5 TECHNICAL CHARACTERISTICS OF READY-MIX CONCRETE PLANT

5.1 PRODUCTION CAPACITY
The production capacity of the ready-mix concrete plant will be 450 cubic metres per day. Based on a working day of 10 hours, the ready-mix concrete plant will be of the order of 45 m³/hr.

5.2 CONSTITUENT RAW MATERIALS
The constituent raw materials which will go into the manufacture of the ready-mix concrete will be:
- Aggregate
- Rocksand
- Cement
- Admixture

5.3 ORIGIN OF RAW MATERIALS
Most of the raw materials which will be used in the production of the ready-mix concrete as listed in sub-section 5.2 above, will be produced on-site, except of course for the cement – which will be supplied by LAFARGE Cement Mauritius and the admixture which will be supplied by SOFAP Ltd.

5.3.1 Aggregates and Rocksand
The required amount of aggregates and rocksand for the production of ready-mix concrete will be supplied by the stone crushing plants of UBP Poudre d’Or.

5.3.2 Cement
Cement will be purchased on the local market and will be transported on site in carriers of maximum capacity of 20 tonnes. Cement will be discharged directly to the cement silos (2Nos.) which have a maximum capacity of 40 tonnes each through a feeder pipe and will be refilled 1-2 times a day.

This sequence will give rise to lorry-load transportation lorry using the public road network about 1-2 times a day, which is considered reasonable and acceptable.

A copy of the Technical Data Sheet is enclosed at Annex 5A at the end of Section 5.

5.3.3 Admixture
CHRYSO Plast CRX will be used as admixture in the production of ready-mix concrete. CHRYSO Plast CRX will be supplied by SOFAP Ltd and will be delivered to site in
drums 1-2 times per month. A volume of 1000 litres will be used per month for the production of ready-mix concrete.

A copy of the Technical Data Sheet and the Security Data Sheet are enclosed at Annex 5B and Annex 5C respectively at the end of this section.

5.4 MECHANICAL EQUIPMENT

The main items of mechanical equipment involved in the ready-mix concrete manufacture are listed below:

- Concrete Batching Plant
- Cement Screw conveyor
- Belt Conveyor

A drawing showing the ready-mix concrete plant layout is enclosed at Annex 5C at the end of Section 5.

5.4.1 Concrete Batching Plant

The concrete batching plant which will be installed on site is of the make Wiggert+Co. Kabag and of Model “MobilMat MO45”.

The plant will be built in accordance with state-of-art standards and recognized safety rules and is designed exclusively for the production of concrete.

A copy of the technical characteristics of the concrete batching plant is enclosed at Annex 5D at the end of this section.

5.4.1.1 Picture of Concrete Batching Plant

A pictorial representation of the concrete batching plant is reproduced in Figure 7b below.
5.4.2 Cement Screw Conveyor

5.4.2.1 Features of the Cement Screw Conveyor

The essential features of the screw conveyor are listed below:

- Adopts seamless tubes of high quality
- Provides good rigidity in any working position
- Reliable
- No dust escape
- Produces low noise

Thus, it can immediately be realised that the selected type of screw conveyor will be environmentally-friendly insofar as:

(i) The whole equipment offers full enclosure – which completely eliminates risk of dust emission to the atmosphere.

(ii) The full enclosure reduces levels of operating noise to an absolute minimum

5.5 BATCHING PROCESS FLOW

The process flow involved in the batching process for the production of the ready-mix concrete is given in Figure enclosed at Annex 5F at the end of Section 5.

5.6 MAN POWER

Twelve workers will be employed for the operation of the ready-mix concrete batching plant.