

# 150 Years of Urban Development In Yokohama, JAPAN

Chu Hai Field Survey in Yokohama

11-12 February 2016

Prof. Kazuo IWAMURA

*Tokyo City University*

*Chu Hai College of Higher Education*

*IWAMURA Atelier Inc.*

*iwamura@iwamura-at.com*

## 0

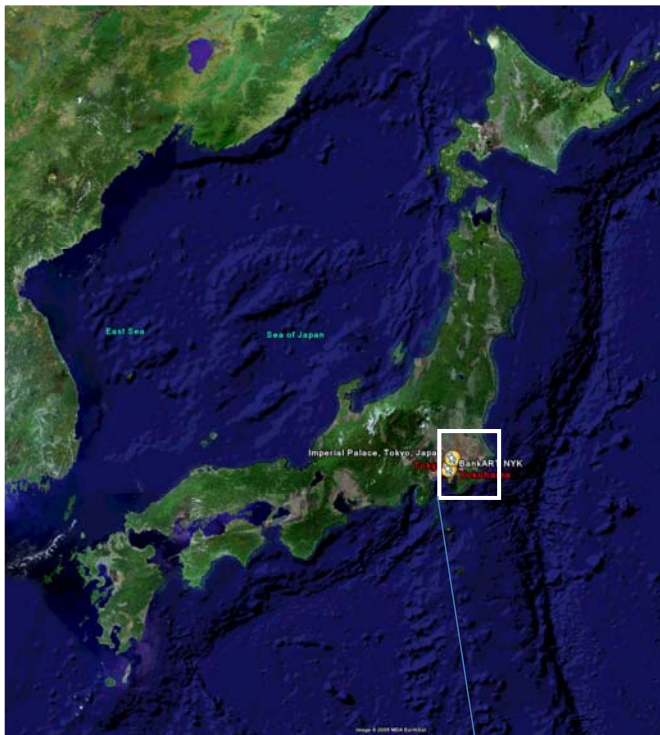
## Table of Contents

1. Outline of YOKOHAMA
2. Urban development history
3. The 6 Great Enterprises
4. Municipal Urban Design Office
5. Legal framework
6. Townscape Design Guidelines

# 1

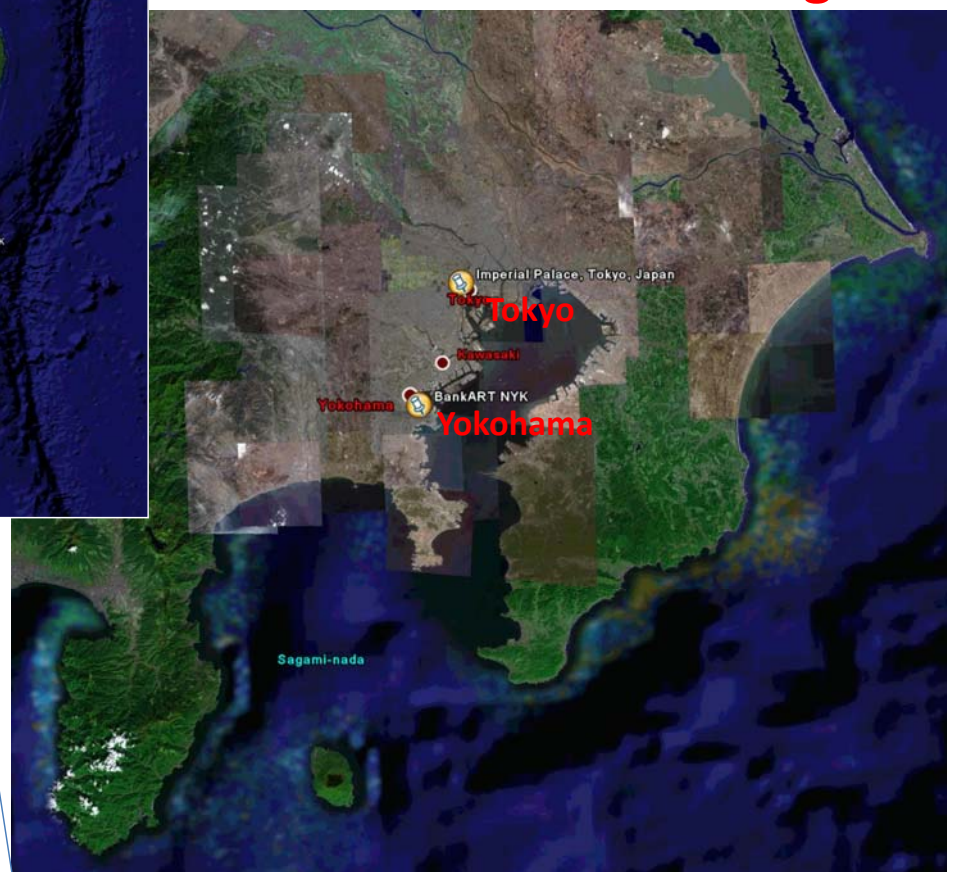
## Outline of YOKOHAMA

### Some facts

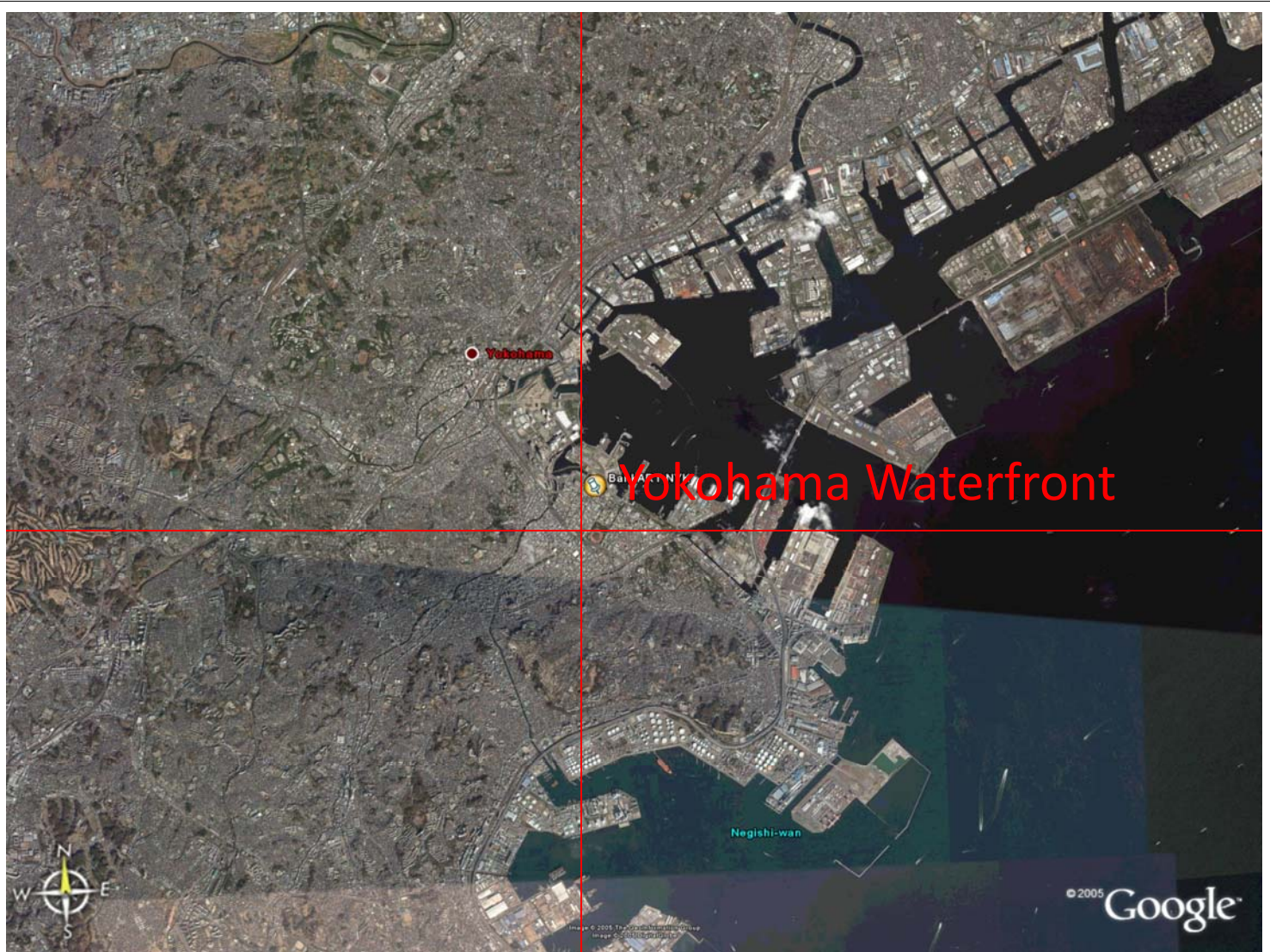


Japan

### Kanto Region

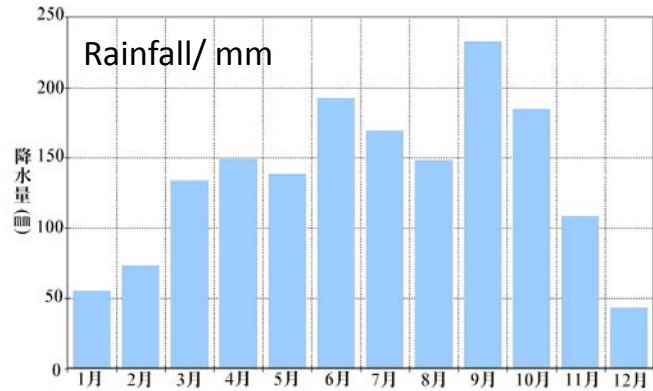
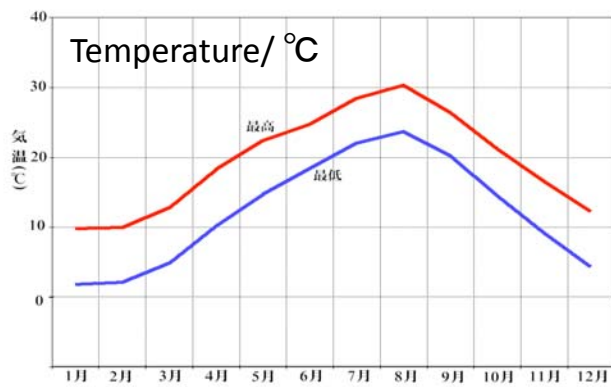








# Weather in Yokohama (1981-2010)

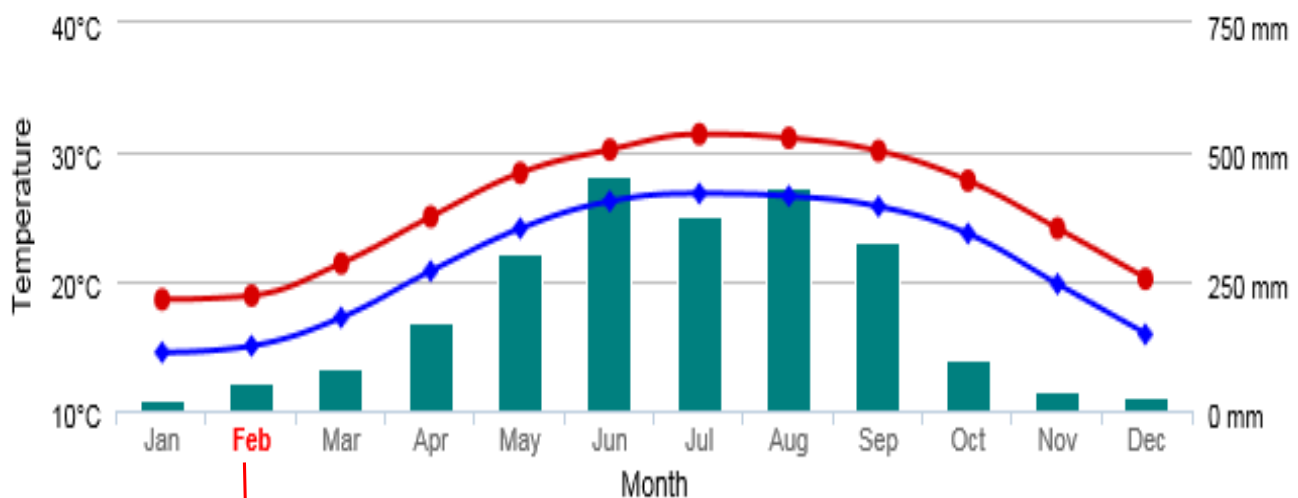


月	1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	年
最高気温記録 °C (°F)	19.7 (67.5)	24.8 (76.6)	24.0 (75.2)	28.4 (83.1)	31.1 (88)	35.5 (95.9)	36.9 (98.4)	36.3 (97.3)	35.9 (96.6)	30.8 (87.4)	26.2 (79.2)	23.5 (74.3)	36.9 (98.4)
平均最高気温 °C (°F)	9.9 (49.8)	10.3 (50.5)	13.2 (55.8)	18.5 (65.3)	22.4 (72.3)	24.9 (76.8)	28.7 (83.7)	30.6 (87.1)	26.7 (80.1)	21.5 (70.7)	16.7 (62.1)	12.4 (54.3)	19.7 (67.5)
日平均気温 °C (°F)	5.9 (42.6)	6.2 (43.2)	9.1 (48.4)	14.2 (57.6)	18.3 (64.9)	21.3 (70.3)	25.0 (77)	26.7 (80.1)	23.3 (73.9)	18.0 (64.4)	13.0 (55.4)	8.5 (47.3)	15.8 (60.4)
平均最低気温 °C (°F)	2.3 (36.1)	2.6 (36.7)	5.3 (41.5)	10.4 (50.7)	15.0 (59)	18.6 (65.5)	22.4 (72.3)	24.0 (75.2)	20.6 (69.1)	15.0 (59)	9.6 (49.3)	4.9 (40.8)	12.5 (54.5)
最低気温記録 °C (°F)	-3.3 (26.1)	-4.8 (23.4)	-1.7 (28.9)	0.6 (33.1)	13.4 (56.1)	16.4 (61.5)	14.6 (58.3)	22.1 (71.8)	12.2 (54)	6.1 (43)	1.4 (34.5)	-1.7 (28.9)	-4.8 (23.4)
降水量 mm (inch)	58.9 (2.319)	67.5 (2.657)	140.7 (5.539)	144.1 (5.673)	152.2 (5.992)	190.4 (7.496)	168.9 (6.65)	165.0 (6.496)	233.8 (9.205)	205.5 (8.091)	107.0 (4.213)	54.8 (2.157)	1,688.6 (66.48)
降雪量 cm (inch)	5 (2)	6 (2.4)	1 (0.4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	13 (5.1)
平均降水日数 (≥ 0.5 mm)	6.0	6.7	11.8	11.1	11.5	13.6	11.7	8.7	12.7	11.5	8.3	5.5	119.1
平均降雪日数 (≥ 0 cm)	1.6	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.9
% 湿度	53	54	60	65	70	78	78	76	76	71	64	56	67
平均月間日照時間	186.4	164.0	159.5	175.2	177.1	131.7	162.9	206.3	130.7	141.0	149.3	180.4	1,964.4

(Source: The Meteorological Agency)

# Weather in Hong Kong (1981-2010)

## Monthly Normals (1981-2010)



Mean Daily Max Temp: 18.9

Mean Daily Min Temp: 15.0

Monthly Mean Rainfall: 54.4

(Source: Hong Kong Observatory)

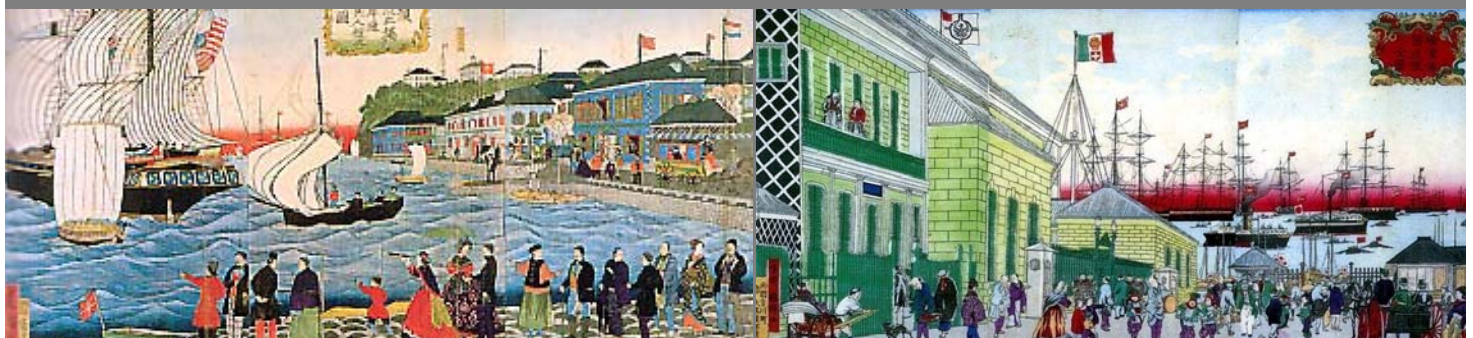
# 2

## Urban development history

### Yokohama's Urban Issues and Its Townscape Development since the mid-19<sup>th</sup> century



Open the future by opening the past





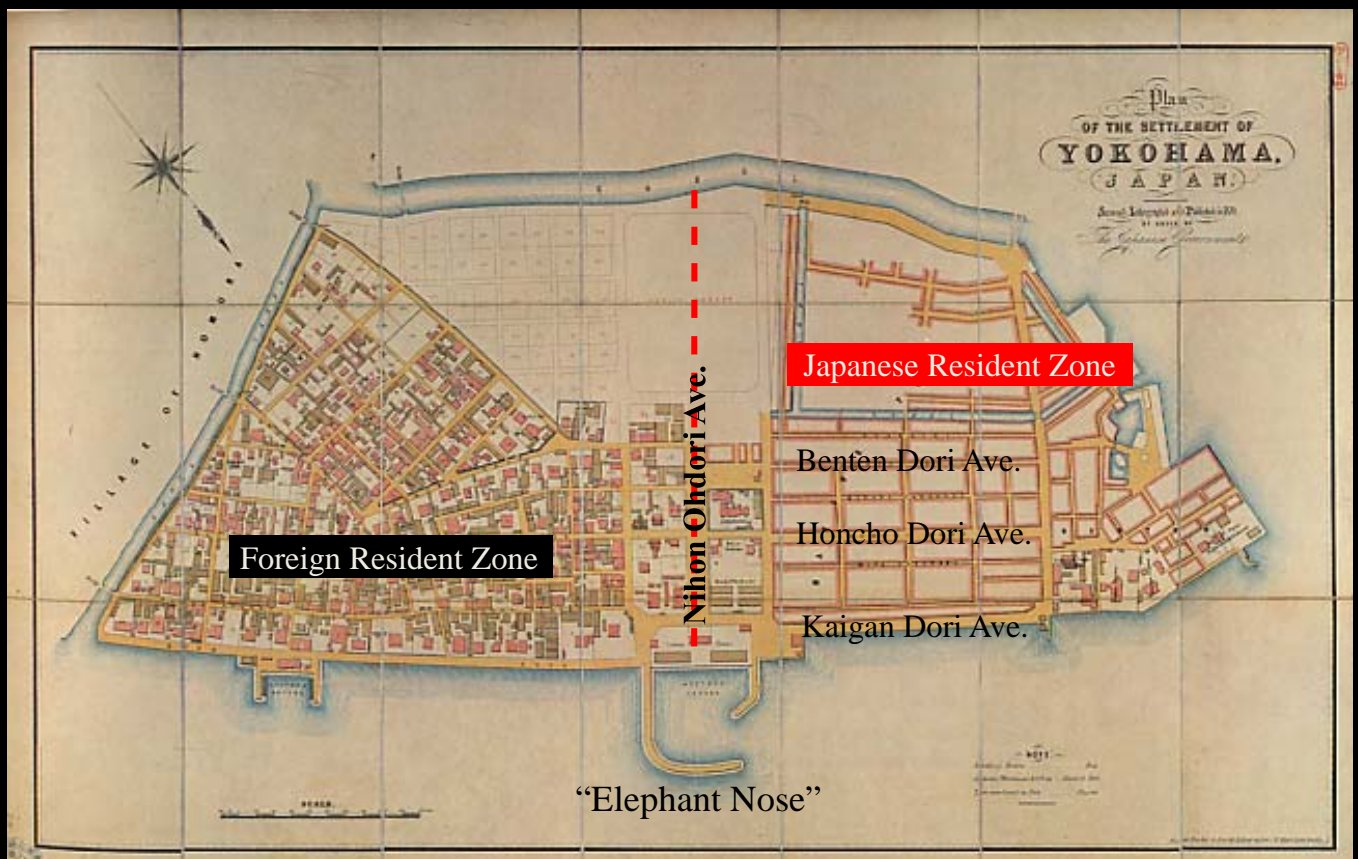
# Opening of the port

In 1854, the Japan-US Treaty of Peace and Amity (Treaty of Kanagawa) was signed by representatives, Mr. D. Hayashi and Mr. C. Perry from Japan and the USA respectively.

In 1858, Japan-US Treaty of Amity and Commerce was signed by Consul-General Harris, followed by treaties with Holland, Russia, Great Britain, and France. The opening of the port was planned for July 1st, 1859, 150 years ago.

The feudal government established a foreign resident zone in this year as well as a Japanese resident zone. The Japanese zone was divided into five districts called Yokohama-cho which was controlled by the Shogunate Government.

## Basic urban structure, provided after the great fire





Kaigan Dori Ave.



Nihon Ohdori Ave.



Honcho Dori Ave.



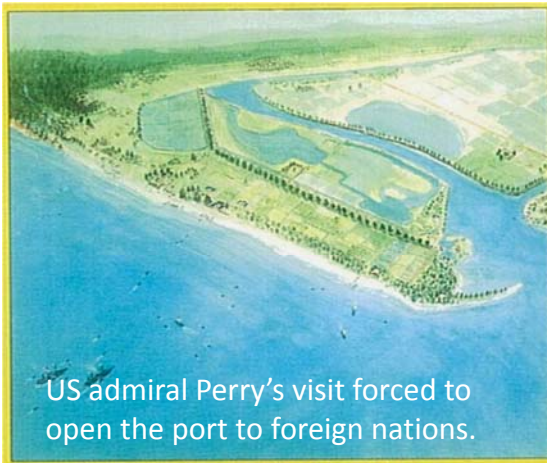
Foreign Resident Zone

## Chronological Table of Yokohama's Development

1859	Opening of Yokohama Port
1862	Namamugi Incident
1868	The Meiji Restoration
1872	Japan's first railroad began operation. (Yokohama~Shimbashi)
1887	Japan's first modern waterworks service began operation.
1889	Yokohama was municipalized, population 120,000.
1894	The construction of Yokohama Chikuko Pier (currently the Grand Pier) was completed.



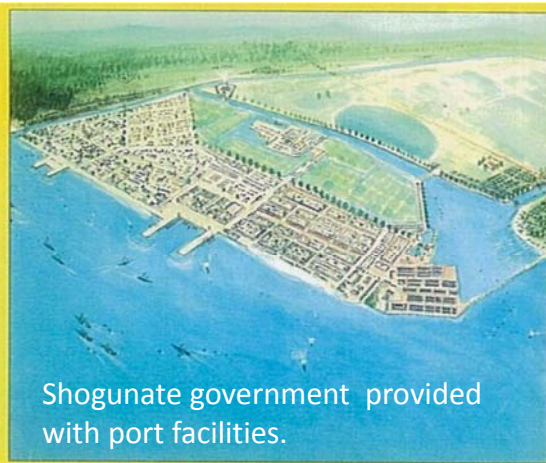
1854



US admiral Perry's visit forced to open the port to foreign nations.

1854年 横浜村にペリー提督が来航し開港へと向かう

1865



Shogunate government provided with port facilities.

1865年 開港場の整備が幕府によって行われる

1892



Basic urban structure was formed by city planning after a fire disaster.

1892年 大火後の都市計画によって基本的な骨格が形成される

1922



Piers and dockyards were built according to the plan of late Meiji era.

1922年 明治後半からの築港計画によって埠頭や造船所が整備される

1923	<b>The Great Kanto Earthquake (20,000p dead, 60,000houses destroyed)</b>
1928	Municipal Bus began operation.
1930	Yamashita Park opened, using rubble of the earthquake.
1942	<b>Yokohama's population surpassed 1 million.</b>
1945	<b>42 % of Yokohama was destroyed by bombing.</b> Land and buildings in downtown and port area were taken over.
1956	Yokohama became an ordinance-designated city.
1961	The construction of Marine Tower was completed. The Ship Hikawa-Maru was moored at Yamashita Park.
1964	<b>Shinkansen(Tokyo-Osaka) began operation along with Shin-Yokohama Station right before the Tokyo Olympic Game.</b>
1968	<b>Yokohama's population surpassed 2 million.</b>



## Twice total disasters:

- 1) Earthquake in 1923
- 2) Air-Raid in 1945

■ Right after the air-raid in 1945,  
destroying 42% of built-up area



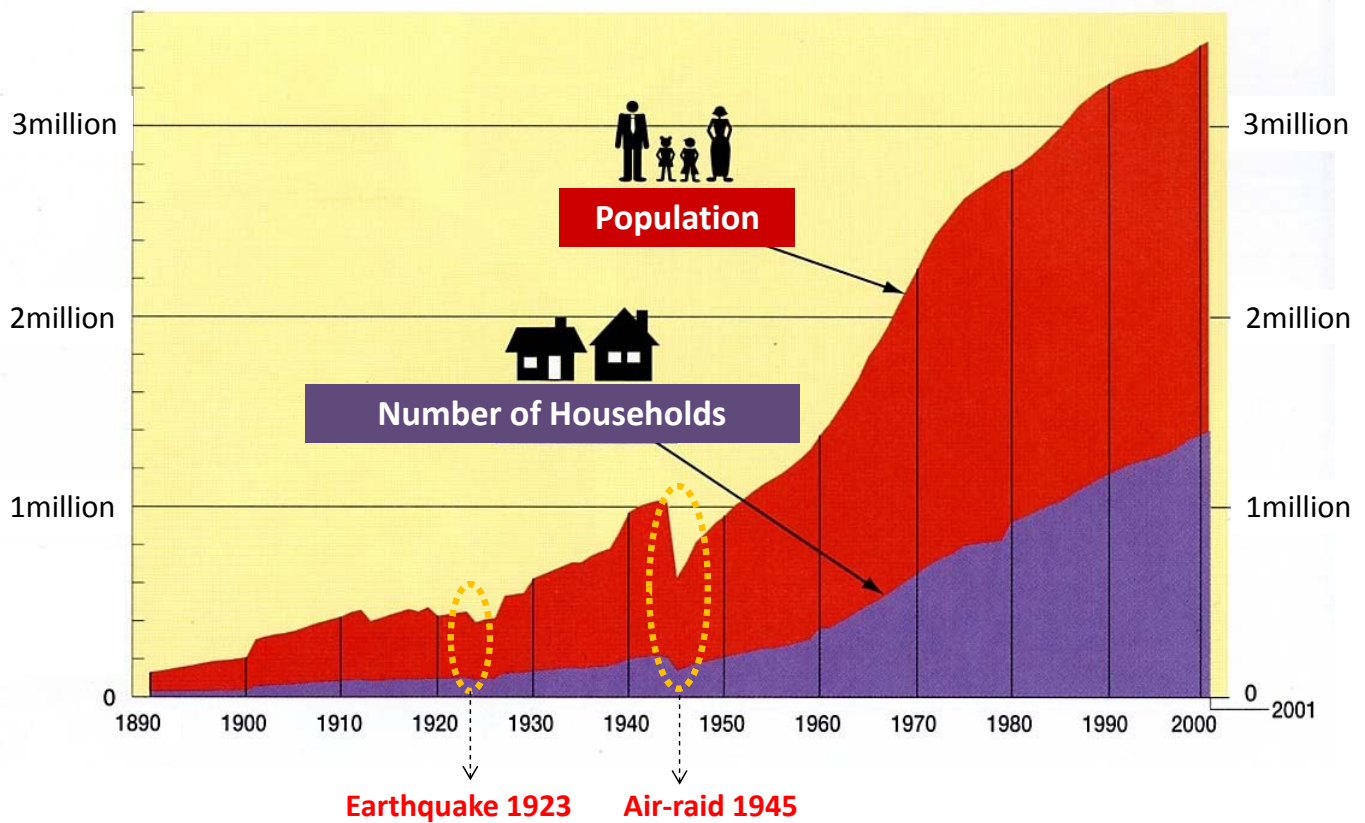
■ Right after the Great Kanto Earthquake in 1923,  
taking 20,000 lives.



1972	Municipal Subway Line began operation.
1985	Yokohama's population surpassed 3 million.
1989	The 130th anniversary of the opening of Yokohama Port. Kanazawa Seaside Line/Bay Bridge opened.
1999	Yokohama World Porters/Kisha-michi Promenade opened.
2001	Yokohama Triennale 2001 was held.
2002	FIFA World Cup was held in Japan/Korea. The Grand Pier was reopened after remodeling
2009	The 150th anniversary of the opening of Yokohama Port.

# Growth of Population and Households

3.7million persons / 1.6million households as of Sep. 2015



Rapid post-war  
recovery from  
the disaster



Urban & suburban  
sprawls



■ A typical suburban  
sprawl



# 3

## The 6 Great Enterprises

### for Building Future Yokohama

The 6 Great Enterprises for Building Future Yokohama,  
launched in 1965

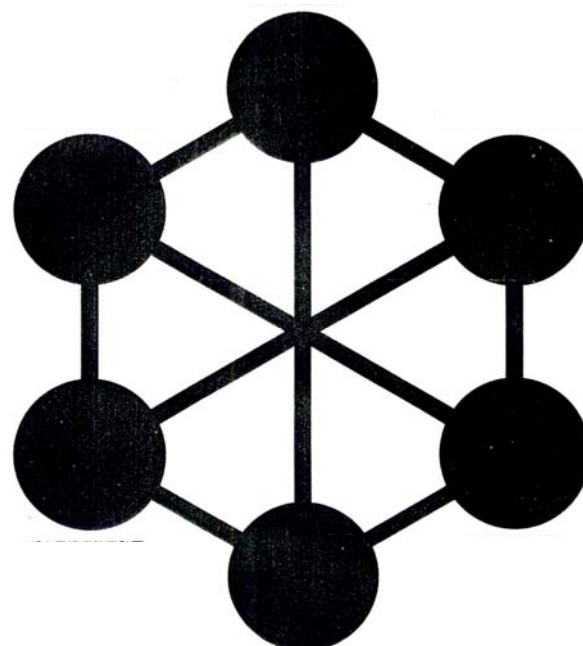
**1. Redevelopment of the city center**

**6. Yokohama Bay Bridge**  
for a better and  
symbolic traffic

**2. Kanazawa Waterfront  
Reclamation**  
for more urban capacity

**5. New Expressways**  
for better traffic services

**3. Kohoku New town**  
for better suburban  
development  
against sprawl



**4. New Railway System**  
for better public  
transport services

# 1. Redevelopment of the city center



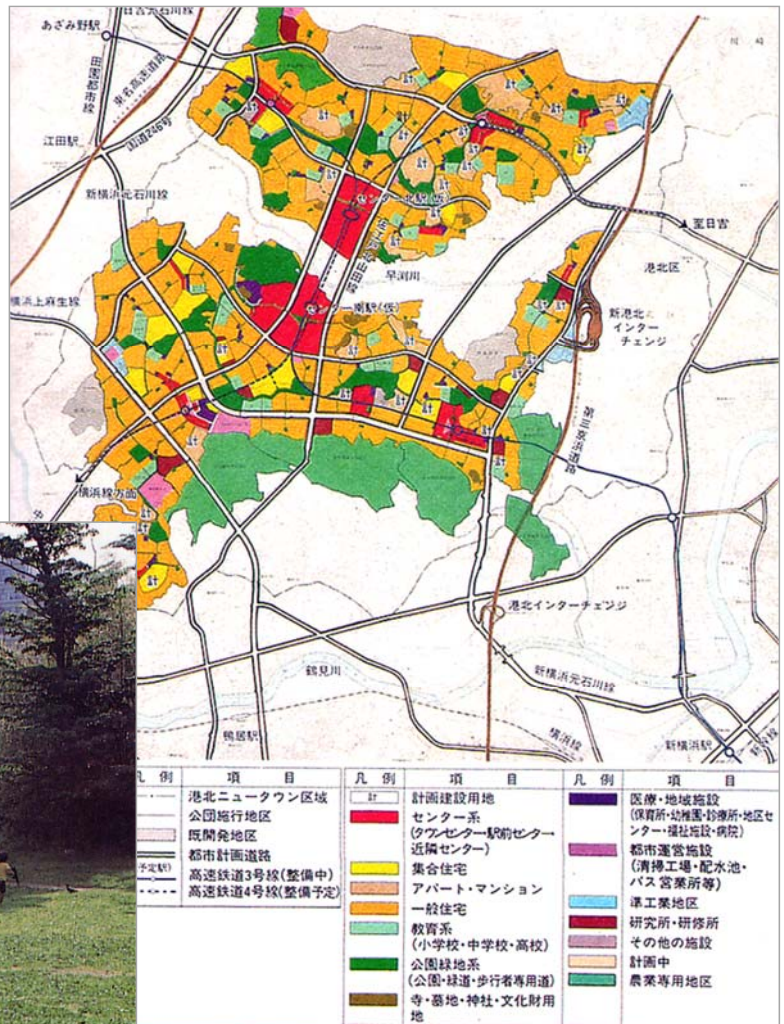
## 2. Kanazawa Waterfront Reclamation





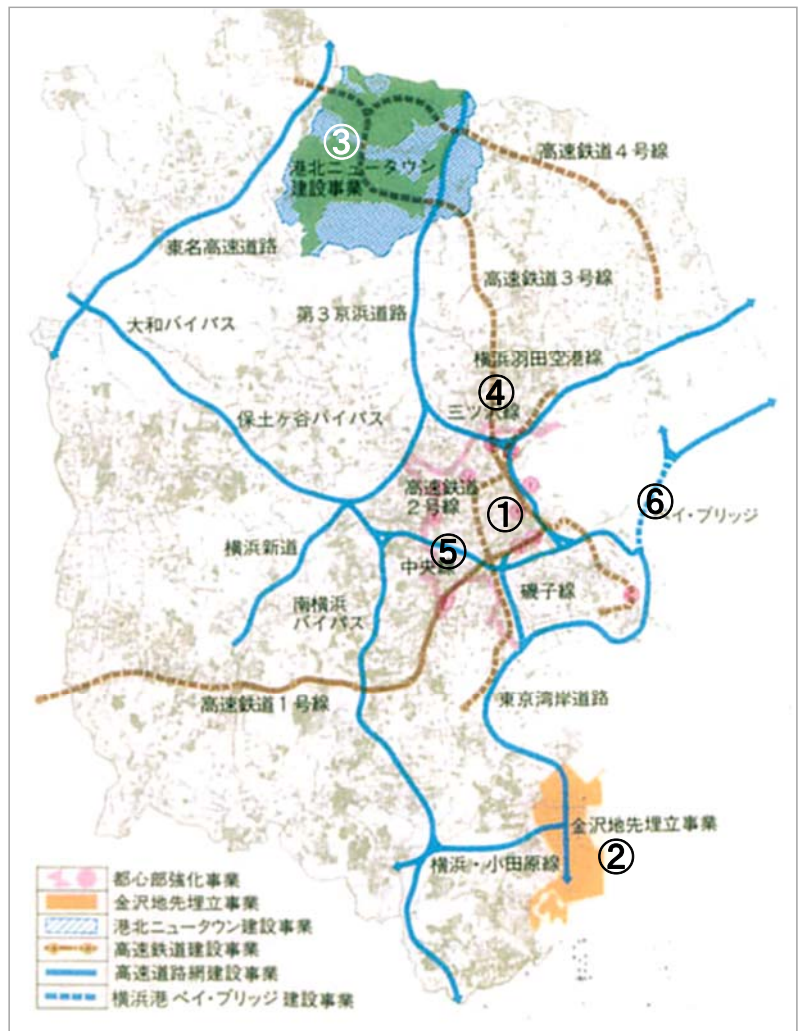
### 3. Kohoku New Town since 1965

Designated area: ca. 1,340ha  
Planned population: 220,000p



### 4. Provision of New Railway System

### 5. Provision of New Metropolitan Expressways





## 6. Yokohama Bay Bridge

Double deck express way

Length: 860m



4

Municipal Urban Design Office

Roles and contributions  
@City of Yokohama



## Creation of the Urban Design Office in 1971 for:

- Coordination among the related departments and sections within the municipal administration
- Coordination between public and private initiatives of urban development
- Provision of design workshops open to public
- Organization of participatory design process according to the area specific situation
- Integration of the old resources into the new urban design
- Incubation of leading experts in urban design

## Urban Design initiatives include:

- Coordination among the related diverse stakeholders for creating an area specific and attractive urban space, which drives development of urban attraction as a whole
- Objects of those initiatives include both public and private assets that form the urban space

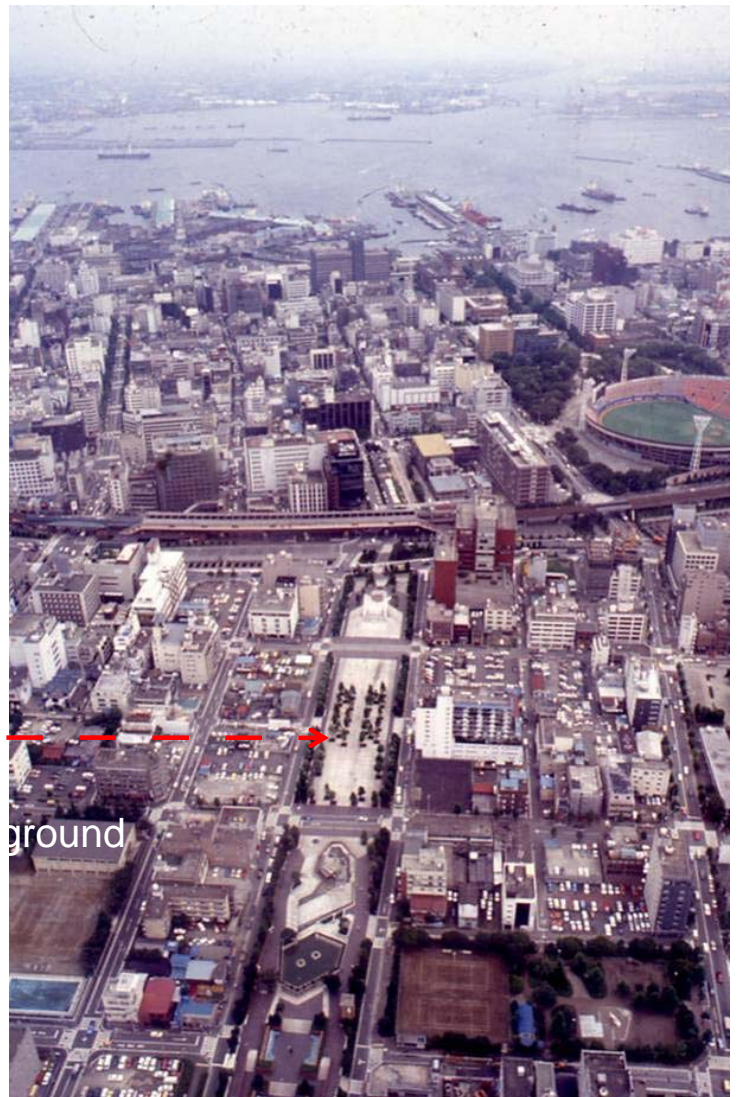
## 7 Objectives of Urban Design

- 1) Provision of more places for rapport and communications of people
- 2) Provision of safe, comfortable and attractive spaces for pedestrian
- 3) Respect of natural features such as geography and vegetation of the region
- 4) Respect of sea and river waterfront spaces
- 5) Respect of historical and cultural resources of the region
- 6) Enrichment of open spaces and greenery
- 7) Search for figurative and visual beauty

Creation of urban axis and spaces for pedestrian

**Ohdori Park Ave.** (built 1971 ~ 1978)

by constructing the expressway underground instead of initial fly-over planning





# Improvement of the City Hall Plaza for pedestrian, 1974

Through greenery &  
building color scheme



**Before**



**After**

## Restriction of advertisement behind public space



**Yamashita Park**, visited by 4million people a year



# Promenade Map for Pedestrians

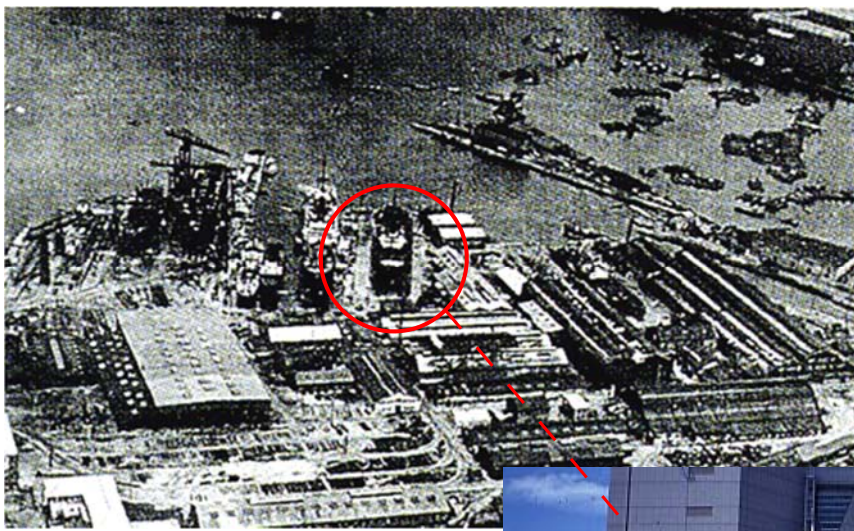


Restoration of the former Dockyard No.1, 1985)

Nihon-maru  
Memorial Park  
and surrounding  
waterfront







## Dockyard Garden

Restoration of the former Dockyard No.2, 1993)



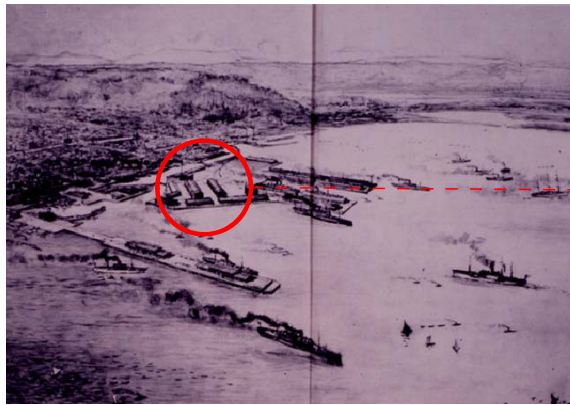
## Kisha-michi, 1997

Pedestrian walkway, transformed from the former port freight railway





## Red Brick Warehouses



Before (built in 1922)



After restoration and conversion (2002)

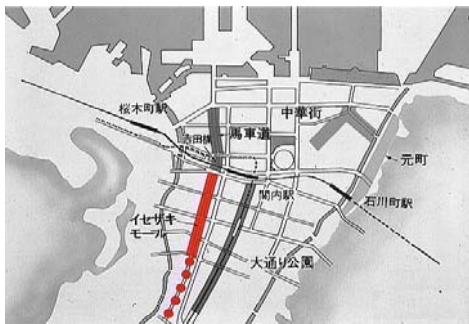


## Osanbashi (Grand Pier) Yokohama International Passenger Terminal, 2002



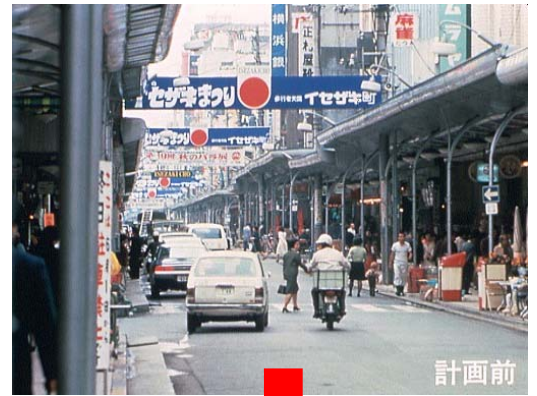
Architects: foa  
Farshid Moussavi,  
Alejandro Zaera Polo





## Beautification of shopping malls

Isezaki Mall, 1978~



計画前



## Respect of Exotic Culture

### Yokohama China Town

Area: ca. 25ha (500m x 500m)

No. of shops: ca. 620

No. of Chinese restaurants: 226  
(as of June 2010)



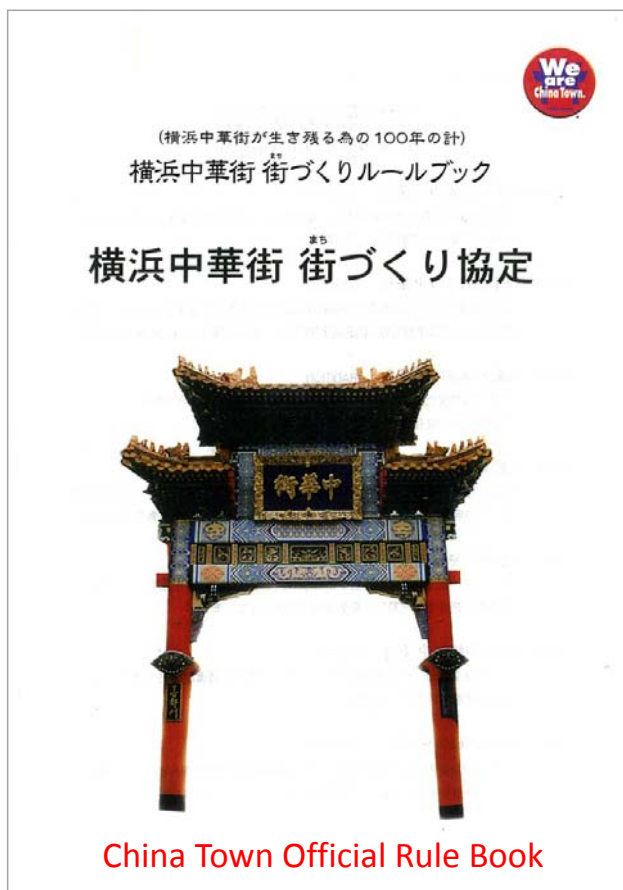


## Town Association's Initiative to protect its proper townscape and culture

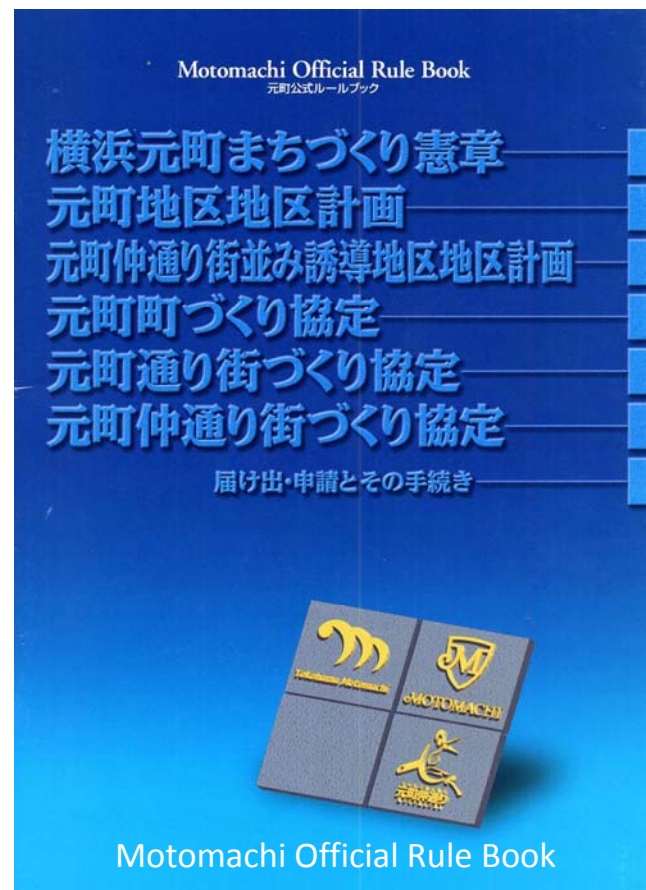
The land designated for a condominium was purchased by the China Town Association to build a Mausoleum in 2006.



## A series of Town Specific Official Rule Books



China Town Official Rule Book

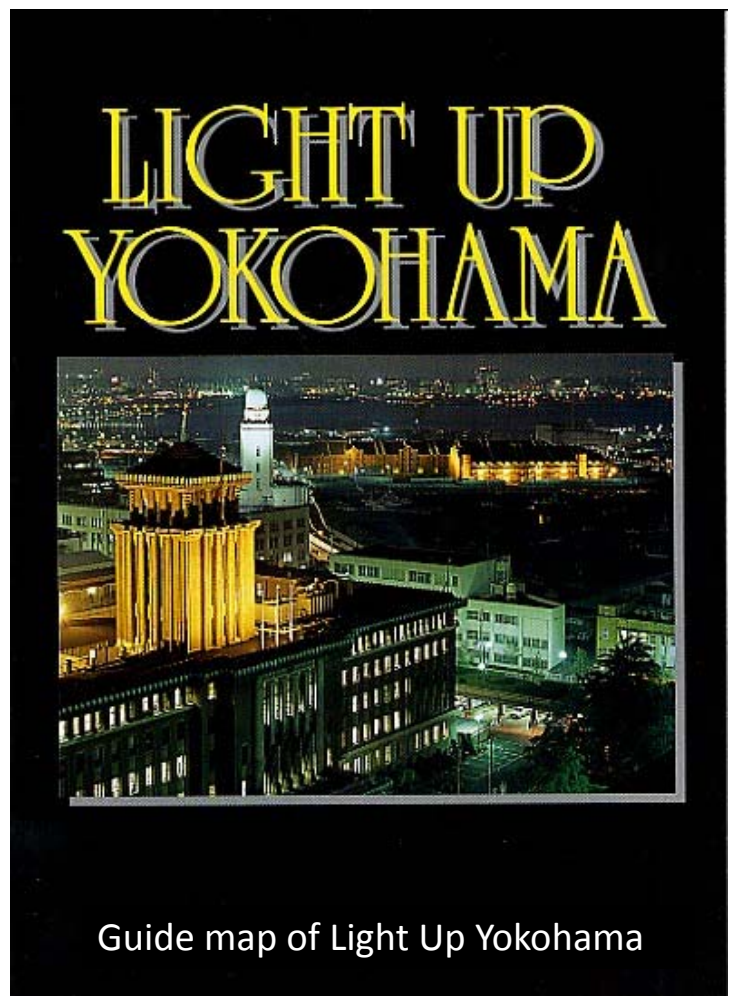


Motomachi Official Rule Book



# Townscaping at night since 1986

By the Association for Yokohama  
Night View Direction Projects



Waterfront at night



Yokohama Island Tower at night



Jack Tower

Yokohama Bay Bridge



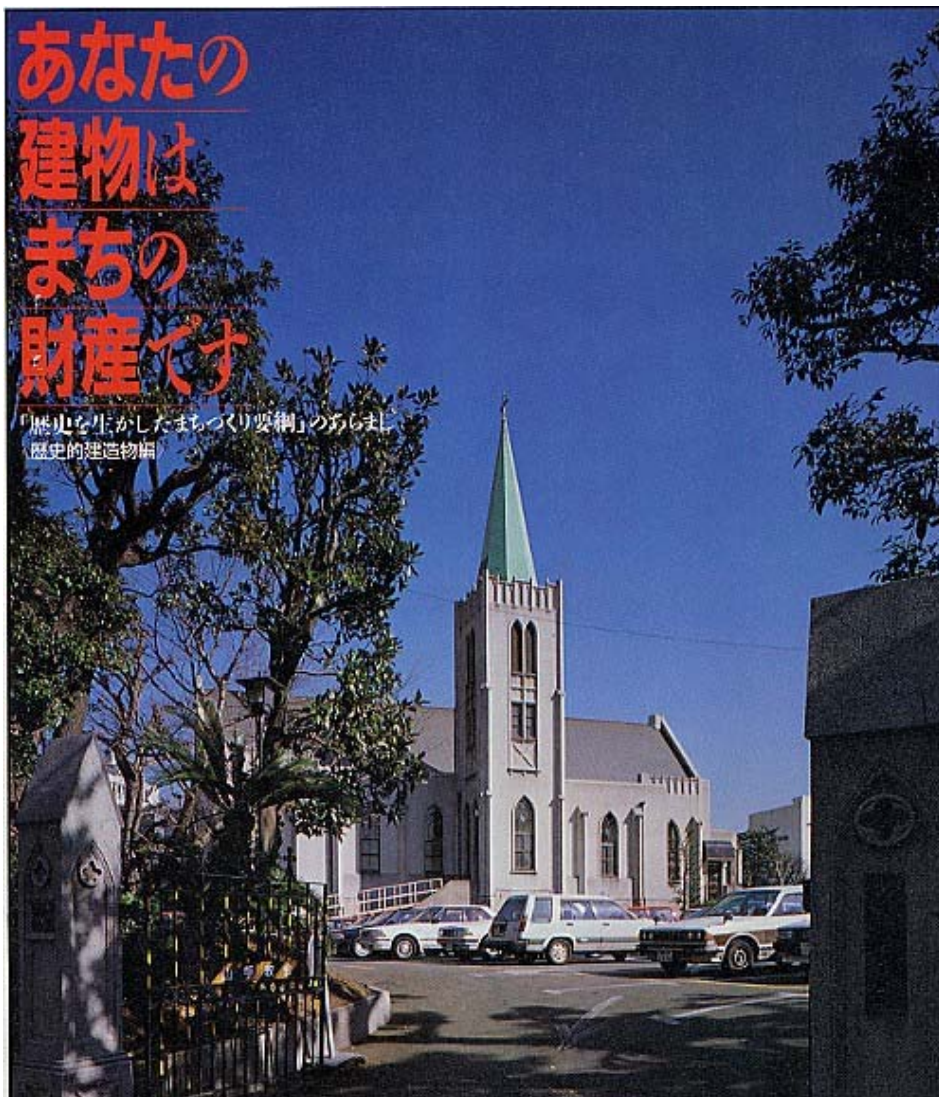


Preservation of  
historical buildings  
as urban property

あなたの  
建物は  
まちの  
財産です

「歴史を生かしたまちづくり要綱」のあらまし  
歴史的建造物編

Town development,  
making the most of  
historical resources

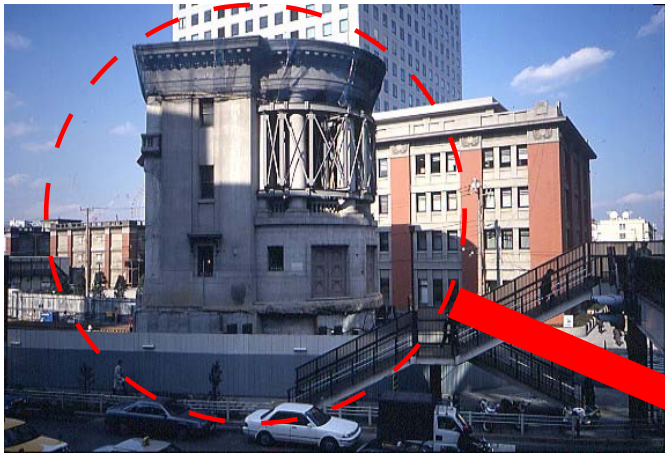




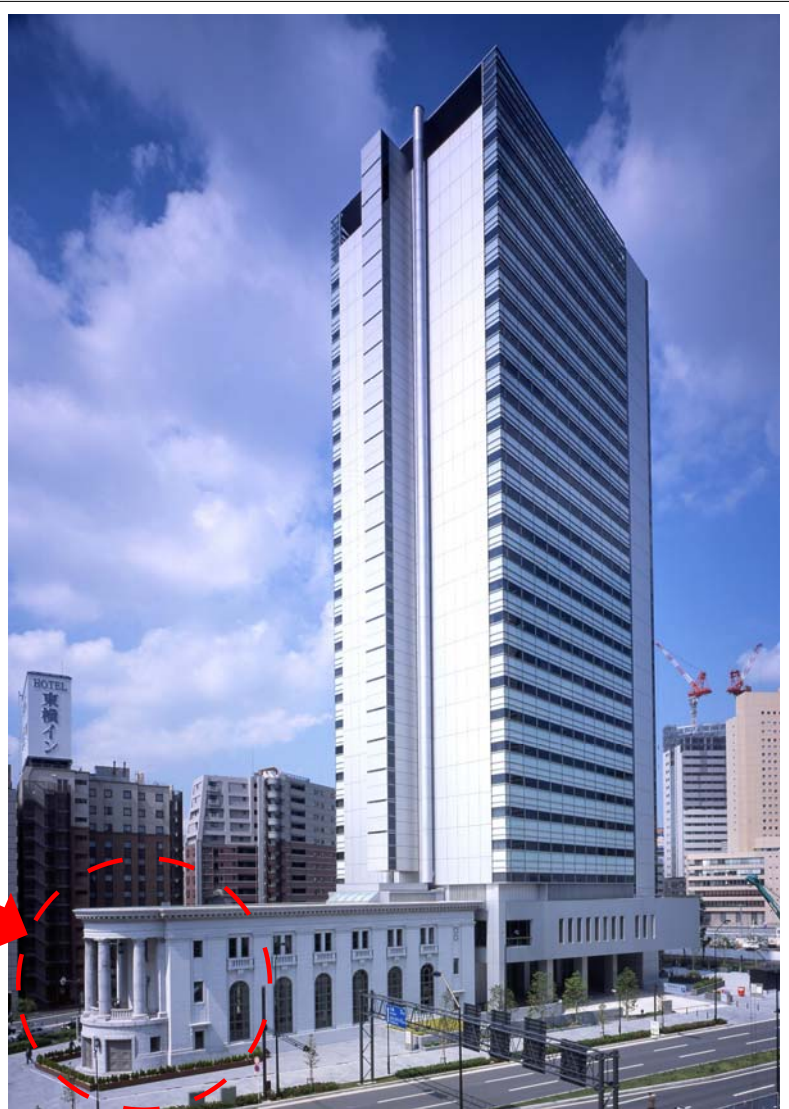
# Integration of the Old into the New

Yokohama Island Tower, 1987

Architect: Fumihiko MAKI



Part of the former bank, being moved for preservation

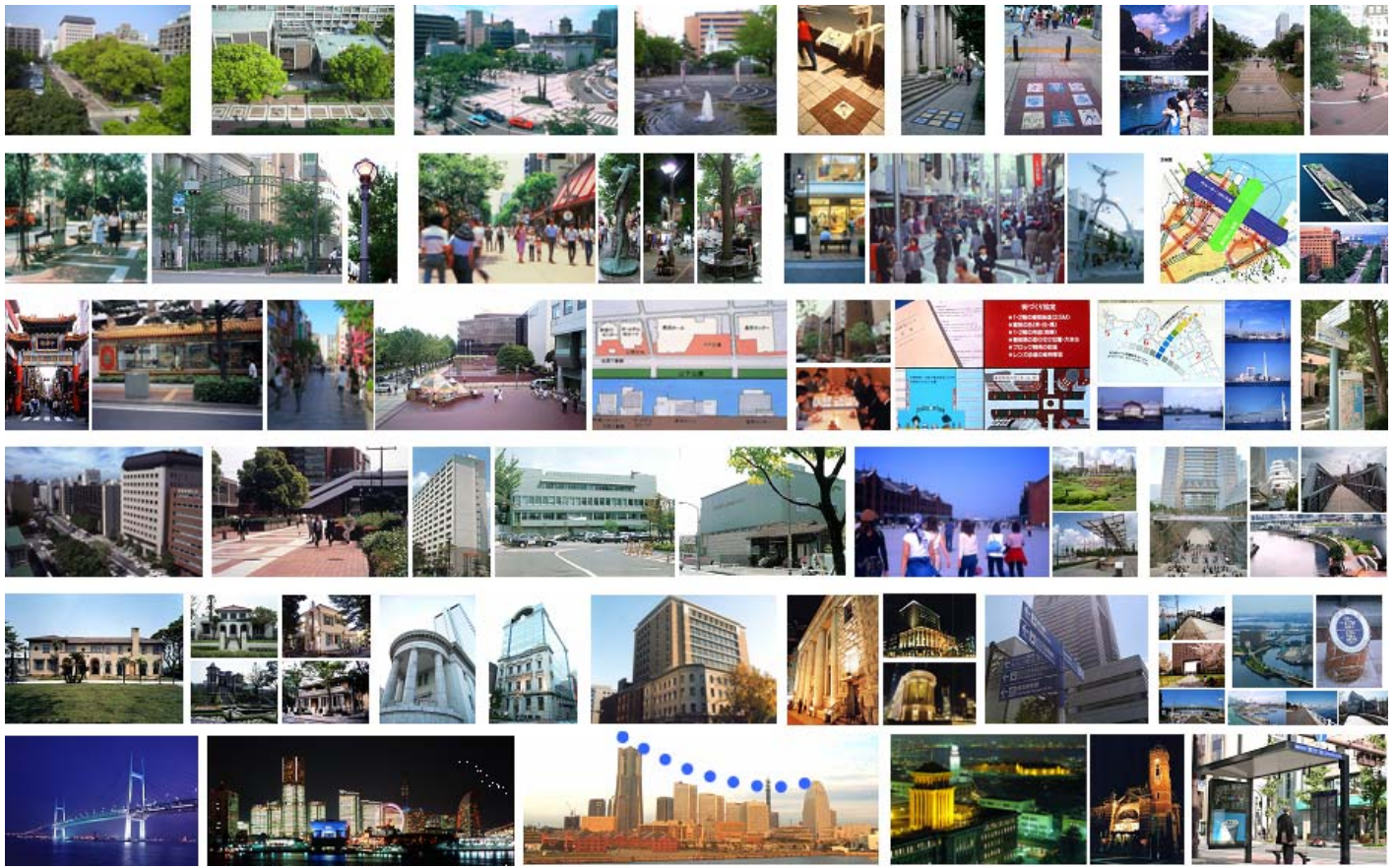


Preserved  
historical  
buildings  
among  
others





Those diverse urban design initiatives made the Yokohama downtown extremely attractive and the most beloved city center by not only residents but also visitors.



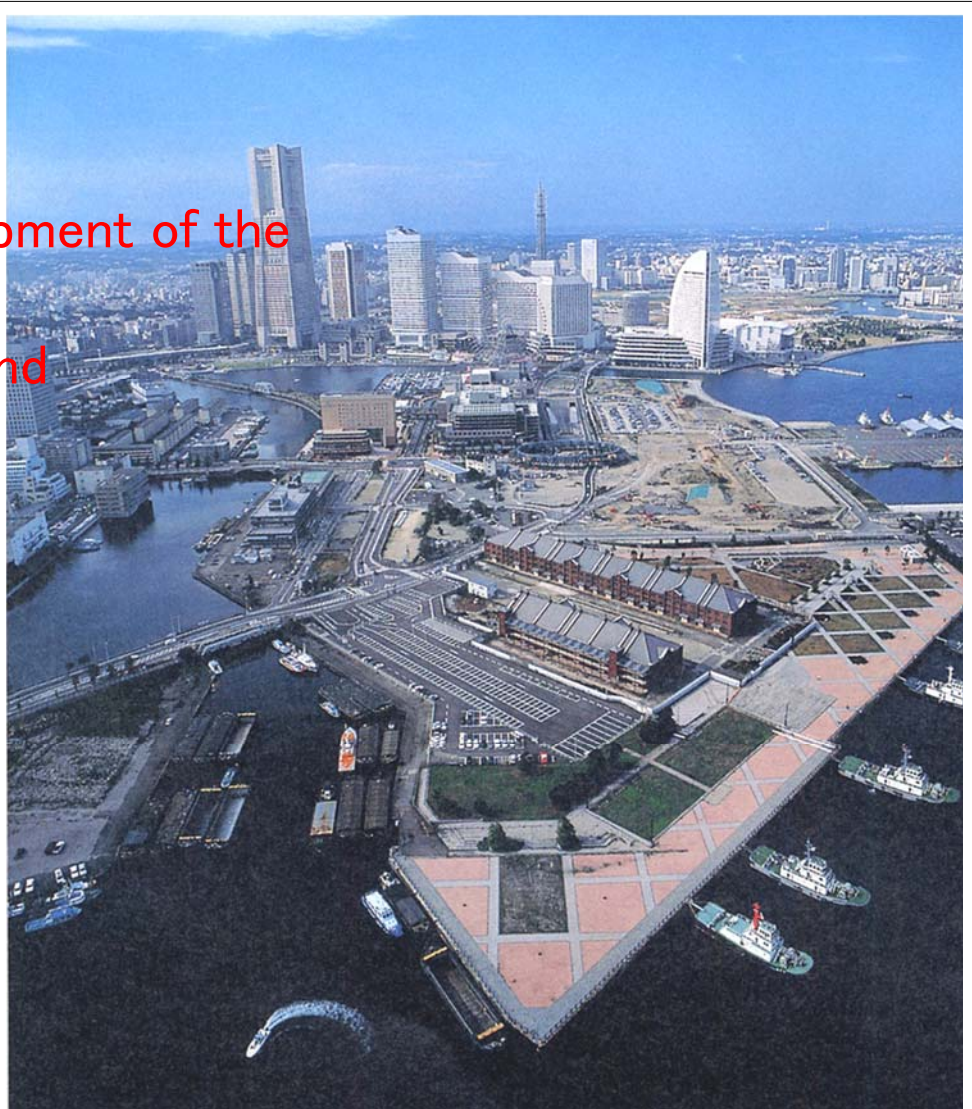
And then, towards the townscape design



Yokohama downtown water-front



Towards  
design and development of the  
townscape  
that people love and  
are proud of.



# 5

## Legal Framework

for Land- and Townscape  
Planning & Practices



# National Landscape Act

was enforced in 2004 to support local governments' initiatives for their comprehensive landscape planning and execution.

This act requires local government to provide with landscape planning that can control townscape through agreement and designation of important buildings, urban facilities and trees.

City of Yokohama has accordingly provided with Municipal Bylaw of Landscape to further enhance the quality of urban design as well as to activate the related initiatives with the citizens' participatory process.

## Designated areas and objects for the landscape planning



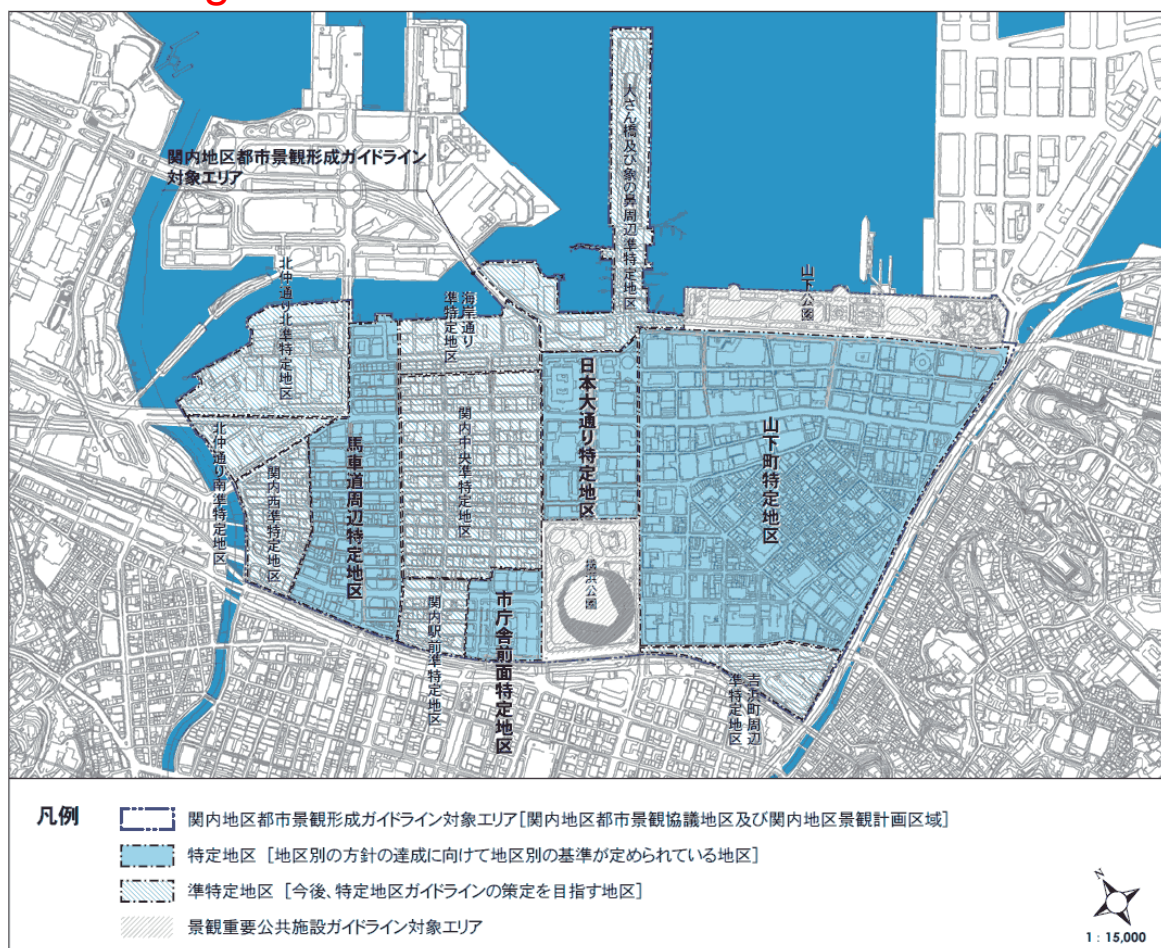


# 6

## Townscape Design Guidelines

### for the Kannai District

#### The Designated Areas of the Guidelines









■行為指針に関する事項

(1) ゆとみある歩行者空間の創出

① 緑地保護が規定されている敷地では、緑とゆとみある歩行者空間を創出するため、歩道状空地を創出する。

●歩道状空地とは、道路の機能に限定するもの（道路法）ではなく、広さ、形状、用途に関する敷地の利用に関する規定（国土利用計画法）に基づき、歩道状空地を創出することである。

② 交差点に接する敷地においては、ゆとみある歩行者空間を創出する。

(2) 歩行者空間のしつらえの工夫

① 歩道状空地の植樹帯等では連続性を確保する。

●緑や植木、花壇、目隠し、ベンチ、照明などの設備と一体的に設計し、歩行者空間の連続性を確保する。

② 歩道状空地を歩道等と一体的に利用できるようにしつらえにする。

●歩道状空地は、歩道や自転車道などの設備と一体的にしつらえにする。

③ 歩道状空地を歩道と一体的にデザインする。

●歩道のデザインに合わせ、歩道と歩道状空地を一体的にデザインする。歩道状空地は、歩道と一体的にデザインすることにより、歩行者空間の連続性を確保する。

●歩道状空地と歩道状空地を接する場合は、歩道状空地のデザインと歩道のデザインを一体的にしつらえにする。

この行為指針と関連する方針を示しています。

行為指針を達成するために、関内地区の魅力が向上するような工夫が求められ、敷地条件や建築計画に応じて、協議を行う事項です。

行為指針を達成するため、建築行為等を行う際に適合することが求められる景観計画の規定を紹介しています。この事項は、関内地区景観計画と密接に関連しておりますので、景観計画の内容をご理解いただき、目標を達成して下さい。ただし、魅力ある都市景観形成に貢献する建築行為等と認められる場合は、その事項の適用が緩和されることがあります。

## 150 Years of Urban Development In Yokohama, JAPAN

Chu Hai Field Survey in Yokohama  
11-12 February 2016

Prof. Kazuo Iwamura

Tokyo City University  
IWAMURA Atelier Inc.  
iwamura@iwamura-at.com

