

Thoughts and difficulties of cost consulting service for government invested construction projects

Tianyu Lu

Changzhou Vocational Institute of Engineering, Changzhou, Jiangsu, 213100

Abstract: government invested construction projects can effectively promote the development of social economy. In order to promote the construction of people's livelihood and the comprehensive development of the national economy, the investment scale of the Chinese government in infrastructure construction continues to increase, and its social and economic benefits are increasingly obvious. Because government investment projects are generally important and related to people's livelihood and national economic development, the demand of government investment departments or construction units for investment control and management at all stages is increasing. Therefore, the whole process cost consulting service arises at the historic moment. Based on years of project practice experience, This paper focuses on the general idea and key and difficult points of the cost consulting service of government invested construction projects, so as to provide reference for relevant consulting services.

Key words: project cost; Analysis of key and difficult points; Investment and construction;

1 Thoughts on cost consulting service of government invested construction projects

1.1 Guiding ideology of cost consulting service for government invested construction projects

In combination with the overall requirements of the cost consulting service for government invested construction projects, closely focusing on "one goal - to control the construction cost within the predetermined investment goal of the project", grasping "two control systems - investment control and capital monitoring", it is divided into "five stages - decision-making stage, design stage, bidding stage, construction stage and completion stage", Ensure the realization of investment objectives.

1.2 Consulting service ideas for advance control and dynamic control of government invested construction projects

The whole process of cost consulting service runs through the decision-making stage, design stage, bidding stage, construction stage (process stage), completion settlement and other stages in the early stage of project construction. It is necessary to give full play to the advantages of professional technology and engineering cost, and appoint cost engineers of civil engineering, installation, landscaping and other disciplines to provide comprehensive consulting services, From the initial stage of project construction, the company has always provided the whole process cost consulting service with the concept of total investment control, focusing on "pre control, source control" and "dynamic control" services:

(1) Pre control and source control: assist the construction unit (or construction agent) to determine the reasonable target cost, and actively assist the design to play the role of "quota design". At the same time, assist in the bidding work, assist in the preparation of legal, standardized, professional and complete bidding documents, prepare detailed and complete bill of quantities, reasonably determine the bidding control price, provide professional and complete contract documents, and do a good job in the pre investment control work, so that the whole investment is always in the "controlled" system, and avoid future claims and disputes.

(2) Dynamic control: compare and analyze the actual or expected investment amount with the corresponding target cost value in a dynamic and timely manner, and establish reports such as cost dynamic control table, contract execution table, investment completion table, etc. by strengthening the review of interim payment, the price of materials and equipment, design change and site visaThe variable amount is continuously reduced by stage price review, and early warning and relevant suggestions are put forward in time to realize dynamic control of investment.

2 Analysis of key and difficult points of cost consulting service for government invested construction projects

2.1 Do a good job of pre investment control

Do a good job of pre investment control, cooperate with the construction unit to reasonably determine the target control cost, and assist in the quota design. Review the bidding documents, review the bill of quantities, pay special attention to the accuracy and completeness of the division of the closed-end lump sum interface of the cost of measures, and assist in selecting the best construction unit and doing a good job of pre investment control.

2.2 Dynamic control investment

During the whole process of cost consulting service, we will dynamically and timely compare and analyze the actual or expected investment amount with the corresponding estimated investment, and establish statements such as investment dynamic control table, contract execution table, investment completion table, etc., paying special attention to the impact of changes in the price of labor, materials and machinery caused by the extension of the project construction period on investment control, By strengthening the review of interim payment, the pricing of materials and equipment, the review of design changes and on-site visa, and the price review in stages, the variable amount is constantly reduced, and early warning and relevant suggestions are put forward in time to realize the dynamic control of investment.

2.3 Review various uncertain expenses

(1) Review the comprehensive unit price expense of the new project. When bidding and quoting, the construction unit needs to provide a comprehensive unit price analysis list for major or designated projects, that is, specify the detailed standards of labor, materials, machines, rates and other related contents. When a new comprehensive price of a project arises, the items already specified in the contract shall be measured according to their specified unit price. If there is a similar comprehensive unit price in the contract, it shall be determined by referring to the similar unit price, and the labor, materials and machines therein shall be analyzed and converted as necessary; If there is no applicable or similar comprehensive unit price in the contract, the construction unit shall submit the comprehensive unit price of the new project according to the contract quotation principle. The cost consulting service team should carefully analyze its composition, and make extensive market inquiries for the corresponding new material prices to ensure that the comprehensive unit price of the new project conforms to the spirit of contract pricing. Finally, the construction unit should confirm it, so as to avoid the construction unit from obtaining additional profits.

(2) Review price changes of materials and equipment. The prices of materials and equipment account for a large proportion of the investment in the project. In a sense, market price fluctuations during the construction period are inevitable, especially in the period of inflation. Therefore, when consulting the cost, it is necessary to first agree on the price adjustment pricing principle caused by price fluctuations in the contract. Generally, the cost information is used to adjust the price difference, And agree on the content and scope of risk and the adjustment range of price changes.

(3) Cost control of design changes. In the process of engineering construction, change is a frequent and unavoidable problem. The design plays a decisive role in the project, and the work progress of the design is in the advanced stage, and the working mode is relatively closed. Therefore, the external constraints and the subjective ability of the construction personnel are not well understood, which must be adjusted according to the actual situation in the later construction. The project can be further improved and optimized through design change, but it will also affect the cost work. Generally speaking, the lower the variability, the stronger the controllability, and the smaller the relative risk. Therefore, the design changes proposed by the construction unit, design unit and authorized department need to be calculated according to the changes, but the costs incurred need to be borne differently. Therefore, it is necessary to analyze the causes of design changes, the nature of changes, and the sharing of increased and decreased costs, and formulate countermeasures for cost control.

(4) Countermeasures for cost control. The control level of design change shall be defined to ensure that the change is based on initialization and then carried out according to specific requirements. □ Meet critical changes. This change is based on the realization of the overall project objectives, which must be met to confirm the preliminary work, and also needs to be determined during the project start-up period as far as possible. □ Avoid changes in relevance. There is a certain correlation between the project process and different parts of the building space. The change of a certain part may lead to the adjustment of the spatial combination order, which makes the change continue to extend and has a replacement impact on the engineering construction organization process. □ Convert subsequent changes. The construction conditions shall not be described in detail in the document. For example, when marking the earthwork transportation distance, try to avoid marking it in the bill of quantities, but it should be determined by the bidder after investigation and measurement. In this way, the tenderer can be encouraged to optimize the construction organization and design, so as to reduce the claim problem caused by the transportation distance error and further control the project cost.

(5) Cost control of on-site visa. Every time a visa is issued on the construction site, a fee may be incurred. Therefore, the on-site visa needs to be further controlled. First of all, it is necessary to control the completeness and effectiveness of on-site visa procedures and the authenticity of visa content. Specifically include: A. pay attention to the completeness of on-site visa procedures. The on-site visa procedures should be started from the following aspects: first, based on the signed contract; Second, it must be confirmed by relevant departments (construction supervision, etc.) and signed by the authorized representative of the construction unit; b. Pay attention to the consistency and compliance between the on-site visa content and the actual situation. The description of events on the construction site shall be objective and accurate, and relevant data shall be provided. It is also necessary to conduct a comprehensive and detailed review of the on-site visa in combination with the provisions of the contract terms and bidding documents, the commitment of the tender offer, the matters agreed in the minutes of meetings, the contents of the technical verification sheet and other data, so as to clarify whether there is a phenomenon of double billing, so as to finally determine a reasonable project cost. Secondly, we should clarify the responsibilities of all parties and operate in strict accordance with the procedures. In the process of project construction, there are construction units, construction units, design units,

construction supervision units, whole process cost consulting units and other participating units, and each unit has its own responsibilities. Therefore, the responsibilities of all parties should also be clarified in terms of on-site visa, so as to determine the expenses incurred in on-site visa.

In the process of classifying and analyzing the demand, the cost work needs to give full play to the regulatory role of tolerance, so as to ensure that the quality, progress and cost of the change content can be controlled. Specifically, it includes: A. phase compatibility engineering. There is a certain complementary and perfect interval between the various stages of the project implementation. Taking into account the construction technology and cost changes in a larger range and subsequent stages while carrying out the local design values, it is helpful to adjust the cost control objectives in a larger range, so as to leave room for the overall optimization design of the project and further adjust the project cost. b. Professional cohesion. In the whole process of cost consultation and design, as well as the coordination activities between the construction unit and the construction unit, it is necessary to pay attention to the convergence effect of different professional levels on the project expression. In the design, the construction method and installation method are not indicated in the construction drawing, but the quota pricing method should be considered in the cost work. Therefore, in the whole process of cost consultation, it is necessary to grasp the basic direction of design intent and actively carry out necessary communication activities with the design unit. The change demand shows the organic and complex characteristics embodied in the construction process of engineering projects, so the cost link is not only a static description formed by words, but also a necessary link of professional behavior. In this process, the whole process cost consultation must be based on the existing process specification, actively coordinate and adapt to the actual changes, dynamically balance the cost and demand, so as to achieve the target value of the project.

(6) Expenses incurred in reviewing the claim. In the event of a dispute, the cost consulting service team shall complete various preparations and handling work within the specified time, including reviewing the contract agreement, referring to the relevant national regulations, and proposing an audit to the construction unit. In this process, it is necessary to ensure the legitimacy of the claim reasons, and also provide effective evidence to calculate the correct and reasonable claim amount. Specifically, priority should be given to reviewing the rationality of the claim reasons of the construction unit, and it must be ensured that the extra cost or duration loss beyond the contract is caused, and the reason for the cost increase or duration loss is not the obsolescence of the construction unit itself, and the contract provisions specify the risks that non construction units need to bear, so as to establish the claim. For the established claim project, the decision of cost claim and duration extension shall be made according to the approval of project extension, and on the basis of full preparation, participate in the claim negotiation between the construction unit and the construction unit to solve the claim problem.

2.4 Review the cost of non bidding projects

Generally, there are a certain number of non bidding projects in addition to the main construction, important equipment procurement and other projects determined by bidding. In particular, due to the tight time and strong professionalism of some projects, the small amount of some unit projects or supporting projects such as water, electricity, coal and telecommunications, it is not suitable or impossible to determine the cost by bidding. For the audit of the cost of non bidding projects, it is more necessary to have rich experience in the whole process of cost consulting and the support of a strong data information base. We will strengthen the analysis and review of the basis for the cost composition of non bidding projects, and make timely and practical market inquiries through various channels of our own resources, so as to ensure the rationality of the cost of non bidding projects and the smooth implementation of non bidding projects without affecting the progress of the whole project.

2.5 Closed contract review

Closed contract generally has good adaptability in projects with short contract duration (within one year). Such projects already have detailed design drawings, accurately described bill of quantities, materials and equipment with clear origin, specifications and models, familiar market conditions and contract work with clear scope of work, so closed contract is more applicable. During the whole process of cost consultation, it is necessary to carefully review the terms of the closed contract, specify the scope of the closed contract, the bill of quantities, the adjustment of the contract unit price, the cost of other measures and the settlement method, control the cost in advance, and review according to the terms of the closed contract during the settlement review.

Through comprehensive control in advance, during and after the event, the construction investment is well controlled within the predetermined target cost. In particular, the pre event source control and in-process dynamic control can achieve the control effect in a more timely, objective, effective and preventive manner, and fully consider the principles and basis of settlement and price review in the pre event and in-process control, save the data required for settlement and price review, so that the project investment is always under control, Only in this way can we truly realize the high-quality service of government investment in construction project cost consulting, and maximize its social and economic benefits.

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