



# Optimization of Construction Management with the Concept of Fine Construction Management

Lei Huo

Chengdu Jingkai Guotou Group Co., Ltd., Chengdu 610199, Sichuan, China.

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\***Corresponding author:** Lei Huo, Chengdu Jingkai Guotou Group Co., Ltd., Chengdu 610199, Sichuan, China.

## Abstract

Under the fierce competition in the market, the construction industry has gradually moved from extensive management to meticulous supervision and management. However, as far as the construction site management of engineering projects is concerned, there is still a long way to go in the direction of meticulous supervision and management. Based on the author's many years of experience in construction management, from the perspective of construction companies, this article includes projects in the important category of supervision and management, and systematically discusses the engineering management system, technical optimization, refined management of raw materials, facility control and other aspects to make a summary and conclusion, especially focusing on the micro level of project construction site management, such as: meticulous supervision and management of progress, quality and building safety. At present, refined management work is not only a critical stage in engineering construction, but also the foundation for the development and growth of construction companies. The implementation of refined engineering management helps to ensure the accuracy and rationality of engineering construction links, thereby effectively reducing disputes in the implementation process. At the same time, it improves construction efficiency and promotes the sustainable development of engineering construction. It provides a certain reference and basis for the implementation of refined engineering management by engineering-related management departments in the future.

## Keywords

Refined management; construction management; construction engineering; optimization of management concept

## Introduction

From the perspective of engineering construction, construction supervision and management are one of the key contents of the project. Therefore, engineering supervisors should fully realize the significance of construction supervision and management to the entire project construction, and promote construction through the implementation of refined management work. Management modernization development. Next, we will study the importance of refined construction information management and refined construction management.

## 1. The importance of refined construction management

### 1.1 Facilitates better communication between management and construction personnel

Through the measures of refined projects, managers can have more contact with staff, thus ensuring the smooth development of project construction and creating favorable communication conditions. In refined project

management, talents, construction effects and project quality management are closely related, and employee bonuses are also directly affected by the final project management benefits. This can not only mobilize their work enthusiasm to a great extent, but also improve the quality of project construction, thereby promoting the company's sustainable development.

### **1.2 It is helpful to clarify rights and responsibilities**

Implementing refined management will make the functions of managers more obvious. Each employee clearly and accurately knows their responsibilities and tasks. In this way, the efficiency can be significantly improved, making the control and design of each link of the project more detailed. All personnel can arrange appropriate tasks, making the tasks more specific and employees can actively participate in the project not only enhances employees' operational awareness, but also enables them to implement operations strictly in accordance with regulations. Once there are difficulties in construction, appropriate improvements and coordination are needed to further ensure the smooth progress of the project.

### **1.3 Conducive to reducing safety hazards in engineering projects**

There may be many reasons for imbalance in the actual execution of the project, such as: the construction team's awareness is relatively weak, and in actual operation, there are frequent irregularities or non-compliance with safety construction standards, which will not only harm the construction of the project, but also have a direct impact on the safety of the staff. In addition, if the efficiency of daily inspection and management work in construction is not ideal, or the corresponding management safety mechanism and management system are not perfect, it will lead to major safety hazards in the construction process. It can be seen that refined management is very necessary, which will also play a certain role in reducing the safety of the project.

## **2. Analysis of the current situation of construction management**

### **2.1 Imperfect management system**

As we all know, China's traditional construction industry is an extensive industry. Although the development of the construction economy and the level of technical management have been significantly improved, and many scientific management methods and technical means have undergone certain changes, there is still a lot of room for development in the management organization structure and management system. At present, due to the lack of technical skills of engineering management personnel and the weak awareness of refined project management, construction site projects are also facing many technical problems that need to be solved, which seriously affects the expected profits of engineering projects.

### **2.2 Theory and practice are not closely integrated**

Due to the strict regulations of government agencies on project management specifications, many project site managers need to undergo a lot of training and examinations before they can take up their posts. In other words, these managers have the corresponding basic knowledge framework in theory, but in the process of project site management, these managers cannot combine theoretical knowledge with practice well, "focusing on theory, neglecting practice, focusing on planning, neglecting implementation", resulting in the phenomenon that the theoretical documents are basically reasonable, but the implementation sequence is disordered in the project site management process. Therefore, many adverse effects are caused, such as only solving the technical and design data part in order to cooperate with the inspection, but not paying attention to the actual operation requirements and process requirements, resulting in substandard quality, return of materials, and repair in the later stage, delaying the construction period, and even other safety hazards.

## **3. Optimize construction management with refined construction management concepts**

In order to achieve the transition of China's construction industry from extensive to intensive, and to build projects with continuous improvement, construction companies need to analyze from different angles, thereby improving their management capabilities and enhancing the meticulousness of on-site management work.

## 3.1 System management

### 3.1.1 Establish a complete management and control system

Projects are one-off and highly complex, so the on-site management of various projects needs to be standardized in practice according to the construction background and related conditions. During the construction process, we should pay attention to the concept of refined management, the process and standardization of each step, strictly control the entire process, strictly implement the responsibility system for each position and each employee, and improve the sense of ownership in management awareness and mechanism construction.

At the same time, when building a management system, we should pay attention to the integration of theory and practice, and strictly follow the industry norms and national standards for the formulated processes and specifications. At the same time, we should also fully consider the actual project management practice and adjust the management system with dynamic and refined thinking.

### 3.1.2 Strictly implement relevant management systems

According to the characteristics of the contracted engineering project, after establishing the corresponding project management standards and quality management system, the enterprise must implement the project standards. This requires the project manager to promptly make corresponding construction briefings to the project construction management personnel, provide reasonable training and guidance, and establish an assessment and supervision mechanism. At the same time, the project's on-site managers must pay attention to the role model effect, and while strictly requiring the project's grassroots staff, they must also take the lead and set an example to improve the authority of project management.

## 3.2 Strengthening the control of technology

Engineering projects are systematically controlled by multiple processes or multi-disciplinary projects. Problems in various links of the project may have unpredictable effects on the later stage of the project. Therefore, the project should also pay attention to quality management in terms of technology and standardize operations in terms of technology. At present, China has a relatively complete set of engineering construction standards and inspection criteria. As technical management personnel, it is necessary to fully master and understand various engineering standards, effectively complete various technical briefings, and implement strict quality supervision of each process of the project. For serious problems that deviate from standards and regulations in the implementation of the project, it is necessary to prevent and rectify them as soon as possible. The relevant persons in charge of each unit should also strictly implement the relevant responsibility regulations, use the principles of standardization and strict requirements to avoid the problem of returned materials and repairs, pay attention to the control of production links, pay attention to refined work, and cannot ignore any place where serious consequences may occur, so as to reduce the economic losses caused by engineering errors.

## 3.3 Grassroots personnel management

### 3.3.1 Implement information management system

Due to the improvement of modernization, many construction sites are now digitally supervised and real-name authentication is used to enter the site, which effectively improves the accuracy of personnel information management and the convenience of related supervision, and can also strengthen the safety control of the construction site. In order to reduce the phenomenon of mixed management personnel at the construction site, the construction unit should innovate and improve technical measures, learn from the management experience of excellent domestic enterprises, and integrate the basic information of management personnel and training and evaluation information. For example, the type of work and corresponding professional qualification certificate of the management personnel, the continuous training status and the three-level training status are all added to the personal information database, which is convenient for the management department to conduct background inquiries and supervision, and cut off the possibility of non-professional management personnel and mixed on-site management personnel from the root.

### 3.3.2 Strengthen labor management

Due to the particularity of the labor subcontracting model, construction units usually do not pay attention to the sustainable training of skilled employees and career advancement methods, which makes skilled employees have a weak sense of ownership and insufficient subjective ability.

First, based on the characteristics of technical labor subcontracting, construction companies should actively explore the interactive relationship between technical workers and construction units, and gradually transition technical employees to construction technology managers through welfare benefits and promotion opportunities, so as to achieve a win-win situation between the company and employees.

Second, strengthen internal training. Construction units carry out targeted training for teams, including but not limited to modules such as safety, quality, and process management, so as to effectively improve the level and quality of labor management.

### 3.4 Construction equipment and material management

Construction machinery mainly includes large and medium-sized equipment and small machines, which play a key role in the entire construction activities. If a mechanical failure occurs, it will reduce the quality of the building or cause a major safety accident. According to relevant data, more than 60% of the major safety accidents in the current projects under construction are closely related to construction machinery and equipment. Therefore, we must pay attention to the quality management of construction machinery and equipment in the building. Regular inspection, repair and maintenance must be carried out, and the construction machinery that does not meet the construction conditions must be eliminated without leaving any problems.

Regarding building materials, the country currently has standardized and unified on-site inspection standards and requirements, as well as a corresponding witness sampling system. Therefore, construction companies must strictly implement standards and requirements in the implementation of quality management to prevent adverse consequences caused by building materials that do not meet the requirements. Pay attention to the impact of informatization on refined management work, combine informatization technology with material reserves, and dynamically control the operation and control of materials and resources.

## 4. Conclusion

In summary, refined management should actually start from small things, and strive to achieve excellence in all details. In the current construction management, engineering supervision personnel should actively apply refined management, and do a good job in engineering quality safety and supervision during the construction process. In accordance with the spirit of relevant national documents and new development ideas, construction companies must carry out management reforms in order to remain invincible in fierce competition. Adopting a refined model, paying full attention to the project site, improving market awareness, and using process-based and standardized management methods to establish a dynamic operation system for the company's on-site management work can more effectively ensure the successful progress of the project and the achievement of the company's expected benefits.

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