# OBAYASHI

## ANNUAL REPORT 2002

OBAYASHI CORPORATION

# FINANCIAL HIGHLIGHTS

## Obayashi Corporation and consolidated subsidiaries

For the years ended March 31, 2002 and 2001.

| For the year | Japanese Yen (million) 2002/03 | Japanese Yen (million) 2001/03 | U.S. Dollars (thousand) 2002/03 |
|---|---|---|---|
| Revenues | **¥ 1,403,671** | ¥ 1,313,347 | **$ 10,534,119** |
| Operating income | **17,622** | 35,313 | **132,251** |
| Net income (loss) | **(74,078)** | (6,466) | **(555,940)** |
| Orders received | **1,178,117** | 1,224,103 | **8,841,400** |
| Total assets | **2,044,654** | 2,197,080 | **15,344,495** |
| Shareholders' equity | **290,360** | 405,321 | **2,179,061** |
| **Per share data** (in yen and U.S. dollars) | | | |
| Net income per share (loss) | **¥ (102.43)** | ¥ (8.78) | **$ (0.77)** |
| Shareholders' equity per share | **403.44** | 556.91 | **3.03** |

*U.S. dollar amounts are translated from Japanese yen, for convenience only, at the rate of ¥133.25 to $1.

Yoyogi National Stadium Second Gymnasium
Completed in 1964

The Tokyo Central Station under construction (today's Tokyo Station)
Completed in 1914

Nukabira Dam
Completed in 1956

# SINCE 1892

## Obayashi's History—A Tradition of Innovation

Ocean Landfill Work for Block Yard in Osaka Port Reconstruction
Completed in 1898

Osaka-jo Castle under renovation
Completed in 1931

1982–1912 From Foundation through the Meiji Era

### Establishing the foundation for a construction business

In 1892, our first president, Yoshigoro Ohbayashi, won the bid for construction of the Abe Paper Mill and founded the antecedent of Obayashi Corporation, a civil engineering and construction business. At that time, all industries in Japan were expanding in the process of modernization, with rapidly growing demand for building construction. During this period, Yoshigoro successfully completed construction projects such as the Port of Osaka and the Fifth National Industry Fair, earning recognition of the name Ohbayashi throughout Japan. In 1904, the company changed its name to Ohbayashi Corporation and opened an office in Tokyo. As a limited partnership, we became one of the first incorporated construction companies in Japan. By the end of the Meiji Era, Ohbayashi had demonstrated its advanced technological prowess throughout the nation by undertaking such epoch-making construction projects as the Tokyo Central Station (today's Tokyo Station) and the 3,388 meter-long Ikoma Zuido Tunnel.

1912–1945 From the Taisho Era through the Early Showa Era

### Expanding business by leaps and bounds

In 1918, Ohbayashi became a limited stock company, changing its name to Obayashi in 1992 due to the application of the CI-Net industry standard. With the advent of Japan's construction boom, we went on to handle the construction of major landmarks of the Taisho era, such as the Nippon Trust Bank head office, the Industrial Bank of Japan head office, the Osaka Building, and the Osaka Mainichi Newspaper head office buildings. Even in the aftermath of the Great Kanto Earthquake, when other buildings sustained serious damage, those constructed by Obayashi, including Tokyo Station and the Industrial Bank of Japan, stood unharmed, winning tremendous customer trust. With the beginning of the Showa era, full-scale city planning was implemented, transforming Tokyo, Osaka, and other major suburban cities into modern cities and driving Obayashi's business to expand exponentially. Major construction projects of this period include the section of Osaka's first subway between Yodoyabashi and Kita-Kyutaro stations, the Tokyo Imperial Museum (today's National Science Museum), and the renovation of the Osaka-jo Castle Tower.

Treasury Building (The cylindrical building in the middle)
Completed in 1986
DBS Building Tower (The second building from the right)
Completed in 1975
DBS Building Tower Two (The building on the right)
Completed in 1994

Kansai International Airport
Completed in 1994

Stadium Australia
Completed in 1999

The development area of the JR Shinagawa Station East Exit District
As of 2002

Osaka Expo '70
Completed in 1970

Tokyo International Forum Glass Hall
Completed in 1996

1946–1991 From the Late Showa Era through Our 100th Anniversary

## Actively developing business inside and outside Japan

During Japan's postwar reconstruction and recovery period, Obayashi completed a series of projects, including Hokkaido's Nukabira Dam, a pioneering hydroelectric power project, and the Yakuwa Dam in Yamagata. Keeping pace with Japan's high economic growth, Obayashi built structures such as the National Gymnasium Annex. For Expo '70 in Osaka, Obayashi undertook numerous civil engineering projects and built many of the pavilions, as well as our own exhibition. In 1962, we began undertaking commercial projects, becoming the first Japanese construction company to work overseas. In 1970, we established our Tokyo Head Office, followed by the completion of the Osaka Obayashi Building, the first ultra-high-rise building in Osaka. Subsequently, we have participated in large-scale public works projects both in Japan and overseas, including the construction of the Seikan Tunnel, the Yokohama Bay Bridge, and San Francisco's sewer system. Overseas representative offices were established in the U.S. and in countries throughout Europe and Asia.

Advancing with the 21st Century

## Moving the Tokyo Head Office to Shinagawa, towards the creation of new spatial value

Since the celebration of the 100th anniversary of our foundation in 1991, Obayashi has continued to participate in Japan's major construction projects, such as the Kansai International Airport, the Tokyo Wan Aqua-Line, and the Tokyo International Forum. We are also engaged in a wide range of overseas businesses in Southeast Asia and Europe, including the construction of the Main Stadium for the Sydney Olympics. In 1999, we moved our Tokyo Head Office to Shinagawa Intercity, serving as a new base from which Obayashi can provide solutions for the future of human kind and the earth. Now, at the beginning of the 21st century, we are involved in the renovation of the Marunouchi Building in the Marunouchi district, which is the center of business activity in Tokyo, as well as many other urban redevelopment projects in Roppongi, Shiodome, Shinagawa, and Namba areas. In our overseas business, we have won orders for Taiwan's bullet train system and the seismic retrofit project for the Golden Gate Bridge.

# OBAYASHI

## People, Nature and Technology—Weaving a New Spatial Value

### CORPORATE STANCE

Our primary raison d'etre is to improve global standards of living while contributing to the advancement of society and development of the world. In order to do this, we must:

1

Refine our creativity and perceptions; then call on the accumulated technology and wisdom of the company to add new value to the concept of space.

2

Expand our individuality; yet respect human frailties.

3

Stay in harmony with nature; blend in with local societies; and put our hearts into creating a more vibrant, richer culture.

## Today, as companies are tested to reveal their true strengths, our entire enterprise responds to customer needs with trust and technology.

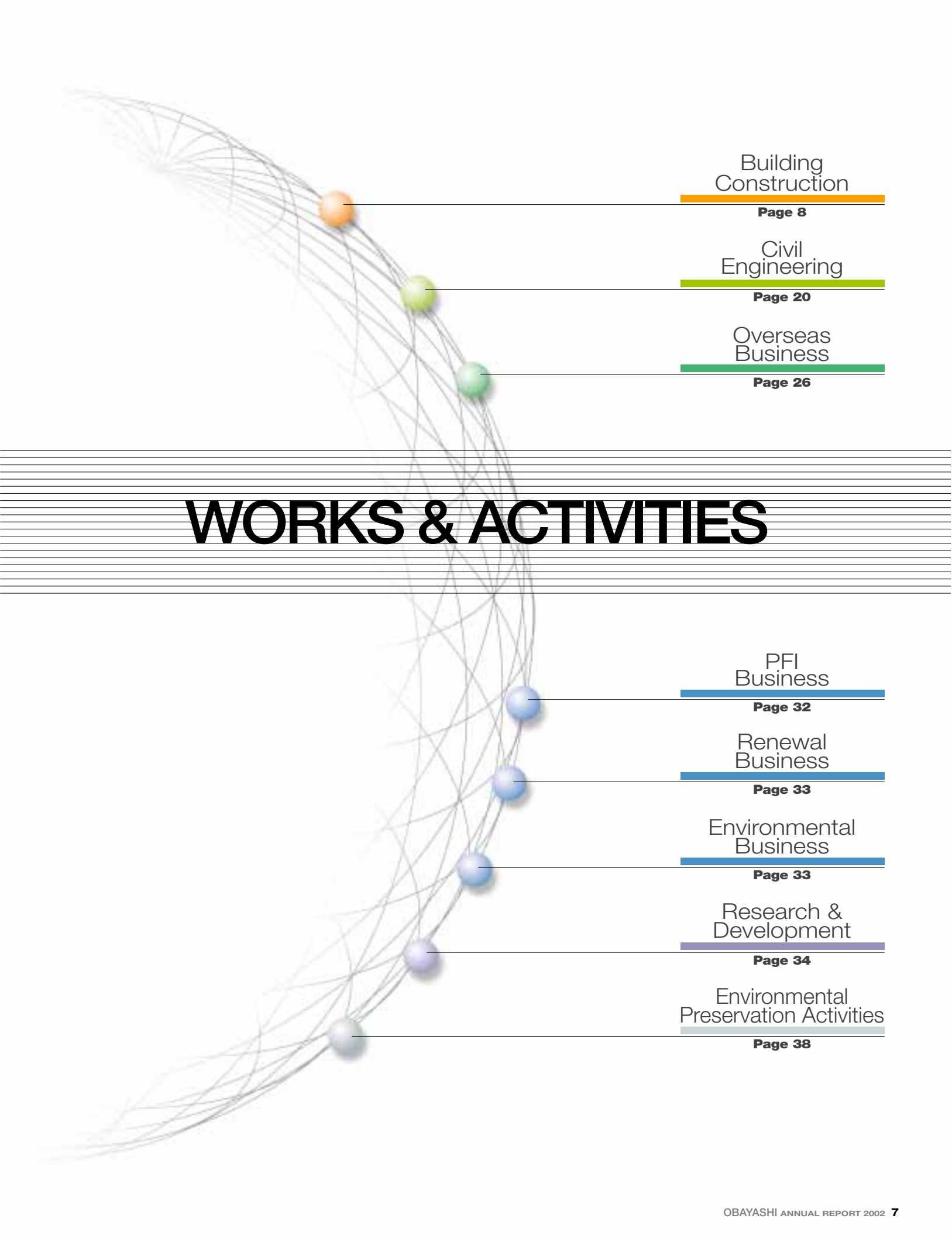
In the midst its first post-war deflation, the Japanese economy is severely strained by significant declines in private capital investment and government expenses, as well as declines in individual consumption. In the construction industry as well, orders for both private and public projects have been dropping, with intense market competition showing no signs of abating. In response, Obayashi implemented an all-out effort to maintain a balanced order-profit volume, receiving new orders worth ¥1.0911 trillion in for FY2002, which ending March 31, 2002. Revenues grew 3.1% over the previous year to ¥1.2865 trillion. Major projects that were completed and delivered to customers during FY2002 include the NHK Osaka Broadcasting Station and the Kobe Wing Stadium. Additional information on these projects is provided in the following pages.

While securing orders and revenues, Obayashi has been involved from the outset in strengthening its financial structure by reevaluating real estate, including that of group companies, and by reducing interest-bearing debt. With regard to the revaluation of real estate, we have attempted to improve asset turnover and clean up our balance sheet by reviewing assets through the implementation of asset impairment accounting standards ahead of time.

These severe economic conditions are expected to continue along with intensifying market competition, presenting a rigorous test of our true strength. Based on the trust and technology cultivated over the 110 years since its founding, Obayashi intends to maintain a sound financial standing and pursue marketing activities that respond to ever-changing socioeconomic conditions. Obayashi will focus management resources, such as technological prowess, financial capabilities, and human resources, on targeted markets, including urban revitalization, redevelopment, renewal, and overseas construction, where customer demand has been especially increasing. We will meet customer needs by fully demonstrating the proven competencies of Obayashi Corporation.

Shinji Mukasa

Shinji Mukasa, President





# WORKS & ACTIVITIES

WORKS & ACTIVITIES

# Building Construction

## Integrating a variety of urban functions into large-scale redevelopment projects in major cities

In our building construction business, we construct buildings with diverse purposes and functions, such as offices, hospitals, factories and commercial facilities. We are currently involved in large-scale projects in Tokyo, including Marunouchi, Roppongi, Shiodome and Shinagawa projects, as well as a number of other urban redevelopment projects including Nanba, Osaka. Especially in Marunouchi, which has developed into a business district at the heart of the Japanese economy, many leading redevelopment projects are underway. Obayashi is a major participant in these projects, starting with the renewal of the Marunouchi Building, completed in August 2002. In Roppongi and Shiodome, we have also completed landmark buildings, promoting a new urban planning that integrates a variety of urban functions. In Shinagawa, which is emerging as Tokyo's new business center, we are undertaking the construction of the new Shinagawa Station for the Tokaido Shinkansen (Bullet Train), in addition to the construction of high-rise office buildings and condominiums.

**The development area of the JR Shinagawa Station East Exit District**

The JR Shinagawa Station East Exit district is the location of Obayashi's Tokyo Head Office. Office buildings, commercial facilities, and high-rise residential buildings are being constructed in the post train yard and freight depot of the former Japan National Railway. The new Shinagawa Station for the Tokaido Shinkansen (Bullet Train) is scheduled to be completed by autumn 2003, significantly improving transportation convenience.

A new complex has been built in Osaka, a city steeped in history and tradition, to transmit to the world information about Osaka's fascinating culture and everyday life. The construction site, the former site of Naniwa-no-miya Palace, has over 1350 years of history. The valuable historical remains discovered during excavations have been preserved. They are cradled by two uniquely-shaped buildings. These two landmark towers dedicated to communication and culture link the past and the future housing a media facility equipped with the latest technology and a museum of Osaka's history, symbolizing the vitality of the Kansai region.

## NHK Osaka Broadcasting Station
## Osaka Museum of History

| | |
|---|---|
| Location | Osaka City |
| Architects | Engineering Development Center,<br>Japan Broadcasting Corporation<br>Osaka City<br>NIHON SEKKEI/NTT FACILITIES, INC./<br>Cesar Peli & Associates Japan Design Joint Venture |
| Structures | NHK<br>S/SRC<br>B3/18F<br>Museum<br>S/SRC<br>B3/13F<br>Total floor area: 90,026 $m^2$ |
| Date of completion | April 2001 |


Exhibition room on the 10th floor


Remains of the early Naniwa-no-miya Palace preserved on the basement


NHK Osaka Hall

A new stadium was built in Kobe, said to be the place where Japanese soccer began. This stadium, one of the venues for the 2002 FIFA World Cup™ games, was designed specifically to accommodate ball games such as soccer. Spectators are very close to the action on the field, the touchline being only 9 meters from the main stand. The latest technology has been incorporated everywhere. For example, the GOAL system, developed by Obayashi, is used for growing and maintaining the grass. Upon the conclusion of the World Cup games, the temporary stands on both sides will be removed and the facility will become an all-weather stadium with a retractable roof.

## Kobe Wing Stadium (Phase 1)

| | |
|---|---|
| Location | Kobe City |
| Architects | Obayashi Corporation<br>Kobe Steel, Ltd. |
| Structure | S/SRC/RC<br>7F<br>Total floor area: 44,241 m$^2$<br>42,000 seats |
| Date of completion | October 2001 |

As its name suggests, this building is intended to serve as a gateway to Roppongi Hills, a large redevelopment project expected to be completed in spring 2003 on an adjacent site. The tower is multifunctional, with stores (floors 1 through 3), offices (floors 3 through 9) and apartments (floors 10 through 15). The facade was designed to be in harmony with the Roppongi Hills project. The specifications are among the highest in grade for offices in Japan, and the 44 apartments on the top floors are all high-class units for lease. The building will become part of Roppongi Hills in spring 2003, and a new center of culture will be born in Tokyo.

## Roppongi Hills Gate Tower

| | |
|---|---|
| Location | Tokyo |
| Architect | Irie Miyake Architects & Engineers |
| Structure | S/RC/SRC<br>B2/15F<br>Total floor area: 30,792 $m^2$ |
| Date of completion | October 2001 |

## Nissay Shin-Osaka Building

| | |
|---|---|
| Location | Osaka City |
| Architect | NIKKEN SEKKEI |
| Structure | S/SRC/RC<br>B2/21F<br>Total floor area: 97,970 m² |
| Date of completion | September 2001 |

## Sumitomo Fudosan Shibakoen Tower La Tour Shibakoen II

| | |
|---|---|
| Location | Tokyo |
| Architect | Obayashi Corporation |
| Structure | S/SRC<br>B2/30F<br>Total floor area: 40,131 m²<br>34 units (25F~30F) |
| Date of completion | July 2001 |

## Osaka Nakanoshima National Government Building

| | |
|---|---|
| Location | Osaka City |
| Architect | Ministry of Land, Infrastructure and Transport |
| Structure | S/SRC<br>B3/24F<br>Total floor area: 56,874 m² |
| Date of completion | October 2001 |

## Hotel Nikko Bayside Osaka

| | |
|---|---|
| Location | Osaka City |
| Architect | MURAI & PARTNERS LTD |
| Structure | S<br>33F<br>Total floor area: 47,767 m² |
| Date of completion | March 2002 |

## Bellevue Tower Kotoni• Kotoni Tower Plaza

| | |
|---|---|
| Location | Sapporo City |
| Architect | Docon Co., Ltd. |
| Structure | RC/S<br>B1/30F<br>Total floor area: 30,721 m² |
| Date of completion | March 2002 |

## Osaka City Juso Hospital

| | |
|---|---|
| Location | Osaka City |
| Architects | Osaka City<br>MHS Planners, Architects & Engineers |
| Structure | RC<br>B1/9F<br>Total floor area: 20,274 m² <br>280 beds |
| Date of completion | November 2001 |

## St. Andrew's School

| | |
|---|---|
| Location | Osaka City |
| Architect | Tohata Architects & Engineers |
| Structure | SRC<br>B1/8F<br>Total floor area: 19,239 m² |
| Date of completion | November 2001 |

## Kanazawa Castle Park Hashizume-mon Tsuzuki Yagura/Gojukken Nagaya

| | |
|---|---|
| Location | Kanazawa City |
| Architect | Kenchikubunka-kenkyusho |
| Structure | W<br>3F 2 buildings<br>Total floor area: 946 m$^2$ |
| Date of completion | July 2001 |

## Laguna Gamagori Lagunasia

| | |
|---|---|
| Location | Aichi Pref. |
| Architect | Obayashi Corporation |
| Structure | RC/S<br>3F 9 builings<br>Total floor area: 23,294 m$^2$ |
| Date of completion | March 2002 |


## Kuraya Sanseido Nishinippon Distribution Center

| | |
|---|---|
| Location | Hyogo Pref. |
| Architect | Obayashi Corporation |
| Structure | S/SRC<br>3F<br>Total floor area: 44,220 m² |
| Date of completion | October 2001 |

## Canon Inc. Fukushima Plant 2000B•7 Building

| | |
|---|---|
| Location | Fukushima City |
| Architect | Obayashi Corporation |
| Structure | S/CB/RC<br>B1/3F 4 buildings<br>Total floor area: 12,934 m² |
| Date of completion | August 2001 |


## Elpida Memory, Inc. Hiroshima Plant

| | |
|---|---|
| Location | Hiroshima Pref. |
| Architects | NEC Ameniplantex, Ltd.<br>Obayashi Corporation |
| Structure | S<br>4F<br>Total floor area: 62,072 m² |
| Date of completion | January 2002 |

Visitor's corridor

## Asahi Breweries, Ltd. Kanagawa Brewery

| | |
|---|---|
| Location | Kanagawa Pref. |
| Architect | NIKKEN SEKKEI |
| Structure | S<br>4F<br>Total floor area: 21,515 m² |
| Date of completion | March 2002 |

WORKS & ACTIVITIES

# Civil Engineering

## Actively engaging in large-scale projects in metropolitan areas while maintaining a focus on environmental activities

Our civil engineering business comprises a variety of operations that take full advantage of our technological leadership, including work on tunnels, bridges, dams, rivers and urban civil engineering projects.

We have recently been engaged in large-scale urban civil engineering projects such as highways, railroads, and airports and successfully completed the extension of the Tokyo Outer Loop Road, underground construction for the Metropolitan Expressway, the construction of an artificial foundation for an overhead bridge on Koshu Road, which runs from Nihonbashi through Shinjuku to Kofu and construction of the Chubu International Airport, located in central Japan. In FY2002, we also received an order for Phase II reclamation work for the Kansai International Airport.

In addition to these large-scale urban civil engineering projects, Obayashi actively engages in environment-related fields, widely recognized as an expanding market. Technological capability and cost competitiveness are key for such businesses as the construction of disposal plants for general and industrial waste, renovation of incineration plants, bottom sludge disposal, and soil purification. Obayashi will respond to customer needs by integrating the efforts of the R&D, marketing, technology, and construction divisions and by promoting related business ventures.

We will also actively pursue large-scale civil engineering projects overseas where we can demonstrate our technology and management capabilities as a general contractor, thereby achieving our goal of becoming a construction company that projects a strong presence, both in Japan and throughout the world.

**Miwa Dam Redevelopment Bypass Tunnel Project in Kamiina-gun, Nagano**

We are building a bypass tunnel connecting the reservoir upstream with the embankment downstream. It prevents sand sedimentation from forming in the dam by releasing sandy water from flooding. Rocks excavated using the NATM method will be transported on a continuous belt conveyer that stretches a maximum of 4,000 meters.

In order to improve safety and the reliability of lifelines in the event of an earthquake, common duct are constructed that integrate infrastructures such as phone lines, electricity, gas and sewage systems.
The Yashio common duct, which houses electricity and communications infrastructures and runs along major roads, was constructed using the Shield Method in order to minimize impact on road users and the roadside during construction. The horizontal cotter RC segment developed by Obayashi Corporation was adopted for the Phase I segment connecting Kita Shinagawa and Higashi Shinagawa, thereby achieving high quality, high-speed construction at reduced cost.

## The Yashio common duct

| | |
|---|---|
| Location | Tokyo |
| Engineer | Kanto Regional Development Bureau, Ministry of Land. |
| Outlines | Slurry-pressure shield method, 640 m length, 4.7 m inner diameter, 5.3 m outer diameter |
| Date of completion | December 2001 |

Clean Park Izumo is a waste processing facility where the green color of the shade mats blends in with the natural surroundings, giving a soft impression. Many features were included to prevent contamination of subterranean reservoirs and rivers. For the double water sealing structure, the first layer at the bottom is strengthened by asphalt seepage control work. In addition, a system was installed to detect damage by passing electricity along both sides of the insulated seepage control sheets, ensuring a high level of safety.

## Clean Park Izumo

| | |
|---|---|
| Location | Shimane Pref. |
| Engineer | Yachiyo Engineering Co., Ltd. |
| Outlines | Landfill capacity: Controlled type, 290,000 $m^3$<br>Least controlled type, 1,135,000 $m^3$<br>Seepage control work: 23,000 $m^2$ (double water sealing structure) |
| Date of completion | January 2002 |

Underground drainage canal (basement level two)


Underground parking (basement level one)

## Nagai Water Tank, Nagai Park Underground Parking

| | |
|---|---|
| Location | Osaka City |
| Engineer | Osaka Municipal Waterworks Bureau, Osaka-City Road Corporation |
| Outlines | Excavation area: 12,500 $m^2$<br>Excavation depth: 16.85 m for Water tank GL, 21.32 m for Pump station GL<br>Excavation amount: 320,000 $m^3$ |
| Date of completion | March 2002 |

## Soft Business Park Shimane (land construction)

| | |
|---|---|
| Location | Shimane Pref. |
| Engineer | JECT Co., Ltd. |
| Outlines | Total construction area: Approx. 77 ha<br>Logging and incineration work: 450,916 $m^2$<br>Cut and fill work: 2,787,063 $m^3$<br>Slope construction work: 85,937 $m^2$<br>Slope protection work: 115,055 $m^2$<br>Road construction (paving work): 22,928 $m^2$<br>Entire reservoir construction work |
| Date of completion | July 2001 |

## Ichikawa Sea Wall

| | |
|---|---|
| Location | Hyogo Pref. |
| Engineer | Hyogo Pref. |
| Outlines | Movable rubber weir<br>Length: 152.8 m<br>Height: 4.31 m<br>Gate: 4 nos.<br>Fish pass: 2 nos.<br>(stairs type and slope type)<br>Boat pass: 1 nos.<br>Revetment work: 5,515 $m^2$ |
| Date of completion | May 2001 |

WORKS & ACTIVITIES

# Overseas Business

## Pursuing overseas business by maximizing our technology and management capabilities as a general contractor

Obayashi undertakes large-scale overseas projects by fully leveraging its internationally acclaimed technologies such as its anti-seismic techniques and shield construction method. We are currently involved in the seismic retrofit project for the pier of the Golden Gate Bridge, the world-famous suspension bridge that symbolizes the city of San Francisco, as well as in the construction of Boston's Highway 1. In Asia, we are building the passenger terminal building for the Suvarnabhumi Airport, which is designated as a national project of Thailand. When completed, it will be one of the largest international airports equipped with the latest facilities. In Taiwan, the construction of the bullet train system is underway towards its scheduled opening in 2005. Appreciating the local nature of the construction industry, Obayashi has upheld its principle of integrating into the local communities since first venturing into Asia about 40 years ago. This principle has guided our business pursuits throughout the world, including in the U.S. and Europe. With local human resources at the core, we accumulate project management know-how for procuring the best possible equipment and resources from all over the world.
Obayashi will continue to actively cultivate overseas businesses by utilizing not only its own construction expertise but also technologies that promote harmony with local communities and build trust.

**The Beverly Hills Hotel**
Designated as a historic building for conservation by the City of Los Angeles, this hotel is also famous for its appearance in the classic Eagles tune, "Hotel California." In 1995 the hotel underwent a full-scale renovation and was reborn as a more classical luxury hotel.

China Square is located adjacent to a group of landmark high-rise buildings in Singapore. The head office building of a major insurance company was built there, featuring a 21-meter-high ancient Greek-style portico front facade and a rooftop garden. The exterior projects a unique sense of serenity and substance through the interlocking Spanish granite masonry, and stands out in the redevelopment area as a readily identifiable landmark.

## Great Eastern Centre

| | |
|---|---|
| Location | Singapore |
| Client | Straits Eastern Square Private Limited |
| Architect | Obayashi Corporation |
| Structure | RC<br>B2/16F<br>Total floor area: 48,018 m$^2$ |
| Date of completion | June 2001 |


Great Eastern
Great Eastern

This University is located in verdant Pathumthani Province on the outskirts of Bangkok, the capital of Thailand. As evidenced by its name, the current Prime Minister Thaksin Shinawatra played a central role in its establishment. Upon construction of the University, various energy-saving technologies, such as lighting and heat insulation, were applied to protect the environment. The University opened in December 2002 as a place for cultivating the human resources of the next generation.

## Shinawatra University

| | | |
|---|---|---|
| Location | Pathumthani, Thailand | |
| Client | O.A.I. Education Co., Ltd. | |
| Architects | Design: | D.C.M. 2000 Co., Ltd.<br>Nipat Associates Co., Ltd. |
| | Structure: | ACTEC Co., Ltd. |
| | Mech & Elec: | Environmental Engineering Consultants Co., Ltd. |
| Structure | RC<br>B1/5F<br>Total floor area: 49,111 m$^2$ | |
| Date of completion | July 2001 | |

## Applied Materials Maydan Process Module Technology Center

| | |
|---|---|
| Location | California, U.S.A. |
| Client | Applied Materials, Inc. |
| Architects | Total coordination:<br>Obayashi Corporation<br>Design:<br>Graeber Simmons & Cowan<br>Structure:<br>Rinne & Peterson<br>Mech & Elec:<br>Glumac |
| Structure | S/RC<br>3F 2 buildings<br>Total floor area: 17,110 m$^2$ |
| Date of completion | December 1999 (Phase 1, 2)<br>December 2001 (Phase 3) |

A new corporate office for Malaysia's largest life insurance company was completed in Kuala Lumpur. Located in the midst of a high-class residential area lined by embassies of various countries, the structure features sophisticated design work. Along with an adjacent eight-story shopping mall, the building stands as a new symbol of the region.

## Menara Great Eastern & Great Eastern Mall

| | |
|---|---|
| Location | Kuala Lumpur, Malaysia |
| Client | Great Eastern Life Assurance (Malaysia) Berhad |
| Architect | Obayashi Corporation |
| Structure | RC<br>B5/20F<br>Total floor area: 149,398 $m^2$ |
| Date of completion | November 2001 |

## Redondo Junction Grade Separation

| | |
|---|---|
| Location | California, U.S.A. |
| Client | Alameda Corridor Transportation Authority |
| Engineer | HDR Engineering |
| Outlines | Total Length: 1,200 m |
| Date of completion | August 2001 |

WORKS & ACTIVITIES

# PFI Business

## To Become the Leading Company in Japan's Domestic PFI Business

### Achieving higher efficiency and quality in public services through knowledge and experience from our overseas BTO and BOT businesses

PFI (Private Finance Initiative) is a method for building, managing, and maintaining public facilities utilizing capital, technology, and expertise of private sector to achieve higher efficiency and improved quality in public services.
Since before the implementation of the PFI Law in Japan, Obayashi has participated in a number of projects in Australia and Asia, such as the Sydney Olympics Stadium project, under the BTO (Build Transfer-Operate) method, in which facility ownership is transferred to public institutions upon completion while business rights are retained by the private sector managing the facility, and under the BOT (Build-Operate Transfer) method, in which the private sector builds and manages the facility, which is then transferred as an asset upon completion of the business contract. We pursue PFI businesses that take full advantage of our broad knowledge and experience from construction to management.

### Based on a solid financial foundation, risk management know-how and cross-sector network

Through ample experience both in Japan and overseas, we have accumulated a broad range of know-how, encompassing risk analysis of business plans and risk hedging, as well as organizing project finance. Based on such expertise, together with a solid financial foundation and a network spanning various industrial sectors, Obayashi has demonstrated top performance in PFI businesses, where we have taken the initiative.
Major accomplishments include building facilities for the Kanagawa Prefectural Medical and Welfare University (tentative name), contracted in 2000, Toshinden Incinerator Plant in Okayama-shi, and the Okayama Research Park Incubation Center (tentative name). We have already signed contracts and begun work on these projects. Additionally, we have also obtained the priority negotiation rights for PFI projects that are attracting nationwide attention, such as the Omihachiman Municipal Hospital Construction and Management Project, an epoch-making hospital PFI project in Japan, and the Komazawa Residence for Civil Servants (tentative name) Project, the first project to be sponsored by the central government.

**Toshinden Incinerator Plant Facility Construction**
Okayama-shi, Okayama
A project to build a facility for an incinerator, the market for which is expected to expand. We provide physical fitness programs for citizens with heated pools and exercise studios.

**Okayama Research Park Incubation Center (tentative name)** Okayama-shi, Okayama
A facility for cultivating entrepreneurial ventures. Full-time advisors support occupants in new business creation for revitalizing local industries.

**Omihachiman Municipal Hospital Construction and Management Project** Omihachiman-shi, Shiga
The region's central hospital with 24 examination clinics. Japan's first local government-sponsored hospital of PFI project, with a 30-year BOT method.

**Shiga 21 Hall (tentative name) Construction Project** Otsu-shi, Shiga
A central facility for rejuvenating commercial enterprises, for cultivating new industries, and for supporting labor and social welfare projects, attracting attention as a multifunctional facility PFI project.

**Kubu Youth Plaza (tentative name) Construction Project** Koto-ku, Tokyo
The first renewal PFI project involving the renovation and management of the 25 year-old Yumenoshima General Gymnasium. New lodging facilities will be built as part of the project.

**Suginami Public Hall Construction, Maintenance, and Management Project** Suginami-ku, Tokyo
A concert hall with a large hall accommodating approximately 1,200 seats and a small hall with approximately 200 seats. The historic public facility will be renewed by the PFI project.

WORKS & ACTIVITIES

# Renewal Business

## Moving Beyond “Renewal” towards “Life Cycle Management”

### From the perspective of life cycle management

In response to growing demand for renewal of existing facilities Obayashi moves beyond the conventional framework of renovation work. By introducing the long-term perspective of Life Cycle Management and offering an optimal combination of facility management methods, we propose and realize the increased asset value of our customers’ property. We are also focusing on the development of technologies that respond to customer needs for improved property value, such as transforming buildings into energy-efficient facilities, meeting environmental requirements, and providing anti-seismic retrofitting, as well as reducing vibrations and noise and shortening the construction period. Through these technologies, Obayashi meets the increasingly sophisticated needs of our customers, for instance, improving seismic resistance and quake-absorption, countering degradation, repurposing buildings, computerization, and improving the corporate image.

### Closely observing customer needs to proactively propose innovative methods and technologies

Renewal projects require a variety of proposals depending on the specific business environment and focus of the customer. Consequently, Obayashi seeks to establish long-term relationships with customers that go beyond providing maintenance as part of its after-service. As demonstrated by our property management of several buildings to increase the value of our customer’s assets, we constantly accumulate new methods and technologies to provide optimal proposals.

**Sumitomo Corporation Mitoshiro Building**
We have renewed the interior and exterior, as well as the facilities of the entire building, by applying quake-resistant reinforcement work to both underground and aboveground floors in order to improve building management efficiency, quality of the air-conditioning, and livability.

WORKS & ACTIVITIES

# Environmental Business

## Highly Respected and Wide-Ranging Countermeasure Technologies Based on a Wealth of Accomplishments

### Advancing comprehensive proposals that provide value for our customers

In environmental business, where society’s expectations continue to rise, Obayashi is engaged in the development of various technologies and construction projects under the following themes:

- Countermeasures for soil and underground water contamination
- Water recovery and bottom mud treatment
- Construction of final waste treatment plants
- Reuse of organic waste
- Rooftop greening

Such environmental businesses require a broad array of technology and experience in problem solving. By envisioning the total process from planning, research and diagnosis, analysis and implementation of countermeasures, to managing maintenance and assessment, Obayashi has successfully gathered experienced engineers. We respond to customers’ needs with precision and speed, providing comprehensive solutions.

During the Gulf War, over 600 oil fields were destroyed in Kuwait, releasing a massive outflow of oil and contaminating as much as 20,000,000 $m^3$ of soil. Between 1994 and 1999, Obayashi conducted surveys and verification experiments for bioremediation (recovery through living organisms) as part of joint research undertaken by the Kuwait Institute for Scientific Research and the Petroleum Energy Center. As a result, we undertook the purification of approximately 15,000 $m^3$ of contaminated soil and successfully revived the soil to the point of supporting steady plant growth.

*From 2001, operations related to this business have been transferred to the Japan Cooperation Center, Petroleum.

WORKS & ACTIVITIES

# Research & Development

## Pursuing a broad range of cutting-edge technologies from a medium- to long-term perspective

Obayashi Corporation actively promotes R&D activities, upholding its corporate stance of refining our creativity and perceptions, then calling on the accumulated technology and wisdom of the company to add new value to the concept of space. At our Technical Research Institute, the center of our R&D activities, we pursue a broad range of basic technologies from a medium- to long-term perspective. We also actively engage in contemporary themes, such as environmental issues, living space, safety and comfort, and higher productivity, in response to the needs of markets and technologies that are increasingly diverse, sophisticated, and interrelated. In order to respond more quickly to ever-changing technology and market environments, we recently focused on technological development at each division of the Head Office by organizing a cross-functional R&D work group with experts from each section. We also developed building diagnosis software and purification techniques for contaminated soil and have put them to practical use. In this new century, Obayashi will continue to pursue cutting-edge technologies to ensure that the construction industry consistently contributes to a society of comfort and abundance.

## Facility Outline

The Technical Research Institute, established in 1965, occupies a total area of over 70,000 m$^2$. There are 14 facilities for research and experimentation, including the main building, considered the world's most energy-efficient structure, and a building that is recognized as Japan's first quake-resistant office building. Our Dynamics Research Center, in particular, is a facility for advancing technology in the fields of earthquake and geotechnical engineering, fully equipped with a tri-axial shaking table, a geotechnical centrifuge system, a multi-purpose rock mass testing system, and a large-scale cyclic tri-axial testing apparatus, attracting the attention of Japanese researchers as one of the largest testing facilities in the country. Our Environmental Research Center is equipped with a multipurpose wind tunnel, an acoustic engineering laboratory, and an Environmental Experiment Plaza. High-tech facilities such as the biotechnology laboratory, mechatronics laboratory and the super-clean room are located within our quake-resistant office building. These research facilities and equipment, together with the Geotechnology Research Center, Concrete Research Center and Structural Engineering Facility, all serve as the backbone for the development of advanced technology at Obayashi.


Main Building

**Land area: 74,378 m$^2$**
**Construction area: 13,717 m$^2$ (excluding housing for single employees)**
**Aggregate building area: 29,363 m$^2$**


Dynamics Research Center

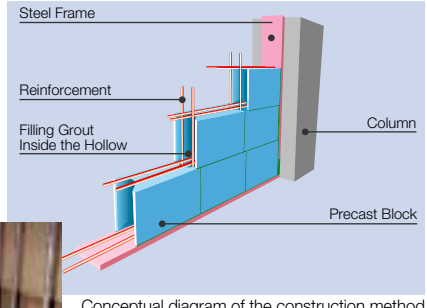

**Tri-axial Shaking Table**
Capable of generating vibrations at a maximum acceleration of 3G, a maximum speed of 200 cm/sec, and a maximum stroke of 60 cm with an object weighing 50 tons placed on the 25 m$^2$ table, it provides an accurate, tri-axial simulation of a large-scale earthquake with roughly twice the impact as that of the Great Hanshin-Awaji Earthquake.


**Geotechnical Centrifuge System**
Equipped with an arm length and turning radius of 7.0 m, the largest in Japan, it has the Japan's largest static experiment bucket platform, measuring 2.2m × 2.2m and the world's largest dynamic experiment bucket platform, measuring 1.07m × 2.2m. It is capable of accurately simulating a large structure and its surrounding geological foundation by applying centrifugal force to the model foundation within the bucket to create a high gravitational field.

## “3Q-Wall”—Seismic Retrofit Method

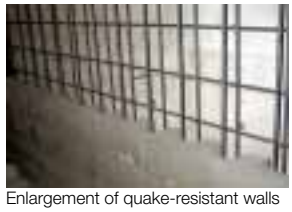
### A Quick, Quiet, and High-Quality retrofit method for building earthquake-resistant walls without closing the facility

To reinforce quake-resistance in existing buildings by adding new walls, it is necessary to install anchors, set up steel structures, install molds, and pour interior concrete. However, this method generates noise and vibration at each stage and requires large equipment such as pump vehicles for placing the concrete. Consequently, there was demand for a method with lower noise and vibration that could be completed in a shorter period, especially for commercial facilities, schools, and hospitals, which must stay open during the construction. Obayashi’s “3Q-Wall” seismic retrofit method precisely meets these needs by piling precast blocks along with the steel frame and using simple equipment to place high-strength grout inside.



Conceptual diagram of the construction method


Installation of quake-resistant walls


Enlargement of quake-resistant walls

## “The Big Canopy System”—Automated Reinforced Concrete Construction System

### Pioneering all-weather automated construction system for high-rise buildings

The Big Canopy System is an all-weather automated construction system for reinforced concrete high-rise buildings, a world-leading achievement by Obayashi. The system is aimed at shortening construction periods and improving the safety and productivity of the construction process by applying a factory automation concept to the construction site, including information technology, automation, and mechanization. The system consists of a large canopy that covers the top of the building under construction, a parallel transport system that efficiently transports and installs materials with cargo lifts and ceiling cranes, and a material management system that utilizes the Internet to comprehensively manage materials information, from manufacturing in the factory to building methods, and to visualize the complete construction process. Along with the existing “ABCS,” an automated building construction system for high-rise steel structures, Obayashi will continue to improve construction productivity and safety, as well as energy efficiency.


The Big Canopy System

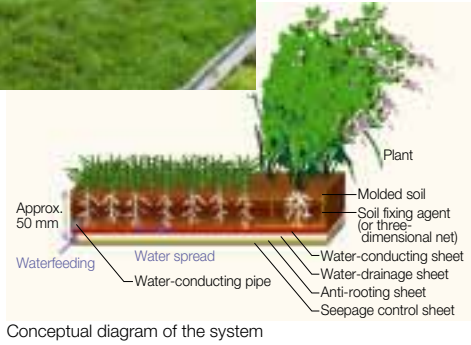

ABCS

## Thin-Layer Rooftop Greening System

### Developing an easy to build and low-cost rooftop greening system

Greening is an essential component for beautiful scenery and the planning of a comfortable city. Rooftop greening has recently attracted attention as a means to compensate for rapidly disappearing parks and to make full use of small spaces for greenery in large cities. Greening provides additional benefits, such as controlling the Heat Island phenomenon through the evapotranspiration and carbon dioxide absorption of plants and trees. Some local governments in Japan have enacted laws making rooftop greening a compulsory requirement for new construction or renovation, while also providing subsidies for rooftop greening construction costs. As a result, greening has become a social movement involving ordinary citizens. In response, Obayashi developed a Thin-layer Rooftop Greening System as an easily applied, low-cost method to introduce rooftop greening. By adopting a base irrigation system, in which a drainage function is added to the water-conducting sheet, the system enables thin-layered soils, which are easily dehydrated, to maintain consistent, appropriate water levels. It also reduces the weight of the greening base as well as the cost of various kinds of green planting, since it uses natural soil and is capable of growing various sized plants, from grass and flowers to low trees, with layers as thin as 5 cm. In addition, the Exchange System enables users to replace soil above the irrigation system with planters and brick chips, which can be freely combined. It is especially suitable for commercial facilities where plant variety is changed depending on the season or purpose, and is also expected to be used for condominium balconies targeting general consumers.

Obayashi's testing yard

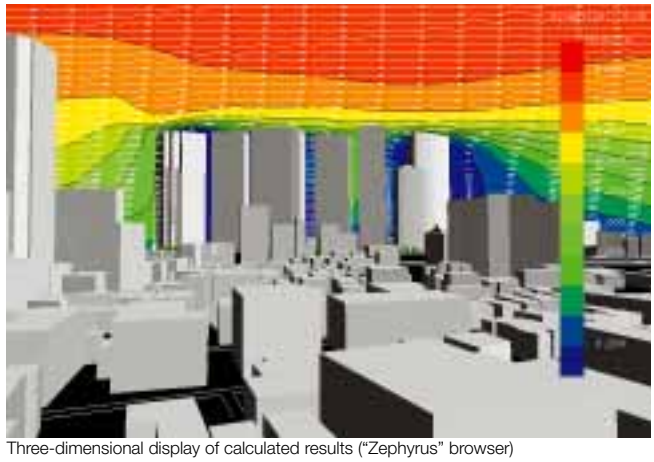



Conceptual diagram of the system

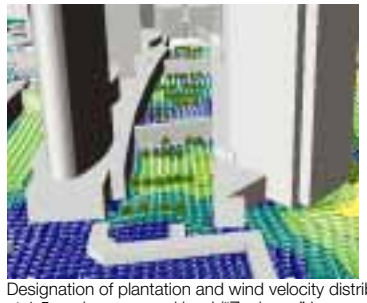
## "Zephyrus"—A Numerical Simulator Software for Wind Environment

### Developing a wind environment prediction software utilizing digital maps

These days, urban redevelopment projects involving the construction of multiple high-rise buildings in existing urban areas are becoming increasingly common. In the past, wind tunnel experiments and fluid dynamics computation were used to predict the flow of wind and effect on the surrounding environment from such proposed construction work. These conventional methods entail considerable simulation and testing costs. Consequently, only a limited number of experts could utilize them. In order for ordinary engineers to conduct highly accurate predictions of winds around buildings, Obayashi developed the "Zephyrus" software for predicting wind environments on a computer utilizing digital mapping information. The software has enabled users to perform a series of processes, from creating a three-dimensional model of the planned building and neighboring buildings to performing fluid dynamics computation and assessing the wind environment, all on a computer. With this software, users can also delete buildings or revise the height and shape if desired on computer. It can also simulate the effects of wind control measures using plantation.



Three-dimensional display of calculated results ("Zephyrus" browser)



Designation of plantation and wind velocity distribution at 1.5 m above ground level ("Zephyrus" browser)

## "Concrete Seizo Meijin" (Master concrete maker) —Concrete Production System

### Developing a fully automated production system for high reliability concrete

The control of concrete quality begins with precise measurement of the specified quantities of materials before production begins. However, there is no easy way to precisely and quickly measure the surface moisture of fine aggregate in most production systems currently in operation.
"Concrete Seizo Meijin" is a production system for high reliability concrete, developed by Obayashi, in which aggregate is immersed in water before being batched in a wet condition. This enables the precise quantities of water and fine aggregate to be calculated independent of fluctuating levels of surface moisture. We have now installed a fully automated model production plant with "Concrete Seizo Meijin" at our Technical Research Institute. We will continue to meet the challenge of fully automated production of concrete that is both highly reliable and cost-effective.


Concrete production plant

## "COMPACT"—High Accuracy Soil Embankment Control System

### Realizing quality control, efficiency, and energy savings in soil embankment compaction through advanced communicaton network and computerized construction

To maintain quality control of soil embankments in land development, road earthworks and fill dams, it is important to determine and follow construction methods such as compaction area, frequency, and the spreading thickness based on test constructions for each soil embankment material. Recently, a GPS guided system that measures the location and tracks of rollers and controls the compaction area and frequency has been used. However, depending on the material, it does not measure portions under control standards or, conversely, it measures to the standards before completing the designated compaction frequency. As a solution to these problems, "COMPACT," a construction control system developed by Obayashi, controls the driving position and conditions of the vibrating roller that undertakes compaction in three-dimensional tracking by using GPS technology. Thus, comprehensive control of compaction area and frequency is achieved. "COMPACT" also realizes advanced quality control and greater cost-efficiency of the compaction process by analyzing acceleration waveforms measured by the accelerometer on the vibrating roller in real time.


Compaction condition


Data recording equipment

WORKS & ACTIVITIES

# Environmental Preservation Activities

## Aiming for a recycling-oriented society for sustainable development

With “Harmony with Nature” one of our fundamental corporate policies, Obayashi established its Global Environment Department in 1990. Since the formulation of our “Action Plan for Sustainable Development” in 1992, we have set new goals for each fiscal year. We have also instituted the “Obayashi Corporation Environmental Policy” in November 1997. As a responsible enterprise moving forward in this “century of the environment,” and as a leader in the construction industry, which comes into close contact with the global environment through infrastructure projects and the construction of industrial facilities, we are taking every step possible to preserve the environment, with an emphasis on the reduction in carbon dioxide emissions, measures against construction wastes, green purchasing, and measures against hazardous chemical substances. In order to continuously and systematically promote these activities, the Tokyo Head Office acquired ISO 14001 certification in 1998 and in March 1999, all Obayashi branches acquired the certification. From top management to individual employees, we are building and promoting an Environmental Management System (EMS) under which every corporate activity is pursued as another step toward realizing a recycling-oriented society.

### Principles

**We, OBAYASHI CORPORATION, regard our active involvement in environmental matters and continual improvement in relation to such involvement as an integral part of our management, and in all our undertakings, we will fully take account of environmental impact of our activities and make efforts to preserve the environment, and thus, we will contribute to building up society with sustainable development.**

### Four Priority Issues

#### Reduction in Carbon Dioxide Emissions

Through our Life Cycle Assessment (LCA) of buildings and cities, we implement energy conservation at construction sites and buildings to extend the life spans of buildings and select ecological materials and measures to reduce carbon dioxide emissions. At the construction stage, we research over 100 sites nationwide to identify concrete figures on carbon dioxide emissions. At the same time, we manage the reduced levels of carbon dioxide for ecological materials and technologies to conserve natural resources and energy adopted at the engineering stage and confirm their positive impact on environment protection.

#### Measures against Construction Wastes

Our basic strategy for eliminating construction waste consists of reducing wastes, promoting recycling, and appropriate treatment of wastes. Our aim is to achieve “Zero Emissions”-100% recycling- with regard to wastes generated by construction, and we have set specific quantitative targets, such as reducing mixed waste at construction sites to less than 10 kg per square meter by 2005 and reducing on-site sludge by more than 30% in engineering sites. To disseminate these activities nationwide, we designate “Zero Emission Model Sites” in various areas.

#### Green Purchasing

In the area of office supplies, we have implemented the green purchasing standard and guideline for office materials and office equipment since FY2000. In the area of design, we have promoted the selection of ecological materials by utilizing the Environmentally-conscious Design Data Sheet since FY1999. In the area of construction, our green purchasing guidelines for construction materials and equipment, designating 47 products as resources and equipment to be used at construction sites, have been implemented since FY2001. Obayashi will continue to expand the list of products for green purchasing and the setting of quantitative targets for the use of ecological resources.

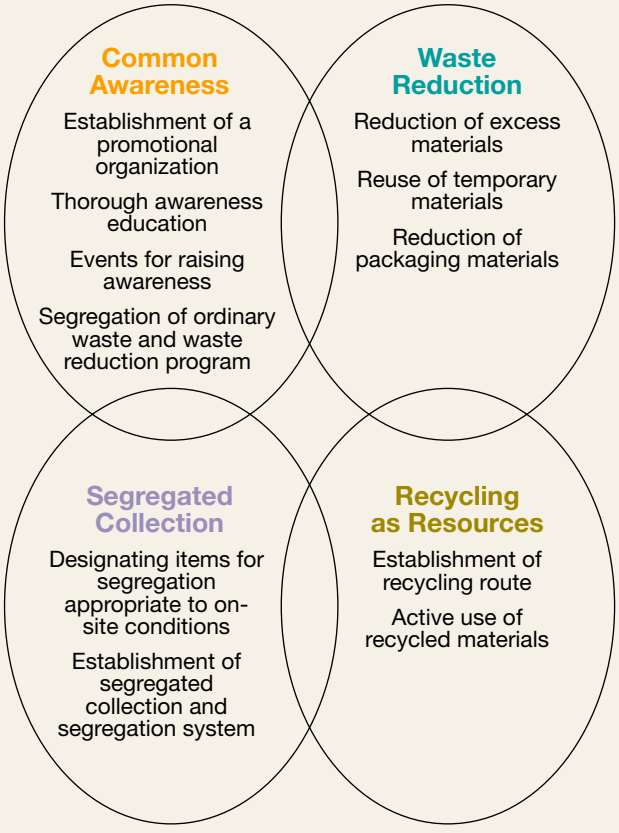
#### Measures against Hazardous Chemical Substances

Following enforcement of the Pollutant Release and Transfer Register (PRTR) Law in April 2001, our Machinery Works and Technical Research Institute have endeavored to reduce the use of hazardous chemical substances and to establish a Material Safety Data Sheets (MSDS). Furthermore, as part of our effort to reduce emissions of hazardous substances, in June 2000 we changed all pigments in paint used in construction machinery owned by Obayashi to non-chrome and non-lead pigments. Since FY2000, we have been conducting voluntary testing of pollution in soil and subterranean reservoirs on lands owned by the company, in accordance with the “Survey and Countermeasure Guidelines for Soil and Groundwater Contamination” set out by Ministry of the Environment. We are also involved in indoor environmental issues, such as the “sick house” syndrome and chemical sensitivity.

## Zero Emission Activities

# Completing large-scale projects at two model sites

In 2000, Obayashi became the first construction company to announce the inauguration of its Zero Emission activities, pursuing the themes of common awareness, waste reduction, segregated collection and recycling as resources. We have been developing creative solutions by designating two large construction projects, the New Marunouchi Building Construction Work and the Dentsu New Head Office Building Construction Project, as model sites. In 2002, these construction projects were completed, with both sites achieving zero emissions.




### Dentsu New Head Office Building Construction Project

- **Common Awareness:** Based on the initiative of the foreman of the Zero Emissions Committee, dirt heap waste usually consigned to final disposal as mixed waste was also put through a thorough separation process using magnets and sieves, thus reducing the overall amount of waste.
- **Waste Reduction:** Reducing the volume of packaging materials consigned to final disposal constitutes a major strategy for eliminating construction waste. With regard to packaging materials for metallic items, we switched from using cardboard boxes to reusable plastic cases, and completely discontinued the use of cardboard packaging for carpets. In addition, packaging for large items such as glass and trilateral frame for elevators were also changed from wooden casings, which are discarded after use, to reusable specialized palettes and racks.


Segregation using a sieve


Segregation stations on each level

### New Marunouchi Building Construction Work

- **Segregated Collection:** Palettes for separating 13 to 21 items were installed on each floor, and waste materials were collected at a single location to be transferred to 6 $m^3$ containers according to item before being transported to recycling facilities.
- **Recycling as Resources:** A direct route to the recycling facility was established, bypassing intermediary treatment facilities. For example, the approximately 5,400 pieces of pine piles used to support the foundation of the old building were transported directly to lumber mills and paper mills, where they were recycled into craft paper and manufactured into envelopes and paper bags. Part of the pine piles was processed for use in building blocks, benches, and flower gardens. Residual styrene foam underwent a reduction process on site before being sent to a reprocessing facility to be recycled into plastic material for planters.


Recycling Station


Planters using recycled plastic

## Fuel Efficiency Operations Manual

# Promoting programs to reduce carbon dioxide emissions at the construction stage

To reduce the amount of carbon dioxide emissions at the construction stage, Obayashi, with the cooperation of truck makers and construction machinery makers, led the industry in 1999 by initiating training sessions offering actual experience in fuel cost-saving operations. More than 500 participants have already attended such sessions with favorable results, encouraging us to produce a "Fuel Efficiency Operations Manual," applicable to almost every construction site truck, to achieve further energy conservation and carbon dioxide reductions. Through such programs, Obayashi aims to attain its target of reducing carbon dioxide emissions at the construction stage by 17% from 1990 levels by FY2010.

# MAJOR WORKS

## Public Buildings / Office Buildings

Tokyo International Forum Glass Hall

NEC Tamagawa Renaissance City ( I )

Main Building of Kagawa Prefectural Government Office

Miyagi Prefectural Library

Tokyo Broadcasting System (TBS) Center


Harumi Island Triton Square

Shinagawa Intercity

## Medical Facilities / Educational Facilities / Sports Facilities

Keio University Faculty of Science and Technology Yagami New Building

Osaka Dome

Shizuoka Stadium Ecopa

Kanto Medical Center NTT EC

National Okayama Medical Center
National Okayama Medical Center School of Nursing

## Hotels / Commercial Facilities


Kyoto Station Building


TIMES SQUARE Building


Yokohama Bay Sheraton Hotel & Towers


Hotel Northland Obihiro


Hakata Riverain East Site


Hyatt Regency Osaka


Kagaya, Setsu-Getsu-Ka

## Historic Buildings / Houses / Plants

The Nikko Tamozawa Imperial Villa Memorial Park Main House

Osaka-jo Castle Tower “The retrofit work of Heisei”

Renovation of the U.S. Ambassador’s Residence, U.S. Embassy, Tokyo, Japan

HAT Kobe Nadanohama No.2 Building


Canon Inc. Toride Plant 98A･B-1 Building

## Roads / Bridges / Railways / Dam


Tokyo Wan Aqua-Line


Akashi Kaikyo Bridge (Kobe Side Anchorage)


Tokyo Municipal Subway Oedo Line, Gaien-Yoyogi Site


The Second Tomei Expressway Miyakodagawa Bridge


Tomisato Dam

## Power Plants / Treatment Facilities / Waterworks

Onmawashi-Koen Regulating Reservoir (Main Tunnel)

Kyushu Electric Power Co., Inc. Genkai Nuclear Power Station Units 3, 4

Shikoku Electric Power Co., Inc. Tachibana-wan Thermal Power Station, Chimney

The Metropolitan Area Outer Discharge Channel-Tunnel Contract No.1

Tokyo Electric Power Co., Inc. Chiba Thermal Power Station

Toshima Incineration Plant

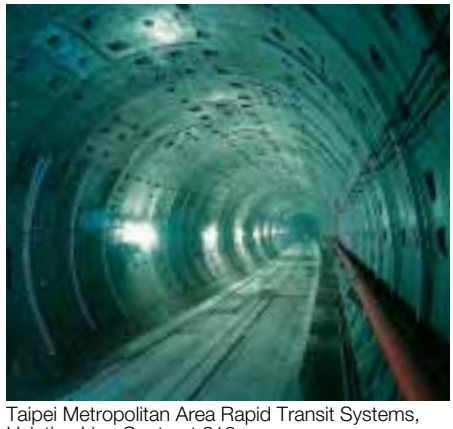
## Overseas Works

Indo-Japan Friendship Nizamuddin Bridge

Central Artery/Tunnel, Boston
Ted Williams Tunnel C07 A1

Melbourne City Link

Photography by Rick Altman
Ace Image Photographics Pty Ltd



Taipei Metropolitan Area Rapid Transit Systems,
Hsintien Line Contract 218

Tuas Immersed Tunnel

PWC Building

Stadium Australia

# Corporate Profile

**Founded:** January 25, 1892

**Paid-In Capital:** ¥57,752,671,801 (Jannuary 2003)

**Obayashi business**

1. Contracting for construction work
2. Regional, urban, oceanic, and environmental development; other business relating to construction
3. Engineering and managing related to the preceding two items, including research, planning, designing, and supervising
4. Housing business
5. Sale, purchase, exchange, lease, brokering, ownership, caretaking and utilization of real estate
6. Planning, construction, maintenance, and management of roads, harbors, waterworks and drainage, government office buildings, educational and cultural facilities, waste disposal facilities, medical facilities, and other public facilities
7. Business related to environmental pollution restoration, such as purification of soils, river, lake, and marsh beds, and collection, shipment, and treatment of general and industrial waste
8. Power generation, and supply of electricity and heat
9. Manufacture, supply, sale, and lease of construction machinery and equipment, and materials and equipment for temporary work
10. Manufacture and sale of concrete products for construction, fireproof or nonflammable building materials, materials for construction, materials for the interior and exterior of buildings, furniture and wooden products for buildings, and sale of civil engineering and buildings materials
11. Maintenance and care of buildings and related facilities; security and guard services
12. Acquisition, development, licensing for use, and sale of software indusutrial properties and providing know-how related to the utilization of computers
13. Information processing services; providing information and supply of telecommunication circuits
14. Sale, lease, and maintenance of electronic office machinery and equipment, including computers
15. Management of health, medical, athletic and leisure facilities, hotels and restaurants, and travel agencies
16. Sale of Medical Machinery and tools
17. Temporary Personnel Placement Agency Business under the Temporary Personnel Placement Agency Act
18. Operation of insurance agencies under the Automobile Accident Compensation Security Act and of non-life insurance agencies
19. Landscaping, gardening, and horticulture
20. Loans, guarantees, and other financial activities
21. Consulting related to any of the preceding items
22. Activities related to any of the preceding items

**Number of Employees:** 10,652 (September 2002)

**The Board of Directors**

**CHAIRMAN & CHIEF EXECUTIVE OFFICER**
Yoshiro Obayashi

**VICE CHAIRMAN**
Takeo Ohbayashi

**PRESIDENT**
Shinji Mukasa

**EXECUTIVE VICE PRESIDENTS**
Kenichi Yamashita
Tadashi Uehara
Norio Wakimura

**SENIOR MANAGING DIRECTORS**
Yoshihisa Obayashi
Yoshisato Kurata
Shoji Kuwahara
Masao Ishihara
Eiji Noma
Yoshihiko Tamiya
Norio Iguchi
Jumpei Morimoto

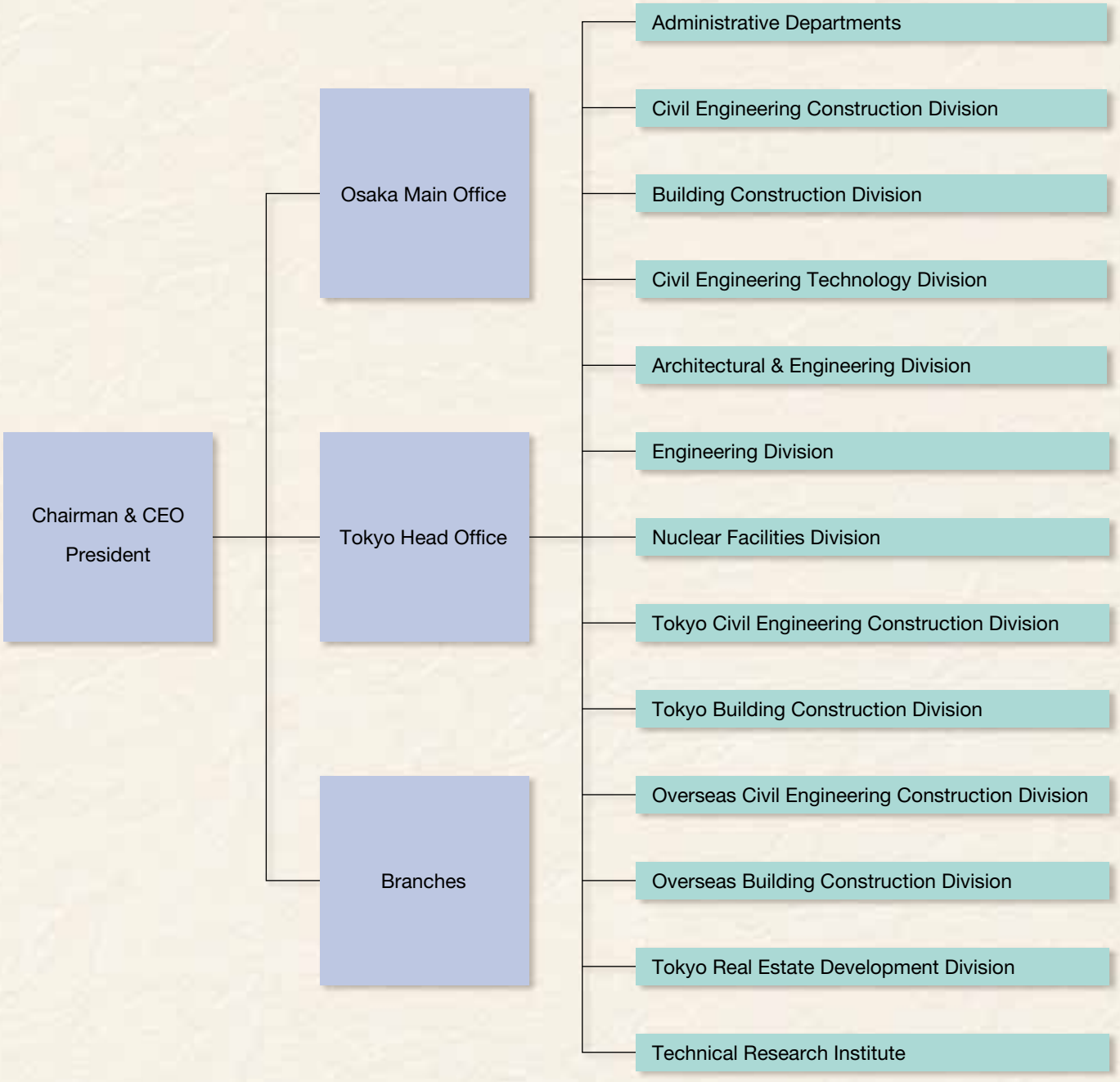
**MANAGING DIRECTORS**
Masatoshi Fujinawa
Keiji Koizumi
Yoshio Yamaguchi
Masaaki Yamamoto
Tetsuya Mizoguchi
Takekazu Mizumaki
Shiro Takagi
Sumikichi Ito
Toshikatsu Nishino
Akira Nakatani
Kunio Matsumoto
Shigeru Kumagai
Yoshitaka Hara

**DIRECTORS**
Shotaro Ito
Yutaro Omote
Haruo Tsukagoshi
Hirofumi Inagaki
Akinori Furusho
Shuhei Tabo
Shigeo Morii
Shigeyoshi Cho
Masashi Honjo
Yuji Nakamura
Yoichi Ito
Toru Shiraishi
Ryuichi Irahara
Shiro Tamura

**CORPORATE AUDITORS**
Tadashi Nishimura
Kotaro Hioki
Teruo Okouchi
Teizo Tsuda
Harumichi Hanashima

(January 2003)

## Organization Chart



# Network of Companies

## DOMESTIC OFFICES

**TOKYO HEAD OFFICE**
Shinagawa Intercity Tower B 15-2, 2-chome, Konan, Minato-ku,
Tokyo 108-8502, Japan
TEL: 81-3-5769-1111
FAX: 81-3-5769-1910
E-mail:webmaster@obayashi.co.jp

**OSAKA MAIN OFFICE**
33, 4-chome, Kitahamahigashi, Chuo-ku,
Osaka 540-8584, Japan
TEL: 81-6-6946-4400
FAX: 81-6-6946-4755

**BRANCHES**
Nagoya • Kyushu • Tohoku • Yokohama • Sapporo • Hiroshima • Shikoku • Kobe • Hokuriku

**TECHNICAL RESEARCH INSTITUTE**
640, 4-chome, Shimokiyoto, Kiyose-shi,
Tokyo 204-8558, Japan
TEL: 81-424-95-1111
FAX: 81-424-95-0901

## DOMESTIC SUBSIDIARIES AND AFFILIATES

**CONSTRUCTION**
OBAYASHI ROAD CORPORATION
NAIGAI TECHNOS CORPORATION
NAIGAI KENZAI CORPORATION
SCHOKBETON-JAPAN CO., LTD.

**REAL ESTATE**
OBAYASHI REAL ESTATE CORPORATION

**BUILDING MAINTENANCE**
TOYO BUILDING SERVICE CORPORATION
OAK BUILDING SERVICE CORPORATION

**GOLF CLUB & RESTAURANT**
MUTSUZAWA GREEN CO., LTD.
MIYAGI GREEN CO., LTD.
SANYO GREEN CO., LTD.
OAK ENTERPRISE CO., LTD.

**OTHERS**
SOMA ENVIRONMENT SERVICE CORPORATION
ATELIER G&B CORPORATION
OAK L.C.E. CORPORATION
OAK INFORMATIONS SYSTEM CORPORATION
OC FINANCE CORPORATION

## OVERSEAS OFFICES, SUBSIDIARIES, AND AFFILIATES

### THAILAND

**● THAILAND OFFICE**
16th Floor, Nantawan Building, Rajdamri, 161 Rajdamri Road,
Bangkok 10330, Thailand
TEL: 66-2-252-5200
FAX: 66-2-252-5381
E-mail: admin@thaiobayashi.co.th

**● THAI OBAYASHI CORPORATION LIMITED**
*Refer to Thailand Office.

### INDONESIA

**● INDONESIA OFFICE**
JL. Pancoran Timur II No.3, Pancoran, Jakarta 12780, Indonesia
TEL: 62-21-7982223, 7944142
FAX: 62-21-7973672, 7973673
E-mail: obayashi@rad.net.id

**● PT. JAYA OBAYASHI**
*Refer to Indonesia Office.

### SINGAPORE

**● SINGAPORE OFFICE**
8 Cross Street #07-01, PWC Building Singapore 048424
TEL: 65-6220-3122
FAX: 65-6224-8425
E-mail: t.sato@obayashi-sin.com.sg

**● OBAYASHI SINGAPORE PRIVATE LIMITED**
*Refer to Singapore Office.

### MALAYSIA

**● MALAYSIA OFFICE**
Suite 10.6, Level 10, Menara Great Eastern No.303, Jalan Ampan,
50450 Kuala Lumpur, Malaysia
TEL: 60-3-4252-6688
FAX: 60-3-4251-0139
E-mail: obayashikl@ppp.nasionet.net

### PHILIPPINES

**● PHILIPPINES OFFICE**
Unit 606, 6F, Globe Telecom Plaza, Pioneer Highlands Condominium,
Pioneer Corner Madison Sts., Mandaluyong City, Phillippines
TEL: 63-2-687-7108, 7136
FAX: 63-2-687-7110
E-mail: admin@obayashi-phils.com

**● OBAYASHI PHILIPPINES CORPORATION**
*Refer to Philippines Office.

### VIETNAM

**● VIETNAM OFFICE**
Saigon Tower-Suite 908, 29 Le Duan Boulevard, District 1, Ho Chi
Minh City, Vietnam
TEL: 84-8-8236200
FAX: 84-8-8236201, 8236202
E-mail: obayashi.hcm@fmail.vnn.vn

**HANOI OFFICE**
Room B226, Binh Minh Hotel, 27 Ly Thai To Street, Hoam Kiem District, Hanoi, Vietnam
TEL: 84-4-8258475, 8258476
FAX: 84-4-8258673
E-mail: oc.hanoi@hn.vnn.vn

## CHINA

**CHINA OFFICE**
Shanghai International Trade Center 1912, 2200 Yan An Road (W.), Shanghai, People's Republic of China
TEL: 86-21-6219-2999, 3123
FAX: 86-21-6219-2555
E-mail: obayashi@psh.com.cn

**BEIJING OFFICE**
Beijing Fazhan Building 1010, DongSanhuan Beilu 5, Chaoyang-Qu, Beijing, People's Republic of China
TEL: 86-10-6590-8546, 8547
FAX: 86-10-6590-8545
E-mail: euonix@public.bta.net.cn

**DALIAN OFFICE**
Suite 1802E, Senmao Building, No.147 Zhong-Shan Street, Xi-Gang District, Dalian, People's Republic of China
TEL: 86-411-3603087
FAX: 86-411-3603076
E-mail: dalian@pub.dl.lnpta.net.cn

## TAIWAN

**TAIWAN OFFICE**
11F-4, 57, Fu-Hsing N. Road, Taipei, Taiwan, Republic of China
TEL: 886-2-2781-4678
FAX: 886-2-2771-5368
E-mail: tobayash@ms24.hinet.net

**TAIWAN OBAYASHI CORPORATION**
*Refer to Taiwan Office.

## AUSTRALIA

**AUSTRALIA OFFICE**
Level 23, Westpac Plaza, 60 Margaret Street, Sydney, NSW 2000, Australia
TEL: 61-2-9247-7911
FAX: 61-2-9247-7966
E-mail: ocsydss@ozemail.com.au

## U.S.A.

**OBAYASHI U.S. HOLDINGS, INC.**
7th Floor, 592 Fifth Avenue, New York, NY 10036, U.S.A.
TEL: 1-212-930-1020
FAX: 1-212-704-9880
E-mail: ozawa@obayashiny.com

**E.W. HOWELL CO., INC.**
113 Crossways Park Drive
Woodbury, NY 11797, U.S.A.
TEL: 1-516-921-7100
FAX: 1-516-921-0119

**OBAYASHI USA, LLC**
420 East Third Street, Suite 600, Los Angeles, California 90013, U.S.A.
TEL: 1-213-687-0500
FAX: 1-213-687-3700
E-mail: mis@ocac.com

**OBAYASHI CONSTRUCTION, INC.**
*Refer to OBAYASHI USA, LLC for address.
TEL: 1-213-687-8700
FAX: 1-213-687-4317
E-mail: marketing@ocac.com

**OC REAL ESTATE MANAGEMENT, LLC**
*Refer to OBAYASHI USA, LLC for address.
TEL: 1-213-687-9700
FAX: 1-213-687-0335
E-mail: marketing@ocac.com

**SAN FRANCISCO OFFICE**
345 Allerton Avenue South, San Francisco, California 94080, U.S.A.
TEL: 1-650-952-4910
FAX: 1-650-589-8384

**JAMES E. ROBERTS-OBAYASHI CORPORATION**
20 Oak Court, Danville, California 94526, U.S.A.
TEL: 1-925-820-0600
FAX: 1-925-820-1993

**U.S. HAWAII OFFICE**
725 Kapiolani Blvd., 4th Floor, Honolulu, Hawaii 96813, U.S.A.
TEL: 1-808-593-0000
FAX: 1-808-593-0777
E-mail: onoyama@obayashihawaii.com

**OBAYASHI HAWAII CORPORATION**
*Refer to U.S. Hawaii Office.

## MEXICO

**OBAYASHI DE MEXICO S. A. DE C. V.**
*Refer to OBAYASHI USA, LLC.

## U.K.

**EUROPE OFFICE**
5th Floor, 61 Southwark Street, London, SE1 OHL, U.K.
TEL: 44-20-7902-9830
FAX: 44-20-7928-3638
E-mail: mitsuru.kawasaki@obayashi.co.uk

## THE NETHERLANDS

**OBAYASHI FINANCE INTERNATIONAL (THE NETHERLANDS) B.V.**
*Refer to Europe Office.

## FRANCE

**PARIS OFFICE**
Roissypole Le Dome, 1 Rue De La Haye, BP10932 Tremblay En France, 95732 Roissy CDG Cedex, France
TEL: 33-1-48168868
FAX: 33-1-48168872
E-mail: oc.nori@club.ntt.fr

● Offices ● Subsidiaries and Affiliates

Tokyo Head Office Building (Shinagawa Intercity)


OBAYASHI CORPORATION

[ TOKYO HEAD OFFICE ]
Shinagawa Intercity Tower B 15-2, 2-chome, Konan
Minato-ku, Tokyo 108-8502, Japan
TEL 81-3-5769-1111

[ OSAKA MAIN OFFICE ]
4-33, Kitahamahigashi, Chuo-ku, Osaka
540-8584, Japan
TEL 81-6-6946-4400

http://www.obayashi.co.jp



2002. BC