PART 1 - GENERAL

PART 2 - PRODUCTS

2.1 PVC Conduits and Fittings

.1 Rigid PVC conduits - schedule 40 for direct burial: with expanded flange ends, with minimum wall thickness at any point of 2.8 mm. Nominal length: 3 m plus or minus 12 mm.

.2 Rigid PVC reducers, bell end fittings, plugs, caps, adaptors as required to make complete installation.

.3 Rigid PVC 90° and 45° bends as required.

.4 Rigid PVC 5° angle couplings as required.

.5 Expansion joints as required.

2.2 Solvent Weld Compound

.1 Solvent weld compound for PVC joints.

2.3 Cable Pulling Equipment

.1 6 mm stranded nylon pull rope tensile strength 5 kN.

2.4 Markers

.1 Over all underground conduit install continuously, at 150 mm below grade, 75 mm wide electrical underground polyethylene marking tape with warning "Caution, Caution, Power Lines Below".

PART 3 - EXECUTION

3.1 Installation

.1 Install markers as required.

.2 Install underground duct (conduit) bank.

.3 Build duct (conduit) bank on undisturbed soil or well compacted granular fill (sand) not less than 150 mm thick, compacted to 95% of maximum proctor dry density.

.4 Open trench completely and ensure that no obstructions will necessitate change in grade of conduits.

.5 Prior to laying conduits, construct a "mud slab" not less than 75 mm thick extended the entire width of the trench.

.6 Install conduits at elevations and with slope as indicated and minimum slope of 1 to 400.

.7 Install base spacers at maximum intervals of 1.5 m levelled to grades indicated for bottom layer of ducts.

.8 Lay conduits with the configuration and reinforcing as indicated with preformed interlocking, rigid plastic spacers to maintain spacing between ducts at not less than the dimensions indicated on the Bench Section Details. Stagger joints in adjacent layers at least 150 mm and make joints watertight.

.9 Use anchors, ties and trench jacks as required to secure conduits and prevent moving while backfilling and tamping.

.10 Cover conduits with compacted granular fill (sand) not less than 150 mm above top tier of conduits. Fill voids and spaces between conduits by hand tamping with a plank. Fill to extend the full width of the trench.

.11 Provide 50 mm thick, treated plank(s) or 50 mm thick concrete pavers, as shown on drawings, on top of the compacted fill, centered over the conduits. Planks or pavers

3.1 Installation (Cont'd)

.11 (Cont'd)
to extend 50 mm (minimum) past the conduit array on both sides.

.12 Clean conduits before laying. Cap ends of conduits during construction and after installation to prevent entrance of foreign material.

.13 Pull through each conduit a steel mandrel not less than 300 mm long and of a diameter 6 mm less than the internal diameter of the conduit, followed by a stiff bristle brush to remove sand, earth and other foreign matter. Pull stiff bristle brush through each conduit immediately before pulling cables.

.14 In each conduit install pull rope, continuous throughout each conduit run with 3 m spare rope at each end.

.15 Install expansion joints in conduit systems in all rises above grade and in all connections to fixed equipment and as required by code.

.16 Install markers as required.

.17 After installing and backfilling, restore surface to original condition as directed by Engineer.

.18 Advise Departmental Representative so that they may inspect conduits prior to backfilling. Allow 10 days advance notice.

END