Research on the Compilation and Settlement Review of the Bidding Control Price for Public Hospital Construction Projects

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Abstract: The construction project of public hospitals is related to the improvement of the medical service system and the improvement of the medical environment for the public. The preparation and settlement review of the tender control price, as the core link of project cost control, directly determine the rationality, economy and standardization of the project construction. It plays an important supporting role in ensuring the quality of public hospital construction projects, controlling construction costs and improving the efficiency of fund utilization. Based on the actual situation of public hospital construction projects, this paper sorts out the basic characteristics of cost management, the implementation status and control effectiveness of the preparation and settlement review of the tender control price, deeply analyzes the core problems existing, explores targeted management measures, and provides practical support for standardizing the cost control process, improving the quality of the preparation and settlement review of the tender control price, and promoting the high-quality advancement of public hospital construction projects.
***Keywords*:** public hospital, construction project, tender control price, settlement review, cost control

1. Introduction

Public hospitals, as a core component of the public health service system, shoulder the important responsibility of safeguarding the health of the people and providing basic medical services. The construction project of public hospitals is an important carrier for improving medical service facilities and enhancing medical service capabilities. The quality of its construction and the level of cost control directly affect the sustainable development of hospitals and the efficiency of public health services. There are differences between public hospital construction projects and ordinary civil building projects. Their functional layout, construction standards, supporting facilities, etc. all have special requirements, which put forward higher requirements for the professionalism and accuracy of the preparation and settlement review of the tender control price. At present, there are still many deficiencies in the preparation of tender control prices and settlement reviews for some public hospital construction projects. Problems such as inaccurate cost benchmarks, distorted settlement bases, false reporting and overestimation, and insufficient information coordination occur frequently, which affect the efficiency of fund utilization and the quality of project construction. Strengthening the research on the compilation and settlement review of the tender control price for public hospital construction projects, sorting out the current situation, analyzing problems, and improving measures, is of great practical significance and value for standardizing the management of public hospital construction projects, enhancing the level of cost control, and ensuring the smooth progress of the projects.

2. Description of the current situation of the preparation and settlement review of the tender control price for public hospital construction projects

2.1 Basic Characteristics of Cost Management for Public Hospital Construction Projects

The cost management of public hospital construction projects has the basic characteristics of public welfare, particularity, precision and the entire process. Public welfare is the core attribute of public hospital construction projects. The construction purpose is to improve medical service facilities and enhance public health service capabilities. Cost control should take into account both economy and public welfare. While controlling construction costs, it is necessary to ensure that the project quality and medical functions meet the standards. It is not advisable to simply pursue the lowest cost.

The particularity is reflected in the special functional requirements of public hospital construction projects, which need to meet multiple medical functions such as diagnosis and treatment, nursing, testing, and emergency rescue. The requirements for building layout, cleanliness standards, and supporting facilities are higher than those of ordinary civil buildings. Cost control needs to fully consider these special requirements to avoid increased costs in later renovations due to functional deficiencies. Precision is the core requirement of cost control. The preparation of the tender control price needs to accurately calculate the project cost, and the settlement review needs to accurately verify the project volume and cost to avoid problems such as excessive cost deviation, waste of funds or insufficient investment [1].

2.2 The current implementation status of the preparation and settlement review of the tender control price

At present, the degree of standardization in the management of public hospital construction projects is continuously improving. All regions attach great importance to the compilation and settlement review of the tender control price, constantly optimizing the control process and enhancing professional standards, promoting the gradual standardization and normalization of cost management work. At present, most public hospitals have established a complete cost control system, clearly defining the workflow, responsibility division and technical standards for tender preparation and settlement review, and entrusting professional cost consulting institutions to carry out the work in collaboration.

In daily management and control, hospitals can prepare control prices based on engineering drawings, construction plans and market conditions, and review project costs in accordance with contract agreements and completion documents, basically achieving compliant cost management. However, there are still many problems in the overall work: The preparation of some tender control prices does not conform to the characteristics of hospital projects, resulting in inaccurate cost benchmarks; Design changes during the construction phase and omissions in on-site visa review led to distorted settlement basis. The verification of the quantities of work is rather rough, and the problem of false reporting and miscalculation is prominent. Insufficient communication and poor coordination of cost information at each stage have led to the failure of cost control throughout the entire process, seriously restricting the overall quality and efficiency of cost control in public hospital construction projects.

3. Problems existing in the preparation and settlement review of the tender control price for public hospital construction projects

3.1 The preparation of the tender control price is divorced from the special needs of the hospital, resulting in inaccurate cost benchmarks

The tender control price, as the core benchmark of engineering tendering, its accuracy in preparation directly affects the subsequent cost control and the quality of engineering construction. At present, the tender control prices for some public hospital construction projects are compiled out of line with the special needs of the hospitals, resulting in inaccurate cost benchmarks and affecting the rationality and economy of the project construction [2].

Some cost estimators lack an understanding of the medical functions of public hospitals. During the estimation process, they only conduct calculations in accordance with the standards for ordinary civil building projects, without fully considering the cleanliness requirements of hospital treatment areas, the installation and matching of medical equipment, emergency rescue facilities and other special needs. As a result, the tender control price does not cover the relevant special project contents or the estimation standards do not meet the requirements of the hospital. Some of the compilation work lacks thorough preliminary research and has an incomplete understanding of the market prices of medical-specific materials and equipment, resulting in significant deviations in the price estimates of materials and equipment.

3.2 The design changes during the construction process and the lax review of on-site visa led to the distortion of the settlement basis

Design changes and on-site endorsements during the construction process are important factors affecting the project settlement. The strictness of their review directly determines the authenticity and accuracy of the settlement basis. At present, in the construction process of some public hospitals, the review of design changes and on-site visa is not strict enough, resulting in distorted settlement basis and laying hidden dangers for settlement disputes and waste of funds in the later stage.

Some project design changes lack a strict approval process. Construction units propose design changes at will without conducting thorough arguments in combination with the medical functional requirements of the hospital and the actual situation of the project, resulting in unreasonable design changes and increased project costs. Some on-site visa management is not standardized. The visa content is incomplete and the description is unclear. The reasons, scope, volume of work and cost of the visa are not clearly defined. Moreover, there is a lack of on-site verification procedures, resulting in the visa content not matching the actual construction situation.

3.3 Cost control issues caused by the extensive settlement of engineering quantities and the lack of information coordination at different stages

The verification of engineering quantities and the coordination of information throughout the entire stage are the core contents of the cost control of public hospital projects, directly related to the quality of settlement review and the overall effectiveness of cost control. At present, some public hospital construction projects have prominent problems such as rough verification of project quantities and lack of information coordination at different stages, which restrict the level of project cost control and the efficiency of fund utilization. In the process of reviewing the quantities of work, some reviewers lack professional expertise and are not familiar with the engineering drawings, construction norms and measurement standards. They only simply check the list data of the construction unit during the review without verifying each item in combination with the completion documents and the actual situation on site. As a result, problems such as overestimation and duplicate calculation of the quantities of work occur frequently[3]. At the same time, the review process lacks a multi-level recheck mechanism, making it difficult to effectively identify and verify errors.

4. Management measures and strategies for the preparation and settlement review of the tender control price for public hospital construction projects

4.1 Optimize the cost control countermeasures for the tender preparation and change visa review

To enhance the quality of project cost control in public hospitals, control measures should be implemented from two aspects: optimizing the compilation of tender control prices and standardizing the review of change endorsements. To enhance the accuracy of the tender control price preparation, it is necessary to base on the special medical needs of the hospital and form a composite preparation team covering cost estimation, infrastructure construction and medical specialties, taking into account both the professionalism of engineering and the particularity of medical engineering. Before the compilation, special research should be conducted to understand the specific requirements of the project such as the diagnosis and treatment layout and cleanliness standards, sort out the price standards of medical-specific materials and equipment, and clarify the compilation scope in combination with the construction drawings. For special medical projects such as operating rooms, icus, and laboratories, medical professionals should be involved in the argumentation to determine compliant construction and calculation standards and avoid omissions and miscalculations. At the same time, it is necessary to strictly standardize the design change and on-site visa review process, establish a multi-department joint approval mechanism, and all engineering changes must be approved and deliberated by multiple parties before implementation.

4.2 Refine the standards for verifying engineering quantities and strengthen the countermeasures for information coordination and control throughout the entire process

To effectively curb the problem of false reporting and miscalculation of project quantities and solve the problem of disconnection in cost control, public hospitals need to simultaneously refine the standards for settlement review and verification, and strengthen the information collaborative management throughout the entire project process. On the one hand, it is necessary to improve the standards and norms for verifying the quantities of work, clearly define the scope of verification, measurement rules and verification methods, and verify the bill of quantities item by item in combination with the engineering drawings, construction norms, completion documents and on-site conditions, to prevent violations such as overcalculation and double calculation. At the same time, we will strengthen the professional construction of the review team, enhance the business capabilities and sense of responsibility of personnel through regular professional training, implement the three-level review system of initial review, re-review and final review, and ensure the accuracy and rigor of settlement review at each level[4]. On the other hand, it is necessary to establish a collaborative system for the entire process of cost information, build an integrated cost information management platform, integrate data from each stage of bidding, construction and settlement, and achieve centralized storage and real-time sharing of information [5].

5. Conclusion

The compilation and settlement review of the tender control price for public hospital construction projects are core measures to ensure project quality, control construction costs, and improve the efficiency of fund utilization. They run through the entire construction process and have the basic characteristics of public welfare, particularity, precision, and full-process nature. The core lies in achieving precise cost control by closely aligning with the specific needs of hospitals, standardizing the compilation and review processes, strengthening information collaboration, and refining control measures. This approach takes into account both the public welfare nature of public hospitals and the economic efficiency of engineering construction, thereby promoting high-quality progress in engineering projects.

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