

# Eco-friendly Industrial Zone on Reclaimed Land - Kanazawa Reclamation Project -

## Industrial zone with a clean and livable environment



Source: Port and Harbor Bureau, City of Yokohama

### Background & Objective

In the sixties, Yokohama City had a large number of factories which were randomly located all over the city. These factories were a source of many problems, such as air pollution, noise, and obstacles in proper zoning and land-use planning. Faced with these issues, the city of Yokohama planned to create an environmentally friendly and modern industrial zone in the city to which existing factories would be encouraged to relocate in order to improve the living environment in, and redevelop, the downtown area.

### Project Impacts

To create such industrial site, a site beyond Kanazawa's coastline south of Yokohama was selected for land reclamation. The reclaimed land measured approximately 660 ha. Instead of creating a pure factory town, the area was designed to be multifunctional, encompassing industrial facilities, housing complexes for the workforce, as well as parks and recreational spaces to improve living conditions. Industrial estates and freight terminals built in the industrial zone likewise used modern, eco-friendly technologies. Kanazawa district thus became an

efficient industrial zone with a comfortable living environment. Relocation of factories to this area also improved the overall environment in the city and enabled the implementation of redevelopment projects. Yokohama City included the Kanazawa reclamation project as one of its six strategic projects. This strong commitment paved the way for a functional collaboration among relevant government departments, which led to the project's success. To finance this project, foreign bonds were issued.

Land Use at Kanazawa Industrial Complex



Source: JICA Study Team based on the brochure of Economic Bureau, City of Yokohama

# Kanazawa Reclamation

## A Sustainable Industrial Zone

Kanazawa district was planned to accommodate both industrial facilities and employee housing; therefore, keeping a livable environment was essential. The following are some of the measures taken by the city:

- ✓ **Zoning by sector:** Light industries were built inland and closer to the residential area, while heavy industries were built closer to the coast. A balanced zoning of industrial, residential, and public areas, such as roads, schools, etc., was developed in line with land use planning.
- ✓ **Wastewater treatment:** Shared wastewater treatment systems were installed
- ✓ **Use of less polluting energy sources:** Energy sources for industrial uses were limited to either gas or electricity.
- ✓ **Development of a “Pollution Prevention Plan”:** Companies were required to submit pollution prevention plans before constructing their factories.

## Relocation Incentives

Partnerships among small and medium-sized companies were encouraged to enhance their creditworthiness and obtain financing. In particular, firms that relocated were offered the following:

**Financial incentives:** The city provided financial incentives in the form of tax deductions, subsidies from the city, and funding from the national government and public financial institutions.

- ✓ **Tax deduction:** real estate tax, business facility tax, etc.
- ✓ **Subsidies:** interests, guarantee fees, private road construction fees, etc.
- ✓ **Public Funding:** Small and Medium Sized Enterprise Facility Improvement Fund System; Pollution Prevention Public Corporation, etc.

**Public wastewater treatment:** Kanazawa district provided treatment systems for eliminating chemicals/oils from industrial wastewater. The systems were ready-made and shared by relocated factories as part of the public sewerage system, although it is normally the responsibility of individual companies to treat their own wastewater.

**Enhanced mobility:** Kanazawa Seaside Line, a transit system, was constructed to help residents travel through Kanazawa district, including commuting to factories.

## Greenery & Recreational Spaces

Green zones and parks were established all over Kanazawa district, providing a variety of recreational spaces. The city also constructed the Kanazawa Industrial Promotion Center and equipped it with tennis courts, a gym, and playgrounds for the benefit of the workers.

## Improved Labor Motivation

Relocation to Kanazawa, which offered improved working environment, boosted employee morale. Refreshing greenery surrounded factories in Kanazawa, which was totally different from their previous workplaces. Many factories also redesigned the layout of their facilities to improve efficiency and safety at work.



The Marine Park

Source: Yokohama Convention & Visitors Bureau

## Vacated Lands Utilized to Create New Attractions

After the relocation of factories to Kanazawa, many of the vacated lands in the downtown area were bought by the city which built parks and other public facilities. They were also used as sites for redevelopment projects.

One of the major factories that relocated to Kanazawa was Mitsubishi Heavy Industries (MHI), which was originally located in the waterfront and owned vast lands in the area. Thus, when the firm agreed to move its factory and offices, the development of Minato Mirai 21 (MM21) started, leading to the successful transformation of the waterfront.

Green Zones along with Kanazawa Seaside Line Separate the Residential Area (left) and the Industrial Area (right)



Source: Economic Affairs Bureau, City of Yokohama