Based On the Green Construction Technology for Sustainable Buildings

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Abstract: In the process of social and economic development, serious environmental pollution and resource waste have occurred. It is of great significance to fight the promotion and application of the concept of sustainable development in this environment. The construction industry needs to consume a lot of resources during construction, and increasing the application of sustainable green construction technology will help reduce resource waste and increase the use of recyclable energy, which is of great significance to the sustainable development of the construction industry. This article discusses green construction technologies for sustainable buildings.

With the deteriorating environment and declining resources in China, higher requirements have been put forward for sustainable building green construction in the construction industry. Therefore, in order to further improve the quality and efficiency of green construction, relevant construction personnel must perform actual construction In the management process, we must establish the concept of sustainable development and increase protection of the environment, material resources, water resources, energy, and construction land to ensure that the construction industry can develop in a positive, stable, healthy, and sustainable direction.

I. Green Construction and Its Application Significance

Green construction, as its name implies, means that in the actual construction process, the construction project must ensure the construction quality, stability, and safety, and use the concept of sustainable development to minimize the adverse impact on the environment. In order to achieve comprehensive protection of energy, land resources, water resources, materials, resources and the environment. In general, the main targets of green construction management are the following types: organization, planning, implementation, evaluation, and personnel safety and health.

With the continuous development of human social civilization, a series of environmental problems have gradually emerged. Issues that threaten human survival and development, such as climate warming, rapid population growth, and ecological imbalances, have attracted people's attention. In the severe reality test, it is urgent to do a good job in environmental protection. The development of construction engineering is very beneficial to the development and progress of society. The development of green construction engineering is closely related to people's social life. The green construction of the construction project refers to the concept of green development during the construction process, and to do a good job of pollution control at the same time as construction, and to ensure environmental protection on the basis of ensuring the quality of the project. Implementing green construction projects and focusing on ecological development can effectively improve the quality of construction projects, lay the foundation for improving the management efficiency of construction projects, and promote the sustainable and stable development of the construction engineering industry.

II. Application Strategy of Green Construction Technology for Sustainable Buildings

2.1. Increase Environmental Protection

In the process of building green construction, relevant construction personnel must do a good job of protecting the environment in order to achieve sustainable development of the environment. First,

they must scientifically control the dust. When transporting construction materials that are easy to fall and leak, the vehicle must seal the construction materials. In addition, a car wash center must be established at the exit of the construction site to timely and effectively clean the vehicle's sludge to ensure Neatness and cleanliness of the vehicle [1]. Second, we must scientifically control noise and vibration. In actual construction, in order to avoid the impact of noise on the lives of the surrounding residents, real-time monitoring should be adopted to ensure that the intensity of construction noise meets the maximum value of relevant noise regulations. In addition, relevant construction personnel can also use low-noise, low-vibration construction equipment, or adopt means such as sound insulation and vibration isolation to minimize noise emissions.

Third, we must rationally control water pollution. In the process of discharging sewage, the relevant construction personnel shall ensure that the discharge of sewage meets the relevant sewage discharge standards formulated by the state. At the same time, it is also possible to use a sedimentation tank to treat the sewage to ensure that the discharged sewage has the smallest impact on the environment. Finally, we must do a good job of controlling construction waste [2]. In order to avoid the pollution of construction waste to the environment as much as possible, relevant construction personnel should pay attention to the recycling of construction waste, thereby greatly improving the reuse rate of construction waste, and at the same time, timely cleaning up construction waste to ensure construction Neatness and hygiene at the scene.

2.2. Material Saving and Material Resource Utilization

In order to effectively save material resources, the utilization rate of material resources is further improved. In the process of building green construction, relevant construction personnel should start from the following aspects: First, strengthen the recyclable use of structural materials. The structural materials mainly include concrete and mortar, and the relevant construction personnel realize the dynamic control of the structural materials by accurately calculating the concrete and mortar usage and supply frequency. At the same time, it is also necessary to ensure the scientificity and rationality of steel structure production, thereby greatly improving the utilization rate of steel structures, and thereby avoiding waste of steel structure materials due to improper manufacturing methods [3]. Second, strengthen the recyclable use of enclosure materials. Relevant construction personnel must ensure that the selected enclosure materials have high sealing, waterproofness and heat insulation during the process of selecting enclosure materials such as doors, windows and walls, so as to avoid the failure of the performance of the enclosure materials. Cause waste of materials. Third, strengthen the recyclable use of decorative materials.

III. Water Saving and Comprehensive Utilization of Water Resources

In order to better save water resources and avoid waste of water resources, relevant construction personnel should pay attention to the following points in the process of building green construction: First, improve water efficiency. Relevant construction personnel shall ensure the scientificity and rationality of water-saving construction technology, and it is forbidden to use tap water to spray the road surface. At the same time, the relevant construction personnel should adopt effective water-saving measures when mixing water, to avoid waste of water resources [4-5]. In addition, a circulating water device should be installed at the construction site to improve the utilization of water resources. Second, increase utilization of non-traditional water sources. Relevant construction personnel should make full use of groundwater to complete the washing of related construction equipment, so as to avoid excessive use of tap water. In addition, relevant construction personnel should give priority to the use of non-traditional water when spraying construction roads or mixing materials Resources to ensure that the utilization rate of non-traditional water resources is above 30%.

3.1. Energy Saving and Energy Utilization

In order to effectively save more energy and improve the utilization rate of energy, the relevant construction personnel start from the following aspects in the actual green construction of the

building, make full use of the advantages of sustainable development, and realize the sustainable use of energy. First, attach importance to the application of energy-saving measures. Relevant construction personnel raise awareness of energy conservation and develop good habits of energy conservation. First, post signs such as "Save electricity, everyone is responsible", "Turn off the lights, start with me" and other signs on the construction wall. Second, set up sound-activated sensor lights in the bathroom to maximize power savings]. Once again, relevant construction personnel must scientifically and reasonably formulate construction energy consumption indicators to ensure that construction energy can be reused.

In addition, relevant construction personnel should give priority to the use of construction equipment with energy saving and environmental protection functions, so as to maximize energy savings. Second, formulate a sound and reasonable management system for construction machinery and equipment. First of all, the relevant construction personnel must accurately calculate and control the electricity and water consumption. At the same time, they must regularly inspect and maintain the mechanical equipment to ensure that the mechanical equipment can operate normally, stably, reliably, and safely, thereby ensuring its operation. Low power consumption and high efficiency. Secondly, relevant construction personnel should give priority to those construction machinery and equipment that match the power and load, so as to effectively avoid the waste of electrical energy caused by the use of high-power construction machinery and equipment. Third, scientifically control construction electricity and lighting temporary electricity [6]. Relevant construction personnel should scientifically and rationally design the construction power lines so as to maximize the energy saving. At the same time, they also need to use automatic control devices to automatically set up anti-electric equipment. In addition, Attention should be paid to the use of sound-activated lights, so as to avoid waste of power as much as possible.

IV. Land Saving and Construction Land Protection

In order to better protect the construction land resources and greatly improve the utilization rate of land resources, the relevant construction personnel should start from the following aspects during the actual green construction of the building: First, increase the protection of temporary land . Relevant construction personnel must continuously modify, optimize and improve the construction scheme of deep foundation pits, so as to avoid the excessive excavation and backfilling of the land caused by the irrational construction scheme, and thus achieve the protection of temporary land use. At the same time, in the process of setting up temporary land occupation, we must try our best to avoid the occupation of wasteland and farmland. When the construction project is completed, we should restore the temporary land occupation in time and ensure that the original landform is restored. Look. Second, the general layout of the construction is scientifically and reasonably arranged. Relevant construction personnel should be as close as possible to the original traffic line during the process of setting up the construction site's working shed and material storage yard. In addition, the planning and setting of the temporary office area must be as small as possible to ensure economy and applicability. At the same time, a circulation path should be set up at the construction site to avoid occupying too much land due to the construction roads.

V. Conclusion:

With the continuous development of China's economic level, the problem of resource reduction and environmental pollution is becoming increasingly serious, which seriously affects people's normal lives. Therefore, it is urgent to increase the application of the concept of sustainable development. During the development of the construction industry, a large amount of natural resources and energy are consumed. At the same time, a large amount of waste will be generated during the construction of the construction project, which will seriously pollute the environment. Therefore, in order to avoid the above phenomenon, the construction industry It is necessary to fully realize the importance of green building construction, and to adapt the construction of construction projects to the concept of sustainable development. Green construction is of great significance for

protecting the environment and recyclable resources. By fully applying sustainable building green construction technology, the construction industry not only helps to avoid a large amount of waste caused by the construction work, but also helps Ensure that the adverse effects of building construction on environmental resources are minimized, thereby promoting the healthy and sustainable development of construction enterprises and maximizing the economic and social benefits of construction enterprises. Based on green construction management, this paper introduces environmental protection, discusses the use of materials and materials, analyzes water conservation and comprehensive utilization of water resources, studies energy conservation and energy use, and elaborates land conservation and construction land protection. It is hoped that this study will provide an effective reference for related construction personnel.

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