

# MUNICIPAL STANDARDS

# SPECIFICATIONS

## PART 12 - SERVICE CONDUITS

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## PART 12 - SERVICE CONDUITS

### 12.1 SCOPE OF WORK

This section covers the supply, excavation, backfilling and laying of service conduits. The Service Authority shall supply and lay all cables and pits, including drainage facilities for pits.

### 12.2 STANDARDS

The following Australian Standards, Standard Drawings and Codes of Practice are referred to:

#### **Australian Standards**

AS 2053 Non-Metallic Conduits and Fittings

#### **Codes of Practice**

Tasmanian Public Utilities Information Manual, 1988 Edition, Public Utilities Advisory Committee, Hobart, 1988

#### **Standard Drawings**

SD-1002 - Service Locations (Urban Subdivisions)

SD-1011 - Service Locations (Rural Subdivisions)

SD-5001 – Typical Pipe trench Details

### 12.3 MATERIALS

#### 12.3.1 Bedding and Haunching.

Pipe bedding and haunching material will depend on the type of pipe installed as shown in the Standard Drawings SD 5001. It shall be clean sand, gravel or crushed rock, free from organic matter and clay lumps and conform to the grading given in Table 12.3.1.

Pipe bedding material shall also have a sand equivalent of at least 60.

**Table 12.3.1**

<b>AS Sieve (mm)</b>	<b>Percentage Passing By Mass</b>
9.5	100
2.36	25 - 100
0.425	0 - 60
0.075	0 - 10

Where referred to on the Standard Drawings alternative bedding material may be fine crushed rock in accordance with Clause 12.5.4 c).

#### 12.3.2 Conduits

- a) Conduits supplied by the Contractor shall be, unless otherwise shown on the Drawings, UPVC pipe of a class, size, and colour in accordance with the Service Authorities requirements.

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### 12.4 LOCATION

Services shall be located as shown on the Drawings. Unless otherwise stated, common trenching shall be used in accordance with the requirements of the Superintendent and Service Authorities. Covers to services shall be as shown on the Standard Drawings or as otherwise required by the Service Authority.

### 12.5 INSTALLATION

#### 12.5.1 Excavation

Trenches shall be excavated to the location and minimum dimensions shown on the Drawings. Excavation shall be in accordance with Clause 12.4. Prior to excavation the Contractor shall confirm the location of all other services.

Excavations in existing pavement areas shall be made by first saw cutting the pavement surfacing.

#### 12.5.2 Conduits

Conduits shall be supplied and installed as shown on the Drawings. Where pipes are cut the ends shall be left neat and regular. Conduits shall be fitted with 2 mm diameter galvanised draw wire and the ends plugged to prevent the entry of backfill.

#### 12.5.3 Bedding and Haunching

Bedding and haunching shall be placed as shown in the Standard Drawings and firmly compacted to the satisfaction of the Superintendent. Care shall be taken to ensure that the conduit is fully and evenly supported by the bedding material.

Fine crushed rock bedding shall be compacted to 95% of Standard Compaction in accordance with AS 1289.

Metallic detector tape shall be installed above the pipe haunching.

#### 12.5.4 Backfill

a) Outside pavement areas

Backfill free of rocks or stones larger than 50 mm, clay lumps larger than 150 mm, organic material or other deleterious matter, shall be placed in uniform layers not exceeding 450 mm compacted thickness and watered and compacted to a minimum of 95 per cent of Standard Compaction.

b) New pavement areas

Backfill to the formation level shall be sub-base material in accordance with the Municipal Standards Specifications Part 6, Material and Pavement Construction. Backfill shall be placed in uniform layers not exceeding 150 mm compacted thickness, and watered and compacted to a minimum of 95 per cent of Standard Compaction

c) Existing pavement areas

The pavement shall be backfilled and reinstated to the satisfaction of the Superintendent using wet-mixed base course material in accordance with the Municipal Standards Specifications Part 6, Material and Pavement Construction. Backfill shall be placed in uniform layers not exceeding 150 mm compacted

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thickness, and compacted to a minimum of 98 per cent of Modified Compaction. Excavations in existing pavements shall be reinstated as soon as practicable and in all cases a minimum carriageway width of 4.0 metres shall be maintained. No excavation shall be permitted to remain open over night without the written approval of the Superintendent. Unless otherwise approved by the Superintendent, resurfacing of the pavement shall be carried out by the Local Authority at the Contractor's expense.

### **12.5.5 Location Indicators**

The location of roadway conduit crossings shall be marked on kerbs using symbols approved by the Superintendent. Where there is no kerb, the conduit location shall be marked using indicator posts in accordance with the requirements of the Superintendent.

### **12.6 ACCEPTANCE**

The Superintendent shall inspect and approve the installation of conduits prior to backfill.