

2008 OCEA Award  
(Outstanding Civil Engineering Achievement Award)

◆Group II

This award is presented to milestone projects that made an outstanding contribution to the development of civil engineering technology.

**Speedy restoration of urban expressway viaducts damaged by severe fire accident**

Metropolitan Expressway Co., Ltd.

**Summary**

On August 3, 2008 a tanker truck turned over and fired severely on the double-decker viaducts of Metropolitan Expressway Route No.5 in Tokyo. Due to this fire accident, bridge structures such as steel I-shaped girders and RC slabs were deformed and the surface of the road sank 70cm as well.

To make the social effect of the damage from the fire as little as possible, speedy and safe restoration with various structural devices was carried out through day and night. 6 days after the accident, each 1 lane was opened temporarily, and then the whole traffic functions finally restored only 72 days after.

This project showed a useful new model of projects on speedy reconstruction of bridges in service.





## Nakanoshima New Line Construction Project

### - Subway construction in priority area for urban regeneration in Osaka -

Nakanoshima Rapid Railway Co.,Ltd / Keihan Electric Railway Co.,Ltd

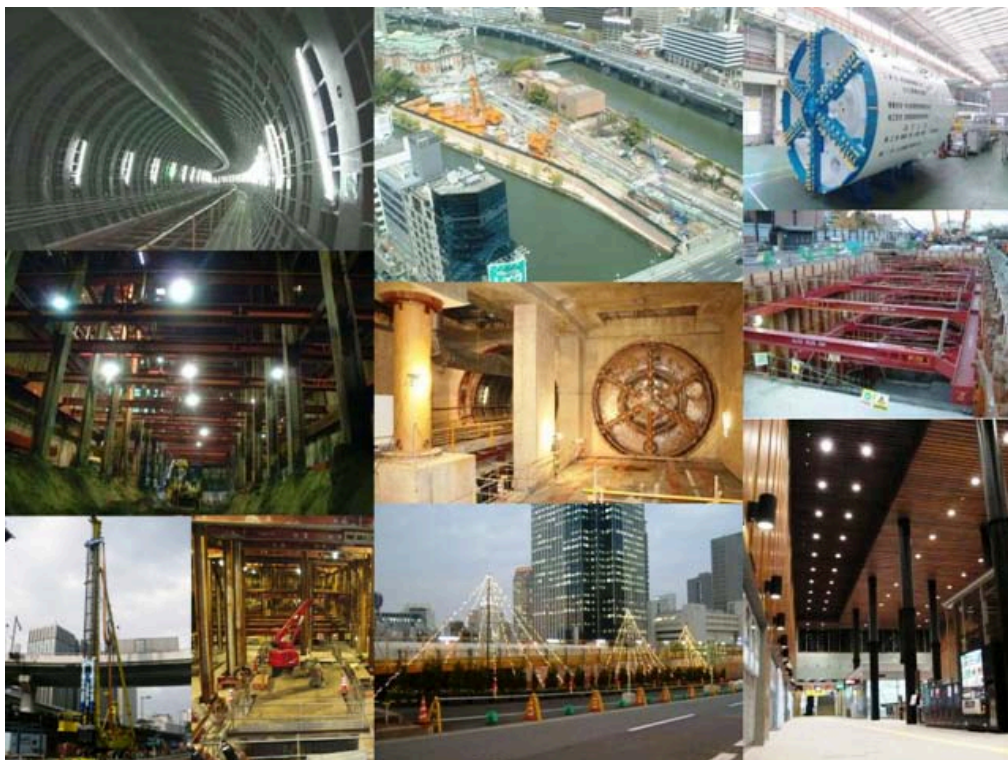
#### Summary

The purpose of Nakanoshima New Line Construction Project is to help railway networks become more convenient for increasing users of the redeveloping area, western Nakanoshima.

This project introduced some approaches to push forward construction safety, because the area is in a severe ground condition and adjacent to the important structure.

For example, we shared and used the information in all of the construction unit, and we used a new technology.

This site is located the center of Osaka-City in the business District. Therefore we were making an effort to change the image of the construction site to one that attracts people those around by taking into consideration the scenery of the landscape.





## Construction of the Hida Tunnel by using TBM method and whole length opening of Tokai-Hokuriku Expressway

Central Nippon Expressway Co.,Ltd. Nagoya Branch

### Summary

After its completion of the route between Hidakiyomi IC and Sirakawago IC in July 2008, the whole length of the Tokai-Hokuriku Expressway has been open to the public. As a result, the Hokuriku area and the Tokai area are connected directly, which is expected to contribute great to the development of the industry, economy and cultures, etc.

The Hida tunnel, 10.7km-length, is the second longest road tunnel in Japan, with maximum overburden 1040m. TBM was adopted in tunnel excavation. The diameter of the TBM is 12.84m, which is one of the largest in the world. Weak geological features and a large amount of spring water made construction of the Hida tunnel very difficult, but there was no fatal accident.

This Hida Tunnel construction greatly contributed to the development of the mountains tunnel technology in the future.



## Construction of the Tokuyama Dam

- Construction of Rock-fill Dam of the largest in Japan, and Creation of Beautiful Dam Lake that co-exists with nature-

Incorporated Administrative Agency Japan Water Agency

### Summary

The Tokuyama dam is one of the largest rock-fill dam in Japan constructed by Japan Water Agency. It is located in Ibi-river, Kiso-river system.

Various positive approaches such as "Compilation of existing technologies and installation of new technologies for the rock-fill dam" and "Co-existing with nature" were undertaken, centering on environmental preservation, shortening the term of construction, and the cost reduction. As a result, project completed in 2008 and contributes to enhance the civil engineering technology from now.

The Tokuyama dam demonstrates the effect of water utilization, reduction of the flood damages and hydropower generation.





## Tokyo Bay Waterway Improvement Project

### -Challenging the task of removing gigantic structures in a sea area congested by passing vessels-

Ministry of Land, Infrastructure, Transport and Tourism, Kanto Regional Development Bureau

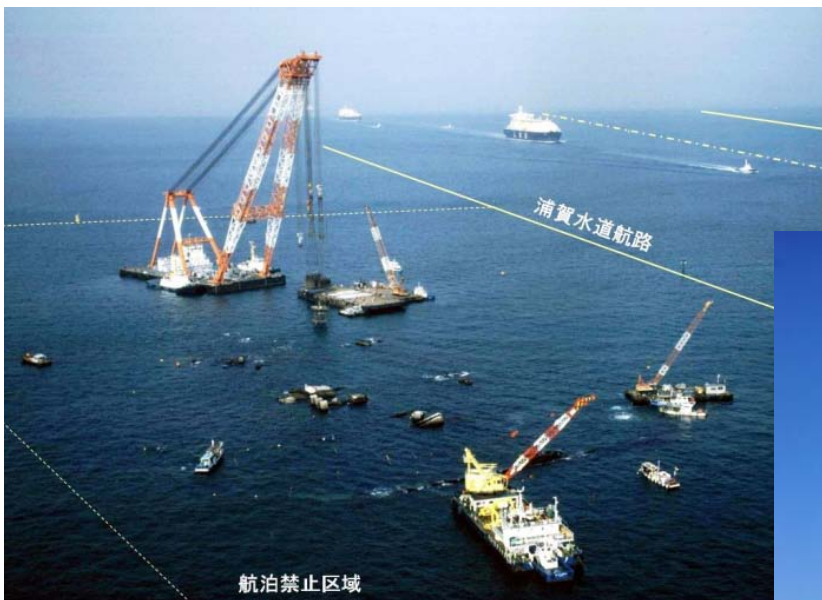
Liaison Council for Promotion of Tokyo Bay Waterway Project

#### Summary

This project involved the task of removing the ruins of Marine Fort No. 3 and dredging the bottom of the Nakanose waterway to a depth of 23 meters below sea level in order to enhance safety and facilitate the smooth passage of vessels sailing through the Tokyo Bay waterway.

The project was conducted overcoming such diverse challenges as taking all measures necessary to ensure work safety in a sea area congested by passing vessels, coping with the impact of ship waves and tidal currents, and investigating and considering methods of clearing possibly explosive material and gigantic structures.

It was extremely important work to secure the safety of vessels passing through the Tokyo Bay waterway, a main artery of marine transport in support of social and economic activities in the Tokyo Metropolitan district.



### -Tokyo Metro “Fukutoshin-line”-

## Summary

## The Fukuta

This section constructs seven stations to Shibuya station in the starting point as for the Shinsen-Ikebukuro station. The route from the Tokyo northwest and the Saitama Prefecture southwest to Ikebukuro, Shinjuku, and Shibuya was secured by opening this section.

