



Analysis to Improve the Quality of Housing Construction Management and Construction

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Abstract

Housing construction projects due to its own has a strong comprehensive, systematic and complex construction procedures, combined with the construction of easy to be affected by many factors, not only increase the difficulty of engineering management, is not conducive to improving the quality of housing construction project construction at the same time, thus reducing construction enterprises in areas such as the economic and social benefits. In order to meet the current requirements of various industries for the construction quality and safety of housing construction engineering, it is necessary to analyze and study reasonable measures to improve the management and construction quality control of housing construction engineering from various angles and aspects, so as to promote the long-term and stable development of housing construction industry.

Keywords

Housing construction; Project management; Construction quality; Measures

1. Introduction

The rapid development of the current economy and society has provided favorable market conditions for the sustained and stable development of the housing construction industry. Coupled with the continuous improvement of people's housing needs, the scale and number of housing construction projects have gradually expanded. Project management and construction quality control are the key factors in housing construction projects. It is an important content, which is of great significance to the overall quality and service life of housing construction projects [1]. In order to ensure the quality of housing construction projects, it is necessary not only to strengthen project management, but also to focus on establishing a sound construction quality control system and formulating reasonable construction Planning, and good construction quality supervision and management will promote the continuous improvement of the comprehensive competitiveness of housing construction companies, so as to build high-quality and efficient housing buildings and achieve their own scientific and sustainable development goals.

2. The significance of improving housing construction project management and construction quality

2.1 Improve construction efficiency

Housing construction projects include multiple construction links, which are closely linked to each other to form a whole construction. Strengthening and improving the management and construction quality of housing construction projects can make them coordinate internally and form a coordinated and linked construction mechanism to ensure that each construction link can communicate and cooperate effectively with various departments, and understand the

contradictions or construction problems in different construction links during communication, so as to take timely measures to solve them, avoid delays, safety accidents, etc., and thus improve construction efficiency.

2.2 Reduce construction costs

Improving the management and construction quality of housing construction projects can strengthen management of all aspects in response to actual construction hazards, ensuring that construction can be carried out in an orderly manner in accordance with standard specifications, which can not only improve construction efficiency and reduce construction time. At the same time, reasonable quality management measures can be used to optimize the work procedures on the construction site, strengthen the full utilization and optimal configuration of on-site construction resources, thereby helping to reduce the occurrence of adverse construction accidents, reduce construction and maintenance costs, and on this basis, improve overall economic benefits.

2.3 Ensure project safety

Through reasonable and effective housing construction project management, construction units are required to supervise and manage the construction site in accordance with the specifications, regularly inspect construction machinery and equipment, strengthen construction personnel's safety awareness, operating techniques and other aspects of training and education, and reasonably and scientifically arrange construction on the construction site to ensure that problems can be effectively communicated and resolved before they arise, thereby avoiding or even eliminating safety hazards in the construction of housing projects to the greatest extent possible.

2.4 Enhance the market competitiveness of construction enterprises

The current economic society is in a state of constant change. Although the construction industry has been rapidly developed and its market share has been continuously expanding, it is still facing increasing market environment and competitive pressure [2]. By continuously improving the management level and quality control effect of housing construction projects, it can not only improve the efficiency of housing construction, reduce construction costs, and ensure construction safety, but also improve the overall level of housing construction enterprises, so that the construction quality and economic benefits are continuously improved, which is conducive to improving their own competitiveness in the market.

3. Problems in housing construction project management and construction quality

3.1 It is difficult to scientifically coordinate construction progress and construction quality

In housing construction, construction quality and construction progress are closely related. If we only focus on construction quality, it is easy to prolong the construction progress, resulting in breach of contract by construction companies, thus causing economic losses. If we only focus on construction progress, it is difficult to ensure construction quality and safety. Therefore, the current contradiction between construction progress and construction quality is one of the important issues in housing construction project management and construction quality. Under this circumstance, some construction companies failed to complete the construction on time, and it was easy to cut corners and improperly shorten the construction period, which was not only not conducive to ensuring construction quality, but also poor in housing construction project management.

3.2 Inadequate quality management of construction materials and equipment

Construction materials and equipment are important factors affecting the quality of housing construction. However, some construction companies currently do not have adequate quality management for construction materials and equipment, which can easily lead to a low level of project management and difficulty in ensuring construction quality. This is mainly reflected in the following aspects. First, the construction materials and equipment are not adequately managed during procurement. On the one hand, the procurement personnel do not fully understand the actual situation of the housing construction project and the required types of materials and equipment during procurement, resulting in the purchase of equipment and materials. Models, sizes, etc. do not meet actual needs. On the other hand, some construction companies choose materials of poor quality that do not match the current construction quality specifications in order to increase their own economic benefits and reduce construction costs, resulting in certain safety hazards

in housing construction projects. Secondly, there is a lack of scientific management of materials and equipment on the construction site. First, after the construction materials and equipment enter the construction site, the professionals who conduct inspections do not strictly inspect the materials and equipment in accordance with the management system, resulting in materials and equipment with quality problems entering the construction site. Second, when materials and equipment were put into storage, on-site construction management personnel did not store them properly according to on-site needs and the characteristics of the materials and equipment, and did not regularly inspect and maintain the equipment, which led to the deterioration of construction materials. Problems in the use of equipment resulted in the overall effectiveness and function being difficult to fully exert, affecting construction efficiency and progress, and posing a serious threat to construction quality.

3.3 Lack of a sound construction quality management system

At present, the management level of most housing construction projects is low, the construction quality is difficult to guarantee, and the construction is quite random. The main reason for this phenomenon is that the corresponding construction companies have not established a complete and strict engineering construction quality management system, and lack scientific and effective management of construction personnel, which leads to negative and irresponsible work attitudes of construction personnel. In addition, my country's current construction technology is constantly being optimized and improved, while the housing construction management model is relatively traditional, which is difficult to meet the needs of the continuous development of current construction technology.

3.4 The professional quality of construction workers is low

Construction personnel are the foundation of housing construction project quality management and have a direct relationship with construction quality. However, based on actual conditions, most housing construction project construction personnel are currently temporary construction personnel, and most of the construction personnel have relatively low-quality levels. They are not only unable to cooperate with the smooth implementation of project management, but also lead to a certain gap between construction quality and actual standards [3]. In addition, some construction companies did not conduct systematic and professional training for relevant construction personnel before construction, and lacked accurate guidance on their construction technology. Therefore, in actual construction, it is difficult for construction personnel to operate according to standards, and there are obvious problems in actual construction, which leads to frequent construction quality problems and construction safety accidents.

4. Specific measures to improve the management and construction quality of housing construction projects

4.1 Innovate the operation mode of housing construction project management and construction quality control

4.1.1 Strengthen publicity and education to enhance awareness of project management and construction quality

Improving the management level of housing construction projects and strengthening construction quality control require relevant staff to fully understand the importance of this work, actively participate in management and control, strengthen the coordination effect, and establish a sense of construction quality, so as to regulate their own behavior in accordance with the standards and principles of project management, and improve construction safety and quality. To this end, housing construction project construction companies should, on the one hand, strengthen publicity for construction personnel, improve their awareness through lectures, leaflets or slogans, infiltrate their awareness of construction quality and safety, and enable them to fully understand the relationship and influence between housing construction project management, construction quality control and themselves, so as to actively accept project management and standardize construction behavior. On the other hand, publicity and education should be carried out for housing construction project quality control staff, guiding them to recognize the importance of their own management work, and to formulate scientific and reasonable construction management systems according to the actual situation of the project, actively implement project quality control, and ensure construction safety and building application effects.

4.1.2 Strengthen training and build a professional team

The current housing construction industry is in a state of constant development and change. The construction materials, construction technologies, and equipment used in it are gradually being improved and optimized. To a certain extent, higher standards are being set for the professional competence and quality of construction personnel, and higher requirements are being set for the comprehensive level of housing construction management personnel [4]. Therefore, in order to adapt to the development trend of housing construction, it is necessary to provide training for construction personnel and management personnel, and actively build a team of high-quality talents to improve the management level and construction quality of housing construction projects. To this end, as far as construction personnel are concerned, housing construction companies should provide training and education, hire professional and experienced construction personnel to explain advanced construction technologies and equipment applications, and at the same time, improve the overall construction level and ensure construction quality by bringing the old with the new. As far as construction management personnel are concerned, the talent introduction standards should be improved, and staff with rich management experience should be selected through recruitment methods, so that they can use their own abilities to solve management emergencies in a timely and effective manner. On this basis, management personnel can be provided with opportunities for further study, encouraged to communicate with high-quality management personnel, and learn and apply advanced management models and methods in a timely manner, thereby improving the construction level of housing construction projects and ensuring construction quality.

4.1.3 Strengthen construction cost control management and improve economic benefits

Cost control management of housing construction projects is one of the key contents of the entire project. To improve cost control management and enhance the economic benefits of construction enterprises, we should first strengthen cost control in the design stage to ensure the rationality of architectural design. To this end, housing architectural designers should fully consider the characteristics of the construction project and the area where it is located, and design the plan on the basis of quality and quantity based on the actual situation, and ensure the feasibility of housing construction while reducing the difficulty of construction and improving construction efficiency. Secondly, we should do a good job in cost control management during the bidding stage. This stage is a key link affecting the profits of housing construction enterprises and is also one of the important factors affecting construction quality [5]. In the bidding process of housing construction projects, we should strictly follow the principles of fair, reasonable and scientific bidding, carefully analyze and judge all participating bids, select bids with good reputation and high comprehensive level according to the actual situation, and prevent undesirable situations such as bidding for winning the bid. Finally, we should pay attention to cost control management during the construction process. Before the construction of a housing construction project, professional construction personnel from all links should conduct a comprehensive analysis and in-depth understanding of the project, and on this basis, jointly discuss the estimated construction cost, and formulate and improve a scientific cost control plan from all aspects to provide a reference for subsequent construction progress and construction plans, so as to prevent the increase of construction costs or the occurrence of cutting corners and other undesirable phenomena in order to speed up the construction progress or save costs.

4.1.4 Strengthen the quality management of construction materials, machinery and equipment for housing construction projects

In the construction of housing construction projects, construction materials and machinery and equipment are important foundations. Strengthening the management of construction site materials and equipment can not only ensure construction efficiency, but also enhance the efficiency and quality of the use of construction materials and machinery and equipment, thereby ensuring the overall construction quality. Before purchasing, procurement personnel should strictly abide by the procurement plan and select high-quality and reputable machinery and equipment suppliers on the basis of controlling procurement costs through comparative investigation. The selected suppliers should have basic conditions such as quality certificates and factory certificates to ensure the quality of construction materials and machinery and equipment from the source [6]. Secondly, strengthen the acceptance of materials and equipment entering the construction site. This requires the person in charge of the construction site management of the housing construction project to coordinate with all parties to inspect the construction materials and equipment. If there are quality problems with the construction materials or equipment, the quality should be verified by full inspection or double sampling inspection. Among them, the quality of steel and waterproof materials should be inspected by witness sampling or retesting. Special materials should be required to be equipped with relevant elements such as

production licenses or instructions to avoid materials or equipment with quality problems from entering the construction site. Finally, strengthen the on-site management of housing construction materials and machinery and equipment. First, arrange reasonable storage locations for construction materials or machinery and equipment of different types and characteristics according to construction needs and entry time to avoid affecting the progress of on-site construction or damaging construction materials. Second, formulate a scientific management inspection plan, and have professionals regularly inspect construction materials and equipment. If there are damaged materials on the construction site, they should be removed from the site in a timely manner based on the actual construction situation to prevent misuse and reduce construction quality. If there are problems with the parts of construction machinery and equipment after inspection, they should be repaired and replaced by professionals in a timely manner to ensure actual application performance.

4.1.5 Improve the quality management system of housing construction

To ensure that the construction process and construction quality have rules to follow, it is necessary to continuously improve the current construction management system and quality control system of housing construction projects. First, understand the characteristics of different construction links of housing construction projects, and clarify specific and strict requirements for each construction detail according to relevant construction quality laws and regulations, and standardize the construction process and quality standards of each link. Second, formulate a reasonable and open reward and punishment system, and timely and scientifically reward those who can actively cooperate with housing construction project management and construction quality control to mobilize the enthusiasm of other staff to participate, so as to continuously improve construction efficiency and speed up construction progress. At the same time, analyze and give scientific punishment to all aspects such as those who are difficult to cooperate with construction management staff and their construction quality, so as to enhance the staff's understanding and attention to the project management system and construction quality, and standardize their own construction behavior. Finally, strengthen the safety production management of housing construction projects. On the one hand, implement dedicated personnel, that is, clearly divide the scope of responsibilities and division of labor of each construction personnel, and analyze the causes of illegal operations found during construction and make corrections. Safety production slogans and safety signs should be formulated at the construction site according to actual conditions to provide a safe construction environment for construction personnel and strengthen their safety construction awareness.

4.2 Improve engineering management and quality supervision mechanisms

Improving the project management and quality supervision mechanism is a powerful guarantee for improving the management and construction quality of housing construction projects. On the one hand, housing construction project construction companies should improve their internal supervision mechanisms, strictly abide by the principle of strict accountability for violations, strengthen supervision of all aspects of construction work, promptly improve problems in construction, and ensure the effective implementation of project management and construction quality control system specifications [7]. On the other hand, external government supervision should be strengthened to promote the stable and orderly development of housing construction companies.

4.2.1 Optimize the comprehensive capabilities of government supervisors

First, optimize the knowledge structure of government supervisors. At present, housing construction has gradually entered the era of composite construction from single reinforced concrete, and the materials, machinery, and methods used in construction are more advanced and diversified. For this reason, government supervisors need to use corresponding inspection means, methods, and instruments in combination with the characteristics of modern housing construction to improve the efficiency and accuracy of supervision and inspection. Secondly, focus on improving the moral quality of supervisors. The serious and responsible effect of government supervisors in supervising and inspecting the actual situation of housing construction projects not only determines the effectiveness of their own responsibilities and capabilities, but also has an important impact on the quality of housing construction projects. For this reason, it is necessary to strengthen the professional ethics education of government supervisors of construction projects, so that they can recognize their own profession, clarify their work tasks and purposes, maintain enthusiasm and serious attitude towards supervision and inspection work, and be able to effectively complete supervision tasks in practice to ensure the quality of housing construction projects.

4.2.2 Strengthen supervision and management during the construction phase

The quality management and control in the mid-term construction stage of housing construction projects determines the quality of the entire project and the social benefits in the later stage. The quality supervision agencies for housing construction projects should strictly follow the national construction quality supervision standards to conduct effective regular inspections or irregular spot checks on the entire construction process of the project, especially strengthening the inspection of key links. In addition, the construction units of housing construction projects need to file the signed quality acceptance certificates of the construction and design parties respectively with the supervision agency within three days after the acceptance, and the completion acceptance and later materials of the project should be kept in time.

4.2.3 Improve the personnel mechanism of government supervisory agencies

According to the current actual situation, the major problem faced by the government supervision agencies is the shortage of supervisors and the low overall level. Therefore, it is necessary to reasonably increase the number of supervisors for housing construction projects according to the actual situation. On the one hand, high-quality supervisory and management personnel can be selected through various channels such as recruitment and selection to meet the supervision needs of housing construction projects. On the other hand, attention should be paid to selecting talents with professional and academic qualifications, and the selected personnel should be given more training and education to update their own knowledge reserves, so as to improve their practical ability, strengthen the supervision effect, and adapt to the constantly developing housing construction industry.

5. Conclusion

In short, with the improvement of economic level, people's requirements for housing construction quality are increasing year by year. But in fact, the current management level of housing construction projects is relatively low, and there are many problems, especially the lack of understanding of construction quality management, and the lack of attention to the management of housing construction materials, construction progress and equipment, which has a great adverse impact on construction quality. Therefore, in order to improve the comprehensive competitiveness of housing construction enterprises and achieve long-term and stable development of the construction industry, it is necessary to take targeted measures to strengthen management, implement construction quality control, and realize the standardization and institutionalization of housing construction project construction management and quality control in order to improve the comprehensive competitiveness of housing construction enterprises and achieve long-term and stable development of the construction industry.

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