

THIS DRAWING TO BE READ IN CONJUNCTION WITH THE FOLLOWING SA POWER NETWORKS TECHNICAL STANDARDS

TS-085 Trenching and Conduit Standard for Underground Distribution Cable Networks

TS-099 Distribution and Sub-Transmission CAD Drafting Standards

TS-100 Electrical Design Standard for Underground Distribution Cable Networks

TS-101 Trenching & Light Pole Standard

TS-102 Extension Standard for Distribution Networks

TS-103 Testing for Underground & Overhead Distribution Powerlines up to and including 33kV Networks

TS-107 Overhead Line Design Standard for Transmission & Distribution Systems

TS-108 Technical Standard for Distribution Equipment and Transformer Rooms

TS-109 Technical Standard for the Network

NICC-400 Information for an Applicant Undertaking a Contestable Extension

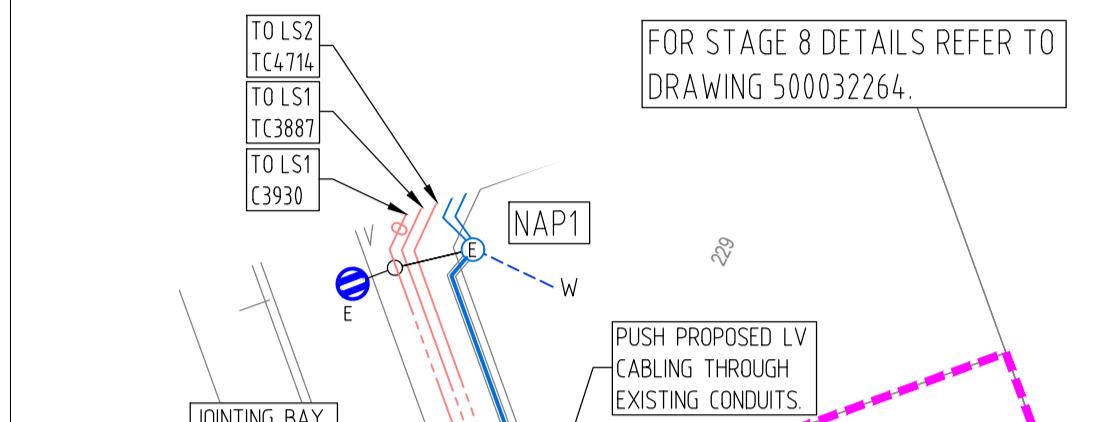
NICC-404 Working in the Vicinity of SA Power Networks Infrastructure

Network Access Permit Process

NICL-802 Padmount Transformer - General Information for Customers/Contractors

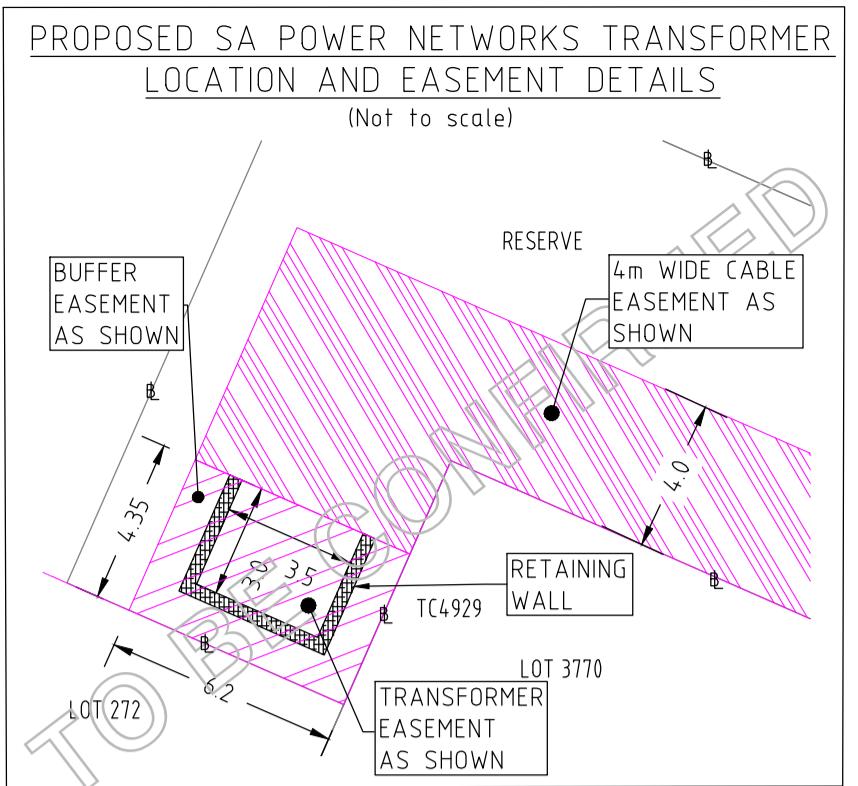
Visit SA Power Networks web site for the current version of the Technical Standards

FOR CONDUIT BEND DETAIL REFER
SA POWER NETWORKS TS-085
TABLE 8 & 9 USE SOLID WALL
CONDUIT BEND AS PER TS-085



LOCATE ALL EXISTING CABLES
PRIOR TO EXCAVATION USE HYDRO
EXCAVATION AS PER TS-85 REFER
TO AS CONSTRUCTED DRAWINGS
FOR GPS COORDINATES OF EXISTING
HV CABLE LOOP

TO BE CONFIRMED



OR CONDUIT BEND DETAIL REFER
SA POWER NETWORKS TS-085
TABLE 8 & 9. USE SOLID WALL
CONDUIT BEND AS PER TS-085

WGA	
WALLBRIDGE GILBERT	
AZTEC	
58.1.1:2022 & AS1158.3.1:2020	
TING DESIGN	ROAD CATEGORY
SAVERIO BLVD, FRISBY RD JUNCTIONS	V5
FRISBY RD	PR3
ALL OTHER ROADS	PR5
17/04/2024	
E: L. Lukanov (TechIES)	

REDUCED COVER TRENCH CROSS SECTION

C-C

(Not to scale)

NOTE: Refer to SA Power Networks Technical Standard TS-85 for details.

Ground level

Orange marker tape

100mm thick poured concrete

50 mm

Sand back fill

50 mm

50 mm diameter heavy duty conduit class 12

50

150 mm cover

450 mm

50 min. Sand bed

XXX min

CONFIRMED

ndred of Munno Para
in the area named
ANGLE VALE
City Of Playford

<u>THIS DRAWING TO BE READ IN CONJUNCTION WITH THE FOLLOWING SA POWER NETWORKS TECHNICAL STANDARDS</u>	
TS-085	Trenching and Conduit Standard for Underground Distribution Cable Networks
TS-099	Distribution and Sub-Transmission CAD Drafting Standards
TS-100	Electrical Design Standard for Underground Distribution Cable Networks
TS-101	Public Lighting - Design and Installation
TS-102	Easement Standard for Distribution Networks
TS-105	Testing for Underground & Overhead Distribution Powerlines up to and including 33kV Networks
TS-107	Overhead Line Design Standard for Transmission & Distribution Systems
TS-108	Technical Standard for Distribution Equipment and Transformer Rooms
TS-109	Earthing of the Distribution Network
NICC-400	Information for an Applicant Undertaking a Contestable Extension
NICC-404	Working in the Vicinity of SA Power Networks Infrastructure - Network Access Permit Process
NICC-802	Padmount Transformer - General Information for Customers/Contractors
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LEGEND

PROPOSED P8 FUSED LV JUNCTION PIT ARRGT.CGF1 (E1921 Sht.4) CONCRETE SURROUND SIMILAR TO TRAFFICABLE P7 PIT.

PROPOSED P8 FUSED LV JUNCTION PIT ARRGT.CGF2 (E1921 Sht.4) CONCRETE SURROUND SIMILAR TO TRAFFICABLE P7 PIT.

TRAFFICABLE P7 FUSED LV JUNCTION. P7 PIT TO BE REINFORCED WITH 200mm CONCRETE SURROUND, M12 BAR TOP AND BOTTOM 480mm DEEP AS PER E1921 SHT 7.3.

EXISTING JUNCTION PIT.

PROPOSED FUSED RADIAL PILLAR.

PROPOSED FUSED LOOP PILLAR.

PROPOSED FUSED-T/OFF PILLAR.

EXISTING SERVICE PILLAR.

PROPOSED PADMOUNT TRANSFORMER.

PROPOSED SWITCHING CUBICLE.

PROPOSED HV CABLE JOINT

EXISTING STOBIE POLE TO BE REMOVED.

PROPOSED STOBIE POLE

24W STREETLED AEROSCREEN LED, 4000K, BLACK FINISH (EM4025) EQUIPPED WITH 10A NEMA PHOTO CELL, MOUNTED ON BLACK 6.5m MODERN COLUMN WITH 1.5m DECORATIVE MODERN OUTREACH (WA4017).

80W ROADLED MIDI AEROSCREEN, 4000K, BLACK FINISH (EM4117) EQUIPPED WITH 10A NEMA PHOTO CELL, MOUNTED ON BLACK 9.0m IMPACT ABSORBING COLUMN (WA4113) WITH SINGLE 3.0m MODERN OUTREACH (WA4531).

80W ROADLED MIDI AEROSCREEN, 4000K, BLACK FINISH (XXXXX) EQUIPPED WITH 10A NEMA PHOTO CELL, MOUNTED ON BLACK 9.0m IMPACT ABSORBING COLUMN (WA4113) WITH DOUBLE 3.0m MODERN OUTREACH (WA4530).

EXISTING LED LUMINAIRE

NOTES:

1. Developer responsible for trenching in accordance with SA Power Networks trenching & conduit standard TS-085. Construction to be in accordance with SA Power Networks technical standards and SA Power Networks 'E' drawings.
2. Cables to be laid in 1x100mm dia. LD (low duty) orange conduit at all road crossings unless otherwise stated. Road crossing conduits for radial (type1) service pits are to extend to the boundary line of the property and be fully continuous. Other road crossings to extend 900mm beyond kerb.
3. The conduit for a radial low voltage road crossing installation needs to be continuous (fully conduited) as per E1904 Sheet 4, with conduit between pillars installed in such away that it will facilitate quick cable replacement. If this is achieved a spare conduit is not required.
4. Spare conduits for LV cables are to be inserted to approximately 25mm and capped within P7 pits. HV spares are to be diverted around pits, as per TS-085.
5. For NBN Developments, install the CST Road Crossing 90° to the allotment boundary.
6. Cables to have 1000mm minimum cover.
7. Cables through easements to be installed in conduit with spare and marker tape as per TS-085. Cable markers are to be installed in cable easement as per TS-085 Appendix A.
8. Any existing underground services shown on these drawings are indicative only, no claim is made that the existing services shown are accurate or complete. Other services may be present which shall be the contractor's responsibility to locate and depth prior to any construction works. Any cable system and equipment must be treated as energised unless otherwise confirmed by SA Power Networks.
9. Phasing of consumer connections as shown.
10. Public lighting to be all-night burning.
11. Number of allotments - 54 lots = 324kVA total (refer table).
12. Number of public lights - 20 x 80W & 1 x 24W LED (TFI Tariff).
13. Developer - Lanser Communities.
14. Consulting Engineer - Kellogg Brown & Root Pty Ltd.
15. Surveyor - Alexander Symonds Pty Ltd.
16. Due to the schematic nature of the drawing, the position of equipment shown is indicative only. Actual locations should be verified on site.
17. Retaining walls are required around transformer and switching cubicle easements where the final level changes by more than 300mm in the 2.0m adjacent the easement. The walls are to be built prior to installation of the transformer or switching cubicle and are to be located on the easement. Refer to TS-085, TS-100 and TS-102.
18. All walls, fences, ceilings and floors within 1.2m of the padmount transformer station shall have a 3 hour fire rating as determined by the Building Code of Australia.
19. SA Power Networks is responsible for the connection and energisation of the stage.
20. Contractor to ensure Hydro Vacuum Excavation maximum working pressure is limited to 2000psi as per TS-085. Any proposed excavation methods adjacent SA Power Networks infrastructure should be in accordance with NICC-404. Network Access Permits (NAP) required for works on and/or around SA Power Networks exclusion and/or restricted zones as per NICC-404 section 9.1 - figures 1,2 and 3.
21. Contractor to provide as constructed drawings to SA Power Networks for approval prior to practical completion. Changes can be made by design consultant for hourly rate charge or AutoCAD format drawings can be purchased from consultant for revision by contractor.
22. Construction by -
'As Constructed' details provided by -
WGA is not responsible for the accuracy of the 'As Constructed' details provided.

TYPICAL COMMON SERVICE TRENCH CROSS SECTION
(Not to scale)
NOTE: Refer to SA Power Networks Technical Standard TS-85

PROPOSED SCHNEIDER RM6 DOWNWARD VENTING
TYPE 2 SWITCHING CUBICLE E1965 Sheets 4.2
LOT 3110 FRISBY ROAD

C-4788

RA7203

4 LS

4 LOAD SWITCH

FOOTING AS PER
E1982 Sheet 5

Proposed 3x300mm² HV cable coiled in above ground enclosure adj Lot 3112.

Proposed 3x300mm² HV cable to LS1 TC4929 reserve adj lot 3770 Frisby Rd.

Proposed 3x300mm² HV cable to LS4 C4787 Reserve adj. Lot 182 Frisby Rd.

FRISBY ROAD
DOOR FACE NORTH-WEST

PROPOSED SCHNEIDER RM6 DOWNWARD VENTING
TYPE 2 SWITCHING CUBICLE
E1965 Sheets 4.2

S.L.D. OF PROPOSED 11/0.4kV 500kVA LOOP MK7 PADMOUNT TRANSFORMER
TC4929 - (LC7510A) - OIL CONTAINMENT TF
RESERVE ADJ LOT 3770

TC4929

LC7510A

HV Arrgt.
E1945
SHEET 4

630A
DEAD BREAK
CONNECTORS

ed 3x300mm² HV cable to
788 Lot 3110 Frisby Rd.

ed 3x300mm² HV cable to above
enclosure adj Lot 504 Frisby Rd.

ed 4x150mm² LV cable to
adj. Lot 3771 Frisby Road.

ed 4x150mm² LV cable to
Lot 3101 Frisby Road.

LV Arrgt.
E1947
SHEET 1.11

1x1250A
ISOLATOR
4x630A SIZE 3
FUSE SWITCH
DISCONNECTS

FOOTING AS PER
E1982 Sheet 11
CLASS B SOIL

4x100mm LV conduits capped
and buried adj. stobie 5
Frisby Rd .

4x100mm LV conduits capped
and buried adj. stobie 5
Frisby Rd .

E1965 Sheets 4.2

PROPOSED SCHNEIDER RM6 DOWNWARD VENTING
TYPE 2 SWITCHING CUBICLE E1965 Sheets 4.2
RESERVE FRISBY ROAD ADJ LOT 182

C-4787

RA7203

4 LS

4 LOAD SWITCH

FOOTING AS PER
E1982 Sheet 5

Proposed 3x630mm²
HV cable to LS1
C3930 Reserve opp
Lot 294, via S/J
Saverio Blvd.

Proposed 3x300mm²
HV cable to LS3
C4788 Lot 3110
Frisby Rd.

Proposed 3x95mm² HV cable
coiled in above ground
enclosure adj Lot 3112.

FRISBY ROAD
ROAD FACE SOUTH EAST

S.L.D. OF PROPOSED 11/0.4kV 315kVA LOOP Mk7 PADMOUNT TRANSFORMER
TC4928 - (LC7509A) - OIL CONTAINMENT TF
RESERVE FRISBY ROAD ADJ LOT 183

TC4928

LC7509A

LV Arrgt.
E1947
SHEET 1.11

1x1250A ISOLATOR
4x630A SIZE 3 FUSE SWITCH DISCONNECTS

FOOTING AS PER E1982 Sheet 11 CLASS B SOIL

Proposed parallel 4x150mm² LV cable to P8 pit opp lot 181 Saverio Blvd.

Proposed 3x95mm² HV cable to TC4714 lot 193 Nyon Court, S/J Saverio Blvd.

Proposed 3x95mm² HV cable to TC3887 Reserve opp lot 299, S/J Saverio Blvd.

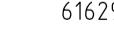
Proposed PL cable to adj. column

Proposed 4x150mm² LV cable to Lot 3289 Frisby Road.

WORKS SWITCHING BASEMENT DETAILS

A scale bar for distances in metres. It features a horizontal line with tick marks at 10, 15, 20, 25, and 50. The word "METRES" is written above the 50 mark.

GA
E GILBERT
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@wga.com.au
WGA189172

MAP REF: 6628-19-b	NBFRA NON BUSHFIRE RISK AREA		
GRID REF: 285144 E 6162966 N	FEEDER NO: EL-17 FEEDER NAME: CURTIS RD 11kV SUBSTATION NO: SSD-273 SUB NAME: ANGLE VALE		
  	ASSET OWNER: SA POWER NETWORKS		
PROJECT DEFINITION: NC-23922		NOTIFICATION TYPE CN	PROJECT TYPE RD
FOR CONSTRUCTION			

AVALE - STAGE 10B
ID RESIDENTIAL DEVELOPMENT
V. No. 292/D068/17

SHEET 2 OF 2 REV F
500042215

FOR CONSTRUCTION

JULY 2025

JUST 2025

E	FOR CONSTRUCTION	WGA	LL			27.03.25												
D	FOR CONSTRUCTION	WGA	LL		DLK	21.02.25												
C	PRELIMINARY ISSUE	WGA	LL			30.10.24												
B	PRELIMINARY ISSUE	WGA	LL			19.07.24												
A	PRELIMINARY ISSUE - FOR COORDINATION ONLY	WGA	LL			11.05.24	F	FOR CONSTRUCTION - HV O/H REMOVAL EXTENSION		WGA	LL		DLK	19.08.25				
REV	DETAILS OF REVISION	RVD	CKD	INSP	APD	DATE	REV	DETAILS OF REVISION		RVD	CKD	INSP	APD	DATE	REV	DETAILS		