

OVERSEAS PROJECTS



The ArtScience Museum (Singapore)

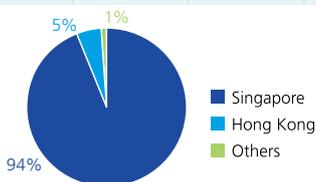
The world's first ArtScience Museum, planned around a new concept that fuses the arts and science, opened in February 2011 at Marina Bay in Singapore.

Designed by world-renowned architect Moshe Safdie, the building's distinctive architecture, with its "10 fingers" pointing toward the sky, represents "the welcoming hand of Singapore."

In order to realize this three-dimensional, inventive design, we used 5,700 types of steel aggregate parts alone, and maximized the use of 3D technologies for the construction of the steel framework and installation of the outer walls.



The museum is one part of the Marina Bay Sands multi-purpose resort development project created by U.S. casino resort operator Las Vegas Sands Corp., and it is expected to contribute to Singapore's future economic growth.



Overseas Projects: 2011 Orders Received by Sectors (Non-Consolidated)

We received orders for a large-scale hospital construction project and a large-scale land-based project in Singapore, resulting in a year-on-year increase of 17% in orders received by our overseas divisions. Orders received in Hong Kong declined relative to the previous year's strong indication.



Cai Mep-Thi Vai Channel Dredging Project (Vietnam)

In keeping with rapid economic development, demand for harbor freight has increased in Vietnam's southern region, which is home to the country's largest city of Ho Chi Minh. A deepwater port development project is underway in the Cai Mep-Thi Vai region in the suburbs of Ho Chi Minh. Penta-Ocean recently completed a dredging project to create a new channel measuring 14 meters deep, 310 meters wide and 37.5 kilometers long, capable of accommodating large vessels and which was implemented under Official Development Assistance from the Japanese government. The project's tight schedule permitted 18 months for the dredging of 9.09 million m³ of soil, but through the steady operation of our large-scale dredging vessels, we were able to shorten the construction period by two months.

Penta-Ocean's involvement in the Cai Mep-Thi Vai area, where port development is advancing, extends beyond the dredging project to the construction of a deepwater cargo terminal.



Hong Kong Baptist University (Hong Kong)

One of the eight universities in Hong Kong, the Hong Kong Baptist University's roots began in 1956 as a private post-secondary college based on Christian traditions.

Penta-Ocean undertook the construction of a new Communication and Visual Arts Building to fulfill the university's goals of expanding its campus, which has seen increasing numbers of students in its School of Communications and Academy of Visual Arts, and introducing more highly specialized facilities.

Because the building is designed for the learning of visual-oriented arts, the project required attention to detail in the construction of a dedicated studio for filming and screening works of video and film, and facilities for exhibiting photographs, posters and other pieces. In addition, the building is adjacent to student accommodations, so the client had numerous requests regarding noise and vibration. Through close collaboration with both the client and the management design firm, the project schedule progressed smoothly, and we earned high marks from both parties.



Singapore Parallel Train Project (Singapore)

The Singapore Parallel Train (SPT) project is an integrated petrochemicals project being constructed in the refinery and chemical hub of Jurong Island in Singapore. It is integrated with the existing Singapore Chemical Plant (SCP) that provides investment and operating synergies.

The project is expected to boost the annual production of ethylene up to 1.8 million tons. It also includes the construction of two 650,000 tpa polyethylene units, a 450,000 tpa polypropylene unit, a 300,000 tpa specialty elastomers unit and an aromatics extraction unit, which will produce 340,000 tpa of benzene.

With the completion and start-up of the SPT project in 2011, it will be the largest petrochemical complex owned and operated by ExxonMobile.