

Research on Urban Road Landscape Environment Design

Mengyuan Tu

Wuhan Institute of Media and Communication, Wuhan, Hubei, 430000

Abstract: Urban road is an important link connecting various regions, and plays a very important role in urban development. With the continuous growth of social economy, the living standard of our country has been greatly improved. In this context, the urban road landscape environment began to receive widespread attention. At present, according to the different objects of activity, urban roads can be divided into three main types: vehicle roads, sidewalk roads and mixed roads. The design of urban road landscape environment should not only have good aesthetics and coordination, but also ensure the safety and comfort of car and people. This paper mainly expounds the basic principles of urban road landscape environment design, analyzes the specific measures of urban road landscape environment design, and explores the precautions of urban road landscape environment design, so as to further improve the scientific and rational design of urban road landscape environment.

Keywords: City; Road landscape; Environmental design

Urban road landscape environment is an important part of urban construction, which can effectively optimize the ecological environment of the city and further strengthen the artistic atmosphere of the city. In the current process of social development, urban road landscape environment design mainly from the aesthetic point of view, in line with the functional requirements of the prerequisites, to optimize the comfort of road users, the beauty of road space and the fit with the surrounding environment, so that road users get a better travel experience.

1. Basic Principles of Urban Road Landscape Environment Design

1.1 People-oriented principle

Urban road landscape design is to serve people, the fundamental purpose is to provide good conditions for people's daily travel. In cities, humans occupy an absolute dominant position. Therefore, the design of urban road landscape environment should follow the basic principle of people-oriented, fully consider the inherent needs of human beings in all aspects, so as to further optimize the comfort and safety of human travel.

1.2 Principle of coordination

Urban road landscape environment does not exist independently, and there are many elements around it. In the process of designing urban road landscape environment, we should fully investigate the nearby cultural relics, natural landscape, architectural facilities and other factors, and constantly strengthen the coordination of urban road landscape environment and the surrounding environment, so as to bring people a good visual experience.

1.3 Sustainable Principles

At present, sustainability has become the main theme of the development of the times. In the design of urban road landscape environment, designers should accurately grasp the pulse of the times, follow the inherent laws of nature, and constantly strengthen the recycling of various substances, effectively reduce the energy consumption caused by urban road landscape environment, and effectively reduce the pollution caused by urban road landscape environment, so as to provide a strong guarantee for the sustainable development of human society.

1.4 Principle of adjusting measures to local conditions

In the design of urban road landscape environment, designers must investigate the local climatic conditions, and choose the plants suitable for local survival on this basis, so as to lay a solid foundation for the growth of plants and effectively improve the

stability and appreciation of urban road landscape environment. In addition, designers should choose plants with high survival rate and extensive management mode as far as possible, so as to effectively reduce the adverse effects of various factors on plant growth.

2. Specific Measures of Urban Road Landscape Environment Design

2.1 Landscape Environment Design of Traffic Island

In the current process of social development, traffic island has also become the center of the island. For areas with large traffic and more pedestrians, municipal departments often set up traffic islands. At present, the main function of the traffic island is to allow vehicles entering the intersection to travel counterclockwise on their respective lines^[1]. In the traffic island landscape environment design, should be planted some relatively low evergreen shrubs, through the differentiation of color to form a simple pattern, or can also be based on the actual situation with some flowers and plants. It is worth noting that the traffic island landscape environment design should strictly prohibit the traffic island layout into too gorgeous small garden, and should have a good closure. In order to avoid the landscape environment blocking the driver's line of sight, the landscape environment design of the traffic island should not be planted with larger shrubs and tall trees.

2.2 Landscape Environment Design of Intersection

Intersection is the intersection of roads, but also the pass and throat of traffic, the landscape environment design has a more special requirements. In the concrete practice of the landscape environment design of the intersection, we should have a clear and comprehensive understanding of its environmental characteristics, and scientifically adjust the relationship between landscape plants and safe sight distance according to the actual situation at this stage. The designer needs to draw a triangular area on the plan of the intersection. In this triangular area, there shall be no tall plants that block the sight of pedestrians and drivers, nor shall there be tall billboards and buildings. Under normal circumstances, the height of plants in this triangle should be controlled below 0.7m, so designers should choose perennial herbs or dwarf shrubs as much as possible.

2.3 Landscape Environment Design of Shade Road

In the process of designing the tree-lined road landscape environment, designers can set up scientific and reasonable garden rest sites according to different locations, and configure appropriate garden facilities according to specific needs to provide a good environment for people's short rest^[2]. In addition, the landscape design of tree-lined roads can be matched with trees, shrubs, grasslands, flowers and other plants, of which trees can account for about 40% of the total green belt area, shrubs can account for about 25% of the total green belt area, grasslands can account for about 20% of the total green belt area, flowers can account for about 5% of the total green belt area, and other plants can account for about 10% of the total green belt area. At the same time, the landscape design of the tree-lined road should also be combined with the climate differences between the north and the south. For the southern region, it should be dominated by evergreen plants. For the northern region, should be dominated by deciduous plants.

2.4 Landscape Environment of the Intermediate Green Belt

The middle green belt is often adjacent to the overtaking lane and is located in the middle of the entire urban road. Setting up scientific and reasonable hedges or shrubs in the middle green belt can effectively block the high beams of the opposite vehicles, thereby effectively improving the safety of driving at night. For the intermediate green belt, vehicles running in both directions can be seen, so there should be two viewing surfaces. When designing the landscape environment design of the middle green belt, the large shrubs and shrubs can be combined to show a better visual effect.

2.5 Landscape Environment Design of Pedestrian Street

In the current process of social development, a large number of commercial buildings are often distributed on both sides of the pedestrian street, and the overall flow of people is relatively large. In the process of carrying out the landscape environment design of the pedestrian street, we should comprehensively evaluate the interference of pedestrians to the greening plants, and constantly balance the artistic and functional landscape environment, and effectively coordinate the coordination between the landscape environment and the surrounding commercial buildings. At the same time, the plants in the landscape environment of the pedestrian street should meet the inherent characteristics of luxuriant branches and leaves, non-toxic, thorn-free, odor-free, beautiful plant type, beautiful flower type and beautiful leaf type as much as possible. In the center of the pedestrian street, some flower beds and sculptures can be set up to further improve the ornamental value of the street view^[3].

3. Considerations for Landscape Environment Design of Urban Roads

In the design of urban road landscape environment, designers should pay attention to the following three points: first, properly

retain the original plants. Plants have certain requirements for climate and soil. In the long-term survival process, the original plants have been able to fully adapt to the local environment. In the urban road landscape environment design appropriate to retain the original plants, can greatly reduce the mortality of plants, and effectively reduce the later in the urban road landscape environment maintenance of capital consumption. Second, focus on the functionality of plants. The driving of a car will produce a large amount of exhaust gas, which will seriously affect the air quality of the city. In the urban road landscape design, the selection of functional plants can effectively adsorb harmful substances such as carbon monoxide, carbon dioxide, nitride and sulfide in the air, so as to achieve the fundamental purpose of purifying the air. At present, the functional plants that can be applied to urban road landscape design mainly include chrysanthemum, rose and rose. In addition, designers can also choose some plants with medicinal value for urban road landscape environment design according to the actual situation. Take pine and cypress as an example, some of its volatile substances can prevent tuberculosis, thus effectively reducing the incidence of tuberculosis. Third, highlight the ecological benefits and landscape benefits. Without affecting the safety and the width allows, the plants with different flowering periods, different leaf colors, different flower colors and different tree positions are reasonably matched to form a diversified spatial structure of multi-layer plants, showing a visual effect of sparse and dense alternate, scattered and orderly, and achieving higher ecological and landscape benefits ^[4].

Conclusion:

Road is closely related to people's daily life, and its landscape design is directly related to people's quality of life. In the design of urban road landscape environment, we should follow the basic principles of people-oriented, coordination, sustainability and local conditions, and give full consideration to the different functions of urban roads, appropriately retain the original plants, select functional plant species, highlight ecological benefits and landscape benefits, so as to give full play to the important role of urban road landscape environment in urban development and realize the harmonious development of man and nature.

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About the author:

Mengyuan Tu , teaching at the Wuhan University of Communication, specializing in environmental design, with a research direction of landscape design.Participated in the construction of Wuhan "Beautiful Neighborhood Happy Community" urban interface landscape improvement and transformation, Wuhan Jiang'an District Cooperation Road street landscape upgrading and renovation projects, mainly specializing in urban commercial street landscape design research.