<table>
<thead>
<tr>
<th>CONSTRUCTION</th>
<th>DESCRIPTION</th>
<th>DWG</th>
</tr>
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<tr>
<td></td>
<td>Construction code guide - Underground service from overhead system</td>
<td>5113</td>
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<td></td>
<td>SERVICE U/G FROM O/H CONSTRUCTION</td>
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<tr>
<td>SPTPIL</td>
<td>Underground from overhead system 16mm²</td>
<td>5072/1</td>
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<tr>
<td>PX</td>
<td>4 core Cu cable - material</td>
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<td>SPTUMS</td>
<td>Underground from overhead system 16mm²</td>
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<tr>
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<td>4 core Cu cable</td>
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<tr>
<td></td>
<td>Underground unmetered supply</td>
<td>5303/1</td>
</tr>
<tr>
<td></td>
<td>from overhead system - material</td>
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<td>5303/2</td>
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<td>from overhead system</td>
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<tr>
<td></td>
<td>Underground unmetered supply</td>
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<td>from overhead system</td>
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<td>Underground unmetered supply</td>
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<td></td>
<td>from overhead system</td>
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<tr>
<td></td>
<td>Unmetered supply from pillar - material</td>
<td>5371/1</td>
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<tr>
<td></td>
<td>Unmetered supply from pillar</td>
<td>5371/2</td>
</tr>
</tbody>
</table>

**UNDERGROUND DISTRIBUTION SERVICES INDEX**

**DATE:** 23.11.00

**APPROVED:** C. Noel

**PASSED:** A. Bletchly

**DRAWN:** T. Borg

**FILE:** 5 56 5098 1

**Dwg** | **Sh** | **1** | **D**
UNDERGROUND SERVICES FROM OVERHEAD - CONSTRUCTION CODE

Code shown within dashed box appears on relevant construction detail drawings in this manual.

SPT PIL/16CU/P/ABC

SERVICE
SPT = Service pole termination

SUITES SERVICE CABLE
16CU = 16mm² Cu 4 core
16CUI = 16mm² Cu 4 core insect protected

DESTINATION
PIL = LV Pillar
UMS = Unmetered Supply

MAINS CONDUCTOR
ABC = LVABC 95mm²
Al = Aluminium conductors
Cu = Copper conductors

CABLE GUARD
P = Polymeric Guard
M = Metal Guard
Omit for UMS Services

CONSTRUCTION DOES NOT INCLUDE
- Conduit or horizontal bends, if required (but includes vertical bends at pole & pillar)
- Polymeric cable protection cover
- Caution tape orange
- Cable
- Additional cable support saddles for poles greater than 9.5m in length

EXAMPLE:- SPTPIL/16CU/P/ABC = Service pole termination, LV pillar, suits 16mm² Cu 4 core cable, Polymeric cable guard, LVABC 95mm² mains conductor.
C.Lindsay

ASSOCIATED DRAWINGS

<table>
<thead>
<tr>
<th>DRAWING</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>5041</td>
<td>LV Construction - Cross road pillar</td>
</tr>
<tr>
<td>5162</td>
<td>Trenching - FN Region</td>
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<td>Trenching - NQ Region</td>
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<td>5164</td>
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<td>5165</td>
<td>Trenching - CA Region</td>
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<td>5124/3</td>
<td>Construction Practices - Conduit ducting and protection</td>
</tr>
<tr>
<td>5187</td>
<td>Trenching - Service conduit bend location at pillar</td>
</tr>
</tbody>
</table>

NOTES:
1. Customers mains and installation including conduit bend into pillar are the responsibility of the customer and shall be installed by the customer's electrical service provider in accordance with AS 3000 - SAA wiring rules.
2. Conduit bend at pillar location, including a minimum of 1.0m of conduit into the customer's property, shall be installed prior to pillar installation.
3. Location and height of the meter box shall be in accordance with Ergon Energy requirements.
4. The service provider shall ensure water does not flow from the pillar into the customers premises.
5. Seal outlet of conduit at the customers premises and provide a drain to outside of wall if necessary.
6. Not to be used on S.W.E.R. installations.
7. Locates cable on opposite side of pole to oncoming traffic where possible.
8. Do Not Obstruct climbing access.
9. Polymeric cable guard is not to be used in areas:
   - subject to grass fire
   - where metal bladed brush cutter may be used
   - where there is a high likelihood of impact.
10. Where polymeric cable guard is used, an M.E.N. earth is to be installed at the pole unless existing on an adjacent pole.
11. Refer Earthing Section of the Overhead Construction Manual for minimum separation requirements between metal cable guard and communication assets.

80 dia, 90° 450 rad. bend at pole, pillar and change of direction.

Customer's mains and conduit to be provided by the customer. Refer notes 1 to 4.

Construction Type

Cross road pillar - PX
Pole termination & cable guard - SPTPILA

ULTRGROUND DISTRIBUTION SERVICES
UNDERGROUND FROM OVERHEAD SYSTEM
16mm² 4 CORE Cu CABLE

Ergon Energy Corporation Ltd
ABN 50 087 646 062

FILE:  5 5072 2
Dwg 5072 Sh.2

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ORIGINAL ISSUE
31.12.04

C
24.11.05

B
3.3.09

D
27/11/01

PASSED
D. MSK

DRAWN
C. Liadesy

APPROVED

UNCONTROLLED
### Material - Pole Termination

<table>
<thead>
<tr>
<th>ASSY</th>
<th>Description</th>
<th>QTY</th>
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<tbody>
<tr>
<td>507-3</td>
<td>Cartridge fuse link 32A HRC</td>
<td>1</td>
</tr>
<tr>
<td>530-1</td>
<td>Connector I.P.C. 25/95mm² main to 6/35mm² tap</td>
<td>AR</td>
</tr>
<tr>
<td>530-6</td>
<td>Connector tap-off bare aluminium mains</td>
<td>2</td>
</tr>
<tr>
<td>530-7</td>
<td>Connector tap-off bare copper mains</td>
<td>AR</td>
</tr>
<tr>
<td>532-1</td>
<td>Saddle (20mm) to wood pole</td>
<td>1</td>
</tr>
<tr>
<td>532-6</td>
<td>Bracket cable support to x-arm</td>
<td>AR</td>
</tr>
<tr>
<td>558-31</td>
<td>Terminator conduit PVC flexible 20mm</td>
<td>1</td>
</tr>
<tr>
<td>558-41</td>
<td>Conduit PVC flexible 20mm</td>
<td>AR</td>
</tr>
<tr>
<td>597-1</td>
<td>Bracket (service fuse) to wood pole</td>
<td>1</td>
</tr>
<tr>
<td>597-2</td>
<td>Fuse holder 100A (service) to bracket</td>
<td>AR</td>
</tr>
<tr>
<td>604-5</td>
<td>Cable insulated 6mm² 2C Cu</td>
<td>AR</td>
</tr>
</tbody>
</table>

### Notes:
1. Customers mains and installation including conduit and mains connection box are the responsibility of the customer and shall be installed by an approved contractor or Ergon Energy in accordance with AS/NZS 3000 - wiring rules.
2. Customer is responsible for seeking permission from road authority and various service authorities to install or cross services in the footpath allocations.
3. Consumers terminal box shall be located on the side of the pole which is least hazardous to maintenance personnel (normally facing building line).
4. Customer asset shall be installed minimum 3m from pole.
5. An MEN earth is to be installed at the pole unless existing on an adjacent pole.
6. Customer is responsible for seeking permission from road authority to install assets in the road reserve.
7. Excessive excavation at the pole base may disturb pole foundation. Avoid excavating in areas shown.

---

### Plan - Route of Service

- **Direction of traffic flow**
- **Avoid excavating in areas shown hatched (refer note 7)**
- **Customer's mains alignment as per note 2.**
- **Customer's asset. Location as per note 6.**
- **Plan**

---

**Underground Distribution Services**

**Underground unmetered supply from overhead system - material**

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**Original Issue**

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**Ergon Energy Corporation Ltd**

**ABN 50 087 646 062**

**FILE: 5 56 5303 1**

**Dwg 5303 Sh 1**
UNDERGROUND DISTRIBUTION SERVICES
UNDERGROUND UNMETERED SUPPLY FROM OVERHEAD SYSTEM

F.S.L

Limit of Ergon Energy responsibility

3500 max.
2700 min.
2400 min.
2500 max.

Consumers mains connection box & galv. mounting bracket
Refer note 1
Assy Selection
558-31 & 558-41
Consumers terminal box (optional)
refer sheet 4 for details
Consumers rigid PVC conduit
Consumers protective guard
Non-conductive attached at min. 2 points.

Consumer's switchboard in accordance with
QECMM & AS/NZS 3000

Unmetered Equipment

Flexible conduit to extend
1000 min. from pole
Consumers marker tape
Consumers protective
cable cover (to extend beyond flexi)

600 min.

Separate (MEN) earth
electrode to AS/NZS 3000
Consumers protective guard
Non-conductive attached at min. 2 points.

Ergon Energy Corporation Ltd
ABN 50 087 646 062

FILE: 5 56 5303 2
Dwg 5303 Sh 2
Locate service fuse as per Overhead Construction Manual dwg 1045.

Assy 530-6 or 7
Assy 597-1
Assy 597-2
Assy 507-3
Assy 604-5

Locate service fuse as per Overhead Construction Manual dwg 1111

Assy 530-1
Assy 597-1
Assy 597-2
Assy 507-3
Assy 532-1
Assy 558-41

Construction Type
SPTUMS

OPEN WIRE
LV ABC

Assy 532-1 @ 500CRS
Assy 558-41
Wood Pole

Assy 530-1
Assy 597-1
Assy 597-2
Assy 507-3
Assy 604-5
Wood Pole
Consumer to supply & install weather proof box, Clipsal 'adaptable box' type 265/4 or equivalent

Neutral link

Box predrilled to accept flexible conduit terminator 20mm

Assy 558-31

Assy 558-41

Fuse

Main switch

To customer installation

To overhead mains

CONSUMERS TERMINAL BOX - OPTIONAL
NOTES:
1. Customers mains and installation including conduit and mains connection box are the responsibility of the customer and shall be installed by an approved contractor or Ergon Energy in accordance with AS/NZS 3000 - wiring rules.
2. Customer is responsible for seeking permission from road authority and various service authorities to install or cross services in the footpath allocations.
3. Customer is responsible for seeking permission from road authority to install assets in the road reserve.
4. Customer's switchboard shall be located on the opposite side to oncoming traffic. (Least hazardous to maintenance personnel).
5. Customer mains and conduits shall be a minimum:
   - 300 mm from Ergon Energy high voltage cable or conduit.
   - 100 mm from Ergon Energy low voltage cable or conduit.
Consumer's switchboard in accordance with QECMM & AS/NZS 3000
Separate (MEN) earth electrode to AS/NZS 3000

LV Pillar
Assy 507-3
Connect neutral to top tunnel
Caution tape
Service conduit bend