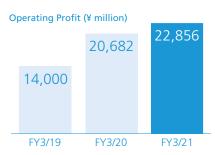
Major Projects in FY3/21

Domestic Civil Engineering







42.2%



Noshiro Port No.2 Coal-ash Disposal Site (Bottom water shielding work)

Akita Prefecture

This was a project to install a 5-layer water shieling sheet with a double impermeable membrane as a bottom water shielding structure over the entire seabed of approximately 210,000 m². During the construction start in 2018, the laying area was prepared by shaping the seabed, followed by the installation of the sheets over the next two years. Due to the severe weather and sea conditions unique to the Sea of Japan in winter, various studies were conducted on the sinking method and stabilization of the sheets, such as temporarily sinking the sheets, winterizing them, and resurfacing them for permanent construction.



Shimo-Oguni Area, Tohoku-Chuo Expressway

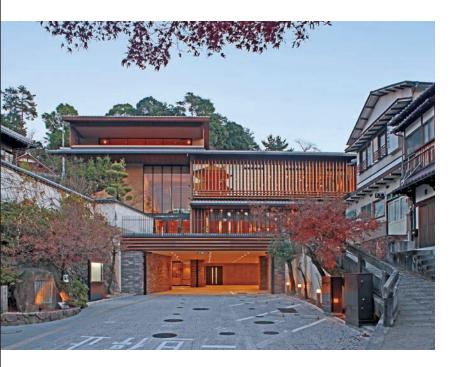
Fukushima Prefecture

In this project, the cut section close to the Ryozen exit and the embankment section of the interchange section connected to National Route 4 were developed as part of the Soma Fukushima Road connecting the Joban Expressway and the Tohoku Expressway. The Soma Fukushima Road was built as a "reconstruction support road" following the Great East Japan Earthquake, and it was fully opened to traffic on April 24, 2021, ten years after the earthquake. The travel time between Soma and Fukushima has been reduced by about 40 minutes as a result of the road's opening, and expectations are high for increased logistics and human flow, as well as the revitalization of local economies.

18 Penta-Ocean Construction Co., Ltd.

Domestic Building Construction





Miyajima Community Development and Exchange Center

Hiroshima Prefecture

This facility was built on the site of the former Miyajima Town Hall for the residents of Itsukushima (Miyajima), a World Heritage Site, to serve as a hub for local activities as well as a place to interact with tourists. We worked closely with the Civil Engineering Business Unit and performed the ground improvement work to reinforce the steep slopes around the site so that it could serve as a response base in the event of a disaster. A civic center's functions extend from the first basement floor to the second above-ground floor, and the third floor houses an observation deck with a panoramic view of the five-story pagoda and the Senjokaku shrine. A symbolic 2.5 ton wooden rice scoop is also on display at the front of the building.



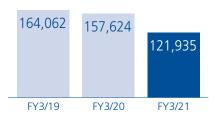
Tokyo International Cruise Terminal

Tokyo

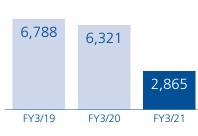
In response to the increasing size of passenger ships, this facility was built as a new gateway on the sea to accommodate the world's largest cruise ships, which cannot pass under the 52-meter-high Rainbow Bridge. It was a challenging task to construct a steel four-story terminal building on the artificial ground of a steel jacket pier structure built on the sea. It was completed in close collaboration with the Civil Engineering Business Unit, which separately constructed the artificial ground.

Overseas



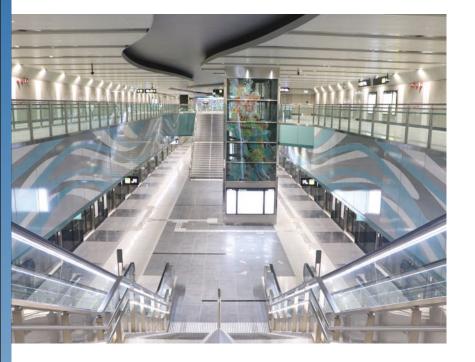


Operating Profit (¥ million)





25.9%



Thomson-East Coast Line T211

Singapore

This project involved the construction of Bright Hill Station which is one of the Mass Rapid Transit (MRT) stations of the Thomson-East Coast Line (TEL). Bright Hill Station comes with four adjacent tunnels connecting stations on both sides, and TEL is Singapore's new MRT Line that runs from north to south. The construction commenced in 2014 and despite the challenges of managing concurrently four shield machines, it was successfully completed in 2021. The construction of Rapid Transit System connecting Singapore and Malaysia, commenced in the same year and the TEL which connects to the terminal station on Singapore side, is expected to contribute to the development of both countries.



Phase 3A, Pengerang Deepwater Terminals

Malaysia

This project involved reclamation of approximately 140 hectares of land, and construction of a new 2,444 meters jetty in Pengerang, Malaysia. One of Malaysia's largest petroleum refineries and petrochemical integrated complex projects is underway in the area and it is expected to contribute to the country's economic development. Since 2011, we have been engaged in the first and second phases of reclamation and jetty construction in the same area. Including this project, the total reclaimed land is approximately 302 hectares and the total extension of the three jetties is 10,057 meters.