Marunouchi continues to forge ahead

Creating a prosperous, comfortable neighborhood that harmoniously integrates the environment and culture—Mitsubishi Estate is developing the Otemachi, Marunouchi and Yurakucho district to expand the area and deepen all of its diverse urban functions.

Marunouchi—Japan's evolving business center for more than a century

Marunouchi's development began in 1890 when Yanosuke Iwasaki, the second Mitsubishi president, decided to acquire the Marunouchi district from the government with the vision of creating a business center that would bring Japan into modernity. Beginning with Mitsubishi Ichigokan, the first office building in Marunouchi, completed in 1894, a series of red brick buildings were built, resulting in Japan's most well-known business center. These buildings were renovated into modern office buildings during the period of strong economic growth after World War II, and Marunouchi was transformed into an office community symbolic of Japan's dramatic economic boom. Today, the third major redevelopment project is underway in Marunouchi.

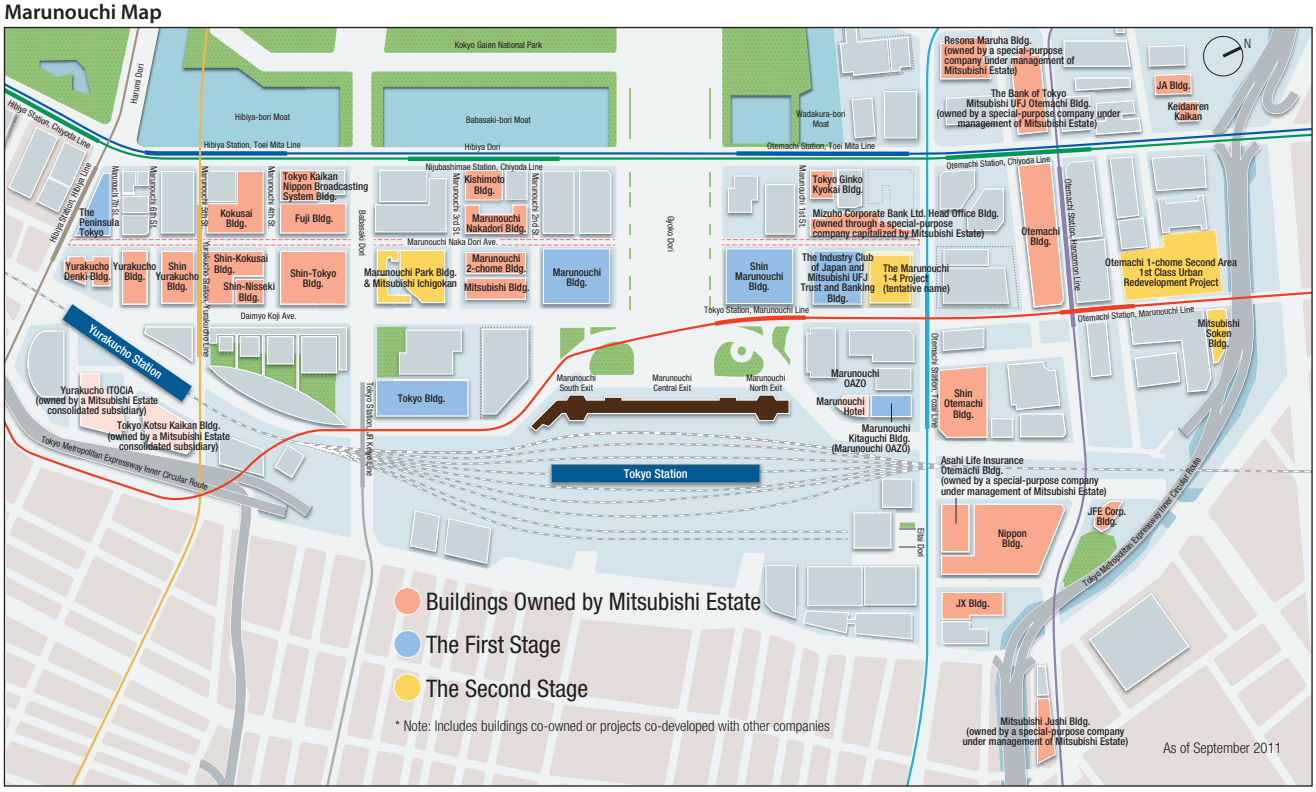
Mitsubishi Estate began this Marunouchi Redevelopment Project in 1998. In the first 10 years, representing the first stage of the project, work began on redeveloping the area around Tokyo Station. Starting with the Marunouchi Building, which was completed in August 2002, major buildings were rebuilt, including the Industry Club of Japan and the Mitsubishi UFJ Trust and Banking Building, Marunouchi OAZO, Tokyo Building, Shin-Marunouchi Building and the Peninsula Tokyo.

During the redevelopment work, efforts were made to ensure that the project would not only enhance the area's business functions, but also make it an enjoyable place to spend time

Mitsubishi Ichigokan (in 1894)

Mitsubishi Ichigokan (restored) and the Marunouchi Park Building (both completed in 2009)

Marunouchi Map



after work and on weekends. Commercial facilities such as trendy brand-name shops, restaurants and cafes were invited to open outlets in the new buildings. This transformed Marunouchi from a neighborhood focused on business into a community with versatile functions including retail and tourist attractions. The district is now full of life and diverse crowds—business people, shoppers and tourists from Japan and all around the world.

Disseminating new value in culture, art and history from the Otemachi, Marunouchi and Yurakucho district

Exhibit "The Party à la japonaise—from the Davey Collection," June 14 – August 21, 2011

In 2008, the present Marunouchi Redevelopment Project reached its second stage, which focuses on expanding the area covered by the urban development and deepening the district's cultural, artistic and historical functions. The objective is to expand the area to the entire Otemachi, Marunouchi and Yurakucho district, expanding out from Marunouchi to Otemachi and Yurakucho, and to bring its cultural, artistic, and historical functions to a whole new level of depth. The completion of the Marunouchi Park Building and Mitsubishi Ichigokan in April 2009 represented the first step in this process. A devoted effort was made to restore the Mitsubishi Ichigokan building to its original appearance when it was built in 1894, and the building was opened in April 2010 as a museum tasked with serving as a steward of art and culture.

Mitsubishi Estate is also pursuing projects that will create new value in this area, such as enhancing its functions as a global business center and building a medical facility for international visitors and a financial education and interaction center. The company is also enhancing the area's versatility and hospitality by holding events using the underground passageway gallery space and taking initiatives like opening a childcare facility to support people working in the district. The district stretches across approximately 120 hectares. About 4,000 companies are located in this area, and it attracts about 230,000 people each day. As the owner of about one-third of this land, Mitsubishi Estate is working to create an attractive community that people in Japan and visitors from all over the world find fascinating.

Le Divan Japonais in the collection of Mitsubishi Ichigokan Museum shown at the exhibit "Toulouse-Lautrec: The Maurice Joyant Collection" held October 13 – December 25, 2011

Working to create new value in the Otemachi, Marunouchi and Yurakucho district while expanding and deepening urban development hopes and dreams

The Otemachi, Marunouchi and Yurakucho district's urban development has had such good results because all of the people involved—government administrators, landowners and academics—aim to create a good community and work together in mutual trust. Building on these relationships of trust, at Mitsubishi Estate we plan to introduce new urban functions in the district and make the district into a global hub for Tokyo and all of Japan. We will also continue to share information with overseas audiences about the district's public-private partnership model of eco-friendly urban development. We will continue to take on the challenge of creating new value in the district while deepening and expanding people's hopes and dreams for urban development.

Kenji Hosokane
General Manager, Area Planning Office
Mitsubishi Estate Co., Ltd.

Museum open to local community, to provide a place to enjoy art up close

Mitsubishi Ichigokan Museum, Tokyo, having been transformed from a renovated Meiji-era office building into a museum, stands as one of the world's most unique museums. Located right in the middle of Tokyo, the museum quickly gained attention from around the world in the first year after it opened. Given the history of the building and the history of Marunouchi itself, the museum holds small but innovative exhibits based on the concept of a modern city and art focused on the nineteenth century.

We will not only take a unique approach to promoting new artistic value from the district, but will also make Mitsubishi Ichigokan Museum open to the local community so that people working in and visiting the district come in as casually as if they were going to a coffee shop. This would enable the museum to give visitors a taste of art on a daily basis. We would like the Mitsubishi Ichigokan Museum to rejuvenate visitors by holding events that energize the community and give the neighborhood a clear image. The ideal way of achieving this would be to bring a new way of enjoying life to the district by expanding the range of activities in the community as a whole, including commercial facilities. I hope that the Mitsubishi Ichigokan Museum can be at the heart of this movement.

Akiya Takahashi
Director
Mitsubishi Ichigokan Museum, Tokyo

Public-private partnership to develop urban areas replete with environmental harmony

Mobilizing the strengths of the community is essential to efficient urban development on a large scale, as in the Otemachi, Marunouchi, and Yurakucho district. Accordingly, in 1988 Mitsubishi Estate and about 70 other companies and organizations owning land in the district formed the Otemachi Marunouchi Yurakucho District Redevelopment Project Council (OMY Council), which formed the basic concept for the redevelopment project. In addition, in 1996 the OMY Council, the Tokyo Metropolitan Government, Chiyoda Ward and East Japan Railway Company formed the Advisory Committee on Otemachi-Marunouch-Yurakucho Area Development. This Advisory Committee developed the City-planning Guidelines in 2000, which form the basis for comprehensive urban development, from the construction of individual buildings to infrastructure development, emergency preparedness and crime prevention activities, as well as public space and sidewalk maintenance, in a public-private partnership.

This collaborative system plays an important role in creating an environmentally friendly neighborhood. In 2002, the NPO Otemachi, Marunouchi and Yurakucho Area Management Association (Ligare) was launched to improve the district's environment by promoting greenery and keeping it clean and energize the community with events. Moreover, in 2007 the Association for Creating Sustainability in Urban Development of the Otemachi, Marunouchi and Yurakucho District (Ecozzeria Association) was established. Ecozzeria conducts studies and research supporting eco-friendly urban development, and also plans and hosts events to raise environmental awareness, such as the Marunouchi Club for Global Sustainability, a group of people from industry, government, academia and the private sector that meets to discuss environmental problems. Along with these efforts, initiatives to reduce the environmental impact in the area overall are actively underway in the district, including encouraging the use of district-wide energy-supply networks such as district heating and cooling systems, greening of roofs and walls, installing water-retentive pavement and micro-misters, and running Japan's first low-polluting bus, the "Marunouchi Shuttle," which runs on a combination of electricity and micro gas turbines.

In 2011, the OMY Council, Ligare and the Ecozzeria Association won the City Planning Institute of Japan's Ishikawa Award for their contributions to the progress and development of innovative city planning. This award was given for the three groups' cutting-edge environmental initiatives in both the "hard" aspects like equipment and facilities and the "soft" aspects like partnership and social initiatives.

Proactively introducing cutting-edge environmental technology and services

In addition to the environmental initiatives for the Otemachi, Marunouchi and Yurakucho district as a whole, Mitsubishi Estate pursues a range of environmental measures.

For example, in April 2010, the Shin-Marunouchi Building switched from electricity to Fresh Green Power,* generated from renewable energy such as wind power. This is expected to reduce CO_2 by about 20,000 tons every year (about two-thirds of previous levels) in the Shin-Marunouchi Building. Results in fiscal 2010 were in line with the plan. In addition, ultra-efficient lighting and air-flow window systems, which reduce the heat load from outside, were installed in newly built buildings. These are just some of the examples of the cutting-edge energy-conserving equipment and technology being adopted.

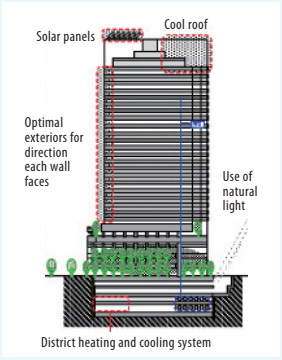
Moreover, in June 2010, Mitsubishi Estate launched a new service to provide information to individual tenants on their energy use, expanding on its unique online e-Concierge service that provides building information to tenants. This is an effort to reduce environmental impact in buildings by raising awareness of power and water conservation.

* Fresh Green Power is green energy that is delivered directly to the purchaser from the generation facility. A power producer and supplier (PPS) supplies the Shin Marunouchi Building with electricity generated using windmills in Aomori Prefecture's Rokkasho village and water energy in Hokkaido. The energy is supplied directly to the building through the transmission and distribution networks of power companies.

Mitsubishi Estate Group's efforts to reduce environmental impact

Environmental measures in new buildings

- Reducing heat load from external heat (airflow window system, using optimal exteriors for direction each wall faces, etc.)
- Use of natural energy (introduction of solar power, natural ventilation systems, etc.)
- Adoption of highly efficient equipment (use of energy-conserving controls, energy-conserving highly efficient equipment, etc.)



Conceptual diagram of new buildings

Environmental measures in existing buildings

- Environmental measures introduced while renovating existing buildings

Hibiya Kokusai Building recognized as "top-level installation" by the Tokyo Metropolitan Government for excellence in promotion of global warming countermeasures (May 2011)

Environmental measures introduced in managing and administering office buildings

- Making tenants more aware of energy conservation by presenting energy-use data in a visual format
- Provision of information for tenants through online e-Concierge service
- Owner-tenant committees are established to promote global warming countermeasures on an ongoing basis

e-Concierge website

Highlight 1

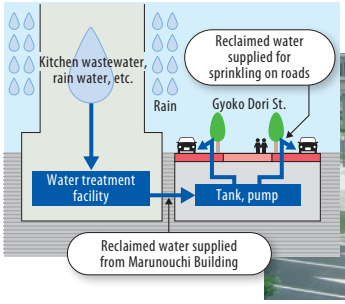
Using public-private collaboration to counter the heat island effect

Sprinkling reclaimed water from the Marunouchi Building on Gyoko Dori Street

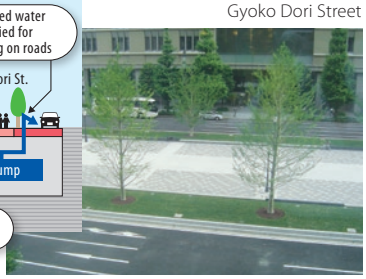
In collaboration with the Tokyo Metropolitan Government's Bureau of Construction, Mitsubishi Estate sprinkled reclaimed water* from the Marunouchi Building on Gyoko Dori Street—from Tokyo Station's Marunouchi entrance to Hibiya Street—from June to September 2010. This was intended to alleviate the urban heat island effect by reducing the rise in road surface temperature. The program was continued in fiscal 2011. The sprinkled water evaporates as the temperature rises and absorbs the heat from the surrounding air. This can curb the rise in road surface temperatures by a maximum of about 10 °C (measurements taken in summer 2010).

In conjunction with this measure, the Tokyo Metropolitan Government's Bureau of Construction used water-retentive pavement on Gyoko Dori Street. This enables the pavement to retain the sprinkled water longer. Collaborating, Mitsubishi Estate installed equipment to send reclaimed water from the Marunouchi Building for sprinkling on the road.

* Reclaimed water is treated wastewater which can be recycled in nonpotable applications. Kitchen water from building tenants and rain water are used. Reclaimed water is also used in the Marunouchi Building as toilet flush water and to water exterior trees and plants.



Status of completion on Gyoko Dori Street



Highlight 2

Recognized as "top-level installation" by the Tokyo Metropolitan Government

Meeting the requirements of Tokyo Metropolitan Government's Cap-and-Trade Program to Reduce Greenhouse Gas Emissions

In May 2011, a number of office buildings that Mitsubishi Estate owns in full or in part were recognized by the Tokyo Metropolitan Government for their outstanding environmental performance. The Marunouchi Building, Hibiya Kokusai Building, and Shin-Otemachi Building were each recognized as a "top-level installation," and the Tokyo Building, Sanno Park Tower, Shin-Aoyama Building and Akasaka Park Building were recognized as "near-top-level installations." "Top-level installations" and "near-top-level installations" refer to particularly successful global warming countermeasures installed by business facilities to comply with the Tokyo Metropolitan Ordinance on Environmental Preservation. This recognition is an affirmation of Mitsubishi Estate's extensive efforts across the areas of "management systems," "facility performance," and "facility operations," such as the development of an integrated system for pursuing energy-conserving activities.

Some facilities of Mitsubishi Estate Group companies were also honored. Ikebukuro District Heating and Cooling Co., Ltd., and one center belonging to Marunouchi Heat Supply Co., Ltd., were recognized as "near-top-level installations" in the category of district heating and cooling systems.

Cutting-edge plant in basement of Marunouchi Park Building (Marunouchi Heat Supply)

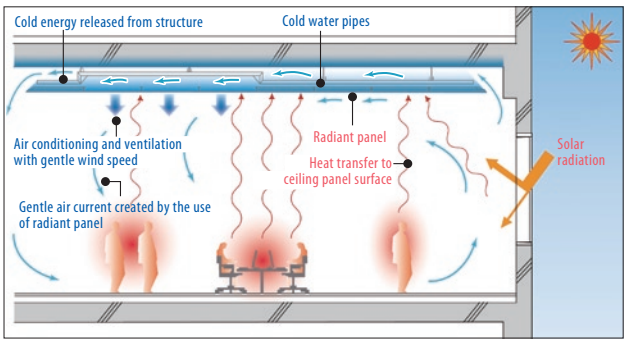
Highlight 3

Hybrid radiant ceiling air conditioning system installed

First in Japan to be adopted while renovating existing buildings

In July 2010, Mitsubishi Estate introduced a hybrid radiant ceiling air conditioning system in an effort to make some of the offices in the Otemachi Building, where its headquarters is located, into advanced low-carbon facilities. The system combines both radiant air conditioning from a radiant ceiling panel and cold thermal energy stored in the building structure. The system uses thermal radiation, which enables the transfer of heat from a heat source to an object or area being heated without the need for a physical medium. This makes it completely different from conventional air conditioners which distribute cooled or heated air. While this was the first time that such a system had been introduced in an existing building in Japan, it has been successfully used in both new and existing buildings in Europe.

This kind of system is known for balancing the room temperature while alleviating discomfort from noise, wind and chills. It achieves a reduction in energy consumption of about 25% compared to conventional air conditioners. In addition, ventilation ducts above the ceiling are minimized so that the ceiling height can be about 20cm higher. In addition, less-expensive midnight power can be used to store the cold energy in the structure.



Office space after renovations