

Discussion on Problems and Methods of Urban Rail Transit Planning

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Abstract: My country's economy is gradually developing, and the demand for transportation between cities is increasing. Therefore, the construction of urban rail transit is a hot topic in transportation. Many related scholars and researchers have studied it through a lot of practice and have formed a lot of research results. This article analyzes the problems existing in the planning, design and construction of urban transportation rail transit, and proposes some corresponding solutions, hoping to provide references for the development of my country's transportation industry.

Keywords: Urban Rail; Urban Transportation; Planning and Construction; Problems

1. Introduction

At this stage, my country's urban traffic often has problems that affect normal order, such as congestion, congestion, and environmental pollution, which seriously affect my country's transportation construction and development. In the process of urban transportation planning and construction, there is still a certain gap between my country's technical standards and other developed countries, and city managers have gradually realized the seriousness of the problem and the impact on my country's social development. However, the main basic transportation practice theory of current engineering can no longer meet the actual needs of urban transportation development, so there are many problems in the process of urban transportation planning, construction and operation. In order to effectively solve the problems of my country's transportation, this article conducts an in-depth analysis of the existing problems and proposes solutions, hoping to provide a basis for the development of my country's transportation industry.

2. Problems in my country's urban transportation planning, construction and operation

2.1 Urban transportation planning lacks advancement and forward-looking

Urban transportation is the main system of urban passenger transportation. Its construction quality has a direct impact on the development of urban transportation. At the same time, it also limits the spatial direction and functional level of land development in the corresponding area. Scientific and advanced urban transportation route planning can decide on the results of later operations. At present, many urban traffic planning and design processes only consider certain aspects of urban roads, network engineering and land use. The consequence of this is that the roads may need to be adjusted and modified continuously in the later use process to facilitate connect with society. The development goals of urban system planning include the planning of urban rail trans-

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it, but it has not organized the scientific compilation of the line network, nor has it been included in the overall urban planning process, and it has not been planned as a whole with other transportation modes. It has a greater adverse impact on the development of future cities.

2.2 The practical theory and operation mode of urban rail transit have insufficient cognition

In the actual planning and construction process of urban transportation, not only should corresponding traffic planning, network planning, land planning, etc. be formulated, but also the planning direction of the city should be strictly controlled from multiple angles. However, the enterprise systems in many cities do not have enough knowledge of the traffic practice theory and operation mode, and do not fully consider the coordination of routes and vehicles in the urban planning system, whether there is a connection with the traffic system of surrounding cities, and if there is no intercommunication with other cities, it will cause the urban transportation planning plan to conform to the actual urban transportation demand, and the concept of transportation planning cannot be implemented in the actual construction process. This has a large adverse impact on the development of urban transportation and also seriously affects urban transportation planning.

2.3 Passenger flow forecast results and actual

Prediction of passenger flow is an important issue that most affects urban transportation planning and construction. Because the predicted results are inconsistent with actual results, or there is a big difference, urban transportation planning cannot meet actual transportation needs. Analyzing my country's current urban traffic development, my country's traditional passenger flow forecasting method uses the passenger flow transfer method, while the "four-stage method" is now used to predict passenger flow. In the actual planning process, the cognition of methods is different, and the travel and mode planning models formed are also different. This is very different from the characteristics of urban transportation development in my country, which in turn affects the development of urban transportation planning.

3. Analyze and diagnose existing problems in urban traffic

At the current stage, my country's problems with urban transportation planning have been continuously improved and improved. However, due to the short period of experience and development in my country, many transportation planning theories are based on traditional experience or foreign planning and design. It is difficult to form a planning plan that conforms to the characteristics of our cities. My country's theoretical research on urban comprehensive transportation planning is relatively weak, and the consideration of this aspect is also relatively lacking. Many urban transportation functions do not meet the actual needs of urban transportation and cannot adapt to urban development. The main reason for this problem lies in three aspects: first, as the main way of urban transportation, urban transportation is the source of the overall passenger transportation benefits of the city. It should be combined with the overall development of the city, and urban transportation should be the main reason. Taking urban traffic into consideration will cause problems such as urban traffic jams or mismatch with connecting equipment. The second is that the use of land in the transportation planning process is mainly to facilitate the interaction between urban transportation development and the role of land. In the traditional urban transportation planning process, there is no corresponding analysis of land planning and no rational use of land. In order to reduce costs, many cities are planning on the original route, which will result in the inability to meet the demand for large-flow operations. The third is that urban transportation planning has not been integrated with urban planning, especially the use and planning of land, and it has not been incorporated into urban planning, and even conflicts with urban planning. Urban planning is usually irreversible. In order to ensure that urban transportation planning and construction can meet the development of the city, it is necessary to strengthen the integration of the two, discover the operating rules in the urban planning process, and maintain the consistency of the urban development status to achieve the two complement each other.

4. Strategic analysis of urban traffic planning and construction

4.1 Integrate the short-term planning of urban transportation with the long-term plan

The long-term plan here refers to the integration of urban transportation planning with the future development plan of the city. It cannot be designed independently from the future planning of the city. At the same time, it must be designed according to the city's recent planning. Designing the goal of urban transportation integration needs to be based on the long-term planning of the city, carry out predictive analysis of urban planning, and adopt the planning principles of traffic feasibility to guide urban space development, and carry out forward-looking planning for it. The zoning plans are connected with each other, and space is reserved for traffic construction in the planning, design and construction process. In the planning process, guidance should be given from the perspective of long-term development to ensure the continuity of urban traffic planning and construction.

4.2 Strengthen the interaction and coordination between urban transportation and land use

To completely change the relationship between urban rail transit and land, it is necessary to formulate a reasonable plan based on the actual situation of the city. It is necessary to focus on the city's land use, line operating conditions, and other factors in the production process, and make detailed decisions based on the results. Analysis shows that the construction of rail transit in a city should meet the future development needs of the city, and the rail transit and other transportation should be planned as a whole. Improve the construction of urban infrastructure, formulate a sound implementation plan for the land use of rail transit, maximize the use of land while satisfying urban rail transit, increase the utilization rate of land, and promote the process of urban modernization.

4.3 Strengthen the construction of urban integration

Urban rail transit construction is a part of urban development, and the construction content is an exclusive plan, which is quite different from other constructions. The construction of rail transit is inextricably linked to urban development. Cities with rail transit and cities

without rail transit belong to two levels. In cities with rail transit, a community bus model will eventually be formed. The core of this model is urban rail transit. In the traditional planning concept, the ownership status of rail transit is determined, so that urban development and the construction of urban rail transit cannot be carried out at the same time, and it does not meet the requirements of modern urban development. In the overall design of the city, the urban rail transit construction should be taken into consideration. At the same time, in the development plan, construction goals should be set reasonably to ensure that the urban rail transit can meet the needs of urban development and ultimately form a common development. In the process of construction, it is necessary to analyze and study the changes in urban development and rail transit, and increase the sustainable development of urban construction and rail transit.

4.4 Optimize the urban traffic construction model and corresponding laws

Nowadays, the society is progressing continuously and the economic level is constantly improving. The construction of rail transit plays an important role in the development of cities. Most cities in our country already have rail transit, and many cities are undertaking rail transit construction. However, due to related the legal system is not perfect, so there are still many obstacles on the road of urban rail transit. Therefore, in order to successfully develop urban rail transit construction, it must rely on sound laws and regulations. The implementation of rail transit needs the support of laws and regulations. Cities should also formulate relatively complete rules and regulations for rail transit construction and operation. In the course of practice, constantly discovering problems and improving the system will be of great significance to rail development and urban construction. In addition, the construction of urban rail transit should be based on actual conditions to meet the actual needs of the city, and reflect the practicality and rationality of rail transit, so that rail transit can better serve the city and promote urban development.

4.5 Improve the evaluation of urban transportation construction

Urban rail transit construction is an important construction project for urban development, which has a positive effect on urban construction and national devel-

opment. The significance of urban rail transit construction is to serve the city. At the same time, urban construction experience can be summarized in the construction process to provide high-quality urban development in the future suggest. At the current stage, the evaluation significance of the urban rail transit map is mainly manifested in post-evaluation. Many related researches are in the initial stage. The development model of rail transit is also imitating the construction of the railway system. This results in a situation where rail transit and cities cannot be integrated. Unable to provide better transportation services for the city, restricting the development of the city. Because urban rail transit has a large amount of construction content, complex procedures, and long construction period, it is necessary to adopt an evaluation system for supervision in the initial stage of design.

5. Conclusion

In response to the above content of this article, the construction of urban rail transit is a project that benefits the people. It is highly professional, systematic and prac-

tical. It is necessary to make a scientific and reasonable project design plan to meet the future development concept and development requirements of the city. The city's economic development and urban services play an important role. The ultimate goal is to achieve the simultaneous and sustainable development of urban development and rail transit construction, so that the city's economy, social economy, and ecological economy can develop stably, promote the overall development of the city, and accelerate urban modernization.

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