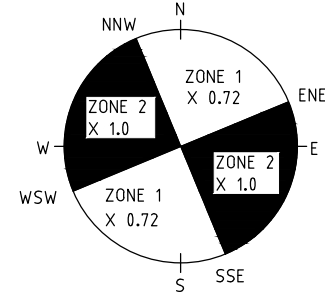


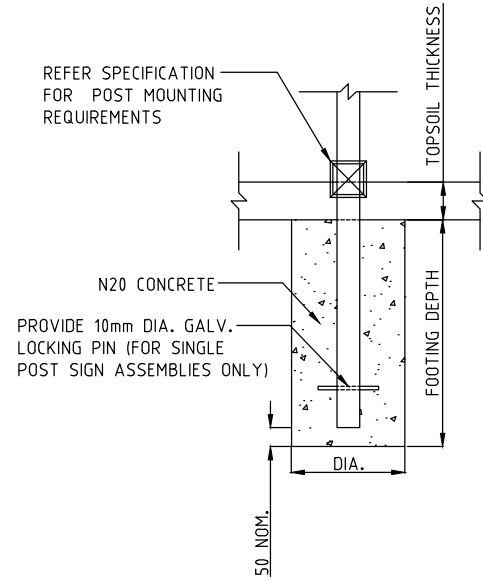
POST SIZING PROCEDURE

1. CALCULATE SIGN BLADE AREA (m²).
2. CALCULATE HEIGHT ('H') IN METRES FROM FINISHED SURFACE LEVEL TO THE CENTRE OF THE AREA OF BLADE.
3. MULTIPLY THE SIGN BLADE AREA (m²) BY THE HEIGHT TO THE CENTRE OF AREA (H) TO OBTAIN THE MOMENT.
4. DETERMINE THE SIGN FACE DIRECTION AND USING THE SIGN FACE ORIENTATION COMPASS MULTIPLY THE MOMENT BY THE SIGN FACE ORIENTATION FACTOR (1 OR 0.72) TO OBTAIN THE FACTORED MOMENT.
5. DETERMINE THE NUMBER OF POSTS REQUIRED (MAX. SPAN OF BLADE BETWEEN POSTS 2.3m - MAX BLADE OVERHANG 0.75m).
6. DIVIDE THE FACTORED MOMENT BY THE NUMBER OF POSTS TO OBTAIN THE DESIGN MOMENT OF EACH POST.
7. LOOK UP IN THE TABLE OPPOSITE FOR THE POST MOMENT WHICH IS GREATER BUT NEAREST TO THE CALCULATED MOMENT PER POST. THIS IS THE REQUIRED POST OUTSIDE DIAMETER, WALL THICKNESS, STEEL GRADE AND FOOTING SIZE REQUIRED.

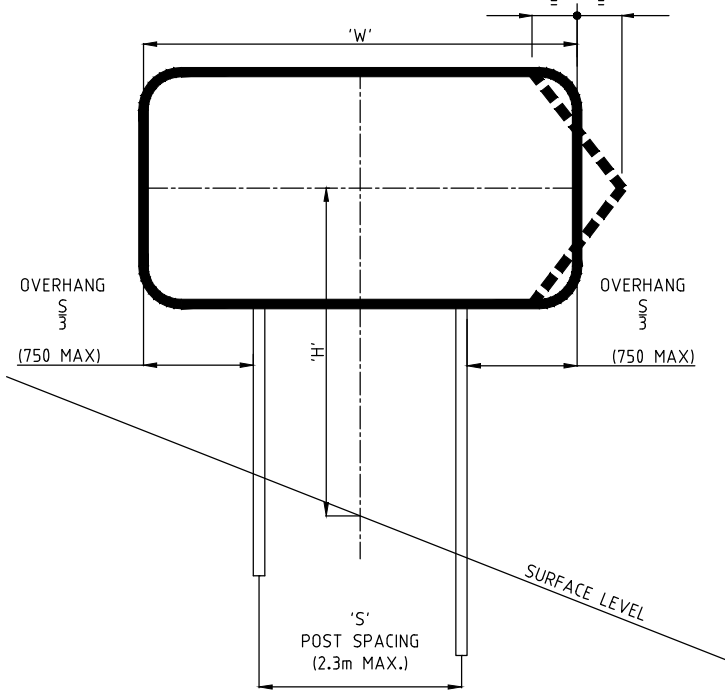


SIGN FACE ORIENTATION COMPASS

FOR EXAMPLE: A SIGN FACING EAST IS IN ZONE 2 AND HAS AN ORIENTATION FACTOR OF 1



FOOTING DETAILS



POST SPACING 'S' (2 POSTS) = W/1.66
 (3 POSTS) = W/2.66
 (4 POSTS) = W/3.66
 (5 POSTS) = W/4.66
 OVERHANG (POST TO BLADE EDGE) = S/3

DIMENSIONAL DETAILS

STEEL POSTS CONSIDERED AS FRANGIBLE

OPERATING SPEED, km/h	MAX. MOMENT kNm
<60	7.90
60 TO 80	3.95
>80	3.01

IF THE POST REQUIRES A GREATER DESIGN MOMENT THEN A FRANGIBLE POST SHALL BE USED. FRANGIBLE POST SYSTEMS SHALL BE TO THE APPROVAL OF THE ROAD AUTHORITY. AN APPROVED FRANGIBLE POST SYSTEM IS DETAILED AT:

- <http://www.fmr.qld.gov.au/~media/busind/techstdpubs/Standard Drawings Roads/Roadworks Drainage Culverts and Geotechnical/SD1365.pdf>
- AN ALTERNATIVE APPROVED FRANGIBLE POST SYSTEM IS THE SIGNFIX ALUMINIUM FLUTED FRANGIBLE POST SYSTEM

POST SIZING CALCULATION METHODOLOGY

SIGN TYPE / NO.	SIGN BLADE AREA (m ²)	HEIGHT 'H' m (FROM GROUND TO CENTRE OF BLADE)	UN-FACTORED MOMENT	SIGN FACE ORIENTATION FACTOR	FACTORED MOMENT	NO. OF POSTS	MOMENT PER POST	POST SIZE (OD) GRADE & WALL THICKNESS	FOOTING DIAMETER AND DEPTH

Post Size Deemed Frangible for Operating Speed km/h	** Post Moment kNm	Outside Dia. (mm) OD	Wall Thickness (mm) OD	Steel Grade	Footing Diameter	Footing Depth (mm) and Soil Condition		
						Poor	Medium	Sound
0 - 59	2.44	60.3	2.3	350	300 Ø	SEEK SITE SPECIFIC STRUCTURAL ADVICE	600	450
	2.61 *	60.3	3.6	250	300 Ø		600	450
	3.01	60.3	2.9	350	300 Ø		600	500
	3.16	60.3	4.5	250	300 Ø		700	500
	3.95	76.1	2.3	350	300 Ø		750	600
	4.26 *	76.1	3.6	250	300 Ø		750	600
	5.20 *	76.1	4.5	250	300 Ø		800	650
	5.36	76.1	3.2	350	300 Ø		800	650
	6.10	88.9	2.6	350	300 Ø		850	700
	6.49 *	88.9	4.0	250	300 Ø		900	700
	7.41	88.9	3.2	350	300 Ø		950	750
	7.93	88.9	5.0	250	300 Ø		1000	750
	8.58	101.6	4.0	250	450 Ø		850	650
	10.50	101.6	5.0	250	450 Ø		950	750
	12.20	114.3	4.5	250	450 Ø		1000	800
14.40	114.3	5.4	250	450 Ø	1100	800		
20.40	139.7	5.0	250	450 Ø	1300	1050		
28.80	165.1	5.0	250	600 Ø	1550	1250		
31.00	165.1	5.4	250	600 Ø	1650	1300		

* NON ECONOMIC SECTION - WHERE POSSIBLE - USE THE NEXT LISTED SECTION OF HIGHER CAPACITY. NB: AVAILABILITY OF POST MATERIAL VARIES FROM TIME TO TIME - CHECK BEFORE SPECIFYING

** THE POST MOMENTS SHOWN ARE DEEMED FRANGIBLE FOR THE OPERATING SPEEDS SHOWN. WHERE A GREATER MOMENT IS REQUIRED FOR THE OPERATING SPEED THEN FRANGIBLE POSTS SHALL BE USED (UNLESS POSTS ARE OUTSIDE OF CLEAR ZONE OR SAFETY BARRIER WORKING WIDTH)

NOTES

- 1 DESIGN WIND PRESSURE = 1 kPa
- 2 MAXIMUM SPACING OF POSTS <= 2.3m. REFER SPECIFICATION FOR STIFFENER DETAILS. ENSURE CORRECT STEEL GRADE IS USED.
- 3 ALL POSTS ARE TO BE GALVANISED.
- 4 FOOTING DEPTH IS EMBEDMENT LENGTH INTO SOIL STRENGTH CATEGORY TABULATED. DISREGARD LOOSE TOPSOIL AND FILL WHEN MEASURING FOOTING DEPTH.
- 5 UNLESS OTHERWISE DIRECTED, POSTS ARE TO BE CENTRED ALONG THE LOWER EDGE OF ALL SIGN BLADES.
- 6 ALL DIMENSIONS SHOWN ARE IN mm UNLESS SHOWN OTHERWISE
- 7 MATERIAL IS SAID TO BE FRANGIBLE IF THROUGH DEFORMATION IT TENDS TO BREAK UP INTO FRAGMENTS, RATHER THAN DEFORMING ELASTICALLY AND RETAINING ITS COHESION AS A SINGLE OBJECT



SIGNPOST AND FOOTING DETAILS

Authorised: *[Signature]*
 Latest Revision Details

0	BASED ON DRG DS9-15	19-12-18
Rev	Amendment	Date
Drawing No. ACTSD-3630		Revision 0