

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 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
NCC-400 Information for an Applicant Undertaking a Contestable Extension
NCC-404 Working in the Vicinity of SA Power Networks Infrastructure Network Access Permit Process
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 7 to 9.

EXTEND 3x95mm² HV CABLE 1m PAST LOT 356
BOUNDARY AND LOOP AROUND AS PROVISION FOR
SUPPLYING FUTURE STAGE. DO NOT EXCEED BENDING
RADIUS OF CABLES. FINAL LOCATION OF LOOP TO BE
COORDINATED ON SITE WITH SUPERINTENDENT.
RECORD EXACT GPS LOCATION OF CABLE LOOP FOR
INCLUSION ON AS CONSTRUCTED DRAWINGS

3x95mm² HV CABLE LOOP
XXXXXXXXXX E
XXXXXXXXXX N
USE COORDINATES AS REFERENCE
ONLY. LOCATE ALL UNDERGROUND
SERVICES PRIOR EXCAVATION

CAP AND BURY 2x100mm
LV CONDUIT 1m PAST
LOT 356 BOUNDARY

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

FOR CONSTRUCTION
14 Jan 2022

LEGEND

- PROPOSED 3x630mm² 11kV XLPE CABLE (CK6039)
EXISTING 630mm² 11kV CABLE
PROPOSED 3x95mm² 11kV XLPE CABLE (CK6006)
EXISTING 95mm² 11kV CABLE
PROPOSED 150mm² LV UBC XLPE CABLE (CK5301)
EXISTING 150mm² LV CABLE
PROPOSED PARALLEL 150mm² LV UBC XLPE CABLE (CK5301)
EXISTING PARALLEL 150mm² LV UBC XLPE CABLE
PROPOSED PUBLIC LIGHTING CABLE 6mm² TWIN & 6mm² EARTH IN 40mm CONDUIT
EXISTING PUBLIC LIGHTING CABLE
PROPOSED 40mm HD ORANGE ELECTRICAL CONDUIT & DRAIN ROPE FOR CONSUMERS MAIN TDS/ADS 3000 DEPTH 800mm REFER TYPICAL CST CROSS SECTION & STANDARD SA POWER NETWORKS SERVICE PIT LOCATION ARRANGEMENT
EXISTING CONSUMERS MAIN
PROPOSED LV UNDERGROUND OPEN POINT
PROPOSED SPARE CONDUITS
EXISTING SPARE CONDUITS
LV/HV CABLES CAPPED IN CABLE PIT E1926/E1979

- PROPOSED TRAFFICABLE P7 UNFUSED LV JUNCTION PIT WITH GELPORTS
P7 PIT TO BE REINFORCED WITH 200mm CONCRETE SURROUND, M2 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-JOINT PILLAR
EXISTING SERVICE PILLAR
PROPOSED LV CABLE JOINT
PROPOSED HV CABLE JOINT
PROPOSED PADMOUNT TRANSFORMER
EXISTING PADMOUNT TRANSFORMER
EXISTING SWITCHING CUBICLE
17W STREETLED AEROSCREEN LED, 4000K, BLACK FINISH (EM4422) MOUNTED ON BLACK 9.0m IMPACT ABSORBING COLUMN (W44113) WITH SINGLE 3.0m MODERN OUTREACH (W44531)
80W ROADLED MDI AEROSCREEN, 4000K, BLACK FINISH (EM4171) MOUNTED ON BLACK 9.0m IMPACT ABSORBING COLUMN (W44113) WITH SINGLE 3.0m MODERN OUTREACH (W44531)
EXISTING LED LUMINAIRE

SCOPE OF WORKS

CONTESTABLE WORKS

Electrical Contractor to:

- Undertake all new work within development.
- Provide completed TS-105 C1 & C2 forms.
- Provide 'As Constructed' drawings within 7 days of submitting certificate of compliance to SA Power Networks Network Management group at no charge.
- Provide documented results proving condition of the existing assets to NPD prior to commencing works on any existing infrastructure.
 - megger and phase ID all cables
 - megger all screens and carry out core to screen/earth test for all HV cables
 - contact NPD for direction if any faults discovered.
- Obtain networks access permits for work near live network assets and excavate jointing bays to facilitate works.

NAP1

- Locate all existing underground cables prior to excavation.
- Push 3 sets 4x150mm² LV cable through existing conduit into existing transformer TC65561 vault, cap for termination by SA Power Networks.
- Push 3x95mm² HV cable through existing conduit into existing transformer TC65561 vault, cap for termination by SA Power Networks.
- Push 3x95mm² HV cable through existing & coil sufficient length adj existing transformer TC65561, for straight joining by SA Power Networks
- Push 3x630mm² HV cable through existing conduit into existing switching cubicle C3579 vault, cap for termination by SA Power Networks.

NAP2

- Locate all existing underground cables prior to excavation.
- Disconnect PL circuit at column opposite Charlie St. Remove existing PL column from proposed roundabout as shown. Abandon redundant PL cable and conduits.

Developer Civil Contractor to:

- Comply with requirements of NCC-404, TS105-C1 & C2 when working in the vicinity of the electricity network.
- Undertake civil on request by SA Power Networks.
- Use pre-fabricated conduit spacer systems at 2m intervals for up to 6m and finishing 200mm from the end of conduits at the stage boundary. (refer TS-085 section 7.5)

NON CONTESTABLE WORKS

SA Power Networks to:

- Terminate & connect parallel 4x150mm² LV cable onto FSD1 TC65561.
- Terminate & connect 4x150mm² LV cable onto FSD2 TC65561.
- Disconnect existing 3x95mm² HV cable from LS1 TC65561 and pull out of vault.
- Terminate & connect 3x95mm² HV cable from LS2 TC3887 (lot 154) onto LS1 TC65561.
- Supply and install 3x95mm² HV cable straight joint connecting existing cable from LS1 TC65324 and propose cable to LS1 TC3886 (lot 354).
- Terminate & connect 3x630mm² HV cable onto LS1 C3579.
- SA Power Networks to carry out testing, connection and energising of the development, including public lighting

CAP/TERMINATE IN ABOVE GROUND ENCLOSURE 3x630mm² HV CABLE 6m PAST LOT 299/300 BOUNDARY. FINAL LOCATION TO BE COORDINATED WITH FUTURE DRIVEWAYS/FOOTPATH AND APPROVED BY SUPERINTENDENT ON SITE.

FOR DETAILS OF TRANSFORMER CONNECTION, REFER TO SLIDESHED 21 FOR LOCATIONS, REFER TO EASEMENT DETAILS.

NOTE:

Any changes to be made on site to the location of the common service trench, and/or electrical & street lighting equipment must first be verified by the electrical designer and the project manager/engineering consultant. Any changes to work within proposed SA Power Networks easements must also be verified by the project surveyor.

NOTES:

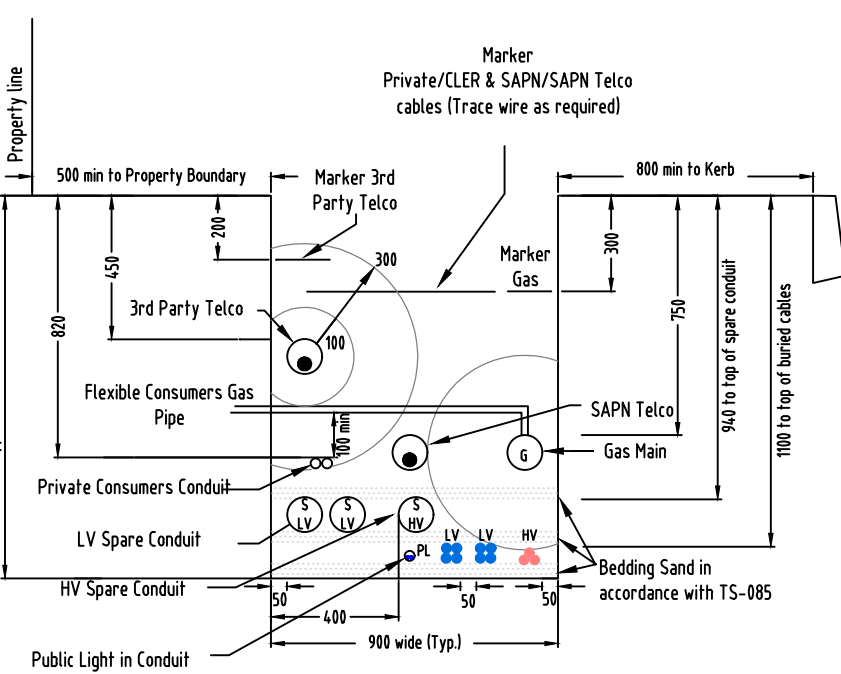
- Developer responsible for trenching in accordance with SA Power Networks trenching & conduit standard TS-085. Construction to be in accordance with SA Power Networks technical standards and SA Power Networks 'E' drawings.
- Cables to be laid in 1x100mm dia. LD (low duty) orange conduit at all road crossings unless otherwise stated. Road crossing conduits for radial (type) service pits are to extend to the boundary line of the property and be fully continuous. Other road crossings to extend 900mm beyond kerb.
- 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 a way that it will facilitate quick cable replacement. If this is achieved a spare conduit is not required.
- 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.
- For NBN Developments, install the CST Road Crossing 90° to the allotment boundary.
- Cables to have 1000mm minimum cover.
- 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.
- 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.
- Phasing of consumer connections as shown.
- Public lighting to be all-night burning.
- Number of allotments - 43 lots = 258kVA total.
- Number of public lights - 8x17W + 5x80W LED (TfI Tariff).
- Developer - Lanser Communities.
- Consulting Engineer - Kellogg Brown & Root Pty Ltd.
- Surveyor - Alexander Symonds Pty Ltd.
- Due to the schematic nature of the drawing, the position of equipment shown is indicative only. Actual locations should be verified on site.
- 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.
- SA Power Networks is responsible for the connection and energisation of the stage.
- 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 NCC-404, Network Access Permits (NAP) required for works on and/or around SA Power Networks exclusion and/or restricted zones as per NCC-404 section 9.1 - figures 1.2 and 3.
- 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.
- Construction by -
'As Constructed' details provided by -
WGA is not responsible for the accuracy of the 'As Constructed' details provided.

THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 500032241 SHEET 2

TYPICAL COMMON SERVICE TRENCH CROSS SECTION

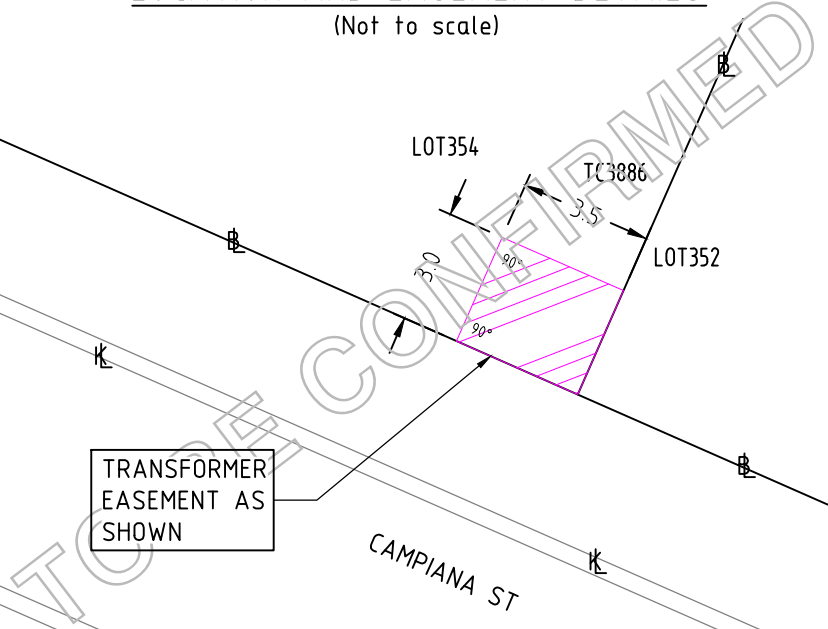
(Not to scale)

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



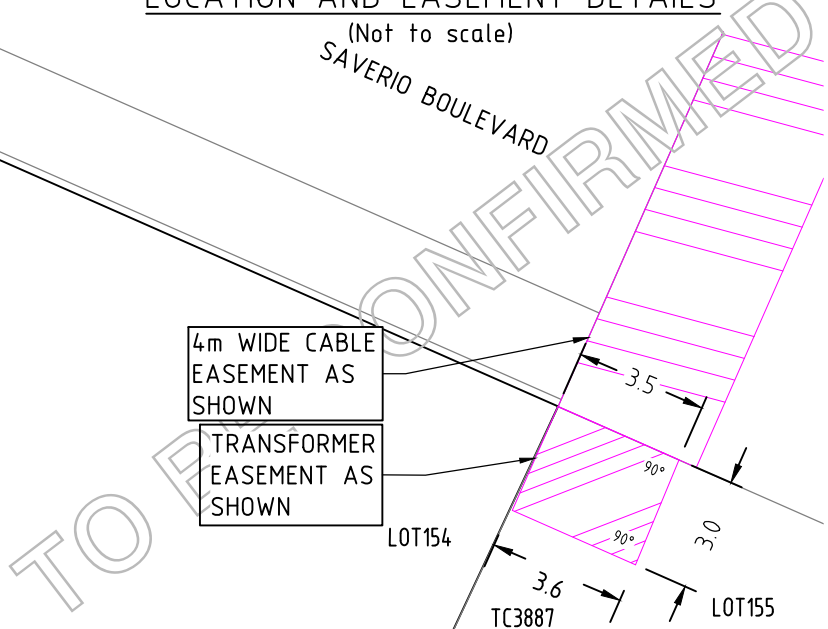
PROPOSED SA POWER NETWORKS TRANSFORMER LOCATION AND EASEMENT DETAILS

(Not to scale)



PROPOSED SA POWER NETWORKS TRANSFORMER LOCATION AND EASEMENT DETAILS

(Not to scale)



SCALE

0 5 10 15 20 25 30

METRES

EDGE OF COMMON SERVICE TRENCH (from boundary line)

PUBLIC LIGHTING ALIGNMENT (from back of kerb)

DESIGN INFORMATION

Termite resistant cable: YES

Earthing: CMEN

The Design ADM / lot: 6KVA

Head Office: 1 Anzac Highway, Keswick South Australia 5035

Postal address: GPO Box 71, Adelaide South Australia 5001

Corporate switchboard: 08 8424 5467

1900am - 500pm Monday to Friday

ABN: 13 333 338 7149

WGA

WALLBRIDGE GILBERT

AZTEC

60 Wyatt Street, Adelaide

South Australia 5000

Telephone 08 8223 7433

Email adelaide@wga.com.au

WGA Project No: WGA189172

SURVEYORS NAME: Alexander Symonds

MAP REF: 6628-19-B

GRID REF: 284706 36

CO-ORDINATE DATUM: 6162989.45

GROUND SCALE:

HORIZ:

VERT: 284438.15 E

6162942.86 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: NOTIFICATION TYPE

NC-018783 CN RD

FOR CONSTRUCTION

SCALE

1:500

A1

MIRAVALE - STAGE 6
UNDERGROUND RESIDENTIAL DEVELOPMENT
DEV. No. 292/D068/17

500032241

SHEET 1 OF 2

REV

C