority specifications.

2. ALUMINIUM POLE INSTALLATION

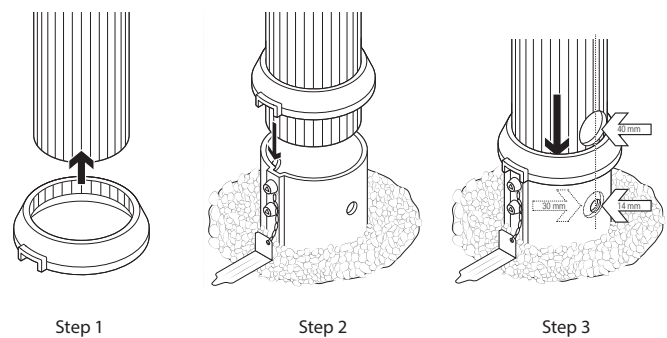
2.1 Pole insertion

Line up the flute patterns of both the ground sleeve seal and aluminium pole, then push the ground sleeve seal approximately 10mm over the base of the aluminium pole (the end closest to the pre-cut post restraint bolt holes).

Align the seal flange with the locking bolts, then slide the pole into the ground sleeve. The ground sleeve seal will slide up the pole into the correct position once the pole reaches the base of the ground sleeve.

Ensure the restraint holes in the ground sleeve line up with the corresponding post restraint bolt holes in pole.

The correct placement will also result in the pole shear holes aligned to the post restraint holes in the sleeve.

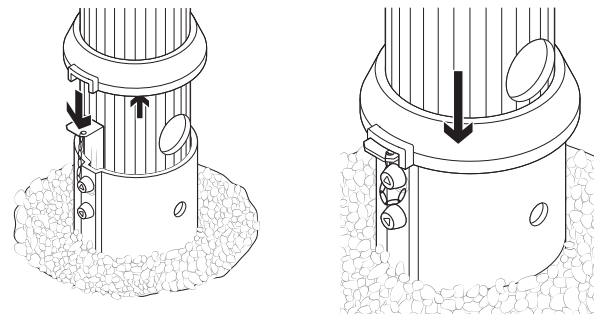


2.2 Transition shoe insertion

Insert the transition shoe by lifting the aluminium pole 100mm out of the ground sleeve and insert the transition shoe so that the lip is sitting flush with the top of the ground sleeve and on top of the locking bolts.

Lower the aluminium pole back into the ground sleeve, lining up the centre groove in the transition shoe with a flute in the aluminium pole.

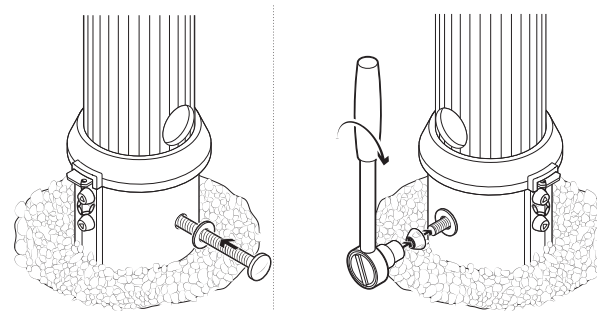
This will ensure the transition shoe is a snug fit between the ground sleeve and aluminium pole.



2.3 Retention bolt assembly installation

Place a nylon washer onto the M12 stainless steel bolt head and insert the bolt through the hole to the other side of the ground sleeve.

Locating the thread end of the bolt, fit a nylon washer & kinmar lock nut onto the thread and tighten to 10-12 Nm torque with the kinmar socket.



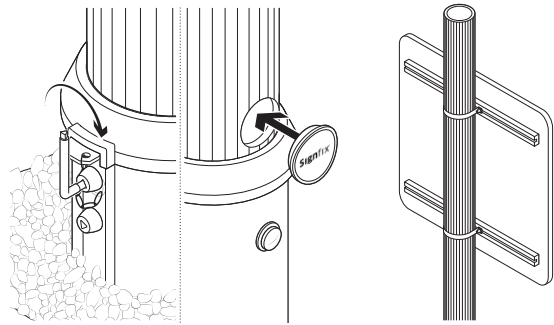
SIGNFIX INSTALLATION

2. ALUMINIUM POLE INSTALLATION (cont.)

2.4 Fasten transition shoe & insert shear hole bung plugs

Using the trilobular spanner or trilobular key, tighten the sleeve locking bolts to 10-12 Nm torque.

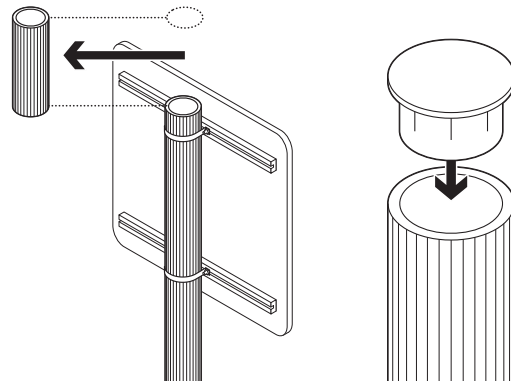
Push both bung plugs into the pre-cut shear holes located on each side of the fluted aluminium pole and just above the ground sleeve seal.

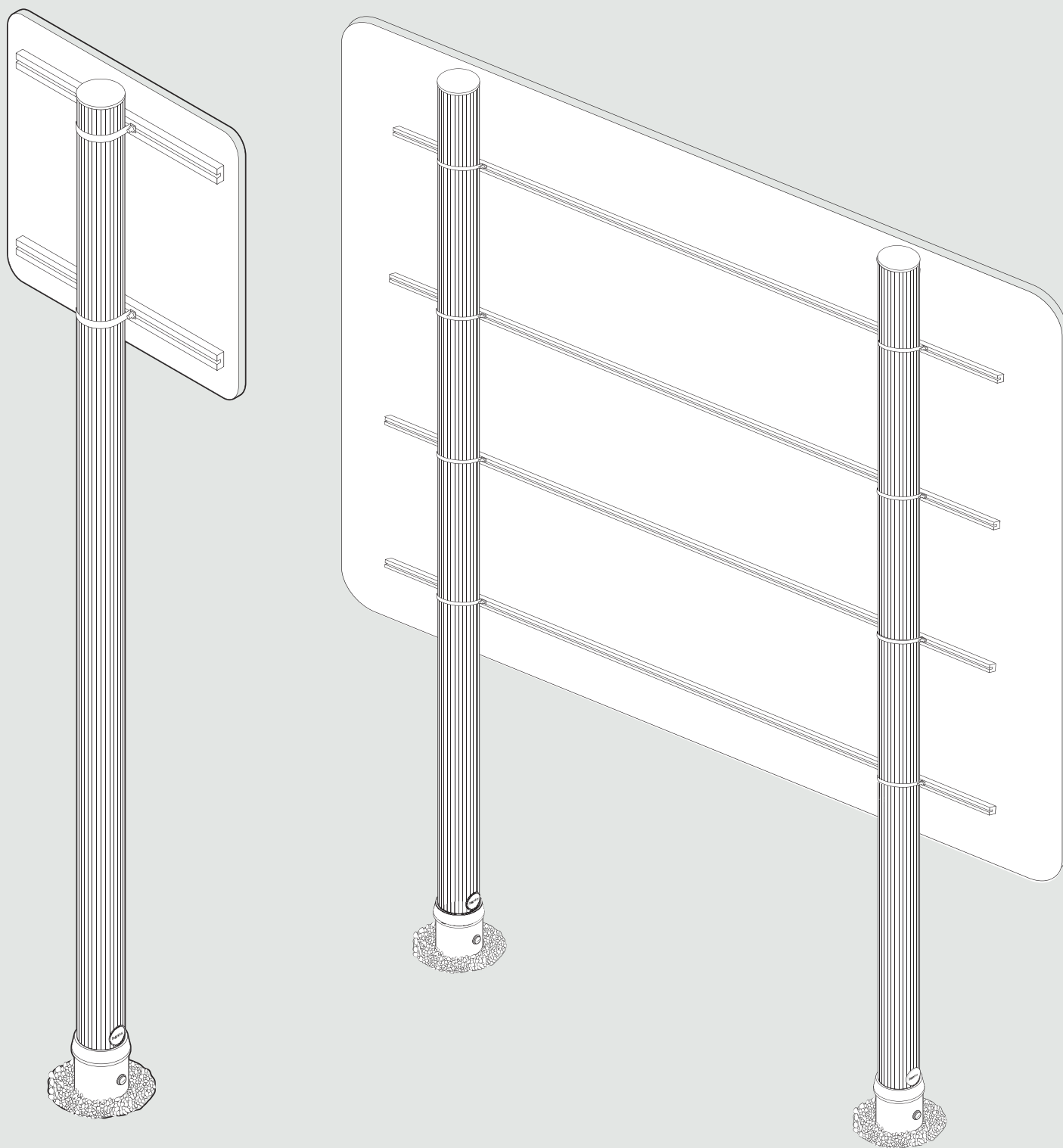


3. INSTALL THE SIGN ONTO ALUMINIUM POLE ASSEMBLIES

Cut aluminium poles to required size.

Fit poly caps to aluminium poles.





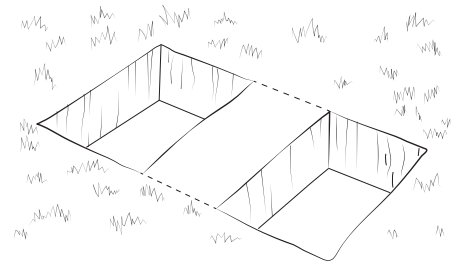
NB. Drawings are not to scale, and used for illustrative purposes only.

OPTIMAST INSTALLATION

1. GROUND WORK

1.1 Excavate the trench

Using suitable equipment, excavate the trench to the dimensions specified by the independent scheme designer.

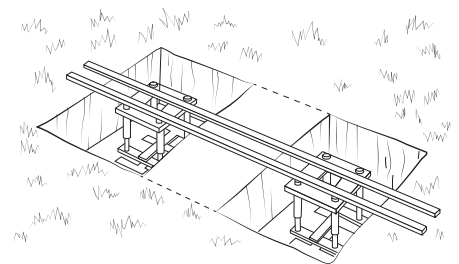


1.2 Secure anchor cradles

The anchor cradle must be securely suspended in the foundation in its final position.

Level and align prior to concreting the foundation. This is usually achieved by nailing or screwing the template board to timbers spanning across the excavation or the foundation shuttering.

The underside of the removable template board is to be set to the top of concrete level. The template board should be checked with a spirit level to ensure it is level and the arrangement checked to ensure it is robust and rigid before concreting.



1.3 Pour concrete

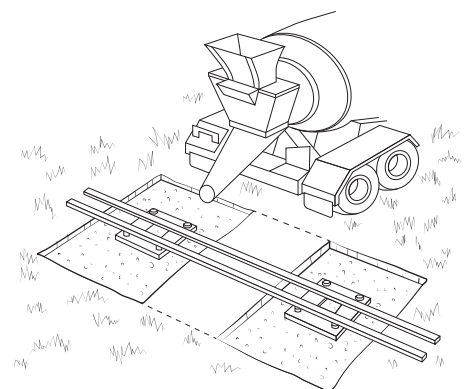
Anchorage and baseplates of the masts should be exposed and not buried under soil. The top of the concrete foundation should be level or not more than 50mm above the surrounding ground or paving to prevent the underside of errant vehicles catching on the concrete before hitting the sign mast in a vehicle impact. The concrete must be mechanically vibrated to ensure that all air pockets and voids are eliminated from the foundation concrete.

Signfix recommends minimum concrete grade of 28MPa. However, the final design is the responsibility of the scheme designer.

Immediately after concreting the bolt position the alignment should be re-checked to ensure the anchor cradles have not moved.

The template boards may be removed the day after concreting but the temporary/disposable bolts should be retained to protect the anchor socket threads until the sign mast can be erected.

Masts and sign plates should not be erected until the contractor is satisfied the concrete has reached a cube strength of 28MPa. To erect masts earlier after concreting, stronger concrete can be used to shorten the time needed to achieve the 28MPa cube strength.



2. ERECTION OF THE OPTIMAST ONTO THE ANCHOR CRADLES

2.1 Insert foundation studs into anchor cradle socket

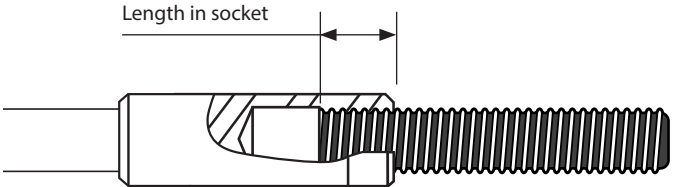
Remove any debris from around the anchor and check the concrete for high spots that may prevent the mast from seating correctly on the bolts.

Remove and dispose of the temporary/disposable bolts and the template board.

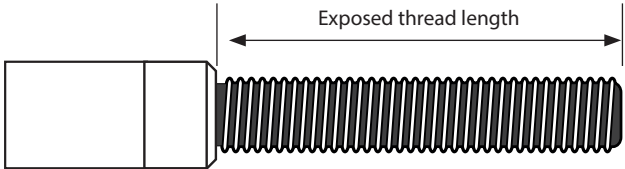
Grease anchor studs and the internal threads of the anchorage sockets threads with Rocol anti-seize stainless lubricant or similar.

Screw the 4 studs by hand into the anchor socket as per the table below.

| Bolt insertion depths: | | |
|------------------------|---------------|------------------|
| Mast Type | Stud Diameter | Length in socket |
| 127 | M16 | 32mm |
| 168 | M20 | 40mm |
| 219 | M20 | 40mm |
| 244 | M24 | 48mm |



| Maximum height of exposed thread: | | |
|-----------------------------------|---------------|-----------------------|
| Mast Type | Stud Diameter | Exposed thread length |
| 127 | M16 | 104mm |
| 168 | M20 | 116mm |
| 219 | M20 | 116mm |
| 244 | M24 | 137mm |



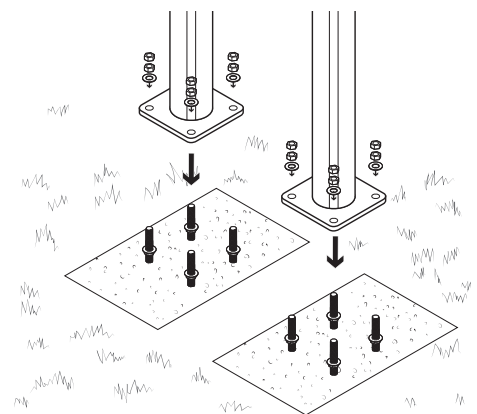
2.2 Fitting the Optimast

Screw one stainless steel nut down each stud until they lock tight onto each socket in the concrete. Tighten each nut with a spanner but do not apply excess torque, this will prevent the stud from turning during subsequent operations.

Screw a second stainless nut down onto each stud until they are all approximately 3 mm above the first nut. Check across all four second stainless nuts with a spirit level and adjust by screwing up or down until all four nuts are precisely level to create a level bed for the mast base plate.

Apply to each stud a stainless-steel washer.

Lower the mast onto the studs, taking care not to damage the threads.



OPTIMAST INSTALLATION

2. ERECTION OF THE OPTIMAST ONTO THE ANCHOR CRADLES (cont.)

2.3 Securing the Optimast

Apply a stainless-steel washer to each stud, then a third stainless steel nut and hand-tighten. Check the base plate is fully seated on all four studs and the mast is vertical. If not, slacken off third stainless steel nut and adjust the nuts under the baseplate. Hand-tighten the nuts on top again and re-check.

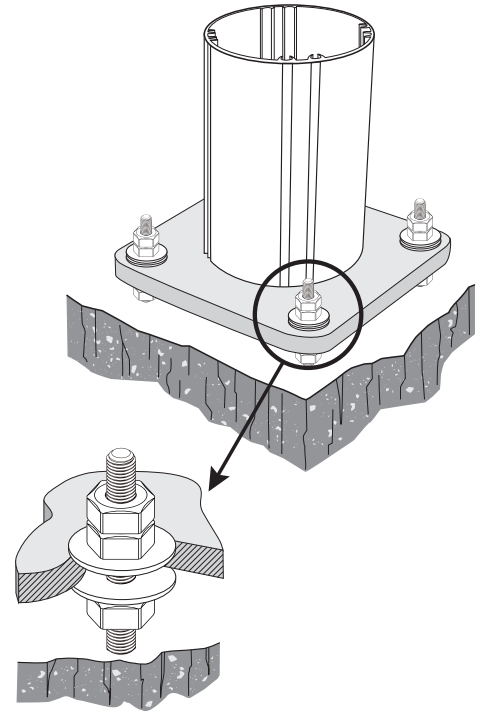
When you are satisfied that the mast is vertical and fully seated, tighten the third stainless steel nut to the recommended torque using a torque wrench. See below table for torque settings.

The nuts below the baseplate should be checked to ensure they do not rotate and if necessary, an open ended spanner should be used to prevent any rotation.

Apply a fourth stainless steel nut to each stud and tighten to the torque recommended using a torque wrench. See below table for torque settings.

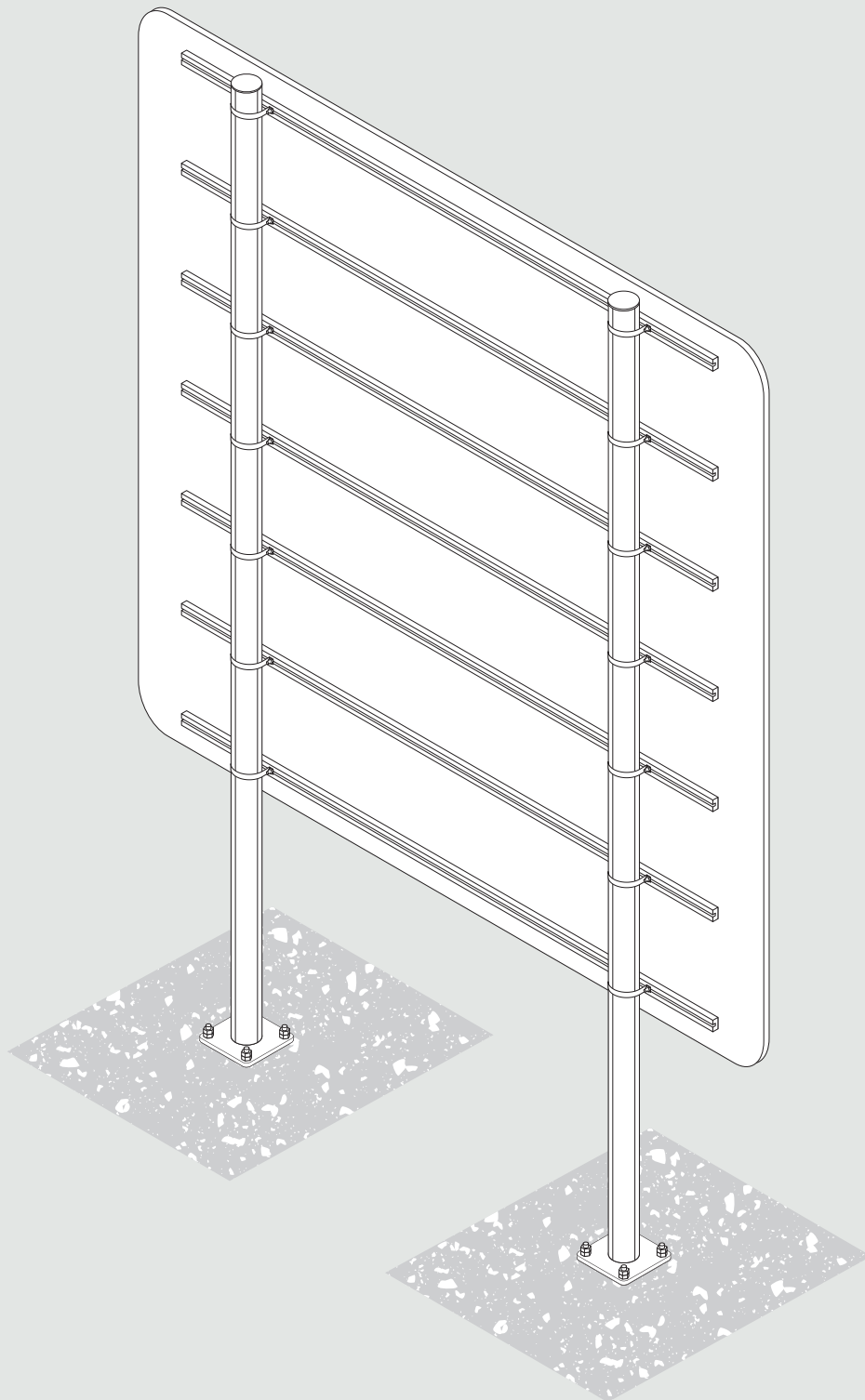
Screw the first stainless steel nut touching the concrete/socket up against the second stainless steel nut under the base plate and firmly tighten with an open ended spanner.

Re-check the mast is vertical using a suitable measuring device.



Torque wrench setting for foundation bolt sets:

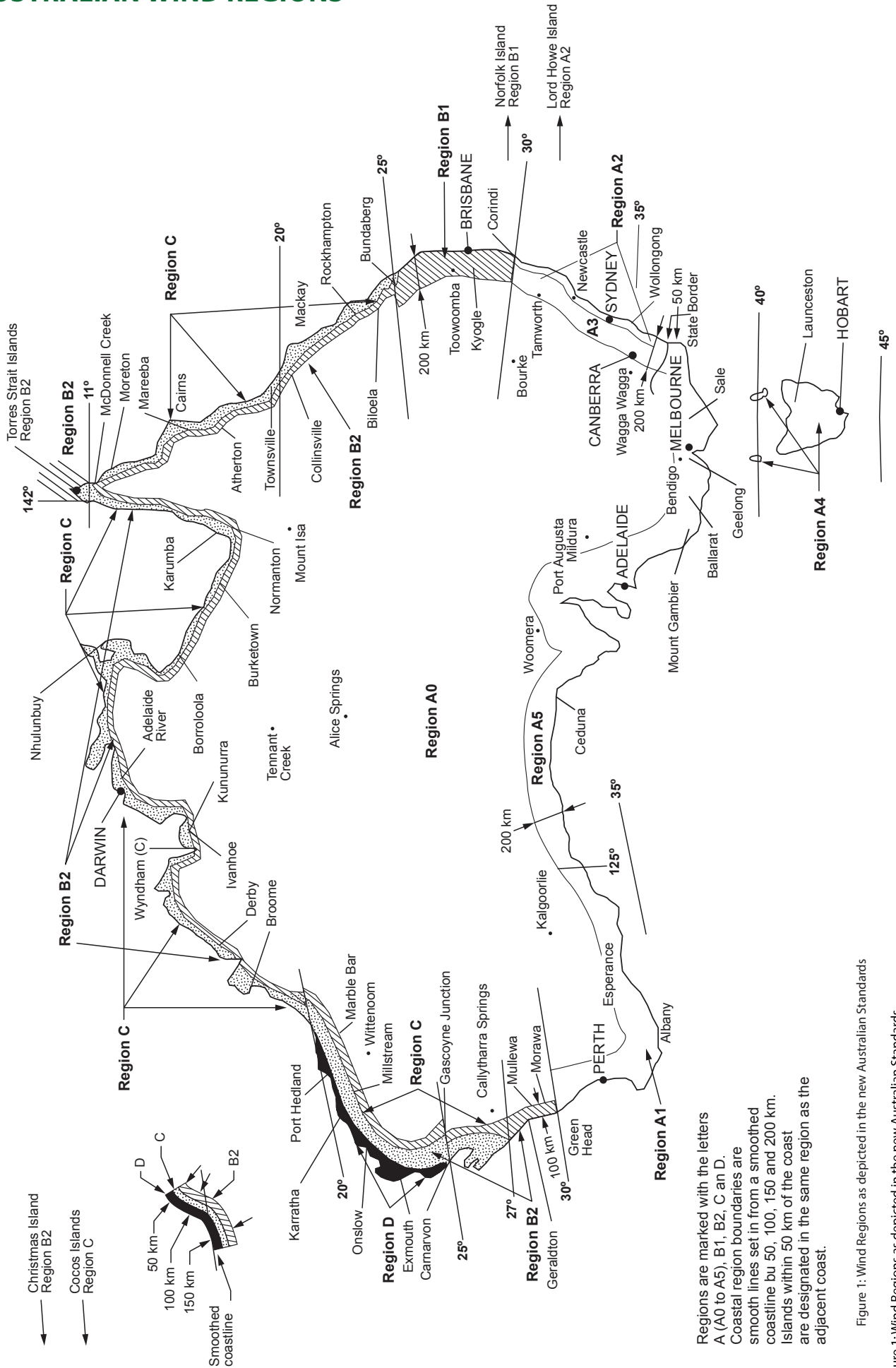
| Optimast type | Foundation stud size and material | Torque applied to third nut Nm | Torque applied fourth nut Nm |
|---------------|-----------------------------------|--------------------------------|------------------------------|
| 127 | M16 A4-80 | 187 | 94 |
| 168 & 219 | M20 A4-80 | 364 | 182 |
| 244 | M24 A4-80 | 629 | 315 |



WIND CHARTS

| | |
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AUSTRALIAN WIND REGIONS



Regions are marked with the letters A (A0 to A5), B1, B2, C and D. Coastal region boundaries are smooth lines set in from a smoothed coastline by 50, 100, 150 and 200 km. Islands within 50 km of the coast are designated in the same region as the adjacent coast.

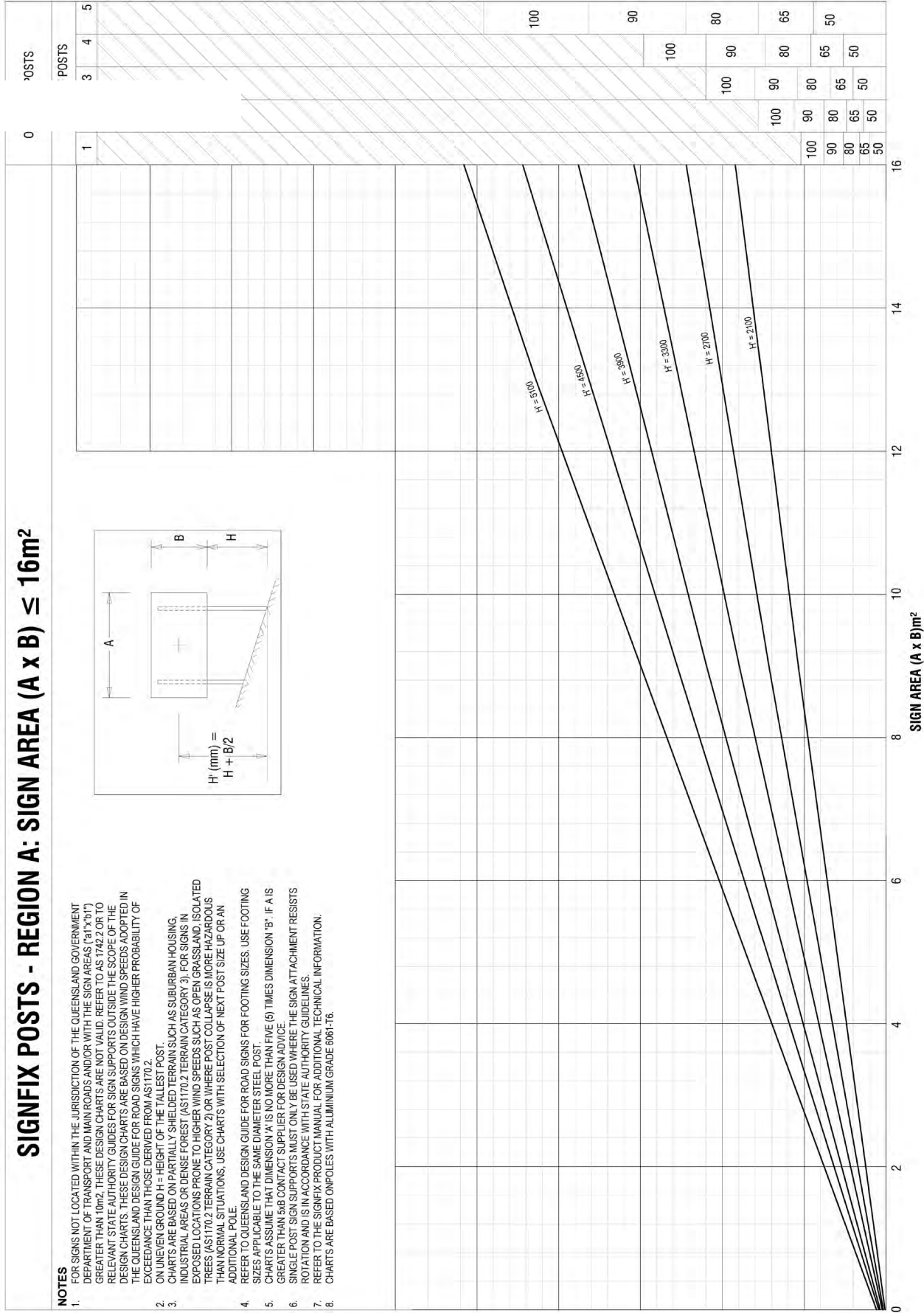
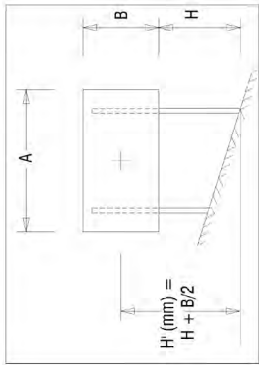
Figure 1: Wind Regions as depicted in the new Australian Standards

Figure 1: Wind Regions as depicted in the new Australian Standards

SIGNFIX POSTS - REGION A: SIGN AREA (A x B) ≤ 16m²

NOTES

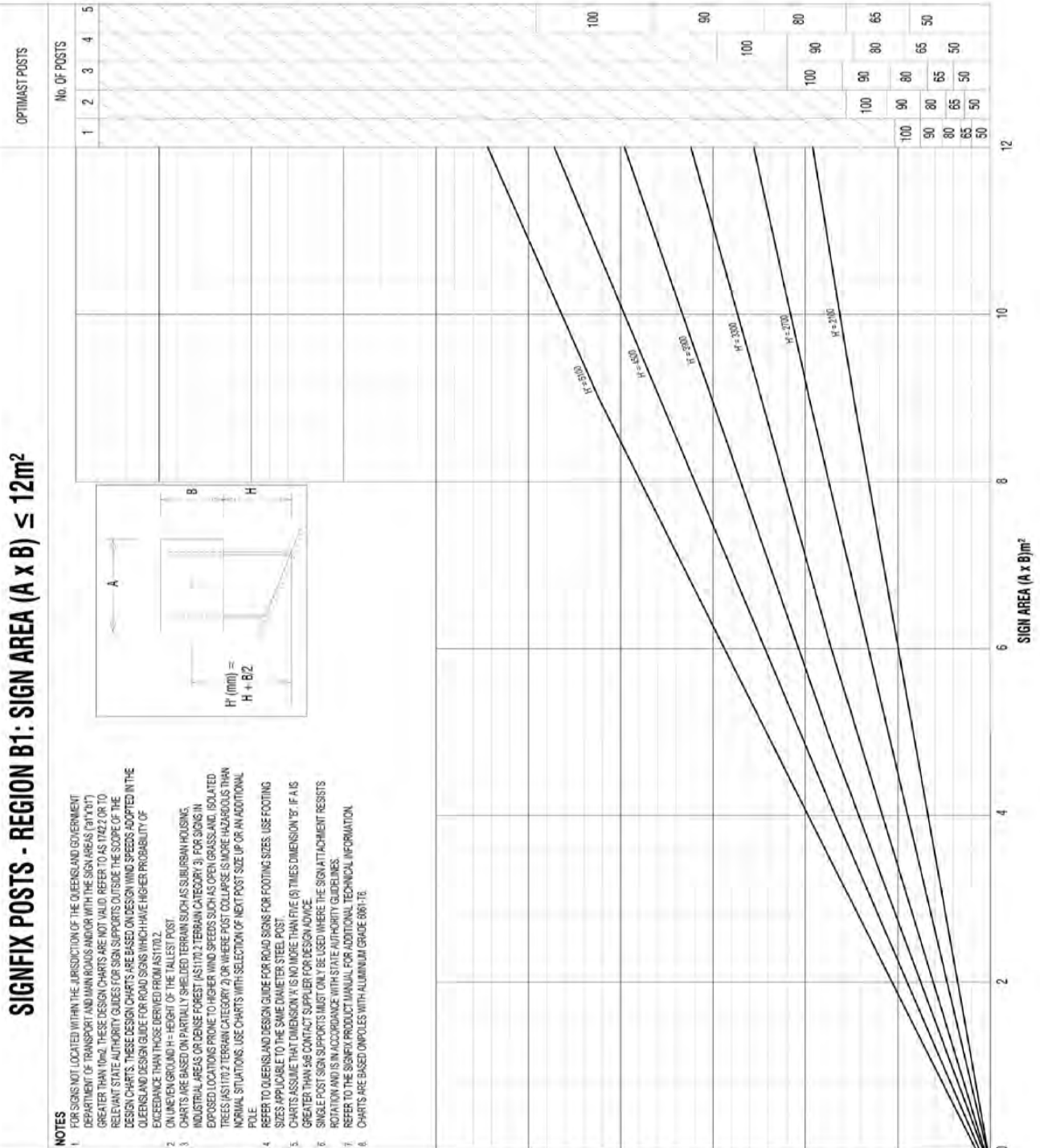
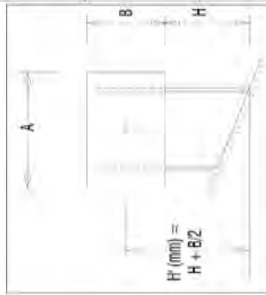
- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS AND/OR WITH THE SIGN AREAS ("H1" & "B1") GREATER THAN 10m², THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF 'A' IS GREATER THAN 5x B CONTACT SUPPLIER FOR DESIGN ADVICE.
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE SIGNFIX PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.
- CHARTS ARE BASED ON POLES WITH ALUMINIUM GRADE 6061-T6.



SIGNFIX POSTS - REGION B1: SIGN AREA (A x B) ≤ 12m²

NOTES

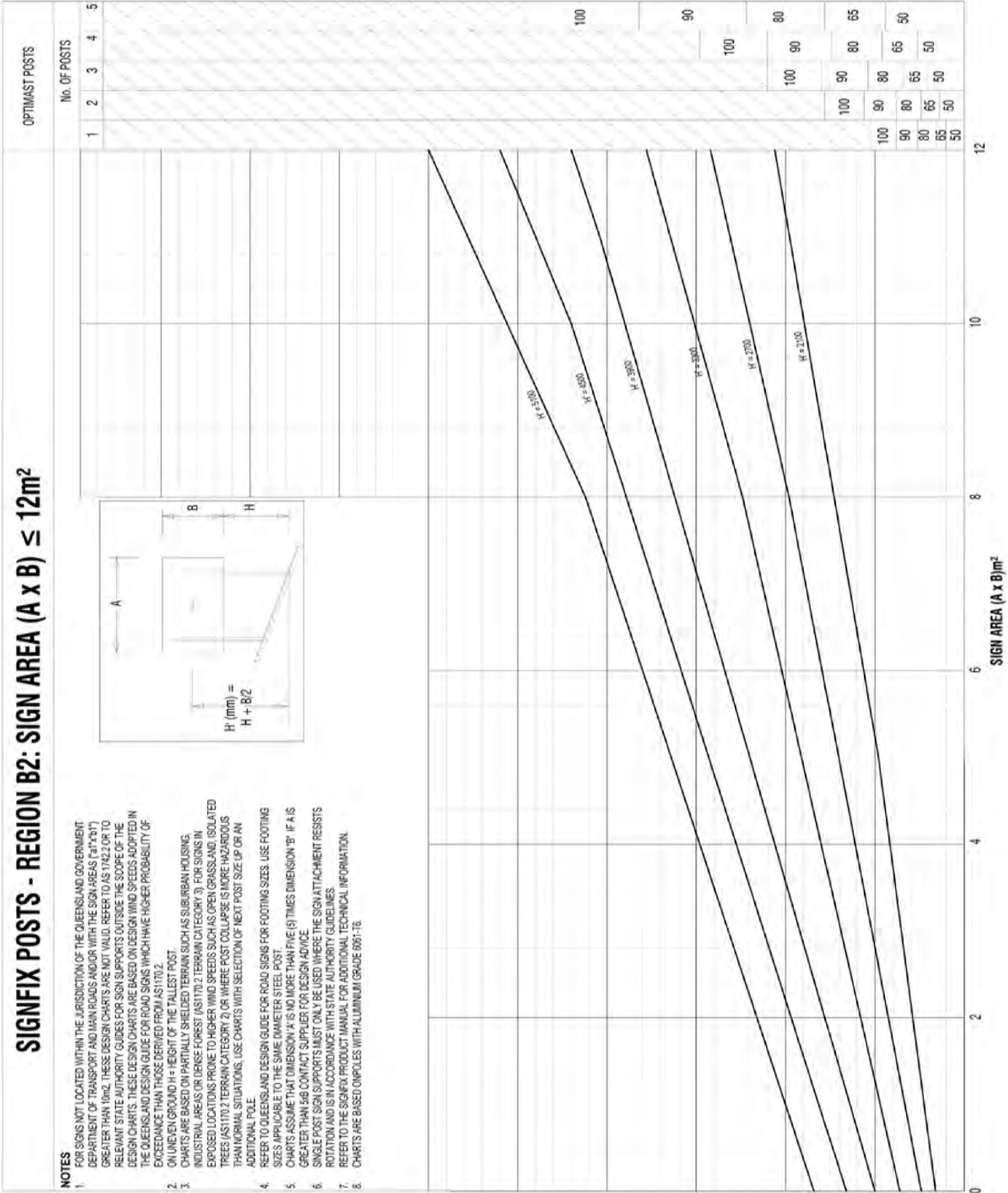
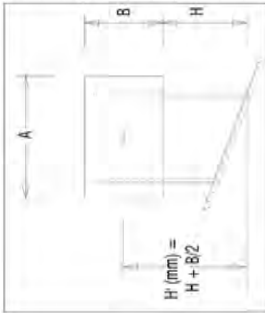
- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS AND/OR WITH THE SIGNAREAS (ANY R1) GREATER THAN 10m², THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 (OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS) OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS 1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS 1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS 1170.2 TERRAIN CATEGORY 2), OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- CHARTS ASSUME THAT DIMENSION 'Y' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF A IS GREATER THAN 5B CONTACT SUPPLIER FOR DESIGN ADVICE.
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE SIGNFIX PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.
- CHARTS ARE BASED ON POLES WITH ALUMINIUM GRADE 6061-T6.



SIGNFIX POSTS - REGION B2: SIGN AREA (A x B) ≤ 12m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS AND/OR WITH THE SIGN AREAS (A1 x B1) GREATER THAN 10m², THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS 1702.
- ON UNLEVEL GROUND, H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHELDED TERRAIN SUCH AS SUBURBAN HOUSINGS, INDUSTRIAL AREAS OR DENSE FOREST (AS 1702 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS 1702 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF 'A' IS GREATER THAN 5x 'B' CONTACT SUPPLIER FOR DESIGN ADVICE.
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE SIGNFIX PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.
- CHARTS ARE BASED ON POLES WITH ALUMINIUM GRADE 6061-T6.



SIGNFIX POSTS - REGION C: SIGN AREA (A x B) ≤ 10m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS AND/OR WITH THE SIGN AREAS ("a1"x"b1") GREATER THAN 10m². THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF A IS GREATER THAN 5xB CONTACT SUPPLIER FOR DESIGN ADVICE.
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE SIGNFIX PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.
- CHARTS ARE BASED ON POLES WITH ALUMINIUM GRADE 6061-T6.

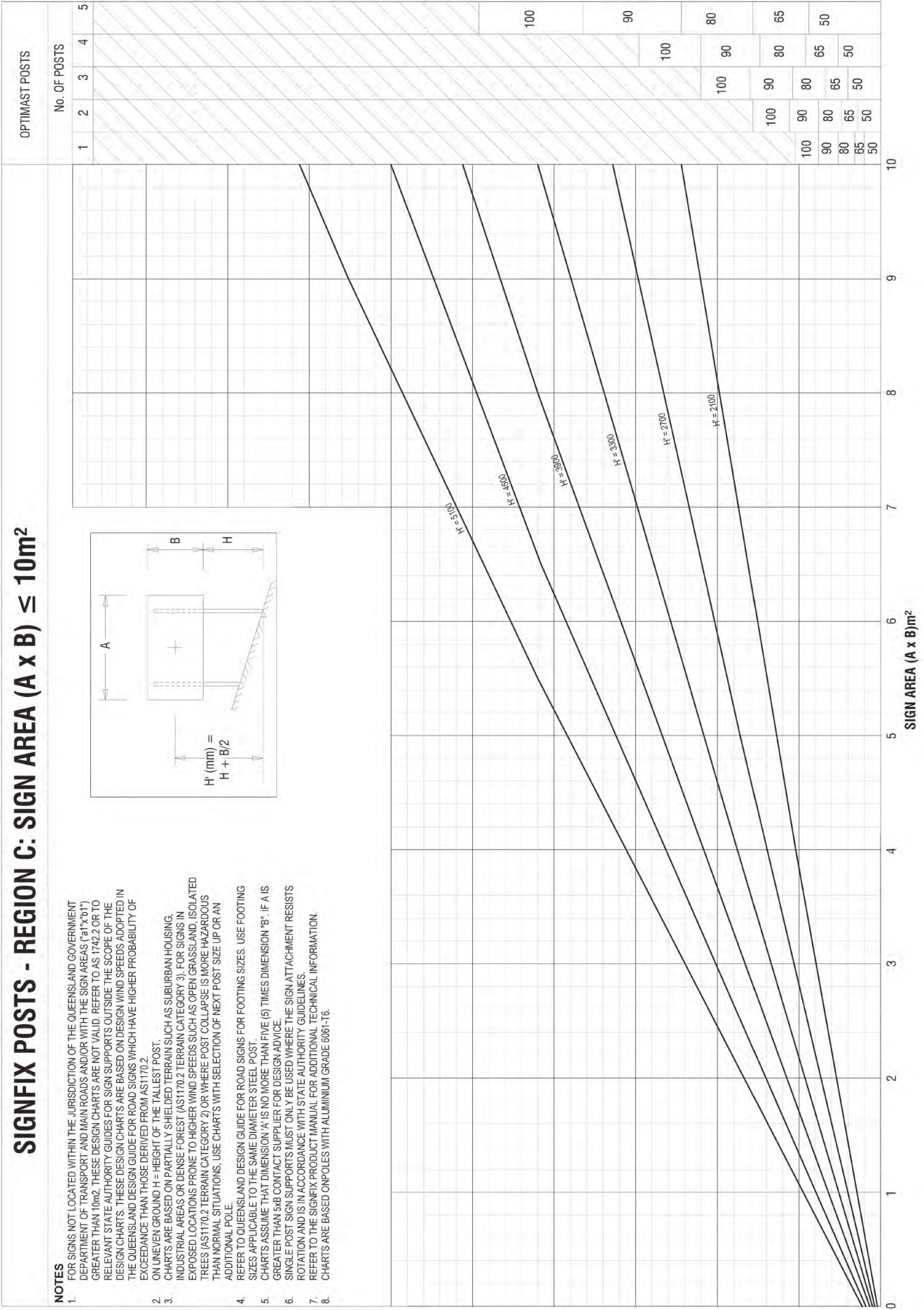
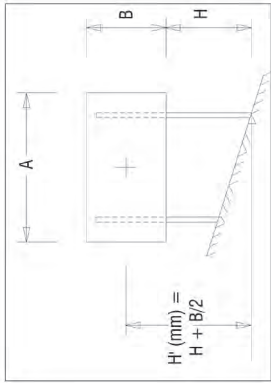


CHART A.1 - OPTIMAST POSTS - REGION A: SIGN AREA (A x B) ≤ 10m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS 1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS 1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS 1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- FOR LARGER SIGNS, REFER TO CHARTS A.2 AND A.3.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- WHERE SIGNAGE ASSEMBLIES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H+B): OPTIMAST 127 = 2.4M, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6M
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.

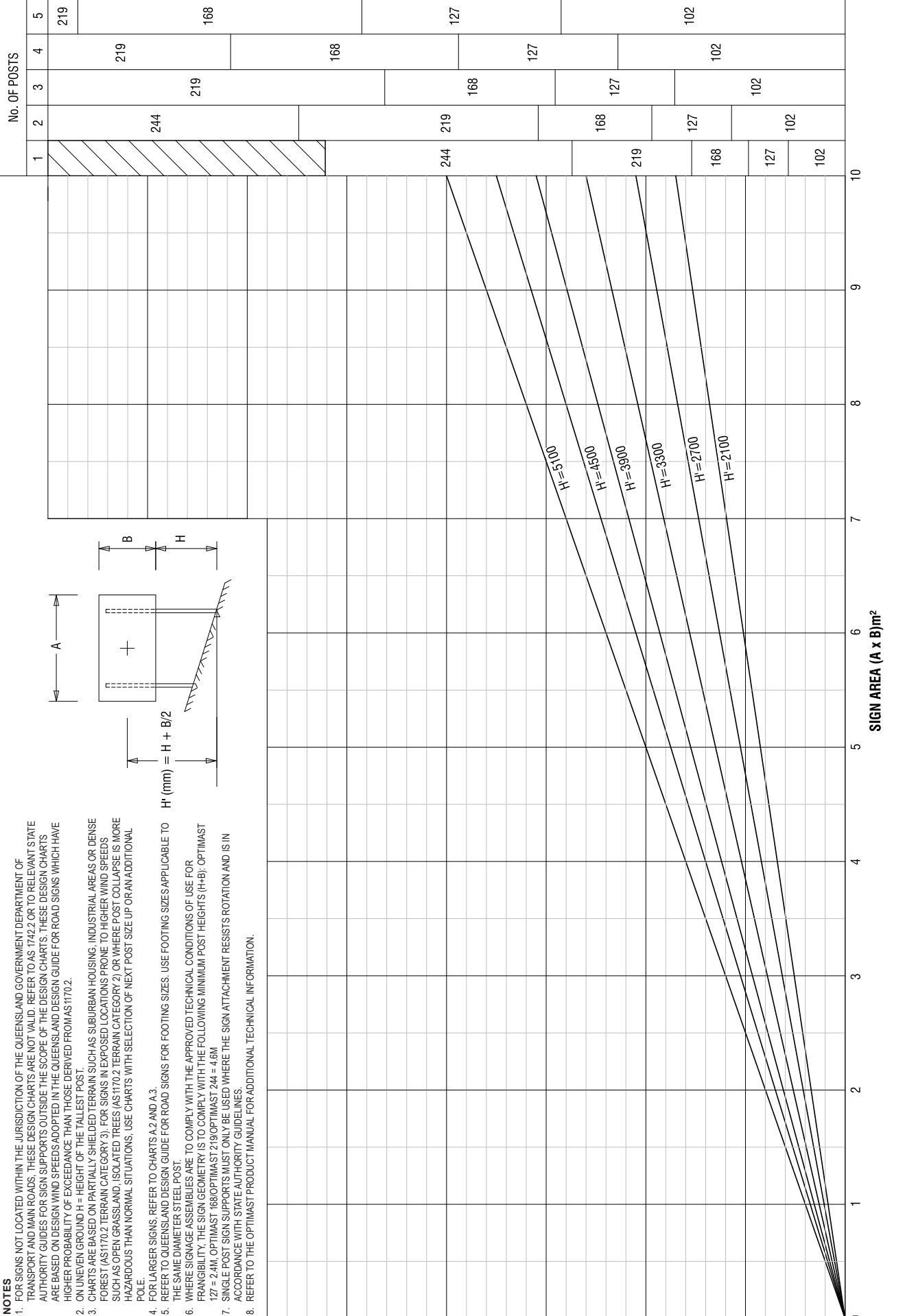
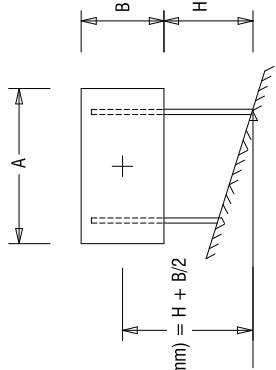


CHART B1.1 - OPTIMAST POSTS - REGION B1: SIGN AREA (A x B) ≤ 10m²

NOTES

1. FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
2. CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3); FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
3. FOR LARGER SIGNS, REFER TO CHARTS B1.2 AND B1.3.
4. REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
5. CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF 'A' IS GREATER THAN 5x8 CONTACT SUPPLIER FOR DESIGN ADVICE.
6. WHERE SIGNAGE ASSEMBLES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
7. SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
8. WHERE SIGNAGE ASSEMBLES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
9. REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.

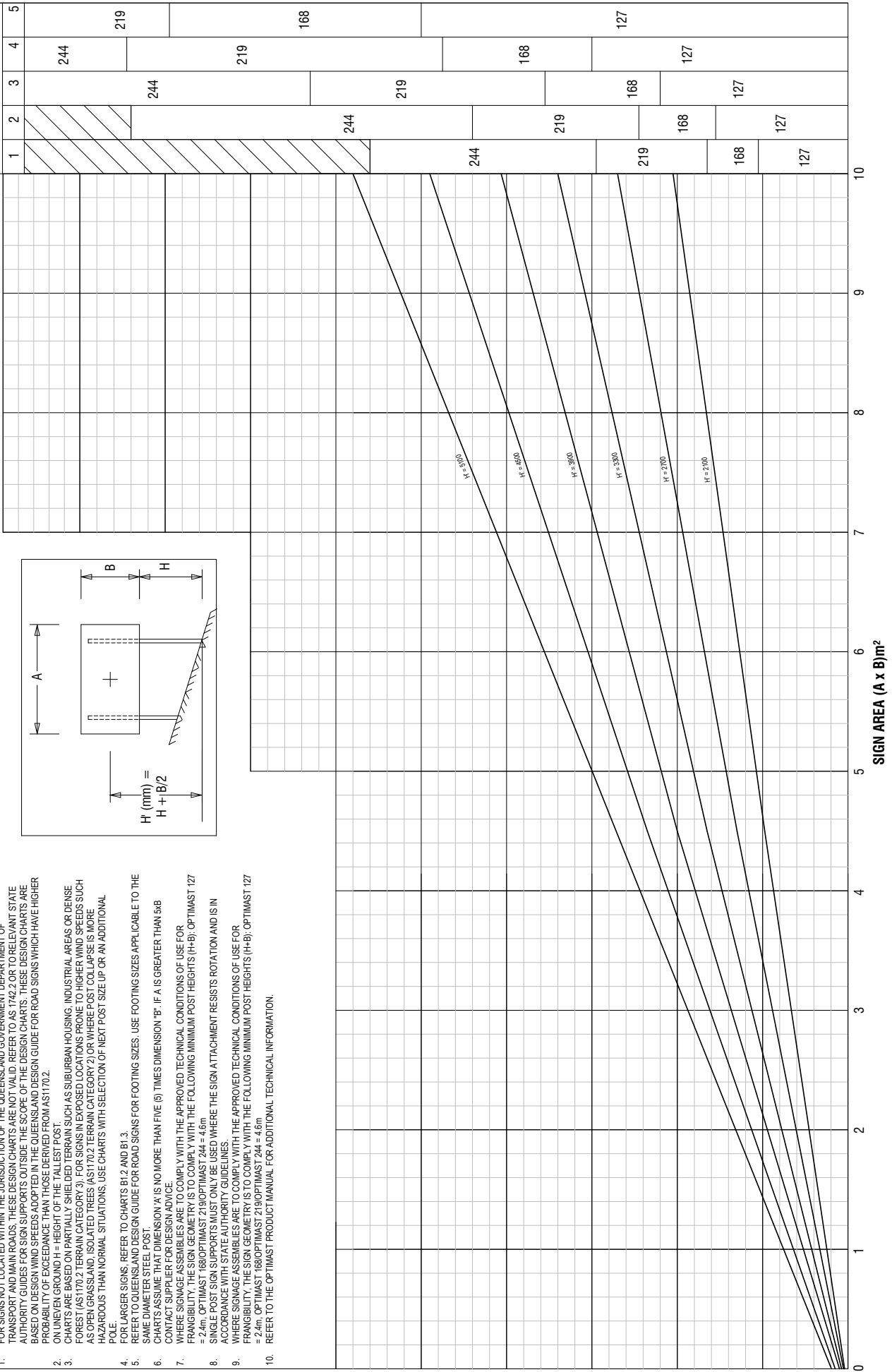
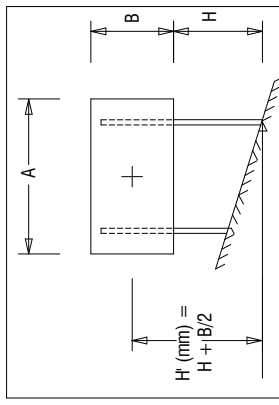
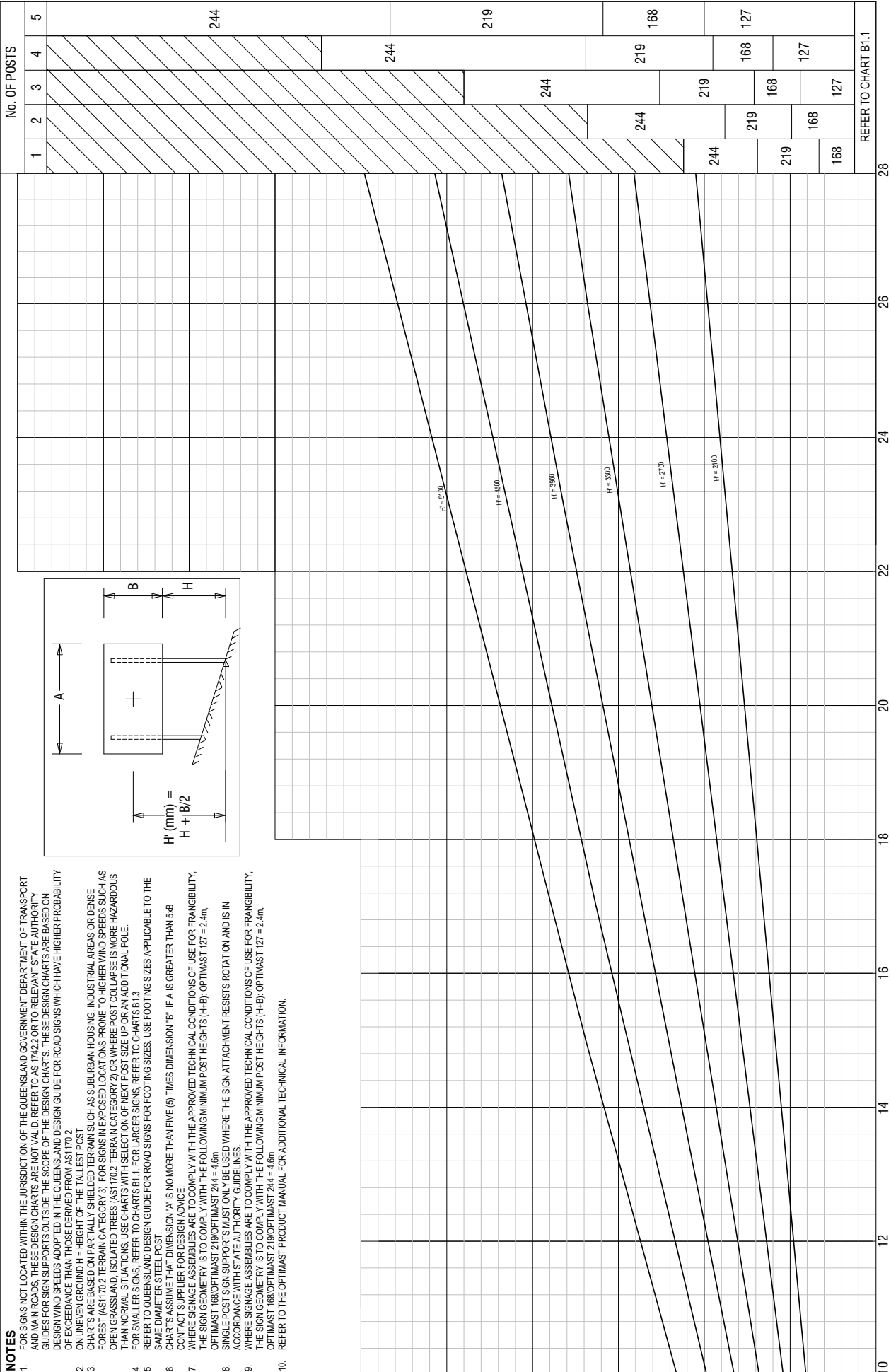
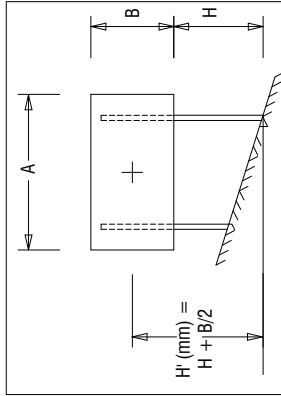


CHART B1.2 - OPTIMAST POSTS - REGION B1: SIGN AREA (A x B) ≤ 28m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- FOR SMALLER SIGNS, REFER TO CHARTS B1.1. FOR LARGER SIGNS, REFER TO CHARTS B1.3.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF 'A' IS GREATER THAN 5xB CONTACT SUPPLIER FOR DESIGN ADVICE.
- WHERE SIGNAGE ASSEMBLIES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- WHERE SIGNAGE ASSEMBLIES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
- REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.



SIGN AREA (A x B) m²

REFER TO CHART B1.1

CHART B1.3 - OPTIMAST POSTS - REGION B1: SIGN AREA (A x B) ≤ 40m²

- NOTES**
- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
 - ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
 - CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
 - FOR SMALLER SIGNS, REFER TO CHARTS B1.1 AND B1.2.
 - REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
 - CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF 'A' IS GREATER THAN 5x8 CONTACT SUPPLIER FOR DESIGN ADVICE.
 - WHERE SIGNAGE ASSEMBLIES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
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 - WHERE SIGNAGE ASSEMBLIES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
 - REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.

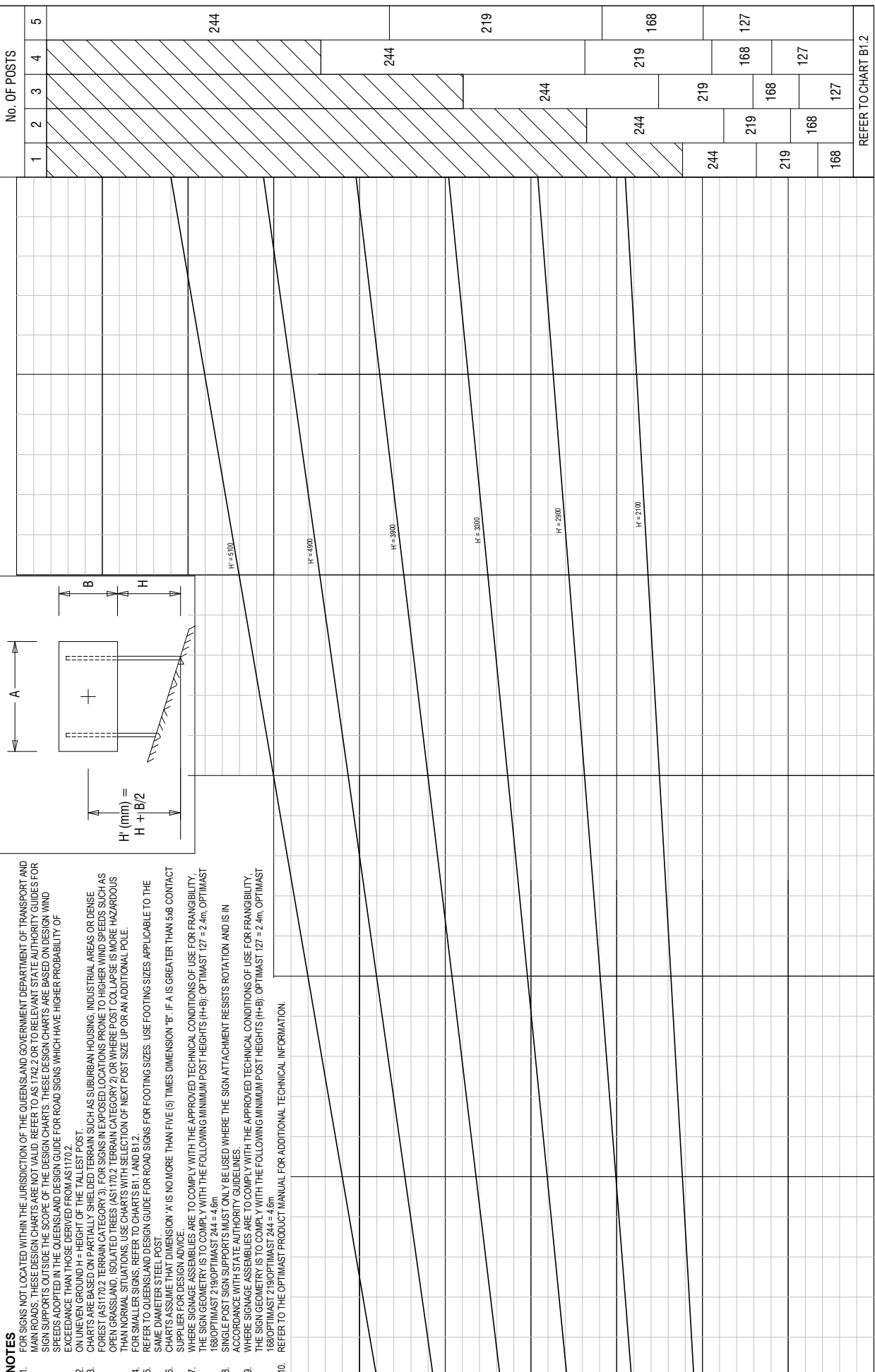
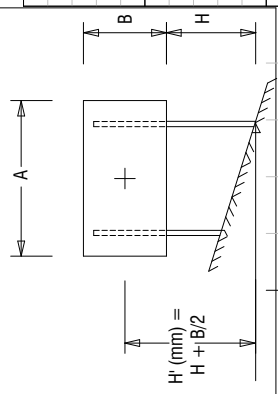


CHART B2.1 - OPTIMAST POSTS - REGION B2: SIGN AREA (A x B) ≤ 10m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3); FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- FOR LARGER SIGNS, REFER TO CHARTS B2.2 AND B2.3.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- CHARTS ASSUME THAT DIMENSION 'A' IS NO MORE THAN FIVE (5) TIMES DIMENSION 'B'. IF 'A' IS GREATER THAN 5x8 CONTACT SUPPLIER FOR DESIGN ADVICE.
- WHERE SIGNAGE ASSEMBLES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- WHERE SIGNAGE ASSEMBLES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H-B): OPTIMAST 127 = 2.4m, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6m
- REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.

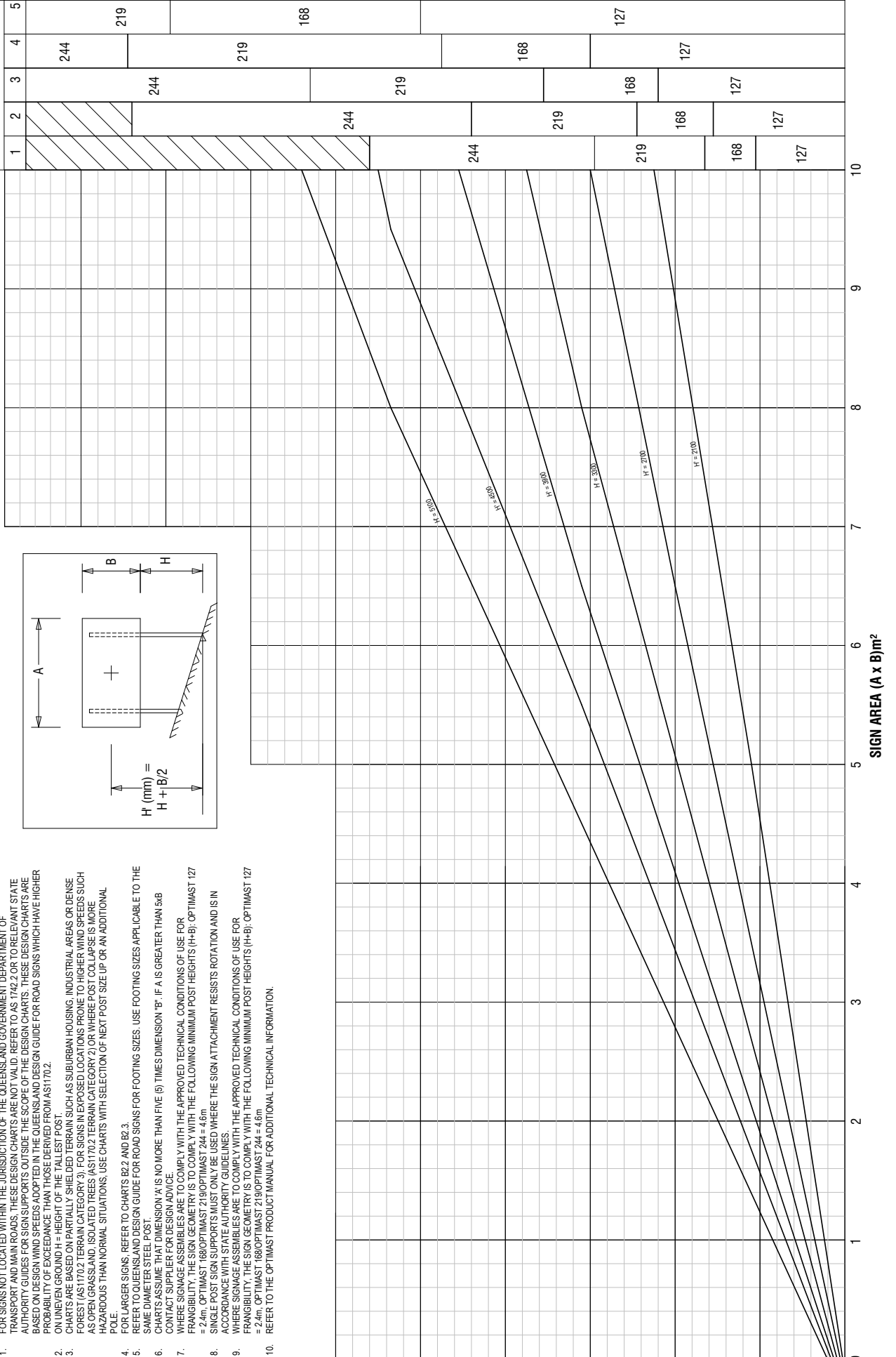
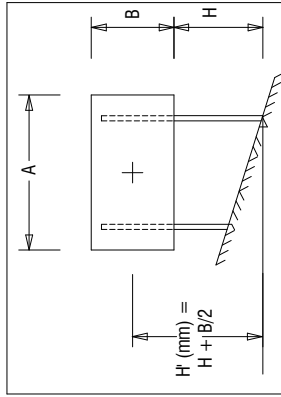


CHART C.1 - OPTIMAST POSTS - REGION C: SIGN AREA (A x B) ≤ 10m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS 1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS 1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS 1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- FOR LARGER SIGNS, REFER TO CHARTS C.2 AND C.3.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- WHERE SIGNAGE ASSEMBLES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H+B): OPTIMAST 127 = 2.4M, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6M
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.

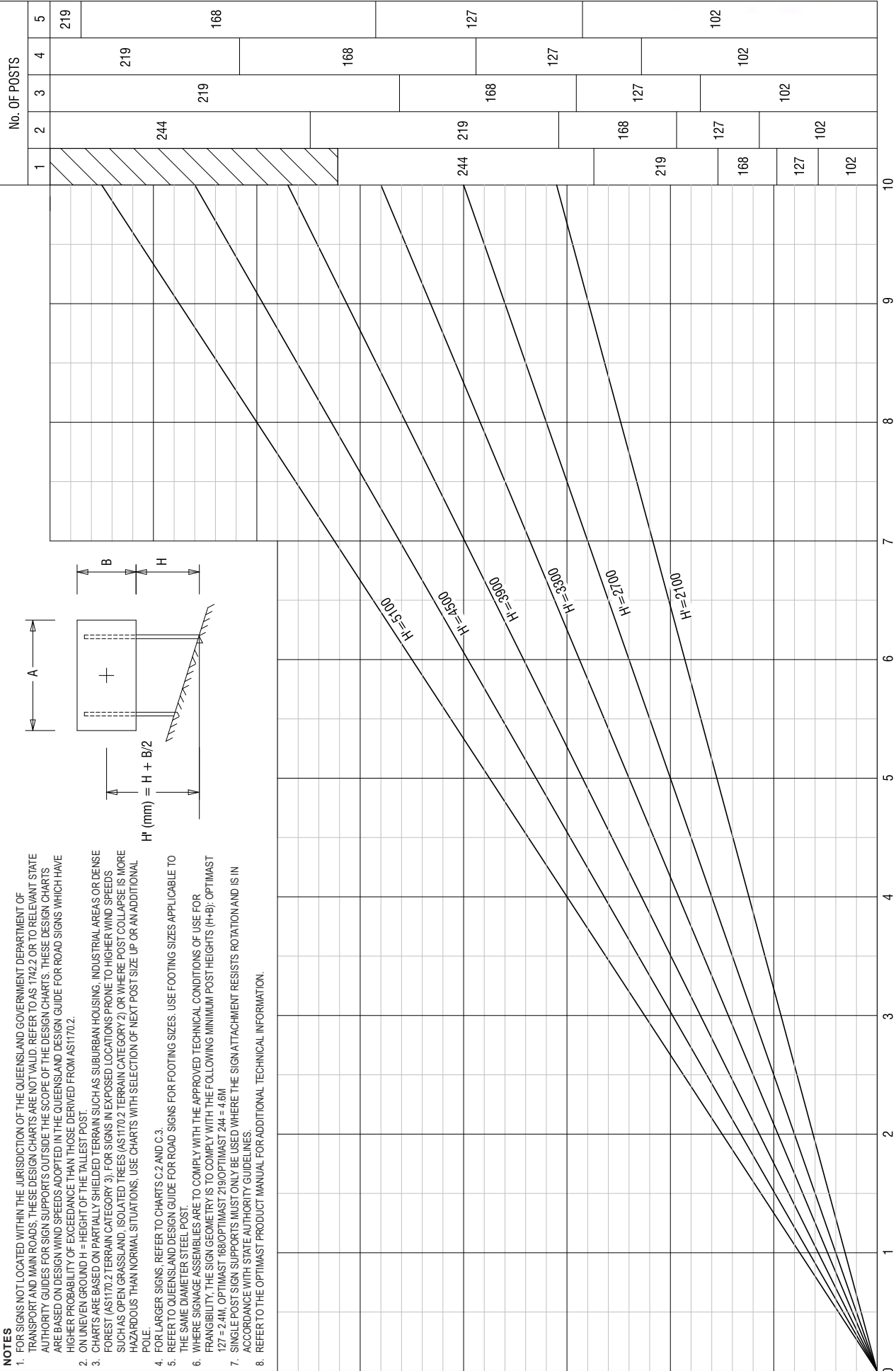
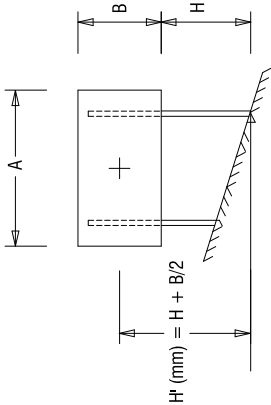
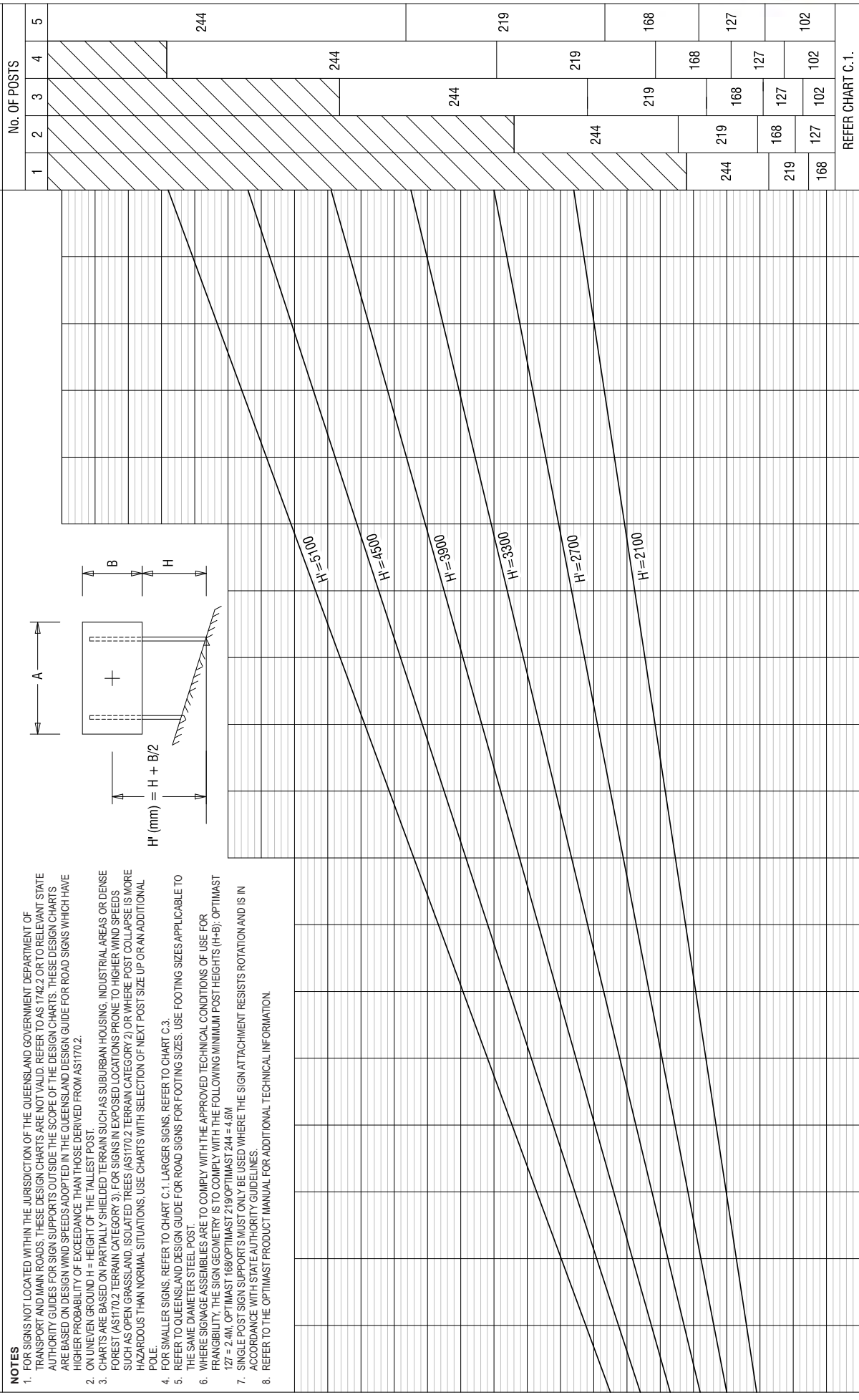
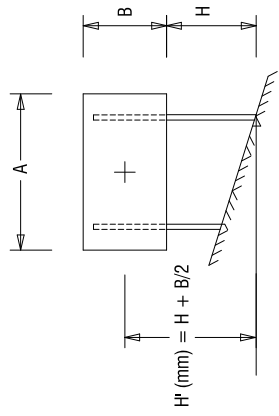


CHART C.2 - OPTIMAST POSTS - REGION C: SIGN AREA (A x B) ≤ 28m²

NOTES

- FOR SIGNS NOT LOCATED WITHIN THE JURISDICTION OF THE QUEENSLAND GOVERNMENT DEPARTMENT OF TRANSPORT AND MAIN ROADS, THESE DESIGN CHARTS ARE NOT VALID. REFER TO AS 1742.2 OR TO RELEVANT STATE AUTHORITY GUIDES FOR SIGN SUPPORTS OUTSIDE THE SCOPE OF THE DESIGN CHARTS. THESE DESIGN CHARTS ARE BASED ON DESIGN WIND SPEEDS ADOPTED IN THE QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS WHICH HAVE HIGHER PROBABILITY OF EXCEEDANCE THAN THOSE DERIVED FROM AS1170.2.
- ON UNEVEN GROUND H = HEIGHT OF THE TALLEST POST.
- CHARTS ARE BASED ON PARTIALLY SHIELDED TERRAIN SUCH AS SUBURBAN HOUSING, INDUSTRIAL AREAS OR DENSE FOREST (AS1170.2 TERRAIN CATEGORY 3). FOR SIGNS IN EXPOSED LOCATIONS PRONE TO HIGHER WIND SPEEDS SUCH AS OPEN GRASSLAND, ISOLATED TREES (AS1170.2 TERRAIN CATEGORY 2) OR WHERE POST COLLAPSE IS MORE HAZARDOUS THAN NORMAL SITUATIONS, USE CHARTS WITH SELECTION OF NEXT POST SIZE UP OR AN ADDITIONAL POLE.
- FOR SMALLER SIGNS, REFER TO CHART C.1. LARGER SIGNS, REFER TO CHART C.3.
- REFER TO QUEENSLAND DESIGN GUIDE FOR ROAD SIGNS FOR FOOTING SIZES. USE FOOTING SIZES APPLICABLE TO THE SAME DIAMETER STEEL POST.
- WHERE SIGNAGE ASSEMBLIES ARE TO COMPLY WITH THE APPROVED TECHNICAL CONDITIONS OF USE FOR FRANGIBILITY, THE SIGN GEOMETRY IS TO COMPLY WITH THE FOLLOWING MINIMUM POST HEIGHTS (H+B): OPTIMAST 127 = 2.0M, OPTIMAST 168/OPTIMAST 219/OPTIMAST 244 = 4.6M.
- SINGLE POST SIGN SUPPORTS MUST ONLY BE USED WHERE THE SIGN ATTACHMENT RESISTS ROTATION AND IS IN ACCORDANCE WITH STATE AUTHORITY GUIDELINES.
- REFER TO THE OPTIMAST PRODUCT MANUAL FOR ADDITIONAL TECHNICAL INFORMATION.



REFER CHART C.1.

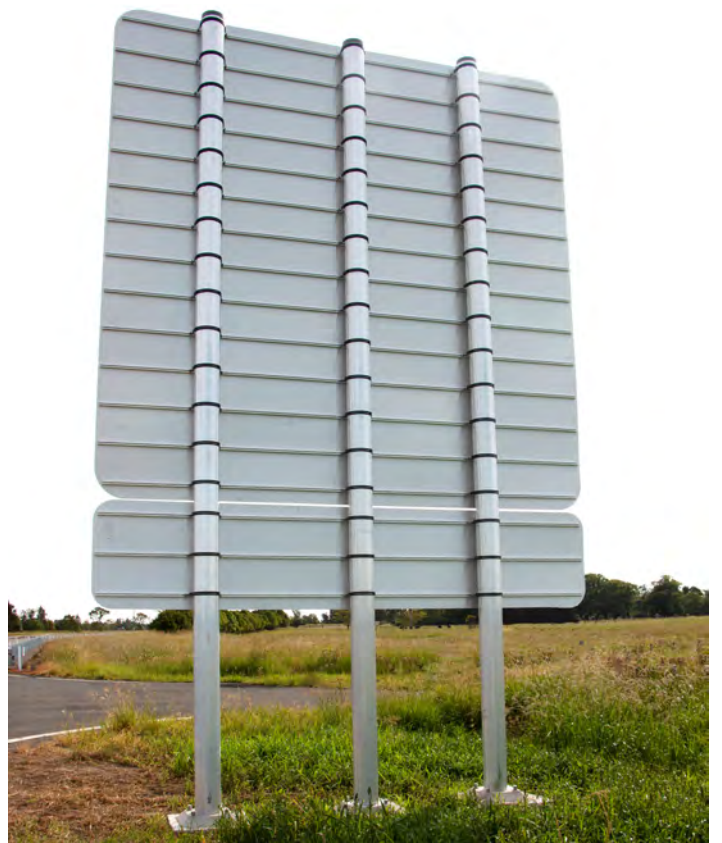
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The Signfix system was originally pioneered in England in 1979 and has since become a world leader in developing quality fixing systems to the sign industry. Signfix was established in Australia as a major supplier of sign fixing systems 20 years ago. Its products are approved by government road transport and infrastructure departments nationwide.

Our aim is to provide and maintain the highest standard of road safety with emphasis on continuous improvement of product through innovation and development.

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