1. **SUBSURFACE DRAINS**
   - **1.1.** Refer to S01 of the standard specifications for municipal engineering.
   - **1.2.** Where the subsurface drains are placed in solid rock
     - \( 0 \leq (FS) < D \) (FS)
     - \( 0 \leq (SF) < D \) (FS)
     - \( D \) (FS) > 0.25mm
     - \( D \) (FS) < 0.075mm
   - **1.3.** All unformed surfaces shall have a class U2 surface finish.
   - **1.4.** All formed surfaces shall have a class F3 surface finish.

2. **FILTER CRITERIA**
   - **2.1.** Concrete to be class 20/19.
   - **2.2.** When \( D \) (WS) > 0.05mm:
     - \( D \) (FS) < 25xD (WS)
     - \( D \) (FS) < 0.25mm
     - \( D \) (FS) < 5xD (WS)
     - \( D \) (FS) < 25xD (WS)
   - **2.3.** When \( D \) (WS) < 0.05mm:
     - \( D \) (FS) < 0.075mm
     - \( D \) (FS) < 0.25mm
     - \( D \) (FS) < 0.25mm

3. **CAST IN SITU CONCRETE**
   - **3.1.** Synthetic fibre filter fabric (SF) in relation to
     - \( D \) (FSN) > 1.2 \times \text{Width of Slots}
     - \( D \) (FSN) > 1.2 \times \text{Perforations in Pipe}
     - \( D \) (FSN) > 1.2 \times \text{Perforations in Pipe}

4. **SYNTHETIC FIBRE FILTER FABRIC**
   - **4.1.** To prevent clogging of synthetic fibre filter fabric
     - \( (SF) \leq \frac{D (FS)}{85} \times \frac{1}{15} \times \text{Width of Slits} \)
   - **4.2.** To prevent blocking of filter stone
     - \( (SF) \leq \frac{D (FS)}{100} \times \text{Width of Slits} \)
   - **4.3.** Permeability requirements unnecessary
     - \( (SF) \leq \frac{D (FS)}{150} \times \text{Width of Slits} \)

5. **TYPICAL LAYOUT OF SUBSURFACE DRAINAGE**
   - Plan view
   - Longitudinal section of pipe
   - Section A-A
   - Section B-B
   - Section C-C
   - Section D-D
   - Detail of Type B outlet
   - Cleaning Eye (Type 1)
   - Cleaning Eye (Type 2)
   - Subsoil drainage with polyethylene lining