# GENERAL

## SCOPE

This specification is to be read in conjunction with the Drawings and Bill of Quantities (BOQ). In the event of any discrepancy, the Specification and Bill of Quantities takes precedence over Drawings.

## Local regulations and standards

Work shall comply with local regulations and local construction standards. Discrepancies between designs and with regulations or standards shall be addressed before work commences.

Structural designs shall be reviewed by a local Engineer to confirm adequacy in relation to local regulations, construction practices, and site conditions.

# SITE

## SITE SELECTION

The site of works shall be selected to avoid risks of flooding, erosion, subsidence, exposure to high winds, contamination of ground water, and other avoidable risks.

## SITE SETOUT

The location of works shall be checked, set-out (marked) and approved before work commences.

## SOIL CONDITIONS AND TESTING

Site soil conditions shall be assessed prior to commencement of works for suitability in relation to structural and hydraulic requirements.

# materials

## sand

Sand should be clean, sharp, angular (gritty to touch), clean and free from impurities. River or pit sand should be used rather than sea sand which contains salt and other impurities that affect structural applications. All sands should be washed before use to ensure a clay/silt content of no more than 6%.

A rough field test of sand may be carried out by rubbing a sample of sand between damp hands and noting the extent of discolouration from soil, dust or other impurities.

## water

Water used for construction should be non-saline, and free oils, acids, alkalies and from impurities including soil/mud and organic matter.

## Gravel and aggregate

Gravel and aggregate for concrete and compacted sub-bases shall be clean and free from impurities including soil, dust, and organic material. Aggregates for concrete shall be 12-25mm to minimise crack propagation across load bearing concrete structures and to ensure an adequate covering of steel reinforcement.

## Cement

Ordinary portland cement must be used before the expiry date. Cement should be kept dry and stored at least 15cm above ground to avoid ground moisture. Expired or damaged cement may be indicated by excessive grittiness or lumps of set cement.

## precast concrete

Precast concrete shall comprise Portland cement, sand, aggregate, and water as specified herein. Precast concrete units shall be cast using formwork that consistently provides uniform dimensions. For general structural purposes, a cement:sand:aggregate mix of 1:2:4 (with a minimum cement dosage of 320kg/m3) shall be used unless otherwise noted.