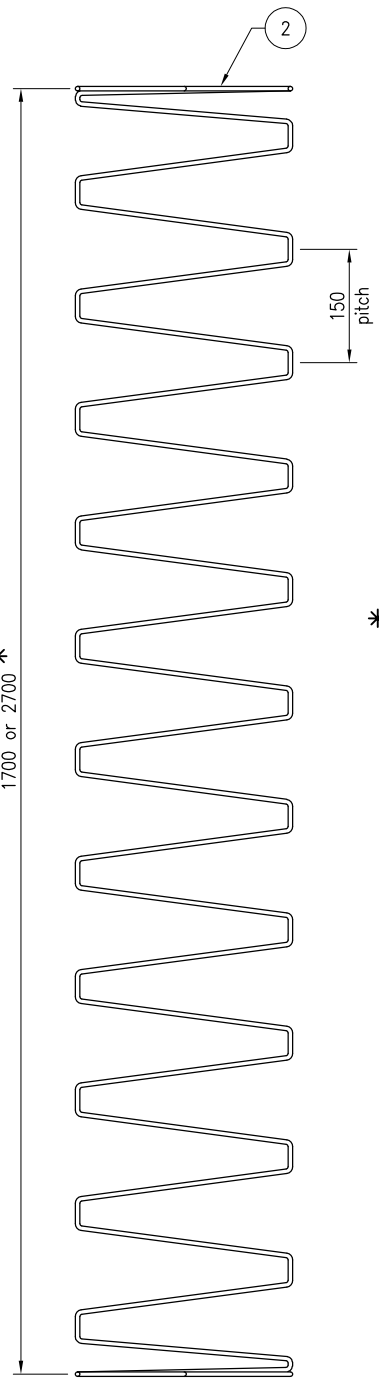
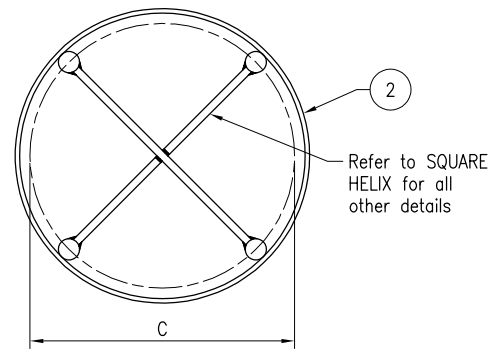


CIRCULAR HELIX DETAIL



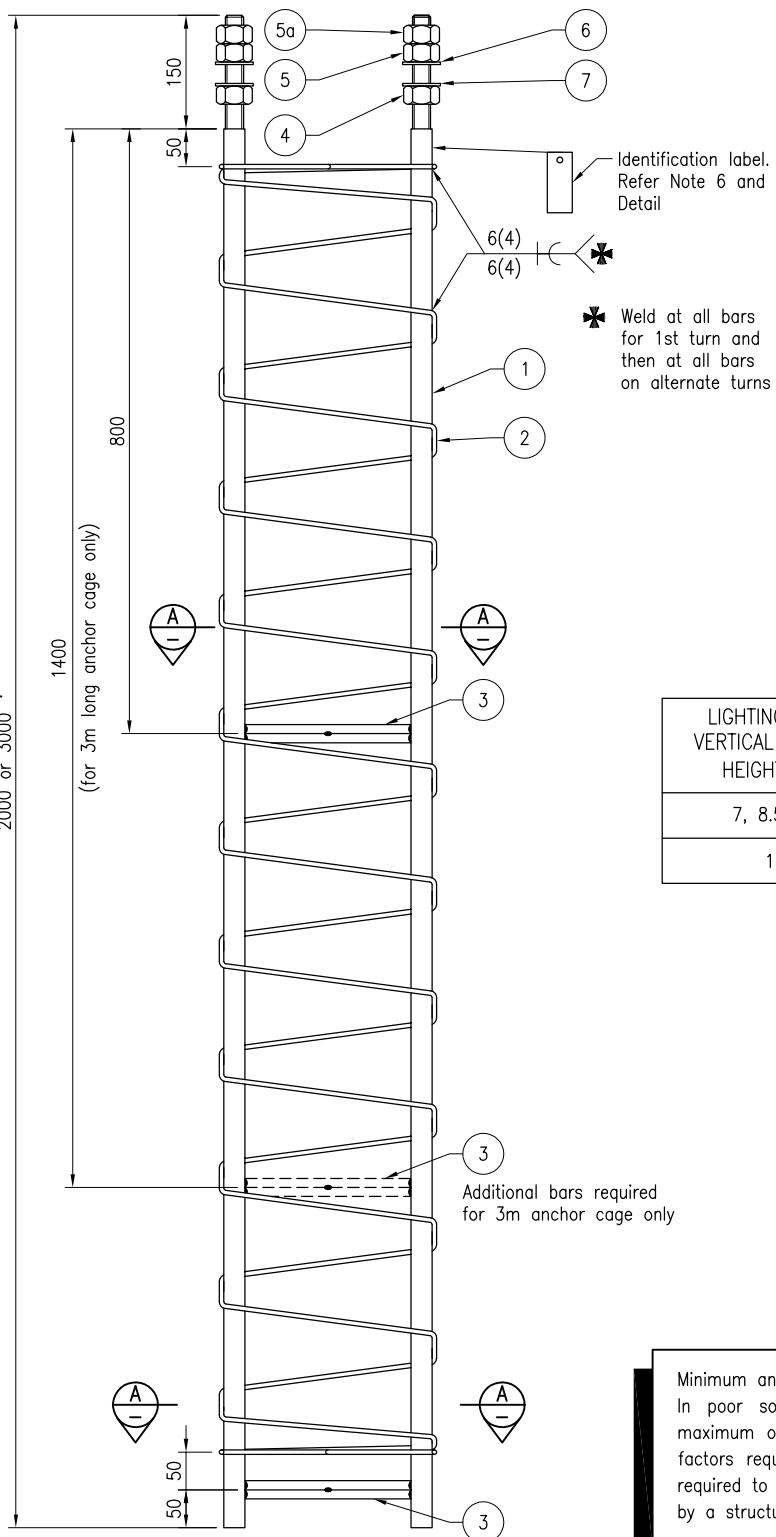
SQUARE HELIX DETAIL



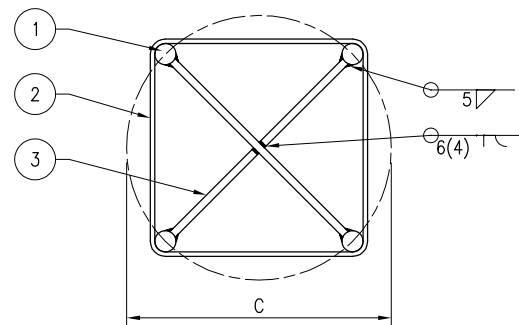
SECTION A CIRCULAR HELIX

ALTERNATIVE CAGE

Note: Helix to have 1.5 complete turns at both ends.



ELEVATION SQUARE HELIX (210) or (211)



SECTION A SQUARE HELIX (210) or (211)

MATERIALS LIST

ITEM	DESCRIPTION	QTY	REMARKS
1	28 dia Grade D500N deformed bar	4	Bar threaded 150 at top to M24
2	6 dia Grade R250N at 150 pitch	1	Square or circular helix, refer sections
3	12 dia Grade R250N bar	4	Welded together in pairs and to threaded bar to form anchor cage (6 off for 3m anchor cage)
4	M24 leveling nuts, hex, high strength, galvanised	4	To suit galvanised M24 threaded bar
5	M24 fixing nuts, hex, high strength, galvanised	4	To suit galvanised M24 threaded bar
5a	M24 temporary fixing nuts, hex, high strength, galvanised	4	To suit galvanised M24 threaded bar
6	Washers, structural, galvanised	4	To suit galvanised M24 threaded bar
7	Compressible Fibre Washers	4	To suit galvanised M24 threaded bar

ANCHOR CAGE DETAILS

LIGHTING POLE VERTICAL SECTION HEIGHT (m)	CAMERA HINGED POLE VERTICAL SECTION HEIGHT (m)	PCD 'C'	PART No ++
7, 8.5, 10	8, 10, 12	350	210
13	15	500	211

++ Refer standard drawing 1699 for parts list

EXAMPLE OF IDENTIFICATION LABEL

ACN Number	12345
Manufacturer's Name/Trade Mark	Big Pole Co.
Mass	15kg
Month/Year of manufacture	9/03

Minimum anchor cage length is 2m. In poor soil conditions, the anchor cage may be increased to a maximum of 3m in length. In the event that soil conditions or other factors require even longer anchorages, then a geotechnical survey is required to establish actual foundation material, followed by an analysis by a structural engineer to determine a suitable anchorage design.

\* Standard cage lengths are either 2m or 3m. To achieve cage lengths between 2 and 3m the following options may be used  
 (a) Trim a 3m long anchor cage at bottom to the required length, or  
 (b) Extend a 2m long anchor cage using extension as detailed in Standard Drawing 1680.

The purpose of this drawing is to provide typical standard details. The fitness for purpose of this drawing for a specific project shall be determined and certified by an RPEQ engineer. Additional project specific details may be required to be included in the scheme drawings.

NOTES:

- SCOPE: This Standard Drawing provides details of the anchor cage in accordance with MRTS92 and MRTS97. Anchor cages have been designed to withstand wind conditions as defined in MRTS97. This design does not apply to saturated ground conditions. In such cases a specialist design is required. Either square or circular helix reinforcing may be used to fabricate anchor cage. Pole height, PCD and Part No are shown in the Anchor Cage Details table.
- TOLERANCE: General  $\pm 5$ mm PCD  $\pm 1$ mm.
- REINFORCING STEEL shall be in accordance with Standard Drawing 1044, and with MRTS71 and AS/NZS 4671. Deformed bars Grade D500N. Round bars Grade R250N. All carbon reinforcing steel shall be ACRS certified. Bars shall be threaded in accordance with AS 1275 before galvanising. Prior to galvanizing all weld splatter and welding slag is to be removed. Completed Anchor Cage shall be hot dip galvanised to AS/NZS 4680.
- Nuts Class 8 and structural washers for Class 8.8 bolts shall be supplied in accordance with MRTS78. Assembly testing of threaded bar and nut shall be in accordance with MRTS78 with test loads as for Class 4.6 bolts. All nuts and washers shall be hot dip galvanised to AS 1214.
- WELDING symbols conform to AS 1101.3. All welding to AS/NZS 1554.3. Welding consumables to be controlled hydrogen type: G493 to AS/NZS ISO 14341-B or T493 to AS/NZS ISO 17632-B unless shown otherwise.
- Anchor cages shall have a stainless steel or aluminum identification label, indelibly marked with manufacturer's identification, the mass of the anchor cage, and the month/year of manufacture. This label shall be securely attached to the upper portion of 1-28 dia bar of the assembled cage, immediately below the threaded portion, as shown in this drawing.
- DIMENSIONS are in millimetres unless shown otherwise.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

Design Criteria for Bridges and other Structures

REFERENCED DOCUMENTS:

- Departmental Standard Drawings:  
 1680 Traffic Signals/Road Lighting – Extension to Light Pole and Mast Arm Anchor Cages  
 1699 Traffic Signals/Road Lighting/ITS – Parts List
- Departmental Specifications:  
 MRTS71 Reinforcing Steel  
 MRTS78 Fabrication of Structural Steelwork  
 MRTS92 Traffic Signal and Road Lighting Footings  
 MRTS97 Mounting Structures for Roadside Equipment

Department of Transport and Main Roads			
ROAD LIGHTING/ITS			
LIGHTING/CAMERA POLE ANCHOR CAGE FABRICATION DETAILS		A3	Standard Drawing No
		Not to Scale	1328
			Date 3/2020