PROJECT SUMMARY

Ref No.: MRIC/SISM-02/BG-03	**Title:** Compressed Stabilised Raw Earth Blocks (CSREB)
Local Company: Gamma Materials Ltd	
Collaborating Institution: Université des Mascareignes	
Project Leader	
Dr Mahen Conhyea	Gamma Materials Ltd
Research Collaborator	
Name	**Organisation**
Dr R Goodary	Université des Mascareignes

TECHNICAL ABSTRACT

This project aims at the fabrication of building earth blocks from available raw earth over the island. Over millions of years, the volcanic basaltic deposits have weathered to yield an end product known as residual basalt, which is currently known as 'raw soil'. Local soil, when compressed and dried in ambient conditions, have the tendency to develop strength as a result of the induced compaction energy. But for residual soils, the strength achieved as result of simple compaction is not sufficient to allow its use as a building material, in replacement to traditional cement concrete blocks. However, the strength properties can be improved by the use of additives in the soil mix, known as 'stabiliser'. A stabiliser can be a combination of rock dust, lime, fly ash and lignin in the soil mix to enhance the strength properties. The proposed investigation will look into various possibilities of achieving adequately strong Compressed Stabilised Raw Earth Blocks (CSREB) satisfying the requirements for local buildings. CSREB can be manufactured from earth available on the building site, at Gamma Materials quarries or from an identified nearby borrow site. Literature review & research carried out at the Université des Mascareignes provides sufficient key elements to achieve our objectives with adequate resources to conduct the research.

Key Words: Raw earth blocks, sustainable building, recyclable building materials, reduction of construction wastes