

6. TOPSOIL STRIPPING, CLEARING AND GRUBBING

The existing topsoil shall be stripped along the ditch and bank prior to placing sound fill material. It is up to the contractor to verify the exact amount. Soils information is not available for the project. Topsoil stripping shall be done by the Contractor as detailed in the Schedule of Prices. The Contractor shall decide if the existing topsoil is to be kept on site for screening or be hauled off-site. Clearing, grubbing and other vegetation to be saved shall be carefully protected from danger of injury during all phases of the construction operations. The clearing and grubbing of existing shrubs and other vegetation within the working area shall be included in the price of this item and be hauled off-site at no extra cost to the owner. The contractor shall only remove trees with the consent of the Engineer.

7. SUBEXCAVATION

Where subexcavation below pipelines is approved by the Engineer, the pay depth shall be the theoretical bottom of bedding to the bottom of subexcavation. Pay width shall be 0.6 metres greater than the inside pipe diameter (1.2 metres minimum width). Replacement of excavated material with Granular "B" Type II backfill material shall be included in the unit price along with excavation to good bearing ground as determined by the Engineer and disposal of the subexcavated material shall be spread on site as directed by the Engineer

8. CERTIFIED BLASTERS (If required)

The Contractor shall provide the name and certificate number of any employee holding a Lifetime Blasting Certificate who will supervise blasting required under this contract. Copies of daily records outlining blast times, amount of charge and monitoring reports shall be provided on request. The contractor shall be responsible for any damage caused by blasting.

9. ROCK EXCAVATION AND BLASTING (If required)

Rock excavation shall be paid on a unit price basis as listed in schedule of prices. Rock excavation will include the excavation of all boulders more than 0.5m<sup>3</sup> in volume or solid ledge rock or concrete foundation which in the opinion of the engineer requires for its removal drilling and blasting or wedging or sledging. No soft or disintegrated rock which can be removed with a pick, or loose, shaken or previously blasted rock will be measured or allowed. Frozen materials or ice shall not be classified as rock nor will extra payment be allowed for excavating the same. The tendered unit price shall include cost of rock excavation, disposal off site, dewatering, sheeting, shoring, excess excavation for required safe side slopes, backfill as specified, compaction, disposal and trucking of all surplus excavation, excess excavation at structures, pre-excavation for verification of existing utilities, pre-blasting survey for existing homes within prescribed radius and all other associated works.

Pay limits for rock excavation shall be actual trench dimensions up to a maximum of:

- Width: - for pipes 600mm dia. inclusive - 1.2 meters;
- 675mm dia. and larger - inside diameter of pipe plus 1.0 m;
- for service trenches 1.2 metres total width, for a length equal to actual rock removed to the lot line (2 metres shatter required beyond lot line).
- Depth: - existing rock surface to 300mm below invert of pipe

In computing the rock quantities, there shall be no allowance made for extra widths at sewers and watermain appurtenances (e.g. at manholes, valve chambers, catchbasins, etc.). No payment shall be made for rock shatter beyond the dimensions used above. Sections shall be taken at 15.0 metres intervals or at significant change in grade.

10. EXCESS MATERIALS

**SEE ITEM 19 – MASS EARTH MOVEMENT**