

Ohkusano Tunnel (and One Other Section) for Kyushu Shinkansen (West Kyushu)

Construction work on the Ohkusano Tunnel, one other section, and miscellaneous work for the Kyushu Shinkansen (West Kyushu) was completed in Saga Prefecture.

This project involved construction work on a part of the Kyushu Shinkansen's West Kyushu route, which runs for approximately 143 kilometers connecting the city of Nagasaki (Nagasaki Station) and the city of Fukuoka (Hakata Station), provisionally scheduled

to be opened for use in FY2022. Toa Corporation carried out construction work on the tunnel and open segments totaling 2,142 meters between the cities of Takeo and Ureshino in Saga Prefecture.

The opening of this route will shorten the travel time between Hakata and Nagasaki by almost 30 minutes, and it is anticipated that visitors from the neighboring areas will help revitalize the region through tourism and business.



Land Development Work for Fujitrans Corporation Logistics Center (Aichi, Japan)



Land development work ordered by Fujitrans Corporation for the Fujitrans Corporation Logistics Center has been completed in the village of Tobishima in Ama-gun, Aichi Prefecture.

The area where the work was carried out is located at Nagoya Port, which handles the largest volume of cargo in Japan. Improvements are being carried out to make the Logistics Center a major distribution

base. The ground formation work involved the creation of a vast site of land of approximately 200,000m² that was raised about one meter higher than the surroundings as a countermeasure against tsunami. At present, a portion of the site has started to be put to use as a container yard, with plans calling for the construction of a new distribution warehouse to integrate distribution functions.

Construction of Bridge Pier on National Route 45 across Kesennuma Bay in Matsuzaki District (Miyagi, Japan)

The work has been completed in the city of Kesennuma in the Matsuzaki District of Miyagi Prefecture.

As a leading project for recovery from the Great East Japan Earthquake. Along the Sanriku Coast in the Tohoku region, repair work is being carried out at a rapid pace on the Sanriku Coast Expressway (Reconstruction Road), a 359 km stretch of a road specifically for use by automobiles that connects the three prefectures of Miyagi, Iwate, and Aomori.

Plans call for the construction of a bridge across Kesennuma Bay,

which forms the main part of the Kesennuma road section of the Sanriku Coast Expressway. The bridge will have a length of 1,344 meters and cross over the Okawa River in the city of Kesennuma in Miyagi Prefecture and Kesennuma Bay. Upon completion, the span of the bridge, which is approximately half the length of the bridge (680 meters), will be the largest for a cable-stayed bridge in the Tohoku region. The JV of which the Company is the main partner for this construction work undertook the building of the piers for this bridge across Kesennuma Bay. The



completion of this bridge across Kesennuma Bay will shorten the routes traveled, and it is also expected to contribute greatly to tourism in the Sanriku region.

Earthquake Resistance Work on Shibakawa Floodgate (H25) (Saitama, Japan)

The land that spreads out in the downstream part of the Arakawa River is an area that is below sea

level, and should the Arakawa River overflow and breach its banks due to flooding or other reasons, it is

anticipated that the area would suffer devastating damage. The Shibakawa Floodgate, which is

double-slucice gate type floodgate located at the confluence of the Arakawa River and the Shibakawa River along the left bank of the Arakawa River about 19.7 km from its mouth, was installed for the purpose of preventing floodwater from the Arakawa River flowing back into the Shibakawa River. An earthquake resistance project is underway to enable the floodgate to function even if an earthquake

occurs directly underneath Tokyo, in addition to its function to reduce damage from flooding.

Toa Corporation executed earthquake resistance construction work on the right side of the floodgate as viewed in the photograph. The Company is carrying out construction work on left side of the floodgate, too, under a separate work contract.



Rehabilitation of Sewage Drainage System (Tokyo, Japan)



The sewerage network in downtown Tokyo, was constructed nearly one century ago. The Tokyo Metropolitan Government started a project to rehabilitate the sewage drainage network through reconstruction and refurbishment. TOA was awarded a contract to reconstruct the drainage system for surface runoff in Chiyoda ward. Against the construction

site of narrow streets with heavy traffic and a dense concentration of buildings, TOA's highly-qualified engineers dealt with various difficulties and utilized the shield tunnel method to complete the drainage system, which measured 2,058m in length with an inner diameter of 2,200mm, on schedule without any accidents.

Newly Completed Project

Road Improvement Work on National Route 45 in Sakanoshita District

Road improvement work has been completed on National Route 45 in Sakanoshita District in Iwate Prefecture.

The construction work was carried forward as a leading project for the restoration of areas that suffered earthquake-related damage by accelerating the recovery from the Great East Japan Earthquake and making the road network solid and capable of withstanding natural disasters. The improvement work is expected to enable relief supplies to more readily gain access to transportation hubs, as well as enhance delivery capabilities to emergency medical facilities. Furthermore, the use of ICT construction technologies for all of the construction processes of this work, including surveys, measurements, design, construction, and inspection resulted in raising

productivity through greater precision and efficiency in the construction work. This led to a shortening of the construction

period.

To date, Toa Corporation has undertaken a large number of recovery construction projects.



- **Client** Tohoku Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism
- **Construction period** January 2018 to November 2020
- **Project outline** Excavation work: 340,000m³
Embankment fill: 300,000m³
Construction work of one set each of slopes, ground improvement, and retaining wall; as well as construction work on seven drains; and construction work on one set of drainage structure
- **Site of construction** Kunohe-gun, Iwate Prefecture