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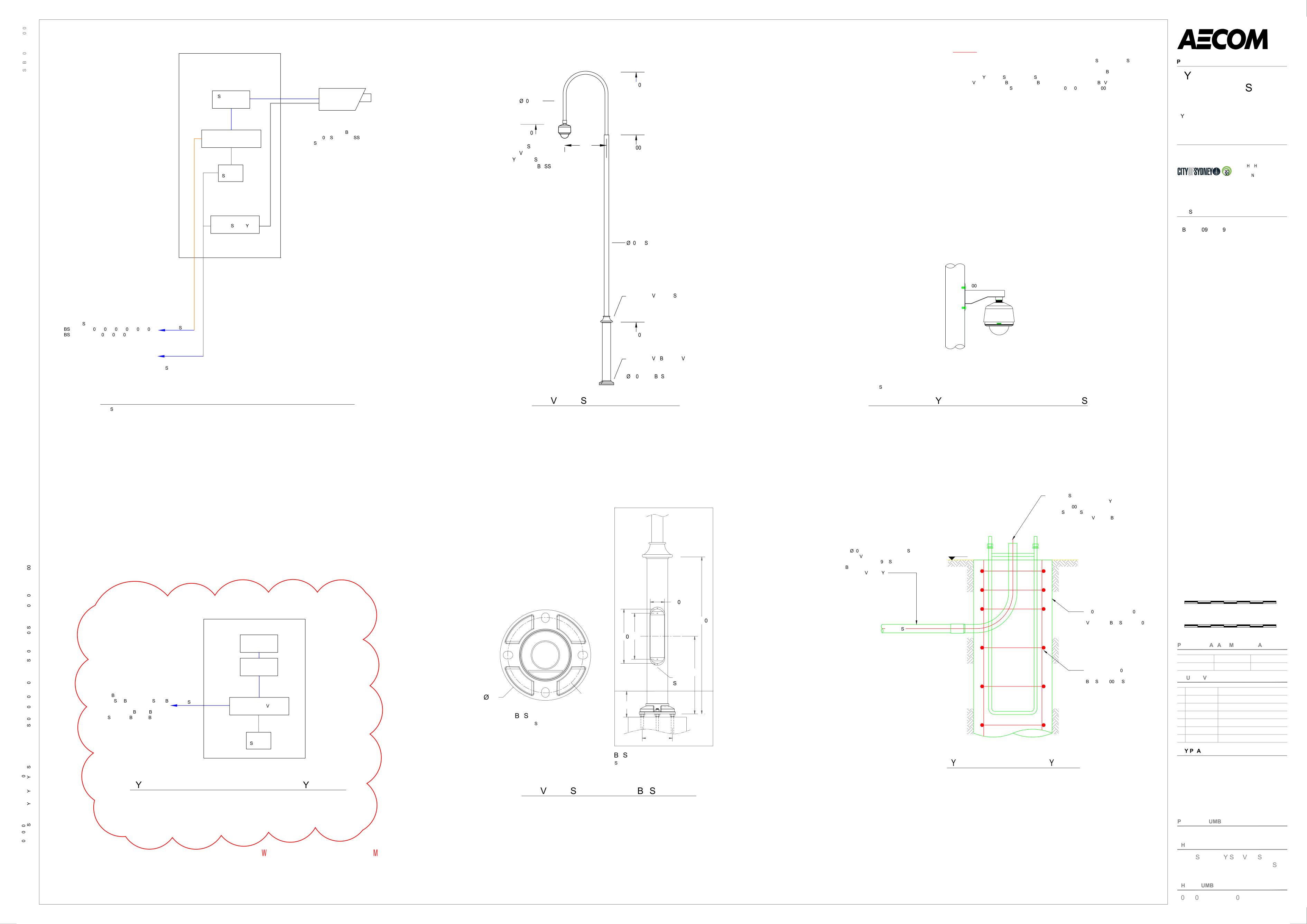
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Conduit curves, bends and distances between access points

Nominal inside diameter (ID) of Conduit	inside actual diameter (ID)		Minimum bend radius mid-run	Minimum bend radius within 500 mm of an access point	Maximum distance between access points		
(mm)	(mm)	(mm)	(mm)	(mm)	(m)		
50	53	6500	800	300	100		
100	105	13000	5000	800	100		

Note 1: The Conduit sizes are rounded to the nearest integer and are based on the values listed in AS/NZS 1477 for PN 9 and PN 12 PVC pressure pipes, which are the values used by Carriers for their rigid Conduit.

Note 2: The dimensions of polyethylene "bore pipe" used in underboring may vary.

Minimum separation requirements from other services (informative)

			Electricity						Oxygen or flammable gas					Water or	wasta	Heating oil, steam or compressed air				
Customer Cabling			ELV LV			HV								water or	waste					
	vation	Cable	Connection	Cable	Connection	Cab		Conne		Pipe	Connection	Meter	Cylinder	Pipe	Connection	Meter	Pump/ Cistern	Pipe	Connection	Pum Tan
	1		_			MC ⁵	SC 5		SC ⁵											
	Unenclosed		0	50 2	150 ³	300 6		450		150 7		150			50		150	150 7	150	
Metallic Cable	In Conduit		0	0	150 3	150		450		150 7		150			0		150	150 7	150)
Cabic	Connection, TO or joint	0	150 3	50 2	150 3		4	50		150	Outsid	le hazardou	s area ⁸		15	0			150	
	Unenclosed	0		0	150 3	0		45	50	150 7	150			50			150		150)
Optical fibre	In Conduit		0	0	150 3	0)	45	50	150 7		150			0		150	150 7	150)
Cable ¹	Connection or splice	0	150³	0	150 ³	0)	45	50	150	Outsid	le hazardou	s area ⁸		15	0			150	
Note 2:	If the optical fibre Cable contains any Electrically Conductive Elements (e.g. a metallic strength member, armouring or tracer), it is to be treated as a metallic Cable). If the Cables are separated by a barrier of durable insulating material or metal or within a Conduit, no further separation is required unless the Cables are within 50 mm of any securing face of Building structure that may be screwed or nailed. Cabling Providers working on Customer Cabling are to be protected against accidental contact with ELV or LV electrical connections by effective means (for example, an insulated barrier, a shield, shroud or suitable distance). The Customer Cabling connections are to be separated from ELV/LV electrical connections by at least 150 mm by							e of cted s by ud or n by	Note & No	Enclosure as any HV conductor or terminations is not permitted. 5: MC = Multi-Core							al ere ble at			
	earthed me	rmanent, rigidly fixed barrier of durable insulating material or ned metal. In the case where such a fixed barrier is applied, no er separation is required.						Note 9	with C teleco	These are the recommended minimum separation distances to ensure compliance with Clause 9.2.1 and to provide adequate clearance to install or access the telecommunications Cabling. All dimensions given are in millimetres (mm).										

Underground cabling separation from power cabling

	Customer Cabling situation	Power Cable protection	Minimum separation distance		
LV	Exclusive trench crossing above LV	In or under a covering to AS/NZS 3000 requirements (Note 1)	100 mm		
	Exclusive trench crossing above LV	No covering (Note 2)	300 mm		
	Exclusive trench crossing under LV	Heavy duty orange Conduit or a concrete barrier to Clause 3.11.4.3 of AS/NZS 3000 above the LV for 600 mm either side of the crossing	100 mm		
	Exclusive trench parallel run	In or under a covering to AS/NZS 3000 requirements (Note 1)	100 mm		
	Exclusive trench parallel run	No covering (Note 2)	300 mm		
	Shared trench in insulating Conduit	In heavy duty orange Conduit marked 'ELECTRICAL'	Nil (Note 3)		
	Shared trench	Under a covering to Clause 3.11.4.3 of AS/NZS 3000 (Note 1)	100 mm		
	Shared trench	No covering (Note 2)	300 mm		
ΗV	Exclusive trench crossing above HV	In or under a covering to AS/NZS 3000 requirements (Note 1)	300 mm		
	Exclusive trench crossing above HV	No covering (Note 2)	450 mm		
	Exclusive trench crossing under HV	Heavy duty orange Conduit or a concrete barrier to Clause 3.11.4.3 of AS/NZS 3000 above the HV for 600 mm either side of the crossing	300 mm		
	Exclusive trench parallel run	In or under a covering to AS/NZS 3000 requirements (Note 1)	300 mm		
	Exclusive trench parallel run	No covering (Note 2)	450 mm		
	Shared trench	In or under a covering to AS/NZS 3000 requirements (Note 1)	300 mm		
	Shared trench	No covering (Note 2)	450 mm		

- Note 1: Clause 3.11 of AS/NZS 3000 applies. This includes Category A systems where the power Cable is enclosed in a heavy duty Cabling Enclosure without further protection, such as in orange (heavy duty) insulating Conduit, and Category B systems where additional mechanical protection is provided above the power Cable in accordance with the requirements of Clause 3.11.4.3 of AS/NZS 3000.
- Note 2: Installation of underground power Cable in Customer Premises without a protective covering is not allowable under AS/NZS 3000. However, there may be cases where AS/NZS 3000 does not apply or has not been followed, in which case unprotected underground power Cable may be encountered. In such circumstances it is recommended to use the separation distances stated in C524 Industry Code.
- Note 3: No separation is required if the Customer Cable is enclosed in insulating Conduit, coloured white (or with a white stripe) and is marked 'COMMUNICATIONS'.
- Note 4: For added Cable protection, Customer Cabling may be enclosed in insulating Conduit that meets the requirements of AS/CA S008 for underground Conduit, but this does not reduce the minimum separation distances required except for the case described in Note 3.



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