| 1     | INSTALLATION   |  |  |  |
|-------|--|--|--|--|
| 1.1   | The equipment and installation method, require approval of the supervisor.   |  |  |  |
|       | The relevant details of the soil investigations are stated in the appendix to the tender specification, or as the case may be are available for perusal in   |  |  |  |
| 1.3   | It is allowed to install the drain by means of vibrating or pushing. In consultation with the supervisor it is allowed to pre-drill or inject in hard layers.  |  |  |  |
| 1.4   | The drain has to be anchored at the required depth.  |  |  |  |
| 1.5   | All material wasted during work has to be removed from the building site. Any sludge has to be discharged.   |  |  |  |
|       | Installation of vertical prefab drains takes place from a drainage layer of at least 0.5 m thick and with a course grading.  |  |  |  |
| 1.7.  | Vertical drains should be installed in accordance with the pattern shown in the drawing.   |  |  |  |
| 1.8.  | The maximum allowable deviation of the spot of installing a drain in relation to the set point is 0.15 m. The maximum allowable deviation of the vertical is 50:1, unless obstacles are present, such as overhead power lines or foundation rests.   |  |  |  |
| 1.9   | In those places where it is impossible to install a drain as a result of obstacles, another drain must be installed within a distance of 0.15 m.   |  |  |  |
| 1.10. | Drains have to be installed up to the depth shown in the drawing. Prefabricated drains are cut off at 0.15 m above the surface.  |  |  |  |
| 1.11. | . The installation rig should be provided with a fully automatic drain recorder which registers the installation date, time, depth, location (within 1m) and soil resistance of every installed vertical drain. A copy of the registration has to be provided to the engineer at the end of each shift and/or week. If the registration is stored on an electronic data storage medium, the contractor should provide the necessary software to process the data on a PC.            |  |  |  |
|       | The contractor should take it for granted that instrumentation of a total value of US\$ is present at site. The contractor should see to it that the instrumentation to check the progress of consolidation is not damaged during execution of the work. Damage caused is repaired on notification by the board of directors for account of the contractor or, where appropriate, the contractor is fined to an amount of US\$ for any equipment broken down through a fault of his. |  |  |  |
| 2.0   | MATERIAAL  |  |  |  |
| 2.1   | Prefabdrains dienen voorzien te zijn van een KOMO keurmerk en moeten voldoen<br>aan de eisen zoals deze zijn vastgelegd in de: "Nationale Beoordelingsrichtlijn voor<br>het KOMO-productcertificaat voor Geokunststoffen: geprefabriceerde vertical<br>drains" BRL 1120  |  |  |  |
|       | Prefab drains purchased from a producer who is not entitled to supply under a recognized certificate with quality mark in conformity with the class required for the work have to be supplied per relevant lot in accordance with a lot-qualification system.  |  |  |  |
|       | The supply of a lot in accordance with a lot-qualification system of a recognized  |  |  |  |

**Tender Specifications for Prefabricated Vertical Drains (PVD)** 

|     | inspection service must meet the following points:   |               |                 |  |  |
|-----|--|---------------|-----------------|--|--|
|     | Type of inspection, not older than 6 months in conformity with the adjoining schedule, is in agreement with the class required for the work.   |               |                 |  |  |
|     | During production and supply at site the quality of the drain is checked in accordance with the tests and frequencies shown in adjoining schedule.   |               |                 |  |  |
|     | None of the results of these checks will exceed the allowable deviation mention<br>in the schedule as compared to the average values fixed at the type of inspection<br>When the allowable deviation is exceeded, the entire manufactured or, where<br>appropriate, supplied lot will be rejected. |               |                 |  |  |
| 2.3 | During storage the drainage material has to be sufficiently protected against any influence of weather.  |               |                 |  |  |
| 2.4 | The drain has to meet the properties as described in the KOMO product certification report BRL 1120 as following summarized  |               |                 |  |  |
|     | Material   | PP, PE of PET |                 |  |  |
|     | Size   | 100 x 3       | mm              |  |  |
|     | Tensile strength filter  | > 6           | kN/m            |  |  |
|     | Permittivitty  | < 0.005       | s <sup>-1</sup> |  |  |
|     | Pore Size  | < 80          | μm              |  |  |
|     | Tensile strength drain   | > 1           | kN              |  |  |
|     | Discharge capacity straight  | > 50*10-6     | m³/s            |  |  |
|     | Discharge capacity buckled   | l > 37,5*10-6 | m³/s            |  |  |