



Light steel frame project enters Steel Awards 2013

St Helena Airport workforce housing village uses light steel frame building

St Helena, in the south Atlantic Ocean, is one of the most isolated islands in the world, and its new international airport project represents a historic milestone for the island, as well as for South African construction company, Basil Read, which was awarded the contract to design, build, operate and then transfer the airport, which is estimated to be operational by 2016.

Basil Read appointed George-based SA Steelframe Systems to construct a village on the island for a workforce of 200 to 300 people, who will build the airport. The village includes accommodation, ablution and recreational units, laundries, a gymnasium, security offices, as well as kitchen and dining room units.

SA Steelframe Systems explained that light steel frame construction offered the best solution for creating this village on the remote, environmentally sensitive island. "When you consider the combination of reduced time of construction, the lower logistical costs of the modular system and the relative ease of assembly, and, of course, the substantially smaller carbon footprint when compared to more traditional building methods, it made a lot of sense," said Johan Marais, Owner of SA Steelframe Systems.

The isolated nature of the island presented the team with its own challenges. Since very little building material is available on the island, all materials had to be shipped via 20 foot containers from either Cape Town or Walvis Bay harbours.

All the building materials – with the exception of the Rockcote render and paint system – were sourced in South Africa and delivered to Cape Town or Walvis Bay harbours, and from there shipped to St Helena, which drew praise from SAISC's Erling.

"An aspect of this year's theme is 'proudly South African' and the St Helena airport project shows the power of local ingenuity on a truly international stage," he said. He added that the work on this groundbreaking project is evidence of the ongoing quality and innovation in local structural steel design and construction.



As the team's submission explained, the scope had an innovative developmental element in the sense that the accommodation units had to be converted into two- and three-bedroomed houses after completion of the airport project. This 'house conversion' will be made possible with minimal internal changes and the adjustment of a few windows and doors. These houses will then be sold to local residents.

The local authorities have been so impressed by the workers' village, that they have approached SA Steelframe Systems to supply costing of the construction of a child-care centre, an extension to a hospital and other housing needs on the island. "The cost savings and speed of erection, coupled with the drive to create 'thermally efficient' and 'environmentally friendly' buildings, have alerted the islanders to the availability of alternative building technologies like light steel frame building," the submission explained.

The Steel Awards 2013 will be held simultaneously in Johannesburg, Cape Town and Durban on 19th September 2013. The main sponsors of the awards are Aveng Trident Steel. Other sponsors are: Macsteel (Table Décor); Cadex SA (Photo Competition); The Association of Steel Tube and Pipe Manufacturers of South Africa (Tubular Award); Stewarts & Lloyds (Light Steel Frame Award) and partner sponsors: ArcelorMittal SA; B&T Steel; Eazi Sales & Service; Genrec Engineering; NJR Steel; Peddinghaus; Tubular Holdings; Vital Engineering.

PROJECT TEAM:

DEVELOPER/OWNER: Basil Read

ARCHITECT: Munnik Visser

STRUCTURAL ENGINEER: DMS Structures

PROJECT MANAGER: SA Steelframe Systems

MAIN CONTRACTOR: Basil Read

STEELWORK CONTRACTOR: SA Steelframe Systems

DETAILERS/DETAILING COMPANY: SA Steelframe Systems



For more information on the SAISC Steel Awards 2013 please go to www.saisc.co.za.