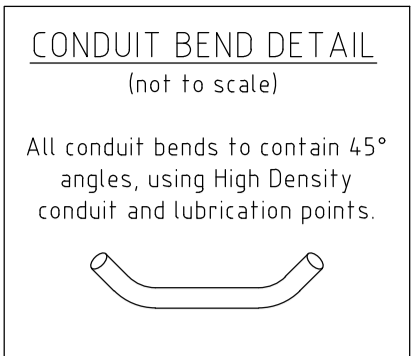


THIS DRAWING TO BE READ IN CONJUNCTION WITH THE FOLLOWING SA POWER NETWORKS TECHNICAL STANDARDS

TS-085 Trenching and Conduit Standard for Underground Distribution Cable Networks  
 TS-087 Construction Standard for Underground 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 Equipment 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  
 NCC-802 11kV & 7.6kV to Low Voltage Mkt Padmount Transformers Information & Requirements for Customers/Contractors  
 Visit SA Power Networks web site for the current version of the Technical Standards



EXTEND 95mm<sup>2</sup> HV CABLE PAST STAGE BOUNDARY AND LOOP AROUND AS PROVISION FOR SUPPLYING FUTURE STAGE. DO NOT EXCEED BENDING RADIUS OF CABLES.

Hundred of Maccesfield in the area named MOUNT BARKER City of Mount Barker

**WGA**  
WALLBRIDGE GILBERT AZTEC

AS1158.3:2005 LIGHTING DESIGN

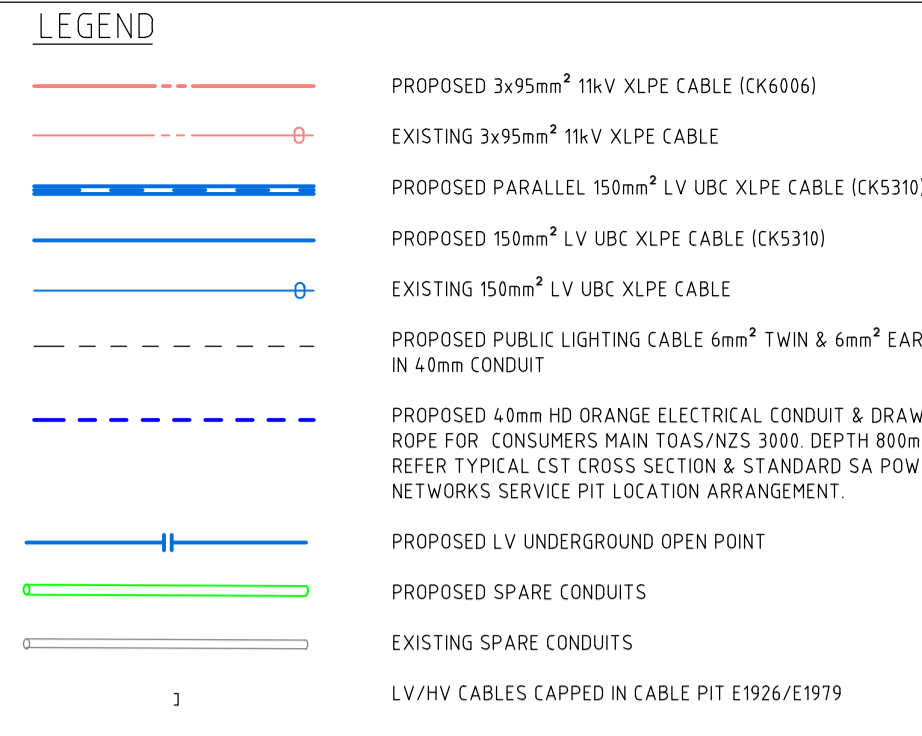
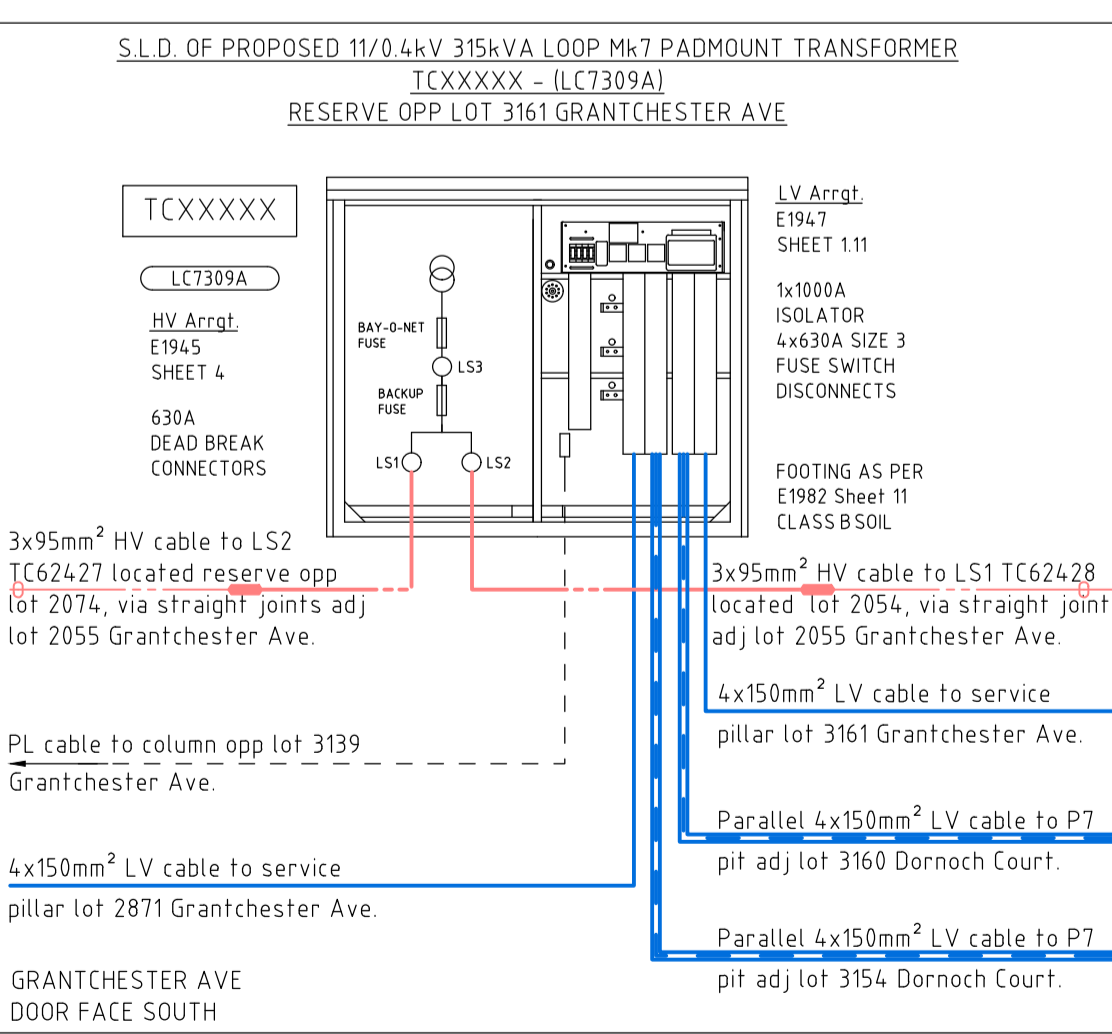
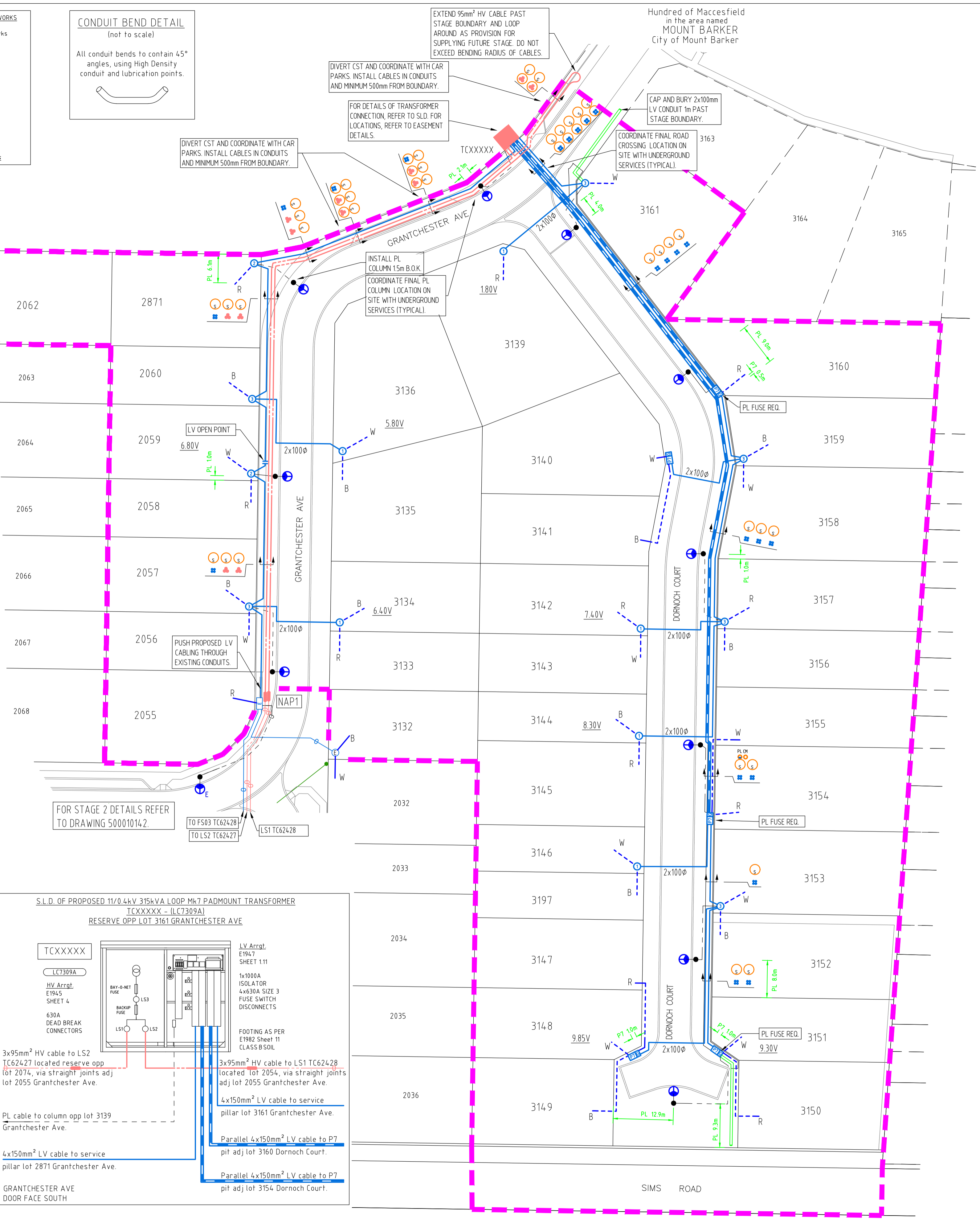
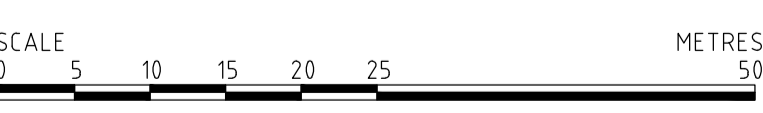
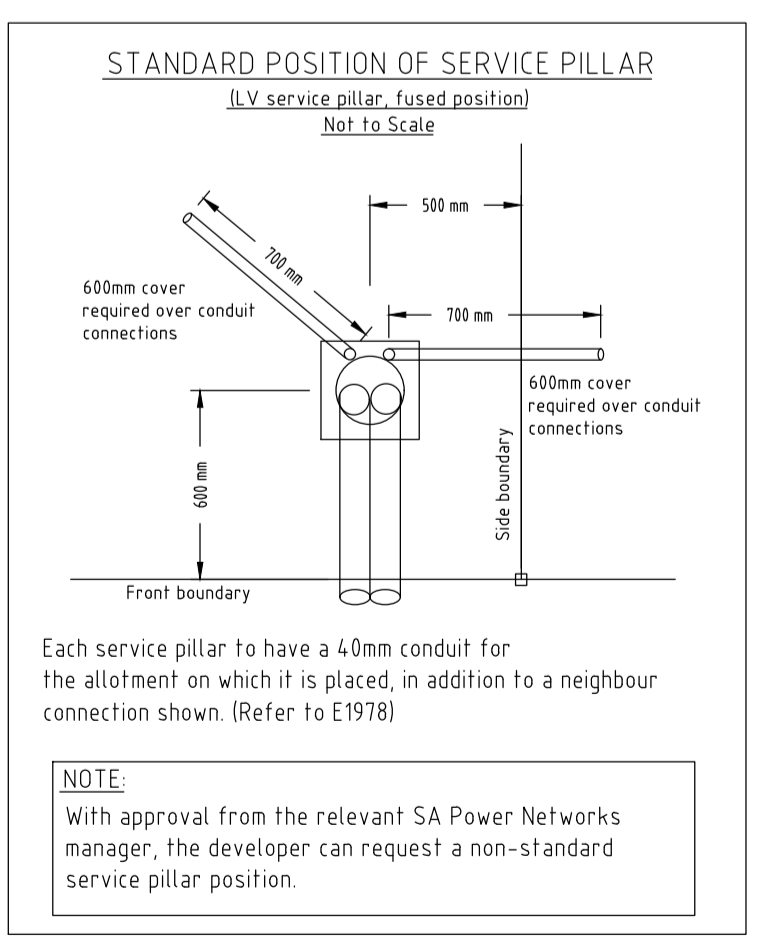
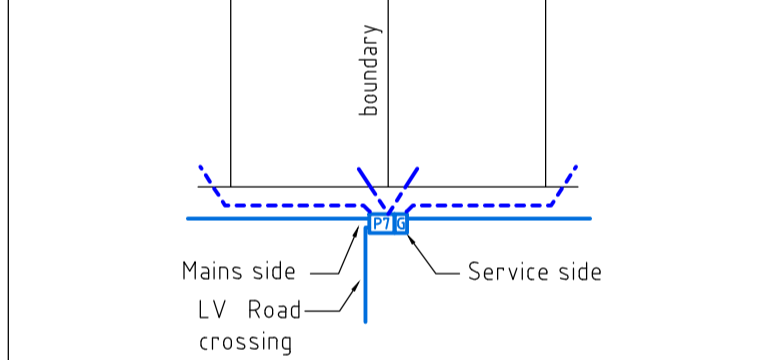
ROAD CATEGORY P4

DATE: 03/10/2018

NAME: L Lukonov (TechIES)

**UNFUSED P7 PIT WITH GEL PORTS ARRANGEMENT**  
 Service fuses required in customer's meter box when supplied from unfused P7 junction pit. Install 40mm HD orange electrical conduit from P7 pit to property boundary as per AS/NZS3000.

- For service connections details refer E1921 Sheet 4 and TS-085 for cable entry and exiting positioning.
- For unmetered supply/public lighting supply refer E1921 Sheet 4.3.
- For P7 Gelports pit arrgt. refer DST 1745 Sheet, arrgt. 1, 2 & 3.
- For LV main cable junction connection details refer E1921 Sheet 3.3.
- For installation and connection refer E-drawings, JSWP 14.0 and Field Instruction FI-A1.



**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 to SA Power Networks Network Management group at no charge.

**NAP 1**

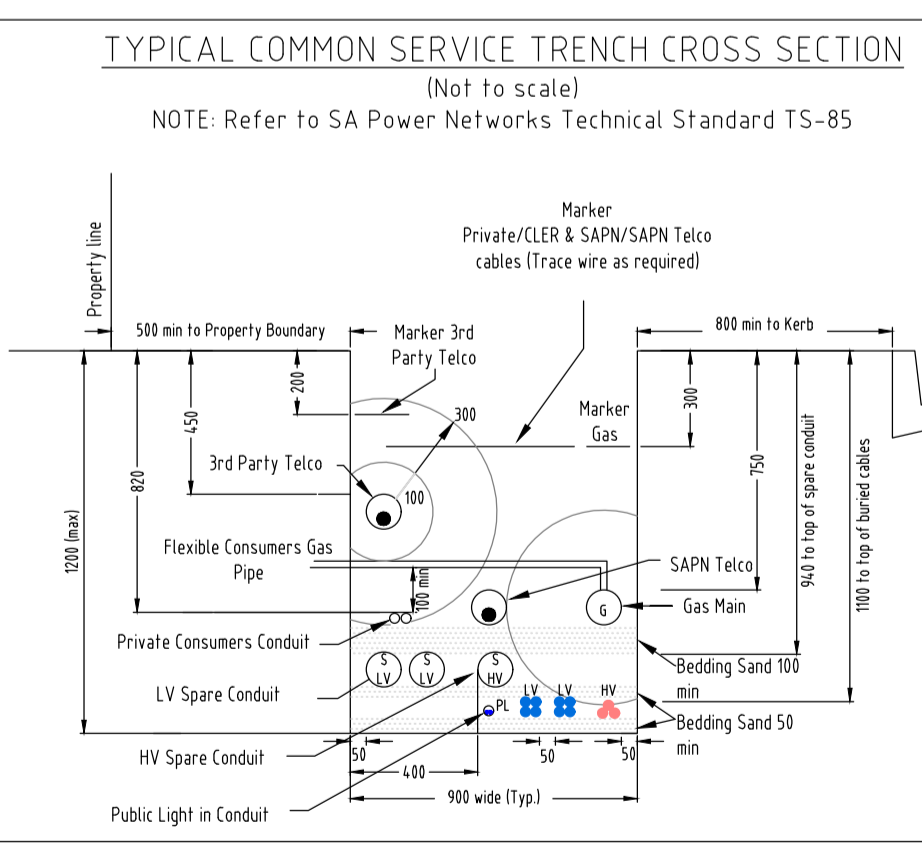
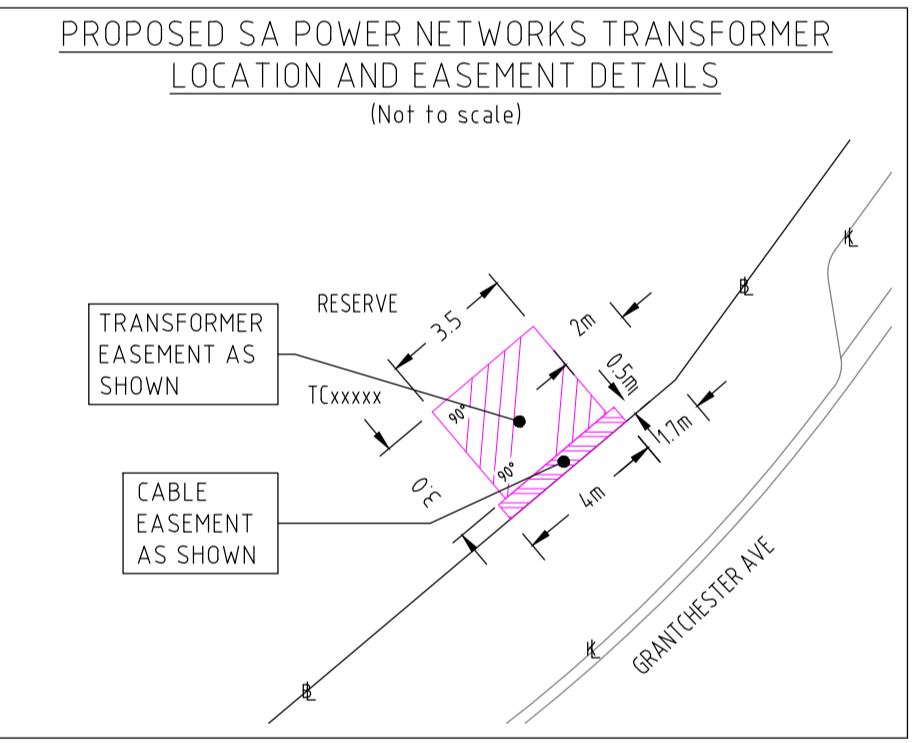
- Coil sufficient 2 of 3x95mm<sup>2</sup> HV cables adj existing looped HV cable lot 2055 Grantchester Ave for straight jointing by SA Power Networks.
- Push 4x150mm<sup>2</sup> LV cables through existing conduit into P7 pit adj lot 2055 Grantchester Ave, cap for termination by SA Power Networks.

**Developer Civil Contractor to:**

- Comply with requirements of NCC-404, TS105-C1 & C2 when working in the vicinity of the electricity network.
- Provide jointing bay including reinstatement for proposed SA Power Networks HV connection works. APPROX SIZE 4.5m x 15m

**NON CONTESTABLE WORKS**  
 SA Power Networks to:

- Cut looped 3x95mm<sup>2</sup> HV cable reserve 3007, supply and install 2 sets of 3x95mm<sup>2</sup> straight joints.
- Terminate 4x150mm<sup>2</sup> LV cables to existing P7 pit adj lot 2055 Grantchester Ave
- Carry out testing, connection and energising of the completed development including the public lighting.



EDGE OF COMMON SERVICE TRENCH (from boundary line) 0.7m

PUBLIC LIGHTING ALIGNMENT (from back of kerb) 1.0m

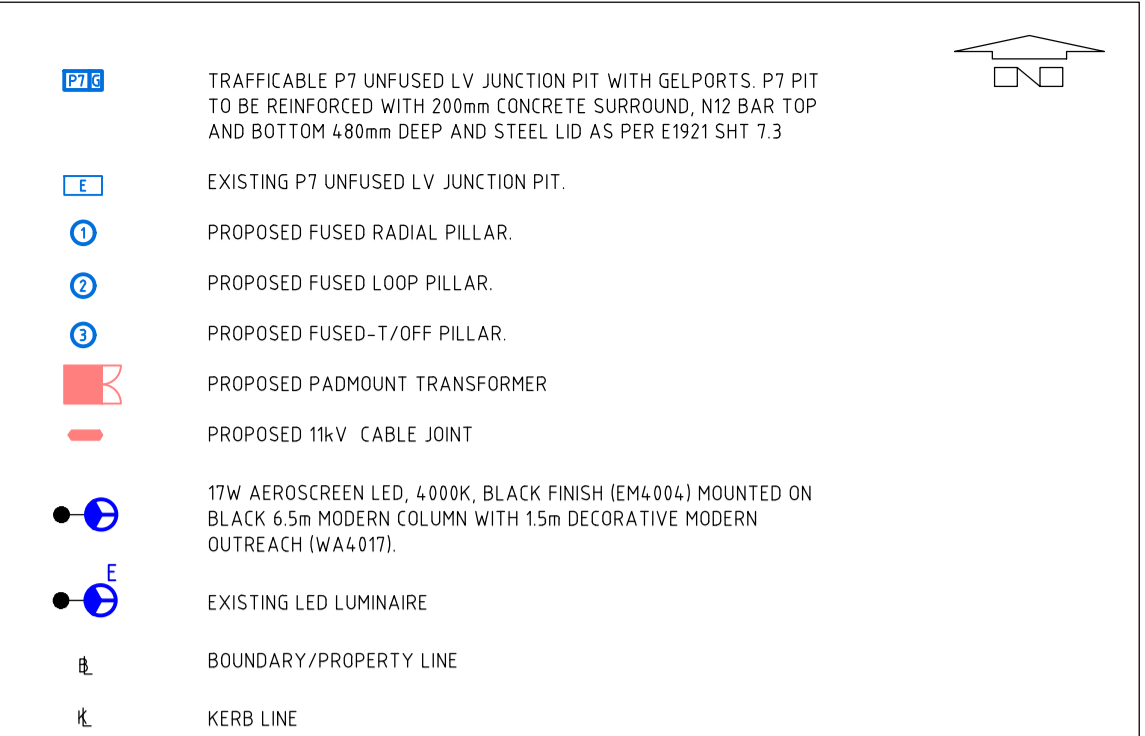
**DESIGN INFORMATION**

Termite resistant cable: Yes

Earthing: CMEN

The Design ADM / lot: 8 kVA

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 pipe 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.
- 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.
- 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 clause 10.12. Cable markers are to be installed in cable easement as per E1979.
- Electrical contractor to provide 45° sweep bends. Provide lube injection points prior to each bend for long cable pulling distances. Refer SA Power Networks E1906 drawings for detailed requirements.
- 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 - 37 lots x 8kVA = 296kVA.
- Number of public lights - 10x17W LED (TFI Tariff).
- Developer - Lanser Communities.
- Consulting Engineer - Greenhill Consulting Engineers Pty Ltd.
- Surveyor - Fyfe Earth Partners 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.
- 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.
- SA Power Networks is responsible for the connecting and energising of the stage.
- 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.

**PRELIMINARY ISSUE**  
 NOT TO BE USED FOR CONSTRUCTION  
 13 DECEMBER 2018

**WGA**  
WALLBRIDGE GILBERT AZTEC

60 Wyatt Street, Adelaide  
 South Australia 5000  
 Telephone 08 8223 7433  
 Email adelaide@wga.com.au

ZONE MGA-54-GDA94  
 MAP REF: 6627-07-M8N  
 GRID REF: 308305.10 E  
 6115745.70 N

**HBFRA** HIGH BUSHFIRE RISK AREA

FEEDER NO: MTB-13  
 FEEDER NAME: BUGLE RANGES 11kV  
 SUBSTATION NO: SSD-777  
 SUBSTATION NAME: Mt Barker Distribution  
 ASSET OWNER: SA POWER NETWORKS

PROJECT DEFINITION: NC-009481  
 NOTIFICATION TYPE: CN  
 PROJECT TYPE: RD

308130.50 E  
 6115520.20 N

**FOR CONSTRUCTION**

REV	DETAILS OF REVISION	RVD	CKD	APD	DATE	REV	DETAILS OF REVISION	RVD	CKD	APD	DATE
C	PRELIMINARY ISSUE - LOT LAYOUT UPDATED	WGA	LL	AI	13.12.18						
B	FOR CONSTRUCTION	WGA	LL	AI	20.11.18						
A	PRELIMINARY ISSUE	WGA	AI	AI	04.10.18						

DRAWN	L LUKANOV	04.10.18	Head Office: 1 Anzac Highway Keswick South Australia 5035
DESIGNED	L LUKANOV	03.10.18	
CHECKED	A IAROSSI	04.10.18	Postal address: GPO Box 77 Adelaide South Australia 5001
PROJECT MANAGER	B RIGO MT BARKER (08) 8391 7741		Corporate switchboard 08 8404 5667 19:00am - 5:00pm Monday to Friday)



BLEFARI, MT BARKER STAGE 3  
 PROPOSED UNDERGROUND RESIDENTIAL DEVELOPMENT  
 DEV. No. 580/D039/15

SCALE 1:500 A1 500014885 SHEET 1 OF 1 REV C