Analysis on The Main Points and Importance of Construction Technology of Construction Civil Engineering

YUE Bao-qiang
(Capital Construction Department, Shandong University of Traditional Chinese Medicine, Shandong Ji‘nan 250355, China)

Abstract: This paper briefly introduces the application of civil construction technology in construction engineering, expounds the importance of construction civil engineering construction technology, and conducts in-depth research and analysis on construction civil engineering construction management, hoping to play a certain role in construction civil engineering construction. This paper mainly will provide reference and help to improve the construction efficiency of construction civil works, in order to better meet the actual needs of construction civil engineering construction.

1. Introduction
The current construction industry is developing rapidly, the overall level of construction has been significantly improved, and the quality of construction can be effectively guaranteed. Construction civil engineering is a key link in construction engineering, involving multiple aspects of construction technology, especially electrified civil works, etc., with high technical content and strict requirements for engineering construction technology. When constructing civil engineering construction projects, it is necessary to improve the importance of the use and innovation of civil construction technology, accurately grasp the key points of construction technology, lay a good foundation for the improvement of construction quality and construction efficiency, and better meet the current social and economic development process. In this paper, the actual needs of construction civil engineering construction, this paper has carried out research and analysis.

2. Application of Civil Construction Technology in Construction Engineering
2.1 Main Points of Civil Construction Technology in Construction of Building Exterior Wall Structure
In the construction of the external wall structure of the building, it is necessary to accurately grasp the technical points of the civil construction and ensure the overall construction level of the entire construction project. When constructing the professional structure wind tunnel link, the external wall structure of the building can be used as a positive pressure air supply passage. At the same time, attention should be paid to the application of civil construction technology in the air supply of the bathroom and the exhaust air duct. The steel mesh is fixed at the designated position. A certain proportion of the cement and watering are configured and then brushed. In the civil construction, it is necessary to further clarify the manner, location and cross-section of the relevant mechanical equipment, and carefully check whether the hole on the top of the building slab corresponds to the position on the drawing, and at the same time save detailed records of relevant data to facilitate subsequent search and reference. In addition, it is also necessary to pay attention to the inspection of the welding conditions of the civil construction pipe to ensure that the upper mantle of the riser meets
2.2 Construction Engineering Cooperation Application
The application of civil construction technology in construction engineering construction should pay attention to mutual cooperation. After the relevant mechanical equipment in the concrete construction enters the designated position, according to the technical requirements of civil construction, the sealing treatment should be given in time to avoid the loss and damage of the construction machinery equipment parts. In the specific construction, it is also necessary to clarify the scope and focus of the construction of mechanical equipment. There are special management personnel to carry out strict audits on the construction equipment declaration transportation equipment lifting plan, etc., to ensure that the direction of machinery and equipment and land occupation are implemented.

2.3 Civil Construction Technology in The Construction Project With Key Points
When cooperating with the water supply and drainage professional, the cooperation of civil engineering profession must pay attention to the thickness of the screed layer and the thickness of the roof insulation layer. Only by providing accurate thickness dimensions can the position of the water outlet of the construction project be accurately located. When the facility is laid, the work of taking over and taking over is done in advance, and then the pillars are tied. When cooperating with air-conditioning professional and HVAC professional, the civil construction must specify the location of the venting holes of the bathroom, kitchen, etc., and at the same time, install and repair the blinds and the external wall joints. When cooperating with electrical professional construction, it is necessary to pay sufficient attention to the line and trunking. In the construction of high-rise buildings, it is necessary to install lightning protection equalizing rings at intervals of 3 layers to enhance the lightning protection effect and level of the entire building.

3. Technical Points for Construction Civil Engineering Construction

3.1 Mass Concrete Construction
During the construction of mass concrete, it is affected by factors such as concrete hydration. The exothermic reaction has very high complexity. When the temperature stress exceeds the limit of concrete tension, it will be very easy to crack the concrete. Therefore, concrete pouring construction control must be done to avoid temperature cracks due to factors such as cement hydration heat temperature rise and temperature difference.

3.2 Waterproof Construction Technology
In practical application, waterproof construction technology mainly avoids leakage and harmful cracks in contact with water. In the specific design, it is necessary to follow the scientific design concept, and combine with comprehensive construction, composite waterproofing, rigid-flexible construction technology, etc. to improve waterproofing. Material and construction process selection is scientific and reasonable.

In the aspect of roof waterproofing, new construction techniques such as polymer cement-based composite coating construction can be selected. This construction technology needs to deal with nodes, slats and base layers in practical applications, in podium roof construction and tower roof construction. When it is necessary to apply the coating film evenly, the coating film is dried to form a film, and the coating is continued. In the direction of laying, it is necessary to ensure that they are perpendicular to each other, and the thickness of the uppermost soil layer is controlled within 1 mm. It is necessary to use repeated coating of waterproof coating at the position of applying the waterproof layer to the head, and it is strictly prohibited to have accumulation and runny.

In the aspect of exterior wall waterproofing, aerated concrete brick wall construction can be selected to avoid cracking and emptying of the plastering layer. In the aerated concrete brick wall plastering construction, it is necessary to hang the wire mesh at the interface of the two types of
materials in advance. After the wire mesh is fixed, the base surface is treated, and the slurry is selected by mixing 108 glue and cement, and the brush is applied after the configuration is completed. The plastering layer construction is generally carried out after the completion of the base surface treatment. In the masonry construction, it is avoided to select the water content that is too small or too large, and cannot be watered during the masonry process. The thickness of the gray seam in the horizontal and vertical directions is controlled to be about 10±2mm, and the fullness of the horizontal gray joint mortar cannot exceed 80%. In the construction of the waterproof layer in the water layer, the SKK water-based fluorine coating can be applied once at the cross position above the leveling layer. The thickness of the brush coating is controlled at about 3mm. After the construction, pay attention to the water conservation.

3.3 Rebar Connection Construction Technology
In the construction of steel bars, it is necessary to pay attention to the effective avoidance of various aspects and improve the standardization of the entire connection construction. If it is a singular steel bar, the percentage of the welded joint area can meet the actual needs even if it is slightly exceeded. In the aspect of controlling the area percentage of the lashing joint, it is necessary to avoid excessively large steel bars and plates, and the percentage of the welded joint area must be increased for the engineering needs. The tension of the control beam should not exceed 50%, and other components can be appropriately relaxed in combination with the actual situation requirements. Therefore, it is necessary to strictly adhere to the ground wire of the area of the tensioned steel joints in the beam, appropriately relax the requirements of other components, and ensure that it meets the needs of the overlap length.

3.4 Foundation Pit Construction Technology
In the construction of deep foundation pits, earthwork excavation construction is the most critical, and earthwork excavation needs to be carried out using excavation equipment or blasting methods. Before excavation of the earthwork, the construction site should be well prepared in advance, and the removal of vegetation, stones and debris in the construction area should be done well, laying a good foundation for the smooth and effective construction of the project in the early stage. After that, the construction area is divided, the earthwork storage location is reasonably selected, and there is a certain distance between the earth storage location and the construction location, and the subsequent construction of the soil pile near the foundation pit is affected. After the foundation pit is excavated to a certain depth, it is also necessary to pay attention to the excavation machinery and the transportation vehicle and the safety line to maintain a certain distance to avoid the collapse of the foundation pit caused by excessive pressure. The foundation pit excavation construction can adopt stratified and sectioned construction methods, and the thickness control of layered excavation should be done, and the thickness should be controlled within the safe range. When excavating at the horizontal support position, the influence on the reinforced concrete construction should also be avoided, so as to maintain the safe and smooth development of subsequent construction. In addition, in the construction of excavation work, it is necessary to strictly follow the excavation plan, and the manual excavation method must be selected. When laying the bottom layer of the foundation pit, pay attention to maintaining the stability of the support pile and reducing the interference and influence of external factors.

4. The Importance of Construction Civil Engineering Construction Technology
Civil construction technology plays an important role in the construction of construction projects. It is directly related to the construction quality of the entire construction project. The current civil engineering construction continues to develop, and its construction scale has also expanded significantly. The value and role of civil engineering construction technology is becoming more and more critical. With the increasingly fierce competition in the civil engineering market, construction engineering enterprises must do a good job in the application of various advanced science and
technology in order to improve the competitiveness of enterprises and promote the sustainable and stable development of enterprises. Therefore, construction enterprises must increase Research efforts in civil construction technology. In addition, the civil construction workers also need to have sufficient technical level and knowledge to ensure the construction quality is effectively guaranteed, use the targeted technical measures to price the construction site basic management level, improve the sense of responsibility and belonging of the enterprise staff, and make the civil construction potential risks and problems are effectively addressed and eliminated.

5. Construction Civil Engineering Management Measures

5.1 Optimize Construction Company Rules and Regulations and Personnel Management

At present, China has more extensive management of civil engineering in the construction management of civil engineering projects. The construction plan and construction organization of the project have not been optimized and improved. During construction, it is necessary to ensure that different types of work are coordinated and coordinated to adopt an optimization and coordination strategy to maximize project construction efficiency and create more economic benefits. The development of various industries requires a sound management system as a support, as well as civil engineering management. In order to create more unique economic benefits in the development process, enterprises must improve their scientific level from the aspects of personnel management and system management. Under the basic work of all aspects, the quality of the project will be guaranteed and more economic benefits will be created. Civil engineering involves many disciplines. If you want to give full play to the value and role of each discipline under the conditions of national policies, and transform the traditional management model, it must be combined with specific practical experience to improve and refine all aspects of the system. The rules and regulations required for enterprise development maintain the sustainable and stable development of the enterprise.

Personnel management in civil engineering construction management is also very important. People are the real main body of creating value. The development of engineering management must pay attention to the initiative of employees, establish a sound incentive system, take the activities of different talent selection, and enhance the employees. A sense of identity and belonging, improve the sense of ownership of employees, sum up work experience, formulate a normative system that meets the actual development needs of enterprises, and create more economic benefits.

At present, many construction workers are composed of migrant workers. There are problems such as poor quality awareness and weak technology in the construction. The project management personnel need to pay sufficient attention to this aspect and give targeted training. Through the training of construction personnel, it is possible to improve the technical level while ensuring the standardization of production operations, maximizing work efficiency and saving production costs. Employee skill training is a win-win activity for enterprises and employees, and plays an important role in the development of enterprises. The development of enterprise employee training needs to be comprehensively analyzed and considered from various aspects: First, enterprises need to establish a comprehensive training system, build an authoritative training institution, improve the effectiveness of enterprise construction personnel training, and ensure corporate culture, supervision and other aspects. The implementation of the company has laid a good foundation for the smooth development of corporate training. Secondly, the construction of construction enterprise personnel has a large complexity. The training content is related to the needs of production work. At the same time, the training method is adapted to the characteristics of employees. The management is used to promote the appraisal, and the training is combined with the appraisal to ensure the improvement of personnel quality, which lays a good foundation for the improvement of construction quality and efficiency.

5.2 Pay Attention to The Design Management of Civil Engineering

The design management of civil engineering in civil engineering management is very critical, and the
quality of design is directly related to whether the quality of the whole project meets the requirements. Doing a good job in civil engineering design management can not only shorten the construction period of the project, but also greatly reduce the cost of manpower and material resources, achieve effective control of construction cost on the basis of ensuring the quality of the project, and better meet the economic benefits of the enterprise.

In the specific construction, the current engineering design quality is not very satisfactory, and problems such as modification before installation and supplementary design will often occur. The design content is too conservative, and the software is directly applied. It cannot be adjusted and optimized in combination with the whole. The steel bars are complicated, and the layers are newly changed. It is very easy to have problems in the concrete construction and affect the quality of concrete pouring. Increase the difficulty of construction and supervision while wasting resources.

The strengthening of management needs to ensure that designers have high professional quality and technical level. Designers must not only learn professional knowledge, but also have a certain understanding of civil engineering construction technology, understand various methods and processes in construction, to ensure that can meet the actual construction conditions, and improve the design level and quality.

The improvement of design quality also requires the active participation of the owner. Although the owner is not a direct designer, it directly affects the design process and the quality of the design results. The owner needs to do a low level of design content, clarify the project budget, strengthen communication and communication with the designer in the design work, fully reflect the owner's requirements, and improve the effectiveness of the design scale control.

Inviting the supervision unit and the owner to participate in the project in the early stage of the project can bring more positive influences to the project development, and improve the design quality management effect and level. Through this method, the design quality can be better satisfied and improved.

6. Conclusion

Construction civil engineering construction technology and management are directly related to the construction quality and progress of construction projects. Attach importance to construction civil engineering construction technology and construction management, can better support the overall quality improvement of construction projects, create more economic benefits, and actively participate in the market competition, enhance the market competitiveness of enterprises, and meet the needs of sustainable and stable development of enterprises.

References

[1] Cai Yifei. Discussion on concrete construction technology in civil engineering of house construction [J]. Decoration and decoration world, 2019, (1): 263.

[2] Xia Fei. Research on Construction Quality Control of Civil Engineering of Building Construction [J]. Architecture and Decoration, 2018, (12): 108, 110.

[3] Zhao Qiang. Application of Energy-saving Construction Technology in Construction Civil Engineering[J]. Science and Fortune, 2018, (36): 214.

[4] Ye Yujie. Construction Management of Civil Engineering for High-rise Buildings in High-rise Buildings [J]. Architectural Engineering Technology and Design, 2018, (26): 1466.

[5] Zhou Yongkang. Analysis of Construction Technology and Management of Civil Engineering Buildings[J]. Architecture Engineering Technology and Design, 2018, (31): 185.