

Research into the Construction Technology of Indoor Ceiling and Ceiling Decoration

Yuan Gao*

Jiangxi Vocational and Technical College of Industry and Trade, Nanchang, Jiangxi, 330038

*corresponding author

Keywords: Ceiling Construction; Ceiling Decoration; Construction Technology; Architecture

Abstract: With the rapid development of China's construction engineering industry, building decoration engineering has also developed to a certain extent. To better meet the people's requirements for decoration quality and aesthetics at this stage, relevant workers should not only carry out construction according to the process requirements but also strengthen the monitoring and management of all aspects of decoration when carrying out the decoration of indoor ceilings. In addition, the construction personnel should constantly innovate the construction technology by integrating modern elements into the construction process, to ensure the innovative development of the ceiling and ceiling decoration work. This paper first analyzes the classification of the ceiling in building interior decoration construction and then focuses on the decoration construction technology of building interior ceilings and the decoration construction technology of building interior ceilings, which can be used as a reference for readers.

1. Introduction

The decoration of buildings is a complex work, and also plays an important role in building engineering. It can not only improve the quality of construction projects but also greatly improve people's happiness in life. With the continuous improvement of people's living standards, people have higher and higher requirements for the quality of building decoration at this stage, which not only requires the beauty and artistry of decoration but also requires the economic practicality of decoration[1]. Therefore, for the relevant personnel, it is necessary to constantly strengthen the mastery of the decoration construction technology of indoor ceilings and chandeliers to avoid quality problems in the construction process. At the same time, we should integrate modern elements into the construction, constantly improve the beauty of the building, and provide more choices of decoration styles for people. Most importantly, it is necessary to constantly optimize and innovate the construction technology, to ensure the high quality of the decoration project[2].

2. Classification of Ceilings in Interior Decoration Construction

At present, the classification of ceilings in building interior decoration projects mainly includes the following categories, namely: flat panel, special-shaped, grid type, well type, and local ceiling. These types of suspended ceilings are also applied in different places. For example, flat ceilings are generally used in the decoration of hallways, balconies, toilets, and other places, and gypsum or plastic panels are generally used; Different forms are mainly used in the decoration technique of bedrooms[3]. They cover the pipelines on top and embed fluorescent lamps on top. This not only effectively improves the aesthetics of decoration but also allows people to live very comfortably. For example, the local ceiling is generally used in places with pipes and radiators, because it is necessary to avoid these places and damage this equipment during decoration, so the local ceiling should be used; when the customer requires the aesthetics of decoration, the construction personnel can use the grid type to decorate. When the frame is formulated, wood materials are selected, transparent glass is inlaid, and sunlight can penetrate the house through the glass, which will greatly improve the aesthetics of decoration; finally, the falling well type is generally used in places with

high room height and wide vision[4]. The falling well type can be used for decoration around the roof, which can not only effectively improve the quality of decoration, but also strengthen the effect of decoration.

3. Decoration Construction Technology of Indoor Ceiling

3.1 Technical Preparation for Ceiling Decoration Construction

To ensure the construction quality and constantly standardize the construction steps during the construction of indoor ceiling decoration, the construction personnel should effectively apply the relevant design software. For example, through the use of AutoCAD design software, the plane drawings of decoration can be made to ensure that the construction personnel can decorate the indoor ceiling according to the plane drawings. For some places with complex decoration and more customer requirements, the application of 3D interior software can quickly produce effect drawings that satisfy customers, and also provide customers with more decoration options, to effectively improve customer satisfaction[5]. Therefore, in the technical preparation stage of ceiling decoration construction, the construction personnel should be able to prepare the decoration materials in strict accordance with the decoration scheme, and correctly place the decoration materials of the foundation by understanding the plane drawings. At the same time, the construction personnel also need to accurately measure the decoration space and then determine the position of the keel according to the measurement results, which is a very important step in the preparation stage of ceiling decoration construction technology. Determining the keel position according to the decoration space can not only effectively ensure the quality of decoration, but also improve the efficiency of decoration[6].

When carrying out decoration work, the construction personnel should also determine the weight that the ceiling can bear, to ensure the reasonable selection of chandeliers and the installation quality of chandeliers; When installing the keel, the reinforcement should be treated against rust to ensure that the reinforcement can be used for a long time, and at the same time, the bearing capacity of the keel can be improved. When welding reinforcement, it is also necessary to constantly standardize the process technology and operation process of the construction personnel to ensure that the construction personnel carries out the welding work following the provisions, which can improve the construction quality and ensure the safety of construction[7].

3.2 Installation and Fixing of Suspender

To ensure the construction quality and efficiency, the relevant construction personnel can consider the following aspects when installing and fixing the hanging bar: First of all, the construction personnel should choose the construction techniques according to the actual decoration space, to effectively improve the efficiency of the installation and fixation of suspenders; Secondly, strict supervision and management should be carried out on the construction site to ensure that the construction personnel carries out the construction according to the process flow. At the same time, the appropriate process technology is also selected; In addition, we should strengthen the control of construction quality, and solve problems the first time when encountering problems in the management process[8]. For example, if the construction personnel does not carry out embedded parts in the cast-in-place floor structure, the management personnel should point out the construction problems, and then let the construction personnel solve the problems through the effective application of nail shooting, to ensure the construction quality; Finally, the supervision and management personnel should also make detailed records to provide data support for the decoration and maintenance work in the future.

3.3 Construction and Installation Standards of Keel

When installing and fixing the keel, constantly improving the installation quality can make the ceiling and the top surface of the building more and more suitable. For the construction personnel, in the face of different wall structures, different technologies and processes should be selected to

install and fix the keel, to ensure the quality and safety of construction; in addition, when installing the side keel, the spacing of fixing nails should be about 900 mm. The keel, keel, and hanging bar are generally fixed with nuts to ensure their stability[9]. In addition, in the process of actual keel installation and fixation, it is also necessary to constantly strengthen the management of construction personnel to ensure that all construction personnel work according to the specified process flow, and also control the construction quality according to the relevant process requirements. Only in this way can the high quality of keel construction be ensured. For decoration projects with large space, the main keel can be cambered. Therefore, for the construction personnel, when installing and fixing the keel, it is not only necessary to supervise and manage the whole construction process to reduce the occurrence of construction problems, but also necessary for the construction personnel to continuously improve their construction technology through training and self-learning, to ensure that the relevant work can be completed with high quality. Only in this way can the installation quality and construction efficiency of the keel be effectively improved[10].

3.4 Quality Control Method of Ceiling Decoration Construction

To continuously strengthen the control of construction quality during the decoration construction of suspended ceilings, the construction personnel should do a good job in the management of the whole construction process, and at the same time, effectively manage the construction materials to avoid the use of inferior materials affecting the construction quality. For the construction personnel, the following aspects can be considered: first, the construction personnel should select decoration materials in strict accordance with the quality standards for interior decoration of buildings, and try to choose decoration materials with high-cost performance and good quality. This can effectively improve the stability of the decoration project and enhance the project's anti-risk ability; Secondly, during the decoration construction of the ceiling, it is necessary to meet the needs of customers, maintain a serious and responsible attitude towards customers, carefully complete every link of the construction, and avoid construction problems; Moreover, before the ceiling operation, the relevant building materials should be subject to rust prevention treatment to ensure that these materials can be used for a long time and increase the stability of the decoration project; At the same time, when welding materials, the construction personnel should carry out construction according to the welding process requirements to improve the overall quality of ceiling decoration; Finally, for those heavier ornaments, when installing them, we should be able to strengthen their stability through relevant technology. For example, when installing the chandelier, the ceiling can be reinforced, which can effectively ensure the stability of the chandelier.

4. Decoration Construction Technology of Building Interior Ceiling

4.1 Industrial Decoration of Ceilings

Industrial decoration refers to the treatment of some decoration materials that need to be used during the construction of the indoor ceiling, and the treatment by water purification and other processes to ensure that the materials will not produce odor and pollution after use. This kind of Industrial decoration can not only effectively save the decoration time, but also effectively control the decoration cost. The appearance of Industrial decoration has broken the traditional decoration mode. It can effectively combine with the decoration scheme, provide customers with diversified decoration methods, improve customer satisfaction, and make the decoration of the interior ceiling of the building more personalized and humanized. For the construction personnel, at this stage, when the ceiling is decorated, it is necessary to ensure that the decoration work can be carried out according to the construction scheme and effectively improve the overall quality of the decoration through the application of industrial decoration technology.

4.2 Treatment Method of Ceiling Base

In order to continuously improve the quality of the project, the construction personnel can consider the following aspects when dealing with the ceiling base: First of all, the construction

personnel should determine the area of the ceiling base treatment, and then carry out the surface treatment according to the relevant treatment standards, so as to ensure the smoothness and aesthetics of the construction surface; Secondly, when carrying out the plane leveling work, the construction personnel should follow the relevant process flow to avoid the incompleteness of the plane; In addition, the construction personnel should carry out the marking work in strict accordance with the process requirements to ensure that the treatment of the ceiling base can be completed effectively; Finally, during the plastering construction, the construction personnel should also carry out the plastering operation according to the relevant process requirements to effectively improve the quality of plastering.

In the actual plastering construction process, the construction personnel should strictly control the water level. After the plastering of the bonding layer is completed, the floating dust should be removed. The construction personnel can use brooms to remove the floating dust. After all the above works are completed, the bottom ash can be applied. The construction personnel should pay attention to the control of time at this time. It is better to apply the bottom ash two hours after the completion of the screening. Since the operation process requirements at this time are relatively strict, it is necessary to strengthen the supervision and management of the coating construction of construction personnel to avoid construction problems.

4.3 Construction and Installation Method of Ceiling Lamps

4.3.1 Installation and Construction Method of Ceiling Lamps

To continuously improve the quality of the decoration project, the construction personnel can consider the following aspects when installing and constructing ceiling lamps: First, the construction personnel should design the decoration construction according to the weight of the ceiling lamps and the specific installation position of lamps. For example, when installing the ceiling lamp, if the bearing capacity of the keel is greater than the weight of the ceiling lamp, the ceiling lamp can be directly installed on the keel. At this time, the keel can stably enter the installation of the ceiling lamp and ensure the stability of the project; Secondly, after determining the bearing capacity of the keel, the installation can be carried out directly. The construction personnel should analyze the drawings to find out the specific installation position of the ceiling lamp to ensure the rationality of the construction; In addition, if the construction personnel find that the bearing capacity of the keel is relatively small, which is less than the weight of the ceiling lamp, they need to use relevant process technology to strengthen the keel or effectively connect with the floor to ensure the stability of the ceiling lamp installation. Therefore, during the installation and construction of ceiling lamps, it is necessary to classify them according to the weight of ceiling lamps and determine the bearing capacity of a keel, select appropriate process technology for decoration construction, ensure the stability of ceiling lamps and improve the installation quality of ceiling lamps.

4.3.2 Installation and Construction Method of Chandeliers

With the continuous improvement of people's quality of life, the pursuit of chandeliers' style is becoming more and more diversified. Now there are many styles of chandeliers on the market, and the quality is also different. During the installation and construction of chandeliers, the construction personnel should select the quality of chandeliers according to the construction standards and the construction process according to the weight of chandeliers, to effectively ensure the construction quality. For example, for chandeliers with a relatively small weight, the construction personnel can directly install them on the keel; for chandeliers with large weights, they can be installed on the wall and embedded accordingly. At the same time, the bearing capacity of embedded parts should be continuously improved through reinforcement and welding operations. In addition, during the installation and construction of chandeliers, the relevant staff should also strengthen the supervision and management of the construction site to ensure that the construction personnel can carry out the construction according to the process technology and process, and constantly improve the construction efficiency.

4.4 Quality Control Method of Ceiling Decoration Construction

In the process of ceiling decoration construction, to effectively control the construction quality, the construction personnel should set the decoration platform according to the actual height of the house, and ensure smooth construction according to the moving requirements. At the same time, the construction personnel should strengthen the research on the ceiling, including its height and width, and then continuously determine the position of the corner decoration, accurately determine the position of the corner decoration, ensure the symmetry of the decoration, and avoid the rectification of the decoration due to errors, thus affecting the decoration construction quality of the ceiling. Therefore, the construction personnel should be able to accurately measure the angle and position to ensure the rationality of the decoration position, and manually polish the surface to make the whole project meet the design requirements.

5. Conclusion

To sum up, the interior ceiling and ceiling decoration of the building should be constructed according to the relevant process requirements, to effectively ensure the construction quality and beauty. In the specific construction process, to meet the construction requirements of ceiling decoration, we can use relevant software to make rapid drawings, and show customers some photos of achievements, so that customers can have more choices. Moreover, with the improvement of people's requirements for house decoration at this stage, to better meet the needs of customers, it is necessary to constantly standardize the construction technology, and at the same time, strengthen the supervision and management of every construction link to ensure that the construction personnel can carry out construction according to the process requirements. In this way, not only the construction efficiency can be guaranteed, but also the construction quality can be well guaranteed. The construction and management personnel, in addition to mastering superb construction technology and management technology, should also consider more construction directions in the actual construction process, including the selection of materials, process technology, and aesthetic design. Only in this way can we constantly innovate the decoration of indoor ceilings and chandeliers, and promote the development of indoor ceiling and ceiling decoration technology.

References

- [1] On the construction technology of indoor ceiling and shed decoration Tang Guochao - Real Estate Guide - 2021
- [2] Key points of reinforced concrete structure construction technology in construction engineering Wang Qiang - Real Estate Guide - 2021
- [3] Key points of reinforced concrete structure construction technology in construction engineering Wang Qiang - Real Estate Guide - 2021
- [4] Key points of reinforced concrete structure construction technology in construction engineering Wang Qiang - Real Estate Guide - 2021
- [5] Construction technology analysis of indoor suspended ceiling and ceiling decoration Zhang Pinghua - Architectural Engineering Technology and Design - 2018
- [6] Research on Safety Hazards and Prevention Measures of Natural Gas Pipeline Construction Technology He Dong; Hao Wang - Petrochemical Technology - 2019
- [7] Treatment of Quality problems in Civil Engineering Li Xuhao, Industrial Science and Technology Innovation, 2020
- [8] Brief discussion on the measures of quality control in the construction stage of building engineering Juliet - Building Engineering Technology and Design - 2021

- [9] Analysis on anti-crack and anti-seepage quality control of aerated concrete block outer wall
Zhang Chang - Architecture and Decoration - 2019
- [10] Analysis of the risk of water conservancy and hydropower construction schedule Wei Xiaobo;
Wang Chaofan - Architectural Engineering Technology and Design - 2021