

# Protect 365<sup>®</sup> N2 Safety Fence

## Single rail

Approved by UK Highways Agency and National Roads Authority (Ireland).

Designed, verified by computer modelling, and dynamically tested with modern cars (less than five years old) and with representative test lengths to meet the requirements of BS EN 1317.

Containment level	N2	N2
Post centres	2.0 m	4.0 m
Height Nominal (to centre of rail)	0.6 m	0.6 m

For details of minimum lengths contact us at the details below

### Key features

- Designed to resist impact from either side, which is ideal for central reservations
- Elimination of sharp edges on rails which reduces the risk of injury when touching the barrier, especially important when the barrier is close to pedestrians

### Availability

Supply and installation is by licensed companies having third party verified UK Highways Agency Sector Scheme 2B approval and a quality management scheme in accordance with ISO 9001 or 9002.

### Performance

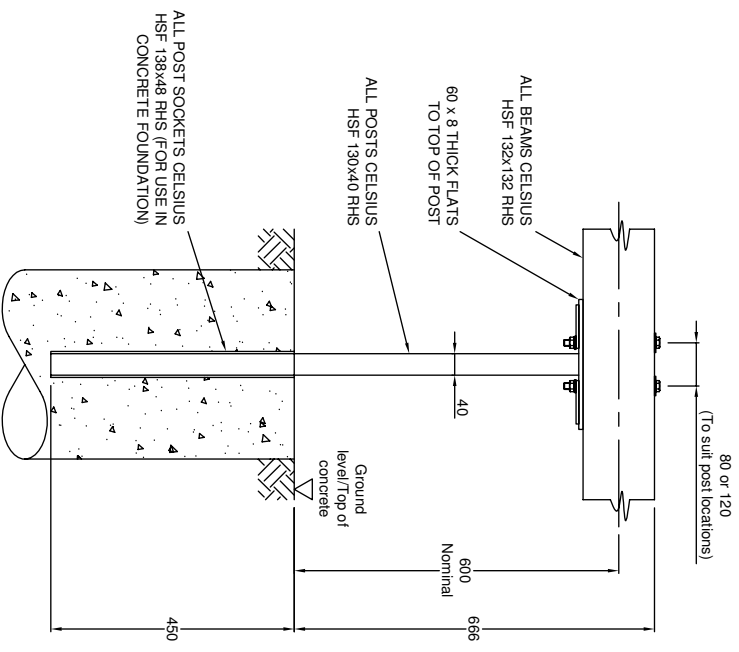
Post centres	2.0m	4.0
Impact severity level	B	B
Working width class	W1 (0.6 m)	W3 (1.0 m)
Dynamic deflection	0.6 m	0.9 m

### Finishing

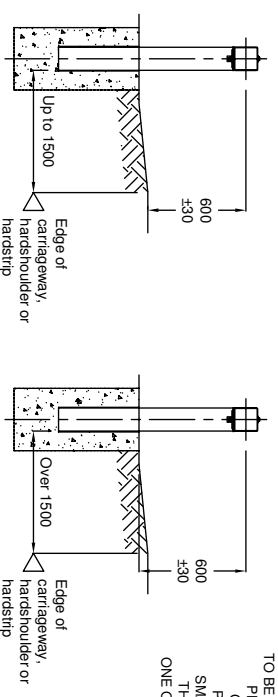
Final finish	<ul style="list-style-type: none"> <li>• Hot dip galvanised to BS EN ISO 1461</li> </ul>
Service life	<ul style="list-style-type: none"> <li>• 30+ years (dependent upon conditions in accordance with specifications for Highways Works Series 400) (Nov 2007)</li> <li>• Surface mount detail (not HA approved)</li> </ul>
Options	<ul style="list-style-type: none"> <li>• Paint finish available if required</li> </ul>

**Connections to end of N2 Safety fence:**

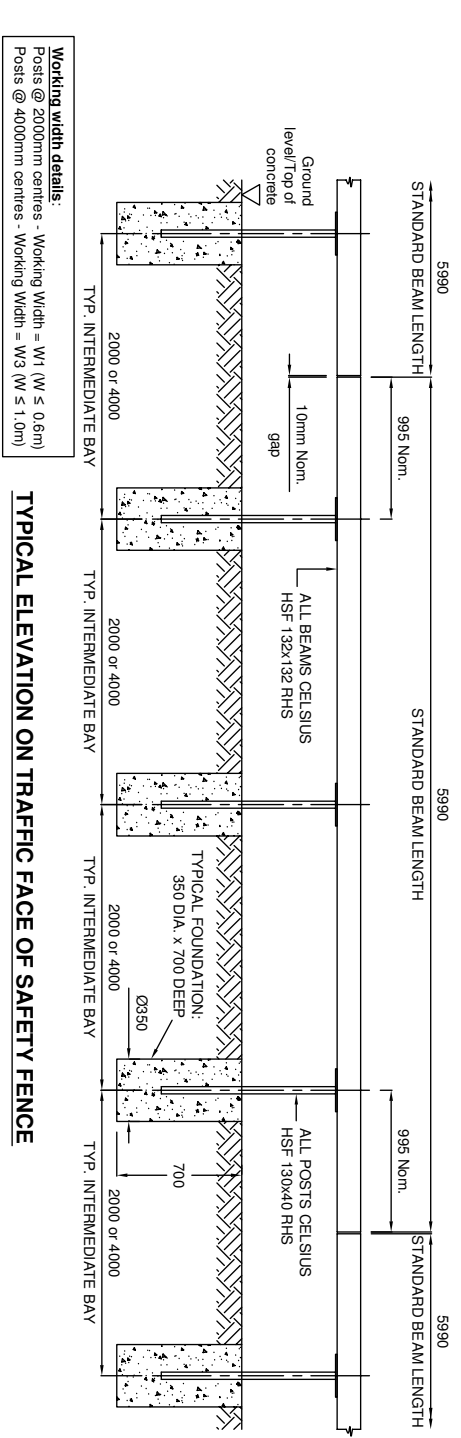
Protect 365™ N2 Transition	P365/T/144	Approach or departure end
Vetex Safety Fence	P365/T/144	Approach or departure end
Protect 365™ N2 Safety fence 'ramp-down'	P365/SF/136	<b>Departure end only</b>
Single sided open box beam	P365/SF/137	Approach or departure end
Corrugated Beam	P365/SF/142	Approach or departure end



**ENLARGED VIEW ON TRAFFIC FACE OF SAFETY FENCE**



**BARRIER HEIGHT REQUIREMENTS**



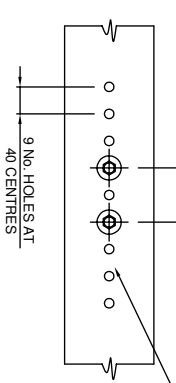
**Working width details:**  
 Posts @ 2000mm centres - Working Width = W1 (W ≤ 0.6m)  
 Posts @ 4000mm centres - Working Width = W3 (W ≤ 1.0m)

**TYPICAL ELEVATION ON TRAFFIC FACE OF SAFETY FENCE**

BEAM TO BEAM JOINT (NOT SHOWN) - 4 No. M24 x 170 LONG HEXAGONAL HEAD STAINLESS STEEL BOLTS GRADE A4 CLASS 80 c/w ONE M24 STAINLESS STEEL FULL NUT TO GRADE A4 CLASS 80, 2 No. M24 FORM A GRADE A4 STAINLESS STEEL WASHERS & ONE M24 TYPE A SINGLE COIL GRADE A4 STAINLESS STEEL SPRING WASHER - PER BOLT

BEAM TO POST CONNECTION USING 2 No. M12 FIXINGS AT 80 or 120 CENTRES (M12 x 170 LONG HEXAGONAL HEAD STAINLESS STEEL BOLT GRADE A4 CLASS 80 c/w ONE M12 STAINLESS STEEL FULL NUT TO GRADE A4 CLASS 80, ONE M12 FORM 'G' (36 6/16) GRADE A4 STAINLESS STEEL WASHER & ONE M12 TYPE 'A' SINGLE COIL GRADE A4 STAINLESS STEEL SPRING WASHER - PER BOLT)

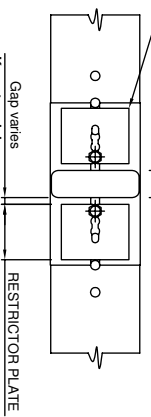
**ALTERNATIVE HOLES TO BEAM TO BE USED TO SUIT SITE CONDITIONS**



FORM 'G' (36 6/16) FLAT WASHER TO TOP FACE OF BEAM (SPRING WASHER TO UNDERSIDE OF BEAM)

**VIEW ON TOP FACE OF POST/BEAM CONNECTION**

OPEN END OF RESTRICTOR PLATE TO BE NEAREST TO POST AS SHOWN. PLATES TO BE FIXED SUCH THAT GAP BETWEEN INSIDE EDGE OF PLATE AND FACE OF POST IS AS SMALL AS POSSIBLE - TO ACHIEVE THIS PLATE MAY BE FIXED IN ANY ONE OF 3 BOLT LOCATIONS IN PLATE



PLAN ON RESTRICTOR PLATE

Open end

Closed end

**VIEW ON UNDERSIDE OF POST/BEAM CONNECTION**

**GENERAL NOTES**

- 1/ ALL DIMENSIONS ARE IN MILLIMETRES - UNLESS NOTED OTHERWISE.
- 2/ THIS SAFETY FENCE IS DOUBLE SIDED AND MAY BE INSTALLED ON EITHER A VERGE OR A CENTRAL RESERVE
- 3/ POSTS TO BE SPACED AT 2000mm or 4000mm (TO SUIT WORKING WIDTH REQUIREMENTS) CENTRES AS SHOWN THROUGH LENGTH OF SAFETY FENCE.
- 4/ CONCRETE MIX TO BE S15.
- 5/ MINIMUM RECOMMENDED CURVE WHICH THE SAFETY FENCE SHOULD BE INSTALLED ON IS NOT NORMALLY LESS THAN 120 METRES RADIUS.
- 6/ TOLERANCE ON POST CENTRES: ±150mm.
- 7/ BEAMS, POST & POST SOCKETS TO BE CELSIUS HSF AS MANUFACTURED BY CORUS TUBES - SECTION SIZES AS NOTED.
- 8/ OTHER STEEL SECTIONS TO BE TO GRADES AS NOTED.
- 9/ STAINLESS STEEL HEXAGONAL HEAD SCREWS TO BE GRADE A4 CLASS 80 TO BS EN ISO 3506-1 & BS EN ISO 4017. PLAIN WASHERS TO BE TO BS EN ISO 7089.
- 10/ SPRING WASHERS TO BE TO BS 4464.
- 11/ STEEL WASHERS TO BE GALVANISED TO BS EN ISO 1461.
- 12/ STAINLESS STEEL WASHERS TO BE GRADE A4.
- 10/ POSTS TO BE PERPENDICULAR TO SLOPE OF GROUND/CONCRETE.
- 11/ BEAMS SHALL BE SET TO GIVE A SMOOTH FLOWING LINE WITH A NOMINAL HEIGHT OF 600mm FROM TOP OF CONCRETE/GROUND LEVEL TO CENTRELINE OF BEAM.
- 12/ SAFETY FENCE INSTALLATION SHALL ONLY BE CARRIED OUT BY COMPANIES APPROVED & LICENSED BY CORUS TUBES.
- 13/ ALL CARBON STEEL MATERIALS TO BE HOT DIPPED GALVANISED AFTER MANUFACTURE TO BS EN ISO 1461.
- 14/ ALL PLATES TO BE GRADES NOTED TO BS EN 10 025.



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05	Connection references altered	05	May '08	J.L.L.	AM
04	Notes 12 updated	04	Apr '07	J.L.L.	AM
03	Working width details for 4000mm post centres updated to suit letter from National Body of 29/04/2007	03	Nov '06	J.L.L.	AM
02	Working width details updated. Notes revised	02			
01	Post centres & details revised to suit revised system	01			
<b>Revision note</b>		<b>Date</b>	<b>By</b>	<b>App'd</b>	<b>Rev.</b>

**GENERAL ARRANGEMENT OF PROTECT 365™ N2 SAFETY FENCE (110km/h TRAFFIC SPEED)**

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The	STANDARD DETAILS OF N2 SAFETY FENCE TO BS EN 1317-1, 2 & 5 (General details)	Drawn	J.L.L.	Date	Sept '2006	App'd	T.R.M.	Date	Sept '2006	Org. No.	P365/SF/135	Rev.	05
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