

Research on the Construction of Barrier-free Travel Environment Based on The Concept of Humanism

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Abstract: Improving the construction of a social barrier-free travel environment is a necessary condition for ensuring the travel rights of vulnerable groups such as the disabled and the elderly, and it is also an important guarantee for improving social civilization. At present, there are still many problems to be solved in the construction of a barrier-free travel environment in my country. Combining the needs of the disabled and the elderly, our team has always adhered to the people-oriented development concept and will focus on the construction of blind roads. And the improvement of traffic light safety construction, hoping to enhance the sense of gain, happiness and security of all social citizens such as the disabled and the elderly, so as to promote the humanistic spirit of people-oriented.

Keywords: People-oriented, Barrier-free travel, Environmental construction, Blind road, Traffic lights, Humanistic care.

1. The Current Situation of Vulnerable Groups Such as The Disabled and The Elderly in China

As of 2020, according to the seventh national census, the total number of people with various disabilities in China has reached 85.02 million. Among them, 12.63 million were visually disabled, 20.54 million were hearing disabled, 1.3 million were speech disabled, 24.72 million were physically disabled, 5.68 million were mentally disabled, 6.29 million were mentally disabled, and 13.86 million were multiple disabled. In 2022, the population of elderly people aged 60 and above will reach 267 million, accounting for 18.9% of the total population. Experts predict that the number of elderly people aged 60 and above will exceed 400 million around 2035, accounting for more than 30% of the total population. China has entered a stage of severe aging.

2. The Current Situation of Barrier-free Environment Construction in China

China has always adhered to the concept of humanistic development. Since 2012, it has promulgated and implemented the "Regulations on the Construction of a Barrier-Free Environment", which clarifies that it is the responsibility of the government and the obligation of the society to carry out the construction of a barrier-free travel environment in accordance with the law. In 2019, the 14th China Information Accessibility Forum once again interactively showcased nearly 200 fruitful achievements in my country's barrier-free environment construction over the past seven years since the implementation of the "Regulations on the Construction of a Barrier-free Environment". In 2021, at the fourth meeting of the Thirteenth National People's Congress, the Shanghai delegation suggested that the formulation of the "Barrier-Free Environment Construction Law" be included in the legislative plan of the Standing Committee of the National People's Congress in 2022, and once again promote the high-quality construction of a barrier-free environment in my country. Development provides legal protection. However, since the promulgation and

implementation of my country's first barrier-free construction design standards in 1989, the construction of a barrier-free travel environment has experienced more than 30 years of development, and the problem of unbalanced and insufficient development is still relatively obvious. The barrier-free review mechanism The problems of lack and irregular management are still prominent.

3. Current Status of Blind Road Construction

With the growth of the total population, the number of visually impaired and physically disabled people in our country is also increasing. As the main support and path for the visually impaired to travel, the continuous improvement and updating of its related facilities is extremely important. At present, the most important problems in the construction of blind roads in my country are: the public's low awareness of blind roads and the lack of strict supervision systems for blind roads. Due to the low level of public welfare publicity for the facilities for the blind, some people may not be able to accurately distinguish the blind road from the sidewalk, and some blind roads may become random parking lots or cargo piles in the "subtlety". At the same time, due to the insufficient supervision and punishment of the relevant supervision system, some people have misunderstood that the impact of occupying the blind road has little effect.

4. Current Status of Traffic Light Construction

With the continuous improvement of people's living standards, the problem of traffic congestion has become increasingly prominent, and "traffic lights" have become the main means of controlling traffic. Since the rules for the use of "traffic lights" in China are unified, this has caused a lot of trouble for some special vulnerable social groups who are slow to move. The problem of short green light time and too long sidewalks may cause the phenomenon of "running across the road" for ordinary people, not to mention the disabled, the elderly and other vulnerable social groups. At the same time, blind people have no way to cross the road by observing the traffic lights. They can only follow the crowd through their

senses and experience. possibility, the risk factor increases dramatically.

5. Technological Innovation in The Construction of A Barrier-free Travel Environment

5.1. Blind road construction

Unlike other teams that focus on the construction of the blind road itself and the route planning and design of the blind road, our team mainly starts with the supervision mechanism of the blind road construction, through data monitoring, information transmission, and human assistance given by relevant platforms and departments, to solve the barriers and other unexpected problems of the visually impaired or other disabled people on the blind passage. By installing intelligent data monitoring facilities on blind roads, such as dynamic pressure sensors, cameras, sound and light alarms, one-key alarm buttons and other equipment, emergency contact with relevant departments can provide timely assistance to visually impaired people on blind roads. At the same time, the monitoring facilities will synchronously transmit the effective data monitoring information to the nearest local law enforcement department and the information database of the volunteer service platform through the cloud platform, and finally selectively distribute it to the nearest law enforcement staff or volunteers, so that they can help the visually impaired. Timely help to create a barrier-free travel environment for them on the blind road through manpower. Moreover, the facility can automatically collect information and data, and use the statistical function of big data to analyze the places with high incidence of accidents on blind roads. As the key work objects of government departments, they can concentrate on work and patrol places, and reduce the pressure on government departments. At the same time, on the economic level, this innovative facility can serve the maximum extent from the social public level and meet the basic needs of the visually impaired in blind passage. Unlike other innovative means, the visually impaired do not need to purchase any related products at their own expense. In addition, this innovative facility solves the problems of blind people in a timely manner through the three-in-one approach of "cloud platform data sharing + government departments + volunteer service platform", which not only shows a high degree of humanistic care to the whole society, and as a means of publicity, it has increased the awareness of humanistic care of ordinary social groups, provided substantial help to the visually impaired, and made effective use of the blind road no longer in name only.

5.2. Barrier-free construction of 'traffic lights'

In view of the lack of safety construction for the disabled and the elderly in our country, our team made reference to the innovations of foreign governments in this area, combined with the behavioral characteristics and actual needs of the visually impaired and handicapped when traveling, and clarified the people-oriented and The design concept of barrier-free design is to install traffic light changing voice prompts on both sides of the road with traffic lights (that is, the place where the sidewalk is waiting), so that visually impaired people can accurately identify red lights and green lights. At the same time, the prompter is also Equipped with a fingerprint recognition button that controls the duration of the green light stay. Disabled and elderly groups enter the system

information uniformly. After verification, when they can predict that they cannot pass in sufficient time when they usually travel and cross the road, they can use fingerprint identification to confirm the identity information and then combine the width of the road entered by the system to extend appropriately. Green light time. Since this scheme may cause traffic jams, users should be guided and regulated accordingly, and those who intentionally cause traffic jams should be punished accordingly and have their login qualifications revoked from the system. Due to the high population density and frequent traffic congestion in China's large cities, the concept of "traffic light" barrier-free travel can only be used in small cities with low population density without a high degree of urban infrastructure. Can't try to run.

6. Spiritual Construction Under Environmental Construction

After perfecting the construction of a barrier-free travel environment, the maintenance of facilities after construction and the popularization of humanistic knowledge faced by government departments are far more difficult than the environmental construction itself. Our team selected Bengbu City, Anhui Province as the nearest research site for the construction of a barrier-free travel environment, and distributed questionnaires. After sorting out the research data, we calculated the data and found that 29.85% of the people have never understood the term "construction of barrier-free environment", and 47.62% of the people have some understanding of its concept, but it is difficult to compare "construction of barrier-free environment" with reality Connecting things in life. We can boldly guess that with the blessing of a huge population base, most groups will subconsciously ignore the soft demand that the disabled and the elderly need more humanistic care from society. As far as blind roads are concerned, the vast majority of people do not deliberately avoid the habit of walking on blind roads in their daily lives, and even a few people take public properties such as blind roads as their own, pile up objects and park vehicles at will. . On the one hand, they do not have a good knowledge base to support them to identify the blind sidewalks on the sidewalk. On the other hand, they do not have a deep sense of humanistic care and a sense of identity with special groups. They subconsciously ignore the visually impaired people in their lives. Therefore, in order to improve the awareness of "construction of a barrier-free travel environment" among all the people, we not only need to start with the artificially designated regulatory system, but also strengthen the promotion of humanistic care. 'Provide a good social foundation and humanistic background.

7. Summary

It is the responsibility of the whole society to care about the travel of the disabled and pay attention to the disadvantaged groups, and it is also an important part of building a harmonious society. For the general public: Strengthening the construction of a barrier-free travel environment is a concentrated expression of material civilization and spiritual civilization, and an important symbol of social progress. It is conducive to improving the basic quality of the public, cultivating the public moral awareness of the whole people, and promoting the construction of spiritual civilization. . With the rapid development of the country's science and technology, while the people's material level is satisfied accordingly, the

spiritual level cannot be ignored. We must clearly recognize that contemporary modernization is a modernization in which material civilization and spiritual civilization are coordinated. A barrier-free travel environment is not only a harmonious society created for special groups of people, but also a fair and harmonious world for everyone. I hope that everyone will work together to create a more humane infrastructure for our lives and create a fair and harmonious social atmosphere for our future.

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