

- B. The scope of operations for drainage and manhole cleaning is intended to include, but not be limited to the following elements of work:
- i. Location of manholes using suitable detection techniques and removal of overburden.
 - ii. Cleaning of manholes with water jetting, and/or wire brushing or other approved means.
 - iii. Removal of any sand, debris etc. from manhole bases and benching.
 - iv. Stanking off flows and pumping where necessary.
 - v. Cleaning of drainage pipelines using hydraulically propelled or mechanically powered equipment or water jetting.
 - vi. Removal of all sand and debris etc. jetted or dredged from the drainage pipelines and disposal of same to an approved tip.
 - vii. Controlling of odour and nuisance arising out of cleaning, flow diversion or over pumping operations.
- C. The designated drainage manhole sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. The equipment and methods selected shall be satisfactory to the Engineer. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the drainage lines and manholes. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the cleaning effort shall be abandoned.
- D. If the Contractor's cleaning equipment becomes lodged in a drainage pipelines it shall be removed by the Contractor at his own expense. This shall include excavation, repair of drains, backfill and surface restoration.
- E. All dirt, sand, rocks, grease, and other solid or semi-solid material resulting from the cleaning operation shall be removed at the downstream manhole of the section being cleaned. Passing material from manhole section to manhole section, which could cause line stoppages, accumulations of sand in wet wells, or damage pumping equipment, shall not be permitted.
- F. All solids or semi-solids resulting from the cleaning operations shall be removed from the site and disposed off site. All materials shall be removed from the site no