

TABLE 1 - MINIMUM SEPARATION REQUIREMENTS

FROM ANY PART OF:	TO NEAREST PART TO:	MIN SEPARATION (mm)
PADMOUNT SUBSTATION / SWITCHING STATION SEE NOTES 4, 5, 6,	BUILDING	7500 (NOTE 6)
	PROPERTY BOUNDARY	1500
	ABOVE GROUND OBJECTS	1500 (NOTE 5)
	DRIVEWAYS & ROADS	1500
	COMMS CABLES, GAS & WATER PIPES, SEWER LINES	1500 (NOTE 5)
PILLAR	BUILDINGS & STRUCTURES	1200 (300-NOTE 2, 6.1)
	PROPERTY BOUNDARY	50
	ROADS	1200
	FOOTPATH	NOTE 10
	DRIVEWAYS	1200 (1000- NOTE 2)
	SHRUBS AND SMALL TREES	1200 (500- NOTE 2)
	TREES THAT CAN GROW >3 M	1500
SERVICE PIT	BUILDINGS & STRUCTURES	1000
	PROPERTY BOUNDARY / FOOTPATH / DRIVEWAY	40 (NOTE 14)
	ROAD	1200
	SHRUBS	1200
HV CABLES (1kV < U ≤ 22kV)	WATER PIPES	500 (H) 300 (V) (NOTE 1)
	SEWER PIPE LINES & STORMWATER PIPE LINES	600 (H), 300 (V) (NOTE 1)
	COMMUNICATIONS CABLES	300
	GAS PIPES	IN ACCORDANCE TO P006135 (NOTE 13)
	HV CABLES (22kV < U ≤ 132kV)	750 (NOTE 3)
	EDGE OF INGROUND SWIMMING POOLS OR SPAS	3500
	HV CABLES (1kV < U ≤ 22kV)	250 CENTRE TO CENTRE (NOTE 7)
LV CABLES (≤ 1kV) SERVICE MAINS CABLE PITS SERVICE PITS	WATER PIPES	500 (H) 275(V) (NOTE 1)
	SEWER PIPE LINES & STORMWATER PIPE LINES	600 (H), 150(V) (NOTE 1)
	COMMUNICATIONS CABLES	150
	GAS PIPES	IN ACCORDANCE TO P006135 (NOTE 13)
	EDGE OF INGROUND SWIMMING POOLS OR SPAS	REFERENCE DRAWING 3832-020
	HV CABLES (1kV < U ≤ 22kV)	250 CENTRE TO CENTRE (NOTE 7)
LV & HV CABLES (NOT COVERED BY SHARED TRENCH)	LV CABLES	50 PHYSICAL SEPARATION
	PROPERTY BOUNDARY	300- OR AS PER DESIGN VARIATION
	BUILDINGS & STRUCTURES	1200 (H) (NOTE 8, 9)
	ROAD (SPEED LIMIT ≤ 60 km/hr)	300 (H) (NOTE 11)
EVOENERGY ASSET, TRENCH OR CABLE	ROAD (SPEED LIMIT > 60 km/hr)	1500 (H) (NOTE 11)
	ROCK ANCHOR OR SOIL NAIL	1500

TABLE 1 NOTES:

- (H) - MINIMUM HORIZONTAL CLEARANCE, (V) MINIMUM VERTICAL CLEARANCE AT CROSS OVER POINTS FOR DIRECT BURIED CABLES. THE MINIMUM VERTICAL CLEARANCE CAN BE REDUCED TO 200MM (FOR HV) AND 150MM (FOR LV) FOR CABLE/S IN CONDUIT.
 - NO HV/LV CABLES OR EQUIPMENT ARE TO BE INSTALLED WITHIN A SEWER "TIE" PROTECTION ENVELOPE. REFER TO ICON WATER DOCUMENT, "BUILDING REQUIREMENTS FOR ICON WATER APPROVAL".
 - THE LOCATION OF EVOENERGY NETWORK CABLES OR POLES WITHIN 5m OF ICON WATER SEWER MAINS WITH A DIAMETER EQUAL TO OR GREATER THAN 300mm MUST BE SPECIFIED IN CONSULTATION WITH ICON WATER.
 - HORIZONTAL SEPARATION BETWEEN AN EVOENERGY CABLE(S) AND A SEWER OR STORM WATER MANHOLE, WATER METER PIT, WATER THRUST, VALVE OR HYDRANT SHOULD BE AT LEAST 1.0m (MEASURED FROM NEAREST POINT OF THE THIRD PARTY ASSET TO THE EDGE OF THE CABLE). WHERE THERE IS NO ALTERNATIVE, THIS REQUIREMENT MAYBE REDUCED TO NOT LESS THAN THE SEPARATION REQUIREMENT LISTED IN TABLE ONE IN CONSIDERATION TO AN EVOENERGY CABLE & A WATER OR SEWER PIPE.
- EXCLUDING THE FRONT SIDE OF ASSET- MINIMUM CLEARANCE MAYBE REDUCED TO THE FIGURE STATED ON ONE SIDE ONLY
- NO STRUCTURES OR SERVICES ARE PERMITTED WITHIN 750mm OF THE VERTICAL PROJECTION OF ANY 132KV CABLES. FOR FURTHER DETAILS REFER TO EVOENERGY DOCUMENT "P00718-A GUIDE TO WORKING WITHIN TRANSMISSION LINE RESERVATIONS".
- THE PADMOUNT SUBSTATION & SWITCHING STATION SITING CHECKLIST MUST BE COMPLETED AND APPROVED IN ACCORDANCE WITH THE EVOENERGY DOCUMENT "P007373 - PADMOUNT SUBSTATION & SWITCHING STATION SITING GUIDE".
- MINIMUM SEPARATION CLEARANCES QUOTED DO NOT CONSIDER EVOENERGY NETWORK EARTHING COMPLIANCE, EACH PROPOSED SUBSTATION LOCATION MUST HAVE A SITE SPECIFIC EARTHING DESIGN IN ACCORDANCE WITH EVOENERGY DOCUMENT "P007127-DISTRIBUTION EARTHING DESIGN AND CONSTRUCTION MANUAL".
- THIS DISTANCE MAY BE REDUCED IN ACCORDANCE WITH BOTH:
 - THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA IN CONSIDERATION TO THE EVOENERGY ASSET BEING A FIRE SOURCE FEATURE. APPROPRIATE FRLs TO THE BUILDING OR STRUCTURE MUST BE OBSERVED, AND;
 - AS2067 (SUBSTATIONS AND HIGH VOLTAGE INSTALLATIONS EXCEEDING 1kV a.c), SECTION 6.
- MINIMUM 450mm CENTRE TO CENTRE SEPARATION REQUIRED FOR CABLES INSTALLED IN CONDUIT.
- CABLES THAT SERVICE THE BUILDING OR STRUCTURE MAY ENCROACH THE SPECIFIED MINIMUM REQUIREMENT.
- REQUIREMENT MAYBE REDUCED (THROUGH RISK ANALYSIS), TO ENSURE ENOUGH SEPARATION FOR ASSET MAINTENANCE / REPLACEMENT.
- SEPARATION REQUIREMENTS ARE OUTLINED IN TCCS DOCUMENT "DESIGN STANDARDS FOR URBAN INFRASTRUCTURE" AND TCCS ROAD VERGE DRAWING "DS4-04, FOOTPATHS SERVICE MODULES"
- FIGURES STATED ARE HORIZONTAL CLEARANCE REQUIREMENTS FOR CABLE TRENCHES RUNNING IN PARALLEL TO THE ROAD.
 - ANY VARIATION TO MINIMUM CLEARANCE MUST BE APPROVED BY ROADS ACT.
 - SEPARATION REQUIREMENT IS MEASURED FROM THE OUTER MOST EDGE OF THE FORMED KERB (GUTTER) OR ROAD SURFACE WHERE FORMED KERBS ARE NOT INSTALLED TO THE NEAREST EDGE OF CABLE TRENCH.
- A POWER POLE MUST BE MINIMUM OF 1500mm FROM AN UNDERGROUND GAS MAINS, WATER & SEWER MAINS. ALSO VERIFY THE REQUIREMENT WITH THE RESPECTIVE UTILITIES AND REFER P00793 CIVIL WORKS FIELD MANUAL FOR NO DIG ZONE.
- REFER TO EVOENERGY DOCUMENT P006135 - SAFE WORK AROUND OR NEAR THE ACT GAS NETWORK.
- PITS MAY ONLY BE ADJACENT TO A SINGLE DRIVEWAY AND MUST NOT BE INSTALLED BETWEEN TWO DRIVEWAYS.

TABLE 2 - RECOMMENDED BURIAL DEPTHS FOR UNDERGROUND LINES


TYPE OF UNDERGROUND LINE	DIRECT BURIED AND COVERED WITH A MECHANICAL COVER OR ENCLOSED IN HEAVY DUTY PIPE OR CONDUIT	MINIMUM (mm)
22kV < U ≤ 132kV		1000

TABLE 2 NOTES:

- MAXIMUM TRENCH DEPTH FOR INSTALLATION OF CABLES IS 1.5 METRES
- COVERAGE REQUIREMENTS FOR CABLES UP TO 22kV ARE DEPICTED AND OUTLINED ON:
 - 390-002: CONDUIT INSTALLATION ROADWAYS AND DRIVEWAYS
 - 393-007: CABLE TRENCH DETAILS FOR CABLE INSTALLATIONS NOT COVERED BY SHARED TRENCH AGREEMENT
 - 393-011: UNDERGROUND SERVICES IN A SHARED TRENCH, ELECTRICAL PIT REQUIREMENT URD WITH GAS
 - 393-012: UNDERGROUND SERVICES IN A SHARED TRENCH, ELECTRICAL PIT REQUIREMENT URD WITHOUT GAS

MINIMUM SEPARATION REQUIREMENTS TO EVOENERGY EARTHING ASSETS

- NOTES:**
- EARTHING MUST BE ASSESSED, DESIGNED AND VALIDATED IN ACCORDANCE WITH THE EVOENERGY DOCUMENT "P007127-DISTRIBUTION EARTHING DESIGN AND CONSTRUCTION MANUAL".
 - 11kV EARTHING ASSETS INCLUDE GRADING RINGS, DEEP EARTH ELECTRODES, EARTHING GRIDS, 11kV CONDUCTIVE POLES AND COPPER CLAD EARTH STAKES.
 - MINIMUM SEPARATION REQUIREMENTS FROM ANY CONDUCTIVE BURIED ITEM OR CONDUCTIVE STRUCTURE ABOVE THE GROUND TO ANY EVOENERGY 11kV NETWORK EARTHING MUST BE DETERMINED ON A CASE BY CASE BASIS BY A DESIGNER OR NETWORK SERVICES SECTION MANAGER.
 - ALL LOW VOLTAGE EARTHING MUST BE POSITIONED IN ACCORDANCE WITH EVOENERGY DOCUMENT "P007127-DISTRIBUTION EARTHING DESIGN AND CONSTRUCTION MANUAL" AND MAINTAIN A MINIMUM 4m SEPARATION TO ANY EVOENERGY 11kV EARTHING INFRASTRUCTURE.

T	'WF13143' REPLACED WITH 'P006135' AND NOTE 13 ADDED-KV	12/05/2022	N. Azizi	W. Cleland	Drawn: G. Adamaitys	Designed: G. Smith	 <p>SEPARATION AND COVER REQUIREMENTS FOR CABLES AND PLANT</p>	Scale:	Date: 12/05/2022	Sheet No:		
U	UPDATED NOTE 12 - MS	3/02/2023	N. Azizi	W. Cleland	Checked:			Work Pack No:	File:			
V	NOTE 14 ADDED; SERVICE PIT DETAILS AMENDED	22/11/2023	J. Primmer	N. Azizi	Approved: G. Astbury			Status:	Current			
W	SHARED TRENCH NOTE UPDATED	11/12/2023	N. Azizi	W. Cleland	Project No:							
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