Design Features

1. Extensive community engagement with learners, educators and local residents. Including photographic and mapping workshops with learners and skills and materials audits with local residents.

2. Rainwater harvesting installation with a total storage capacity of 150,000 litres

3. 50m² of solar photo voltaics which will provide electricity for 80 computers

4. Energy measuring and monitoring strategy to increase energy awareness and reduce energy costs. Results also inform the Creating Schools design programme

5. Labour intensive construction techniques

6. Use of local materials and skills

7. Passive and low energy design creating naturally lit and ventilated classrooms that are warm in winter and cool in summer

8. Green roofs provide insulation and wildlife habitat

9. Campus layout designed to facilitate shared use of school facilities by local community and surrounding schools

10. Food gardens to supplement the school nutrition programme

11. Explicit design and construction features integrated into the school curriculum
CREATING SCHOOLS PROGRAMME
VELE HIGH SCHOOL
LIMPOPO PROVINCE, SOUTH AFRICA
PROJECT UPDATE: NOVEMBER 2010
Under Construction - Projected Completion Date: May 2011

VIEW OF THE CONSTRUCTION SITE: NATURAL VEGETATION CAREFULLY PROTECTED

NATURAL LIGHT IN CLASSROOMS

LIGHT SHELVES ON NORTH ELEVATION CLASSROOM WINDOWS

ROOF LIGHTS FOR NATURAL LIGHT
CREATING SCHOOLS PROGRAMME
VELE HIGH SCHOOL
LIMPOPO PROVINCE, SOUTH AFRICA
PROJECT UPDATE: NOVEMBER 2010
Technical Services

ENERGY STRATEGIES

- PASSIVE LOW ENERGY DESIGN
  - SOLAR ORIENTATION
  - NATURAL LIGHTING
  - SOLAR SHADING AND LIGHT SHELVES
  - INSULATION
  - NATURAL VENTILATION

- RENEWABLE ENERGY
  - 80 COMPUTERS WILL BE POWERED BY SOLAR PHOTOVOLTAIC ENERGY

- ENERGY MEASUREMENT AND MONITORING
  - METERED ENERGY CONSUMPTION IN DIFFERENT ZONES
  - LARGE SCREEN DISPLAY ALLOWS LEARNERS, EDUCATORS AND MANAGEMENT TO MONITOR ENERGY USAGE

RENEWABLE ENERGY AND UPS SYSTEM

Power quality protected by inverter, and continues to provide power when grid fails: computers, printers, copiers, alarm and maybe projectors in future.
CREATING SCHOOLS PROGRAMME
VELE HIGH SCHOOL
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PROJECT UPDATE: NOVEMBER 2010
Local Employment

WOMEN EMPLOYED

WOMEN EMPLOYED

STONE MASON