THE NEW CONSTRUCTION TECHNOLOGY

American Blocks and its Advantages

- High crushing strength blocks and pre-fabricated components
- The blocks comply with French norms (AFNOR, Association Française de Normalisation).
- Available in many shapes and sizes, thus reducing wastage
- Requires less steel
- The blocks have a smooth finish that may not necessitate rendering.

TRANSFER OF TECHNOLOGY

In line with its commitment for technology transfer and capacity building, the local trainers for training as well as local masons/ personnel were trained.

The Institutions that were involved include –

- Institut Supérieur de Technologie
- Lycee Polytechnic Sir Guy Forget and
- Sir Kher Jagatsingh Training Centre (IVTB)

Two qualified masons came from Réunion Island to build the three units and to train local masons as from 24 February to 26 March 2003.

AWARENESS CAMPAIGN TO PROMOTE THE NEW TECHNOLOGY

- A Press Conference cum launching ceremony held on the ***27th February 2003***
- A video film on the construction process of the prototype in its different stages by ***Mauritius College of Air*** is under production
- Inauguration of the three prototypes by ***Hon. G. P. Lesjongard, Minister of Housing and Lands*** on the ***25th June 2003***.
- Organisation of an **Open Week** as from ***26th June 2003 to 2nd July 2003*** for the general public
- Printing of a small brochure for circulation to the public.

For more information please contact:

The Executive Director
Mauritius Research Council
La Maison de Carné
Royal Road, Rose Hill
Tel: 465 1235
Fax: 465 1239
E-mail: mrc@intnet.mu
Website: www.mrc.org.mu

MRC **MAURITIUS RESEARCH COUNCIL**

Low Cost Housing Prototypes Using American Block

OPEN WEEK

Thursday, 26th June 2003 – 2nd July 2003
NHDC Site, Richelieu

organised by

MAURITIUS RESEARCH COUNCIL

in collaboration with the

MINISTRY OF HOUSING & LANDS
NATIONAL HOUSING DEVELOPMENT COMPANY LTD
MAURITIUS ASSOCIATION OF ARCHITECTS

BACKGROUND

As one of its responsibilities to address technological and socio-economic issues, and technology related to quality of life, the **Mauritius Research Council** initiated a research project on **alternative construction technologies** especially for cyclonic regions.

OBJECTIVES

To identify alternative construction technologies that could be adapted to Mauritius with a view to improving efficiency and cost-effectiveness

DESK STUDY CONDUCTED BY MRC

The research team established by the MRC studied the alternative construction technologies adopted in different countries. Thereafter, the team compared the Mauritian construction technology with that of Réunion Island where the use of high crushing strength blocks, commonly known as '**Block Américain'** and pre-fabricated components is standard practice. Réunion Island was chosen because the climatic conditions in both countries are quite similar. The results of the desk study were presented to all the stakeholders in July 2001, which showed that**, about 30% reduction in the cost of construction using American blocks if produced locally, could be obtained. The study, led by *Mr. Ajit Teelock* (*Mauritius Association of Architects*), also indicated that about 60% reduction in construction time could be achieved.**

LOW COST HOUSING PROJECT

Further to the findings of the research study, the Ministry of Housing and Lands entrusted the MRC to provide prototype designs for their **'Sites and Services'** project for the very low-income households. MRC Type I design was selected by the Ministry as one of the option to be given to the beneficiaries.

THE LOW COST HOUSING PROTOTYPES AT RICHELIEU

In order to test the findings of the research project, MRC took on the responsibility to construct low cost housing prototypes to show the effectiveness of the new construction technology on a plot of land given by the **Ministry of Housing and Lands** at the **National Housing Development Company Ltd** (NHDC) site in Richelieu.

Three prototypes of MRC Type I very low cost houses have been built using imported blocks from Réunion Island in a phased manner by two qualified masons from Réunion Island along with the local masons and personnel.

- Phase I is the core unit (Built-up area 32.4 m. sq.).

- Phase II is the core unit with the extended verandah (Built-up area 48.6 m. sq.).

- Phase III is the core unit, extended verandah and the first floor (Built-up area 81 m sq).

- Total built-up area is 162 m. sq.

The three prototypes demonstrate that with the new technology, houses can be built with 30% reduction in cost and in a quarter of the time that traditional methods would require.