

Road Landscape in Okinawa

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November 5, 2025

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【Changes in Okinawa's Landscape】

○ Housing situation from 1890 to 1920

In 1889, tile roofing became possible regardless of social status, and the red-tile roof landscape that is the original landscape of Okinawa today was formed.

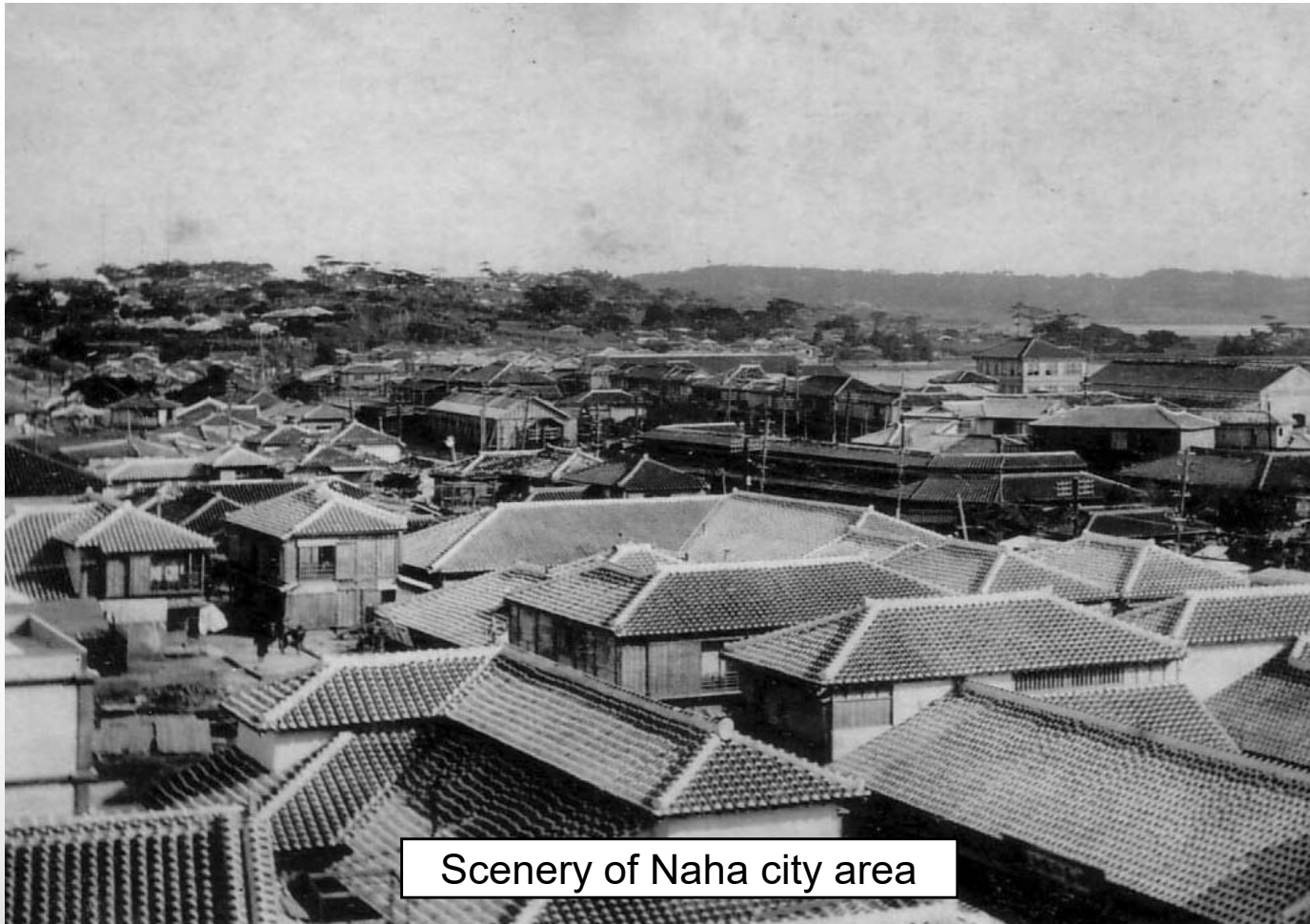


(Data of Okinawa Prefecture)

【Changes in Okinawa's Landscape】

○ Housing situation in 1940

It is the most beautiful city in Japan, with a beautiful combination of nature and humanity, and the harmony of the two is still in existence in a state worthy of special mention. Wealth of Ryukyu (Muneyoshi Yanagi)



Scenery of Naha city area

(Data of Okinawa Prefecture)

【Changes in Okinawa's Landscape】

○ Postwar Okinawa

Many of the beautiful landscapes were lost as a result of the ground war on Okinawa in 1945.



(Data of Okinawa Prefecture)

【Changes in Okinawa's Landscape】

○ After the war, standard houses were constructed of U.S. pine lumber. The floors were made of veneer and the roofs were made of tent fabric, which could not withstand typhoons.

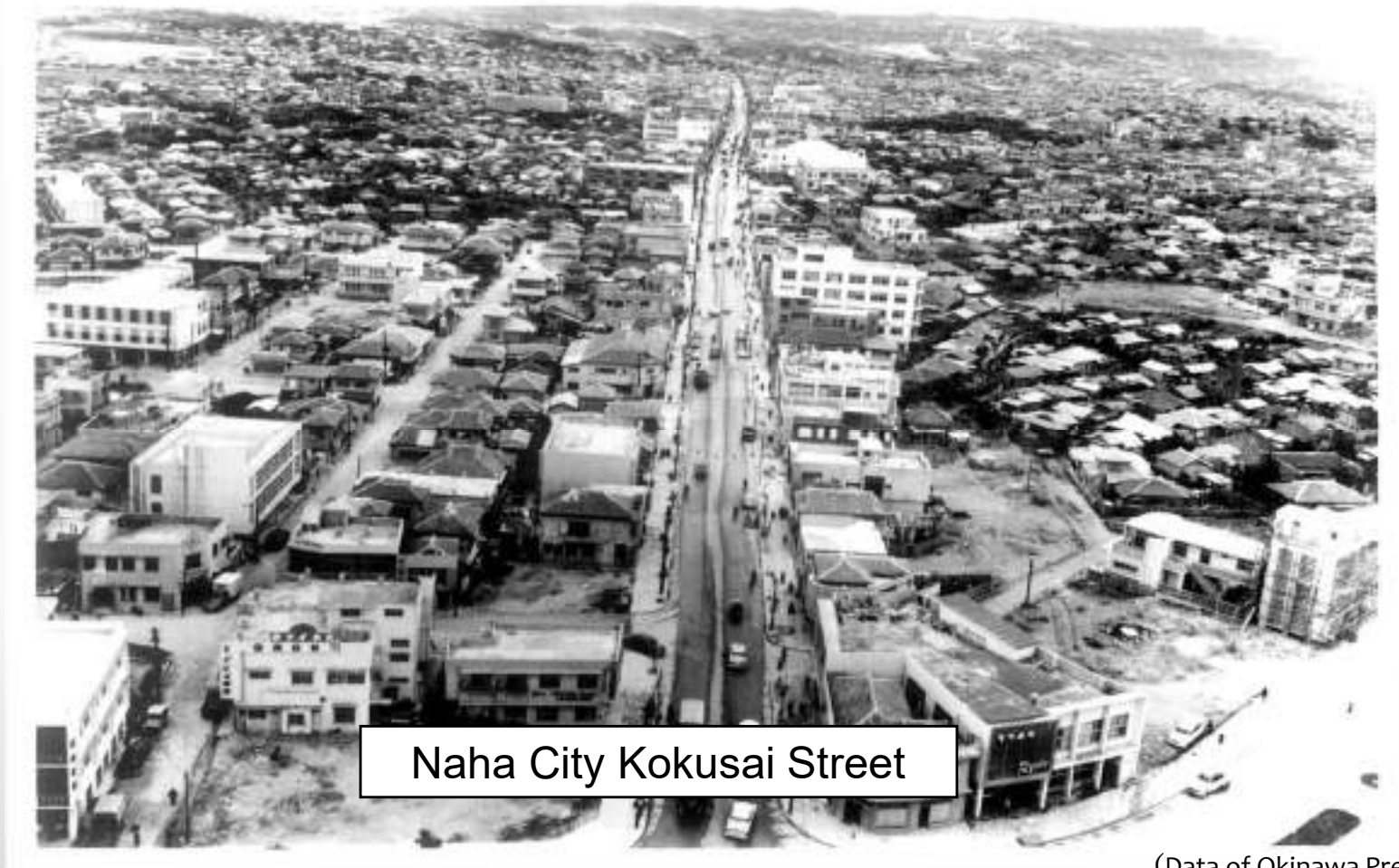


Standard wooden house

(Data of Okinawa Prefecture)

【Changes in Okinawa's Landscape】

○ In the 1950s, as wooden houses were severely damaged by large typhoons, RC construction became popular for private housing, and cityscapes with a mixture of flat roofs and hipped roofs were formed.



(Data of Okinawa Prefecture)

【Changes in Okinawa's Landscape】

○ Present

As roads were developed, most buildings were constructed of reinforced concrete and became taller and taller. In addition, the housing style diversified as prefabricated houses were introduced to the area.



Present urban area of Naha

(Data of Okinawa Prefecture)

II Status of Road Landscape in Okinawa

1 (From wooden roofs with red tiles to concrete roofs)



2 (Crowding of electric poles)



3 (Improper management of trees due to lack of resources)



4 (Flood of inappropriate advertisements)



5 (Degradation of urban areas in city center: Shutter street)



Landscape Act and Important Public Facilities

Outline for Beautiful Nation-building Policy, July 2003, Ministry of Land, Infrastructure and Transport

Preface

Electric wires are laid out in cities,
There is less greenery, and houses are surrounded by concrete block walls, height of buildings is not uniform, signboards and signposts are in a jumble, and the landscape is far from beautiful.

Beauty is deeply connected to the state of mind.

Have we clearly recognized that these are measures and not for the purpose of maintaining social capital? Were aspects of quality neglected while pursuing quantitative sufficiency? We have to look back in a straight forward manner.

While working towards maintaining harmony with the beautiful nature of Japan, we are guiding the administration in the direction of beautiful nation-building based on the principle that it will be handed over to the next generation.

Flow of Creating Landscape for Public Facilities

Outline for Beautiful Nation-building Policy, 2003

- "Internal purpose of beauty"
- Landscape assessment of public projects

↓ ← **"Operation and Explanation of Road Structure Ordinance"**
(Addition of spatial function)

Landscape Act, 2004

- First comprehensive act for the purpose of creating landscape
- **Designation of important public facilities for landscape**



Accelerate efforts to create landscape in the municipalities of Okinawa Prefecture



Revised Okinawa Promotion Special Measures Act, 2012

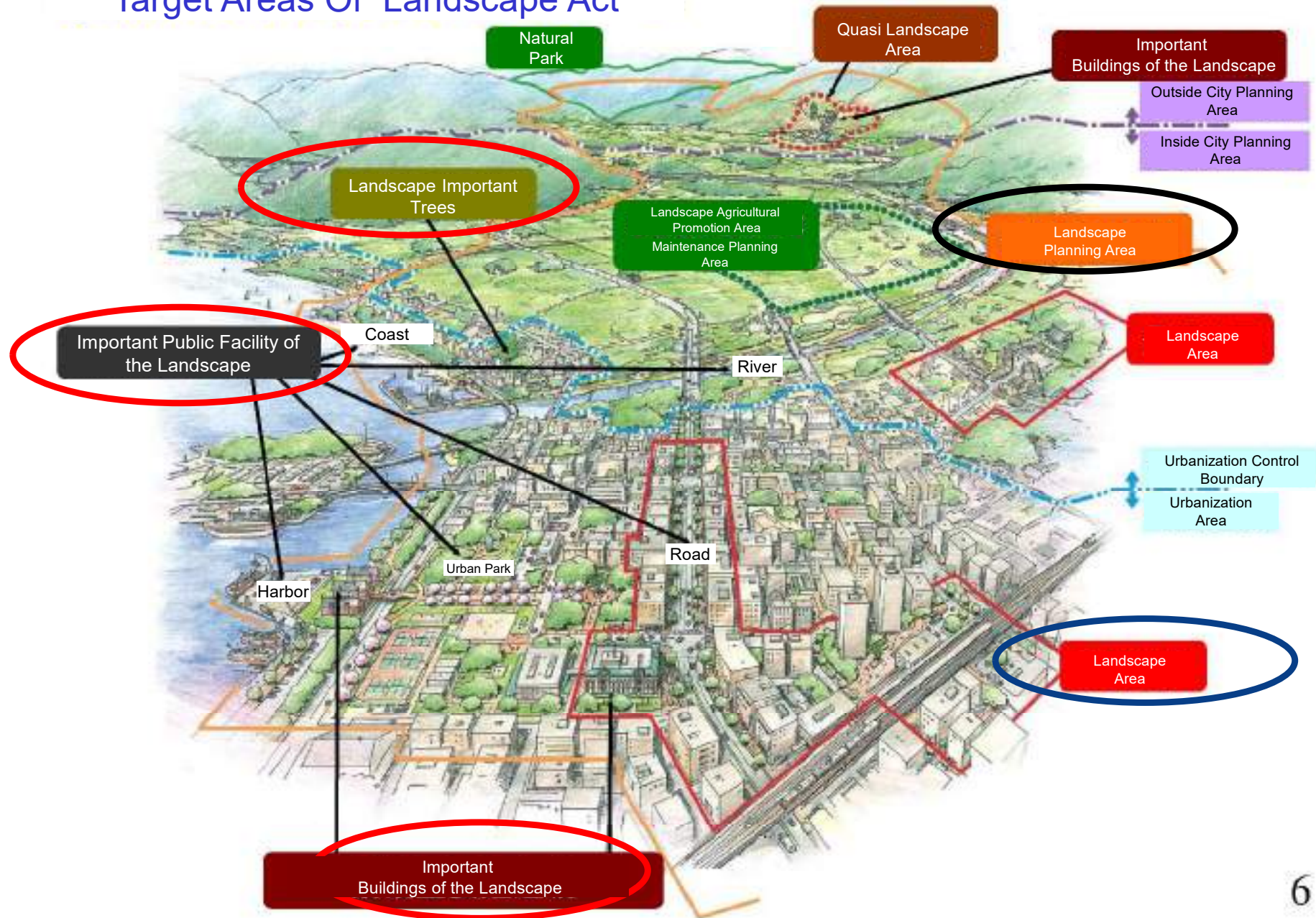
- Creation of suitable landscape appropriate to the characteristics of Okinawa
- **"The Basic Plan for 21st Century Vision of Okinawa" → Okinawa-like landscape creation promotion project**



2017 Okinawa Prefecture Landscape Evaluation System and Landscape Checklist and Handbook

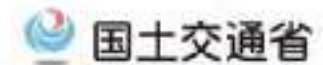
Outline of Landscape Act-1

Target Areas Of Landscape Act



Outline of Landscape Act-2

1-3 Important buildings etc. for landscape



For important landscape elements of the area, measures are taken so that the landscape administrative groups can proactively conserve and improve the elements

Important buildings for landscape

Article 19



Kyoto City

Important trees for landscape

Article 28



Matsue City

Important public facilities for landscape

(Article 47)



Yokohama City

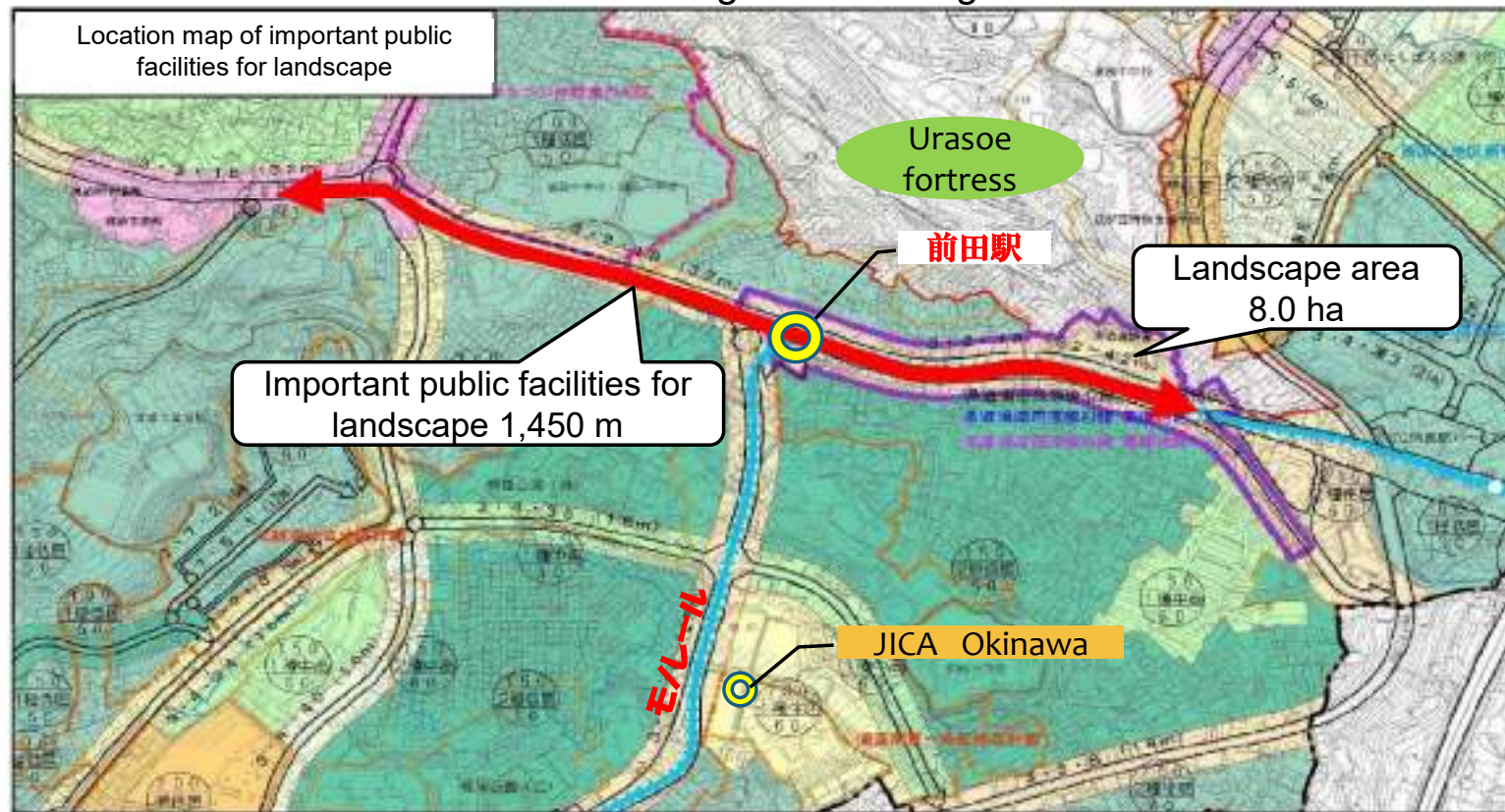
Example of Urasoe city: Landscape district, Designation of important public facilities for landscape

Landscape area: "Landscape area along the city monorail", 8.0 ha area designated in 2015

Important Public Facilities for Landscape: "Urasoe Nishihara Line of Prefectural Highway" Extension of approximately 1,450 m

❑ Matters related to construction

- As the area is around the Urasoe fortress, creation of good road landscape considering historical and cultural characteristics
- Road accessories with calm colors and design considering historical and cultural characteristics



③ Standard (Plan) Of Landscape Area Along the Urban Monorail Track

Image of symbolic road bustling with activity



IV Okinawa Prefecture Landscape Evaluation System

Purpose of Okinawa Prefecture Landscape Evaluation System

By creating beautiful public spaces, we aim to contribute to the pride of local people, and creation of world class tourist attractions.

Okinawa Prefecture Landscape Evaluation System

Manual Of Landscape Checklist (Road Construction) (Plan)



March 2015
Okinawa Prefectural Civil Engineering Construction
Department
Urban Planning and Monorail Division

Landscape checklist (each project phase)

1. Planning phase



2. Design phase



3. Construction phase



4. Maintenance phase

IV-1 Road Landscape Checklist (Basic Matters)

| Check items | | |
|---|----------------------------------|--|
| Step 1 Grasping regional characteristics | 1) Land usage | Have you checked current conditions such as natural environment and social environment |
| | 2) Land history | Have you checked historical assets? |
| | 3) Superordinate plan | Have you checked superordinate plan and related plans? |
| | 4) Laws and regulations | Have you checked the regulations that affect landscape design? |
| Step 2 Extract items to be considered for landscape design | 5) Landscape resources | Have you checked the landscape elements that evoke the feeling of Okinawa? |
| | 6) Landmarks | Have you checked the landmarks of areas for near, middle, and far views? |
| | 7) Viewing spots (place of view) | Have you checked the typical viewing spots? |
| | 8) Visualization of targets | Have you checked how to visualize the spots for viewing? |
| | 9) Perspective (users/viewers) | Have you checked considering the characteristics of the users of viewing spots? |
| Step 3 Proposal of target image for landscape design | 10) Positioning of targets | Have you set the role of landscape? (leading role, supporting role, and background etc.) |
| | 11) Summary of target image | Have you proposed the target image for landscape design? |

2) Land history-1 Have you checked the historical assets?



2) Land history-2

Have you checked the historical assets?



5) Landscape
resources-1

Have you checked the landscape elements that
evoke the feeling of Okinawa?



5) Landscape
resources-2

Have you checked the landscape elements that
evoke the feeling of Okinawa?



6) Landmarks-1

Have you checked the landmarks of areas for near, middle, and far views?



6) Landmarks-2

Have you checked the landmarks of areas for near, middle, and far views?



7) Viewing spots
(place of view)

Have you checked the typical viewing spots?



8) Visualization of
the targets -1

Have you checked how to visualize the spots
for viewing?



10) Positioning of targets-1

Have you set the role of landscape? (leading role, supporting role, and background etc.)

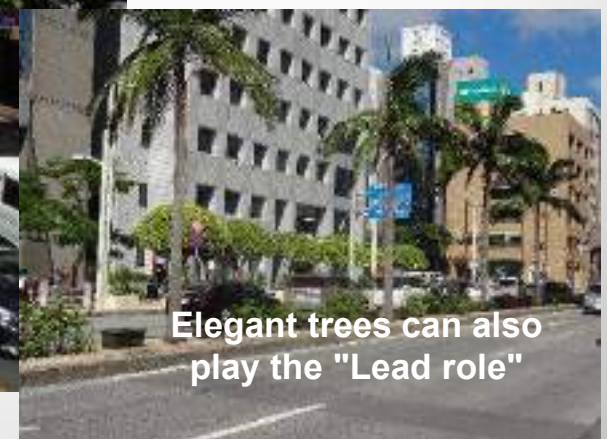
Generally roads are not required to stand out as a "Supporting role".

Together with existing landscape resources, active people, running vehicles and roadside buildings can play the "Lead role".



10) Positioning of targets -2

Have you set the role of landscape? (leading role, supporting role, background, etc.)



10) Positioning of targets -3

Have you set the role of landscape? (Resort road)



IV-2 Road Landscape Checklist (Design)

| Check items | | |
|---------------------|----|---|
| 1) Linear plan | 1 | Does the linear plan fit with the natural topography? |
| | 2 | Have you considered taking in the surrounding landscape resources? |
| | 3 | Have you considered the positional relationship with the landmark? |
| 2) Cross planning | 4 | Is the proportion of road space suitable for the road characteristics? |
| | 5 | Have you reviewed measures for improvement in pedestrian safety and comfort? |
| 3) Road structure | 6 | Is the natural vegetation preserved? |
| | 7 | Have you avoided dividing the areas inhabited by wild animals? |
| | 8 | Have you considered the sense of intimidation of the retaining walls and relief from monotony? |
| 4) Tunnel | 9 | Have you considered harmony with the natural landscape? (around the entrance) |
| | 10 | Have you considered comfort within the pits? |
| 5) Bridge | 11 | Has the surrounding environment taken into account for the structure type? |
| | 12 | Have you considered the beam shape? |
| | 13 | Have you decided the position of substructures by considering minimal change in topography? |
| | 14 | Have you considered the shape of the substructures? |
| | 15 | Have you reviewed the outlook of the protection fence? |
| | 16 | Have you reviewed the ends and balconies of the bridge? |
| 6) Sidewalk | 17 | Is the design universally acceptable? |
| | 18 | Have you considered environmental conditions for the pedestrian walkway? |
| | 19 | Have you reviewed the necessity of benches? |
| 7) Bus stop | 20 | Do the bus stops have a sense of unity with the footpath space? |
| | 21 | Are you considering the design of the terminal? |
| 8) Intersection | 22 | Have you considered the position of landscape at the intersections? |
| 9) Road accessories | 23 | Have you considered omission and reduction of protection fences? |
| | 24 | Have you considered the integration, reduction and colors of lighting, signals, and sign posts? |
| | 25 | Have you considered the position and type of road obstructions? |
| 10) Planting | 26 | Do the trees and plants species match the road characteristics? |
| | 27 | Have you considered the distant views and roadside scenery? |
| | 28 | Have you considered appropriate management for weeds? |
| | 29 | Have you considered existing forests and trees? |

2 Have you considered taking in the surrounding landscape resources?

3 Have you considered the positional relationship with the landmark?



6 Is the natural vegetation preserved?



8-2 Have you considered the sense of intimidation of the retaining walls and relief from monotony?



8-4 Have you considered the sense of intimidation of the retaining walls and relief from monotony?



9 Have you considered harmony with the natural landscape? (around the entrance)



11

Has the surrounding environment taken into account for the structure type?



11-2 Has the surrounding environment taken into account for the structure type?



12 Have you considered the beam shape?



12-2 Have you considered the beam shape?

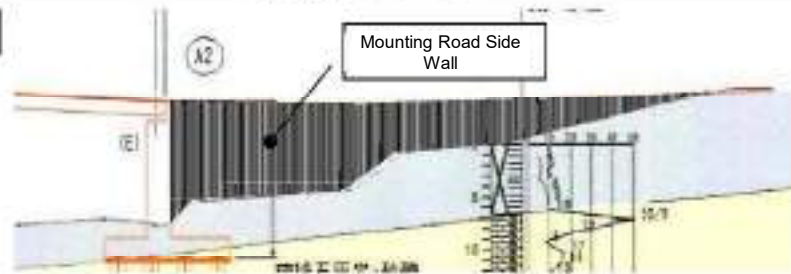


13

Have you decided the position of substructures by considering minimal change in topography?

Plan A (Bridge Length: $L = 145$ m)

Longitudinal Section



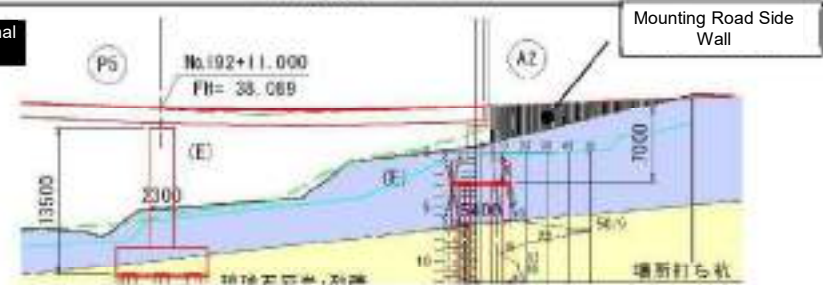
Plan View



Simple Sketch

Plan A (Bridge Length: $L = 180$ m)

Longitudinal Section



Plan View



Simple Sketch



14 Have you considered the shape of the substructures?



15 Have you reviewed the outlook of the protection fence?



16 Have you reviewed the ends and balconies of the bridge?



18-1 Have you considered environmental conditions for the pedestrian walkway?



18-2 Have you considered environmental conditions
for the pedestrian walkway?



18-3 Have you considered environmental conditions for the pedestrian walkway?



19 Have you reviewed the necessity of benches?



20 Do the bus stops have a sense of unity with the footpath space?

21 Are you considering the design of the terminal?



22 Have you considered the position of landscape at the intersections?



23 Have you considered omission and reduction of protection fences?



23-2 Have you considered omission and reduction of protection fences?



23-3 Have you considered omission and reduction of protection fences?



24 Have you considered the integration, reduction and colors of lighting, signals, and sign posts?



26-1 Do the trees and plants species match the road characteristics?



26-2 Do the trees and plants species match the road characteristics?



29 Have you considered existing forests and trees?



V Finally (Advice to Personnel In-charge of Roads)

(Making beautiful roads for urban development)

1. While viewing the roadside scenery, think if the roads are beautiful.
2. If you find the roads are beautiful, identify the ideas used? If you do not find them beautiful, think of the possible reasons.
3. Distinctive and beautiful roads are born from the creation of roads that take advantage of the local natural environment and historical and cultural resources.

Road Landscape in Okinawa

- Method and Examples of Road Landscape Design -

Thank you for your kind attention