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Press Release

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The 2003 IABSE Outstanding Structure Award presented to the

The Bibliotheca Alexandrina, Alexandria, Egypt and The Bras de la Plaine Bridge, Reunion Island

Dr Manabu Ito, President of the International Association for Bridge and Structural Engineering (IABSE) will present, the 2003 IABSE Outstanding Structure Awards to the 'Bibliotheca Alexandrina, Alexandria, Egypt' and the 'Bras de la Plaine Bridge, Reunion Island' on August 27, 2003. The Award Presentation will take place during the Opening of the IABSE Symposium 'Structures for High-Speed Railway Transportation', Antwerp, Belgium.

The Award recognises the most remarkable, innovative, creative or otherwise stimulating structures completed within the last few years. It consists of a Diploma each for the Structural Engineer, the Architect, the Contractor, and the Owner, as well as a plaque to be fixed to the winning structure, at a special ceremony.

The Bibliotheca Alexandrina receives the Outstanding Structure Award for being an 'exciting modern landmark with a unique foundation system and innovative structural form':

The library building is enclosed within a 160m-diameter cylinder, tilted at an 8° angle to the vertical, and topped with a roof sloping at 16° to the horizontal. The building has four below ground floors and six elevated floors under the highest point of building. The library facility includes also a Planetarium, a Science Museum and a 250m long steel pedestrian bridge.

Due to the critical ground conditions, the library building has required sophisticated foundation and ground engineering works including diaphragm walls, bored piles, jet grouting soil improvement, deep excavation, reinforced concrete raft and construction dewatering. The groundwater level is 11 m above the basement slab level.

The library superstructure consists of a reinforced concrete frame comprising flat floors of 40 - 60cm deep waffle slabs, with ribs at 100cm centres spanning to hidden beams 40 - 60cm deep, which in turn span to columns at 7.2m and 9.6m centres.

The Bras de la Plaine Bridge, Reunion Island receives the Outstanding Structure Award for being an 'an elegant slender single span composite truss bridge with innovative construction details':

The topography is suitable for a 280-m-long single-span, arch, bridge. The deck is a prestressed, composite, variable height (17,60m to 4,00m) truss structure, embedded in two counterweight abutments. Its characteristics comprises: a deck with longitudinal prestressing, a Warren-type steel truss structure with two planes of steel tubes in triangular layout, the diagonals being circular tubes; a lower slab, of variable width and thickness, with a parabolic profile interrupted at the key.

The International Association for Bridge and Structural Engineering (IABSE) comprises more than 4'200 members in 100 countries. Founded in 1929, IABSE deals with all aspects of planning, design, execution, maintenance and repair of civil engineering structures. To fulfil its mission, IABSE organises conferences and publishes a quarterly journal, *Structural Engineering International*, as well as books and reports.

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