

Safety and Quality Management of Residential Projects by Construction Unit

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Abstract: With the rapid development of the economy, the productivity of the construction industry continues to improve, housing entered the market to become people's consumer goods, residential construction has become a pillar industry to drive the national economy. As a residential building construction unit on the project of scientific safety and quality management responsibility, affect the overall project construction management level. In this paper, the construction unit as responsible for the main point of view, combining theory with practice, focus on the residential project construction safety, quality analysis, and put forward suggestions to strengthen supervision, improve the overall safety and quality of residential project construction.

Keywords: construction unit; Residential buildings; Quality management; The safety management

1. Introduction

A series of documents issued by the Ministry of Housing and Urban-Rural Development all highlight that the construction unit plays a vital role in the safety and quality of construction projects, and is the direct determinant of the quality of construction projects. Under the impetus of urbanization construction, in order to meet the needs of modern living, the scale of housing project construction is constantly expanding. In addition, with the improvement of productivity, modern people have higher and higher requirements for housing environment and quality. Residential construction projects are faced with more stringent requirements in terms of safety and management than in the past, and need to adapt and develop from form to content. In the process of construction, the construction unit should not only ensure the safety and quality of the project built by the residential project, but also create economic benefits as far as possible to improve the overall construction quality of the residential building.

2. Summarize the Characteristics of Residential Buildings

The residential project is all through the public stairs to solve the traffic construction project, its multi-storey buildings in the urban housing in China account for more than 90%, is the typical representative of urban residential collection. Compared with other high-rise residential buildings, its working cycle is short, and it can be completed within one year in general. Its structural design is simple, its shared area is small, and its property cost is low. It is the choice of most ordinary consumers.

Compared with multi-storey residential buildings, residential projects will occupy less land, but will need to increase investment in public stairs, elevators and so on. The quality and safety of residential building have particularity. The success or failure of its quality is not the achievement or responsibility of a single party, but the result of the coordination of many parties. Therefore, the construction unit should coordinate the relationship between the parties and strengthen communication in the process of construction. The designer, the builder and the supervisor should cooperate with each other to strictly control the change of the residential project, negotiate and solve the problems encountered, and ensure the safety and quality of the project.

3. The Principal Position of the Construction unit in the Residential Project

The construction unit is the decision-maker and organizer in the whole process from the fund-raising to the completion of the residential project. The construction unit directly faces the demands of the quality and service of the residential project and provides the security guarantee of the residential building. At present, most residential projects are operated by non-local or relatively dispersed investment funds, which are set up in local branches and independent property companies. Once the project is over, the construction unit will demobilize the staff, and the resignation of key staff will lead to the disconnection of management, and many safety and quality problems cannot be guaranteed and solved. Quality and safety issues arise partly due to the brevity of the project cycle and the fact that the components of the temporary units leave the builders with a sense of fluke. Because of the large turnover of temporary agencies, employees often have no sense of responsibility

and only pay attention to the economic benefits brought by housing projects, ignoring quality and safety issues. On the other hand, the unbalance of the market gives the construction unit an opportunity to escape the law after breaking the law. In the pursuit of interests, construction units try to take advantage of legal loopholes, through jerry-building or the way to lead to the cross-work of multiple departments. Once there is a problem, each other to shirk responsibility, do not assume the corresponding responsibility but can get a good profit. The construction unit is the key to the success of the residential project, we should put an end to one-time role play, improve the sense of responsibility, and ensure the quality and safety of the project.

4. Research and Analysis of Construction Management of Residential Projects

4.1. Safety management analysis of housing construction

The construction of housing projects is not only related to the life safety of construction workers, but also related to the life and health of future residents, so its safety management is the top priority. Housing projects are large and involve a wide range, so there are many factors leading to insecurity. A slight error will lead to construction accidents. It is of great significance to do a good job in safety management.

Causes of safety accidents have two aspects, on the one hand in the construction unit of the enterprise, on the other hand is the construction of workers. These two aspects are inextricably linked, if the enterprise does not value the lives and health of workers, just want to save costs, do not do a good job of protection measures. The accident rate is very high. The construction unit pursues economic benefits, compressing the construction period at will, exploiting labor force, working overtime at night, etc., which is also irresponsible for the safety of employees. Under the influence of unscrupulous construction units, employees ignore the lives of others and have no sense of responsibility, thus the safety of residents cannot be guaranteed, thus forming a vicious circle. In order to save costs, construction units employ unprofessional migrant workers as construction workers, who have no sense of safety and illegal operation may lead to safety accidents in the process of construction.

Construction units should take safety first as the criterion, control the factors that affect safety, and make efforts to coordinate and cooperate, so that the unsafe factors can be effectively supervised. Construction units should strengthen safety publicity and safety education, emphasize the importance of safe construction, raise safety awareness, strengthen self-protection, and avoid the occurrence of safety accidents. The safety management of housing project is a great event related to the

safety of precious life and the reputation of the construction unit, which should be paid enough attention to. Safety management problems have a long way to go. We should put the safety management work into practice, eliminate all possible safety risks, and realize the win-win situation of construction units, employees and housing projects.

4.2. Quality management analysis of residential construction

Quality is an important index of construction projects, which is related to people's life, health and social harmony and stability. The quality of the construction stage is the most important; the construction unit must strictly control, to ensure that the residential project to achieve quality goals. There are many factors that affect quality. In terms of human factors, leaders in managers are the key to ensure the quality of residential projects. Leaders are kind and friendly and have a sense of responsibility can greatly mobilize the enthusiasm of staff. The attitude and sense of responsibility of the staff directly affect the final quality of the residential project, so the relevant personnel of the residential project should establish the sense of responsibility, implement the quality policy, and jointly accept the supervision of the construction unit and the user owner. Material factors, mechanical factors, environmental factors, and construction methods are all important factors that affect the quality of residential construction. Construction units should control and coordinate all aspects of the factors and do a good job in quality assurance.

The quality management of the residential project can be divided into the quality management in advance, in process and after the event. The quality management in advance is the quality supervision and refinement before the construction of the project, which is a very important link. Only by doing a good job of preparation, can the quality level of the project be controlled within the target range. Quality management in advance to review the relevant documents in advance, the development of the relevant housing project construction quality management plan, the development of the goals and the implementation of measures and methods and other related preparatory work. Quality management in the process of housing project construction is to control the quality, the supervision and detection of the quality of the site, in the construction process to arrange the relevant staff to observe and supervise the site construction, timely find errors and safety risks, adjust and correct at any time. In the construction process for quality management, the supervision unit's control plays a particularly obvious role. Since the implementation of the supervision system, the quality of housing projects has improved significantly. The supervision engineer shall perform the duties in the contract, strengthen spot check on the construction

site and construction materials, treat the quality problems with a serious and responsible attitude, and ensure the smooth implementation of the housing project. Post-management is the protection and inspection work after the completion of the housing project, the protection of the finished housing construction products, the treatment of the unqualified products after the inspection of the product, to ensure the final quality of the housing project. Quality management after the event is a very important means to ensure the quality of housing projects, through layers of inspection and acceptance, to ensure the quality of housing projects.

5. Countermeasures for Safety and Quality Management of Residential Construction Projects

5.1. Safety management methods for residential construction

According to the causes of safety accidents in the implementation of housing projects, construction units should take corresponding measures to avoid traffic accidents, so as to ensure the safety of the whole project.

The construction unit shall raise the awareness of safety and call for the participation of all staff. Only leaders pay attention to safety, can set an example for employees, let employees change passive to active, from the ideological initiative to realize the importance of safe production. Construction units should develop a sound system to ensure the safety of the whole process of construction, staff must hold a certificate to work, new members must also go through training and safety education. In addition, but also to improve the post responsibility system, through the system to clarify each person's specific division of labor, clear responsibility, but also to strengthen safety education and training, to safety construction to increase a protective barrier.

Construction units should strengthen the supervision of on-site safety production in the construction process of residential projects and put an end to the generation of unqualified construction sites. On-site supervision and control is very critical, because many accidents are caused by workers' low awareness of safety. Reward and punishment system for safe production should be clarified, and construction standardization should be strictly required, so that employees can truly see the results and eliminate safety risks. The supervisors on the site have great responsibility, so the construction unit should strengthen the assessment of the supervisors' work to ensure that they complete the work efficiently and responsibly.

The equipment used in construction and production should be safe and scientific. Safety accidents in residential projects are sometimes caused by aging machines or missing parts, so the safety of equipment

should also be paid enough attention to. The construction unit shall require the relevant staff to check and update the equipment in a timely manner, and call on the staff to actively participate in the process, learn safety inspection and accident investigation, understand the parts of the construction equipment that are prone to damage and dangerous, and take preventive measures. In the construction process of housing projects, equipment and facilities to protect workers' safety should also be introduced to ensure the safety of workers and housing buildings. Construction units must be mandatory to require workers to wear safety protective equipment, as far as possible to avoid injury to the construction personnel, the safety work will be truly implemented.

5.2. Quality management methods for residential construction

Quality comes first. Construction units in the process of housing project construction, to scientific management, standard construction, to ensure that the quality of the project in line with the national acceptance standards. Housing construction quality is an important reflection of value, construction units should take quality as the first criterion, strengthen management. According to the quality objectives of residential projects, the corresponding measures and quality standards for acceptance are formulated. In order to achieve the goal of project quality, it is necessary to improve the quality management system, and fully implement it in the construction process, and call on all staff to participate in quality management, to ensure the effective operation of the management system. In the quality management system, it is also necessary to carry out the target responsibility system, the responsibility is clear to the individual, strengthen the exchange and communication between staff, through a clear reward and punishment system, so that employees can see the deterrent force of the quality management system.

We should strengthen artificial supervision and control. People are the leading factor in quality control. Construction units should improve the quality awareness of managers and workers. Managers should take the lead and have a sense of responsibility. The construction unit shall take into account the overall planning, pay attention to the factors affecting the quality of the project, examine the qualifications of the workers, hold regular meetings to report the current quality situation, study the quality rectification measures, and strictly handle the quality accidents.

Strictly control the production schedule. The construction unit shall arrange the construction schedule scientifically and reasonably to ensure the quality of construction and production. If the progress and quality is not coordinated, should let the progress obey the quality, timely adjustment, inspection unqualified project must

be rework and investigate the cause, take corresponding measures at the same time, but also to find the relevant staff to investigate their responsibilities.

To strengthen the quality requirements for construction materials, procurement of production materials in line with the national safety standards, if necessary, please the relevant technology, quality inspection personnel to participate, this is related to the life and health of the future residents, must be paid enough attention to. But also the implementation of the three-level disclosure system, all the construction process must pass the quality inspection before it can enter the next process, can effectively ensure the quality of housing project construction. The construction unit should be guided by the model. Before the construction, the relevant staff should guide the construction process to establish the model. After the model is completed, the quality inspection and acceptance can be carried out to meet the quality requirements.

After waiting for housing project finished product to be completed, want to strengthen the protection to finished product. In the construction stage, there can be no impact operation, and it is strictly prohibited to forcibly remove and touch. During the decoration period, a special person is set up to carry out the relevant protection work, follow the correct construction sequence, efficient handover work in accordance with the construction process, to avoid secondary pollution, and pay special attention to the protection of professional products in the decoration and construction process. In short, the con-

struction unit to control the construction of every link, the quality of the hidden danger to eliminate the bud.

6. Conclusion

Construction units play a vital role in housing projects, determining the safety of construction, production and quality of construction projects, should pay attention to. In addition, with the acceleration of the pace of urbanization construction, the construction of residential projects is also constantly expanding, and all walks of life will pay more and more attention to the safety and quality management of construction units. Therefore, the construction unit should implement effective project management measures, constantly improve the safety and quality management of housing projects, so as to ensure the safety and quality of the project.

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