# Analysis on the Cognitive Practice of Construction Technology and Quality Management of Garden Road

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**Abstract.** Under the new situation, the process of urbanization is speeding up, and our country and government have been pushing forward the construction of urbanization. In the process of urbanization, landscape engineering plays an important role in the development of the city and the improvement of residents' living standard, and the quality of garden road construction has an important impact on the quality of landscape engineering construction. In the actual landscape engineering construction, we should pay attention not only to planting and collocation management of green plants, but also to the construction and management of garden roads. The construction quality of garden road affects the economic benefit, social benefit and ecological benefit of garden greening project. How to do well the construction technology and quality management of garden roads is worthy of attention. Based on this, the construction technology and quality management of garden roads are studied and analyzed in this paper.

#### Introduction

The construction of landscape engineering plays a certain role in reflecting the development of city and the situation of urban economic development. The construction of garden greening project plays an important role in exerting economic and social benefits as well as social benefits. In the process of landscape engineering construction, attention should be paid to the planting and allocation of plant resources, and technical management and quality management should be strengthened in combination with the construction of garden roads. The quality of garden road construction is related to the construction quality of landscape engineering, so it is necessary to strengthen the management of garden road construction from the technical level and management level. It is worth thinking about how to improve the construction quality of garden roads. Based on this, this paper first analyzes the construction process of stone washing roads, and analyzes the key points control of the construction of stone washing roads. This paper expounds the other measures to be paid attention to in the construction of garden roads, and makes a detailed analysis on the quality management of the construction of garden roads, hoping to enlighten the construction technology and quality management of garden roads.

### **Construction Process of Stone Washing Road**

The construction management of the garden road affects the construction quality of the subsequent garden engineering, and also exerts certain influence on the function of the garden engineering. Therefore, in the actual construction process of the garden road, we should pay attention to the management of the garden engineering road, the construction technology and the construction quality of the garden road, so as to improve the construction quality of the garden engineering road. Ensure the quality of construction is improved effectively [1]. The following is a brief analysis of the construction process of the landscape engineering stone washing road:

**Construction Layout**. First of all, we should design a middle line in the road, set up a central road pile at a distance of 20 to 50 meters, and in addition, release a central pile at the beginning and end of the road bend, and then set a corresponding pile number for each central pile[2]. The width of the pavement is designed with the center pile, and the position of the side pile is determined. Finally,

the plane curve of the pavement is set up.

**Excavation Groove.** Combined with the road width of garden engineering, the corresponding road groove is excavated outside the distance of 20-30 cm on both sides of the road, and then the actual thickness of the road surface is determined according to the depth of the road groove excavation [3].

- 3. Do a good job in the management of basic construction
- 4. Do a good job of surface cleaning and leveling management
- 5. Do a good job of gravel and cement mixing management
- 6. Do a good foundation work
- 7. Do a good job of road smear management
- 8. Do a good job of garden road solidification work.
- 9. Wash off the surface adhesive
- 10. Apply a protective agent to the road

Above described is the garden engineering water wash stone road construction procedure and the corresponding flow. In the actual construction process, its construction link will affect the final construction quality and effect of the whole garden project. Below carry on the concrete and deep construction technology research and analysis to it.

## **Key Point Control of Stone Washing Road Construction**

**Foundation Construction.** During the construction of the water-washing stone road of the garden project, a certain cracking condition is easy to occur. The reason for the cracking of the road often has two aspects, on the one hand, due to the cracking of the road settlement, and on the other hand, due to the expansion and contraction of the water washing stone. In order to effectively avoid the corresponding cracking of the water-washing stone road of the garden project, the corresponding measures should be made in the construction of the road foundation [4].

Plain soil must be rammed, if the principle of plain soil quality is very poor, should be targeted to change soil, to ensure the quality of construction of workers and peasants. In order to improve the quality of foundation construction, a certain amount of crushed stone should be added to thicken the foundation construction [5]. For road foundation construction, we can use the method of adding reinforcement to ensure that the whole concrete foundation is thicker and foolproof. In the actual construction of water-washed stone roads, corresponding expansion joints should be set up at intervals, and the distance between them should be controlled at five to six meters, so as to ensure the construction quality of garden roads is guaranteed.

**Grass-roots Level Leveling.** The so-called road base leveling means that after the actual road construction is completed, the foundation surface of the road is leveled again, and the elevation can be effectively controlled by leveling the road base again. In addition, the thickness of the washing road can be effectively controlled by leveling the base, and the construction cost can be better controlled [6].

**Gravel and Cement Mixing.** The construction of garden roads should pay attention to the control of gravel and cement mixing. The key point of control in this respect is the amount of gravel used in each square of construction (usually calculated by weight), and the amount of gravel used has a certain impact on the construction quality of washed roads. The distribution of gravel on the road surface is directly affected by the uniformity of gravel distribution. If the number of gravel is small, the effect is not good, and the construction adhesion is not high if the number of gravel is high. Therefore, the quantity of gravel in mixing should be effectively controlled to ensure the actual construction quality of the road.

**Priming.** The so-called road foundation is to apply a layer of binder on the surface of the leveling base after road construction [7]. This step is to help bond the gravel cement mixture with the base. In the actual application of binder, we should wait until the actual road foundation is dry, and then apply it accordingly to prevent the phenomenon of returning alkali, to ensure the uniformity in the smear, and to prevent the surface from crusting. In order to improve the quality of road construction, gravel and cement agitator should be spread out immediately before it is dry after

the application of binder to ensure that they are fully bonded.

**Daubing.** For the painting of garden roads, the mixture of agitated gravel and cement should be spread evenly on the surface of the road base, and then the mixture should be repeatedly and slightly slapped and leveled with a laminate. In order to ensure the surface of the base and the base of the adhesive strength. In addition, in the treatment of road expansion joints, wood strips can be used to prevent certain pollution. In addition, a certain number of pebbles should be added after smearing to ensure that the mixing density and proportion of the whole mixture meet the actual needs [8].

**Welding.** In the garden road construction, after the paving of gravel and cement mixture, the process of waiting for its hardening is called solidification, the whole curing process can reflect the paving quality of road cement and mixture, and before the actual curing end, The stones in the cement and the mixture should be checked, and the corresponding stones may appear during the road curing process, so if the stones are found to be unevenly distributed, they should be updated immediately. In order to ensure that the whole road solidification effect in line with garden road construction requirements.

Washing off Surface Adhesives. In the course of solidifying garden roads, the constructors can wait until the cement surface is half dry, use sponge to clean, and then repair the stone. When the base level reaches 80% dry state, use special tools and equipment to clean to ensure that the stones in the road are clearly visible, and exposed cement surface 1/3 is the best. When the weather is clear and the cement is completely hardened, clean water can be used to clean the road surface to ensure that there are no cement marks on the road surface. If residual cement is found, use a hard brush to brush the stone surface immediately to ensure road quality and effectiveness [9].

Coating Protective Agent. After the road surface is dry, clean water can be used to wash the stone surface, then dust is washed off, and when completely dry, the stone surface is evenly coated with waterborne resin. Thus, the waterproofing and anti-fouling effect of the stone washing road is improved. It was not until this part was completed that the whole process of washing stone was completed [10].

Other Precautions: For the construction of washed stone roads and mixing of mixtures, cement marked above 42.5 shall be used. When the gravel arrives at the site, it is necessary to check the gravel, to ensure that the color difference of the gravel is small, the debris is less, and the gravel grain is full. After all the stones are smeared, the corresponding repair is carried out, and the roller can be used for the flat compaction. In the construction, we should add the color powder to the cement to protect against ultraviolet ray, so as to ensure that the washing stone will not discoloration in the long period of wind and sun. In the course of road construction, it is necessary to ensure that the outdoor temperature during road construction is above 5 degrees, so as to reduce the occurrence of empty drums and shedding. Make sure the whole base surface remains dry when the road surface is implemented, so as to reduce the occurrence of alkali-returning.

# **Quality Management of Landscape Road Construction**

Early Stage of Construction. In the course of the construction of the garden road, attention should be paid to the control of the construction process in the road construction, and the construction quality of the road can be ensured to be improved steadily. Therefore, the scientific and reasonable design of the road construction organization is to be carried out first, and before the road construction is carried out, the corresponding construction cost can be effectively controlled through the preparation of a scientific and reasonable construction organization design, the construction quality is ensured, and the construction progress is ensured to be orderly completed, in the actual construction process, the economic benefit and the social benefit and the ecological benefit can be better realized. At the same time, the design should be made for the construction drawing of the road, in particular, the drawings disclosure should be carried out, so that the construction personnel can understand and grasp the road design intent in the actual construction process, so as to ensure that the road construction is in accordance with the actual needs of the building units. In this respect, the designer should make a thorough and detailed disclosure to the

construction personnel, and when the construction personnel get the corresponding road design documents, it is necessary to check the design scheme on the road construction site, and if there are insufficient and incorrect places, We should actively communicate with the design unit and make the corresponding construction plan, so as to effectively improve the quality of the construction of the road and construct the fault in the construction of the garden road.

Intermediate Stage of Construction. In view of the garden road engineering construction, in the actual construction process, should do the corresponding construction management work. The technical management in the construction stage is of great significance to the construction quality of the whole road, so it is necessary to strengthen the quality management of the construction raw materials. On the one hand, we should manage the material purchase and inspection, acceptance sampling, test, etc, and do a good job of overall control. In the actual construction process, we should also do a good job of control, road engineering in the actual construction should be a comprehensive control. Of course, we also need to do a good job in the management of the construction process and construction plan of road engineering. In view of the construction plan, we should strengthen the corresponding management and optimization, organize experts to conduct a meeting and review, and solicit the relevant opinions and suggestions of the experts. To ensure that its construction scheme is more efficient and reasonable. Of course, in the actual construction, the work in the key construction process should be checked, especially the application of new technology and materials should be actively applied to the construction, and the technical content of the whole road construction should be continuously improved. In the course of road construction, the quality assessment should be carried out according to the stage engineering, especially to ensure the construction quality of the stage engineering. If it is found that the construction quality does not meet the requirements, the corresponding rectification should be made immediately to prevent the phenomenon of insufficient quality and continue construction, which is also of great significance to ensure the construction quality.

The Late Stage of Construction. In view of the completion and acceptance of the road of garden engineering, first of all, the construction unit should do a good job of sorting out the corresponding construction materials, and combining with the corresponding garden road engineering to make a good compilation of the technical summary, and provide the raw material testing report to the relevant acceptance department. Design change document, intermediate acceptance record, completion plan and project budget, construction summary report and other related documents. In the process of completion acceptance, we must follow the corresponding rules and regulations to prevent certain corruption. The completion acceptance should also be carried out in a scientific and reasonable way. If the corresponding problems are found, the coordination and rectification should be carried out immediately.

#### Conclusion

Generally speaking, the construction quality management of the garden road has an important influence on the construction quality of the landscaping work, so we should pay attention to the construction technology and quality management of the garden road. In the construction of garden roads, we should do a good job in foundation construction and foundation leveling, mixing gravel and cement, smudging and curing, washing surface adhesives and smearing protective agents, and so on, and other attention measures should be made. In order to ensure the construction quality of the garden road, the quality management should be done well in the early stage, the middle stage and the later stage of the construction of the garden road.

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