

Original Research Article

Problems and Countermeasures in the Process of Architecture and Design of Enterprises

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Abstract: Researchers say that in recent years, driven by economic development, China's construction engineering industry has developed vigorously. In this process, with the emergence of a large number of construction projects, the attention of all sectors of society to the quality of construction projects has been continuously improved. To solve this problem, as the main designer and builder of the project, the construction enterprises should actively analyze and explore the construction and design work according to the actual situation of the project, so as to effectively improve the comprehensive ability of their own engineering buildings and lay a foundation for further improvement and optimization of the engineering quality. In this study, the researchers explored and thought about the main problems existing in the design and construction of architectural engineering in China. In the process, the researchers put forward corresponding optimization countermeasures for related problems with their own professional knowledge, aiming at further improving and optimizing the comprehensive quality of architectural engineering.

Keywords: Construction Industry; Design Link; Evaluation of Drawings; Problems and Countermeasures

Relevant surveys show that in recent years, with the continuous development and prosperity of China's economy, people's quality of life has gradually improved. Based on this, the number of urban construction projects has greatly increased. In this process, with the frequent occurrence of construction accidents, the attention of all sectors of society to the design and construction of construction projects has been continuously improved, thus effectively promoting the brand-new development of the construction industry. Under this trend, as the main designers and builders of architectural engineering, relevant enterprises should effectively pay more attention to architecture and design work, so as to effectively realize the continuous optimization of the structure and quality of architectural engineering, so as to further eliminate potential safety hazards in the process of architectural

engineering design and construction in time, and provide power for the effective development of urbanization in China.

1. The main problems existing in enterprise architecture and design work

1.1 The lack of rationality in architectural engineering design drawings

Relevant investigations show that in the process of architecture and design, some enterprises fail to effectively carry out the early exploration work in the process of planning architectural engineering drawings. Based on this, it is often difficult for designers to effectively design the drawing structure reasonably in the process of

drawing design, which leads to the lack of rationality of the drawing structure, and it is not conducive to the reasonable guarantee of engineering quality. At the same time, a large number of studies show that due to the lack of rationality in architectural design drawings, it is easy to rework and temporarily change the building structure in the process of building construction, which directly leads to a large change in the budget and workload of building projects, and has a very negative impact on the promotion and optimization of the comprehensive quality of building work, thus limiting the reasonable control of building project construction cost and construction content, and causing a very negative impact on the improvement of building engineering quality.

1.2 The safety of architectural engineering design is relatively weak

At present, most construction enterprises have not systematically evaluated and analyzed the design scheme and construction drawings before designing and constructing related projects. Based on this, it is often difficult for construction enterprises to effectively analyze and reasonably discover potential problems in the construction process, which is not conducive to the timely resolution of related problems^[1]. And in the process of architecture and design, the lack of evaluation links directly leads to the difficulty for enterprises to effectively analyze and monitor engineering projects. At the same time, from a long-term point of view, due to the lack of Apple links, it is often difficult for enterprises to guarantee the quality of related engineering projects, which shows potential risk for subsequent engineering applications.

1.3 The insufficient level of professional ability of designers

As the main implementer of enterprise architecture and design process, the professional ability and professionalism of design staff have an important impact on the quality of enterprise architectural engineering construction design. On this issue, a large number of investigations show that, at present, some construction designers are lack of professional ability, which makes it difficult for them to continue to formulate and improve relevant schemes according to the actual situation of the project, and then hinders the improvement of the comprehensive quality of construction and design^[2]. At the same time,

due to the relative lack of professional knowledge, it is difficult for construction personnel to timely discover and control the potential safety hazards in the design process, which leads to certain safety risks in the design and construction process of related construction projects. It is not conducive to the reasonable guarantee of construction project quality and life, and also causes interference to the maintenance of building users' safety.

1.4 The lack of reasonable supervision of construction design and construction

At present, in the daily construction and design work, the construction enterprises have not effectively realized the reasonable construction of the supervision team, which makes it difficult to carry out and implement the supervision work in an orderly manner in the process of architectural design. It causes the related problems cannot be timely discovered and solved has a negative impact on the improvement of the quality of enterprise construction projects^[3]. In view of related problems, after a large number of data analysis, the researchers point out that as an important part of construction engineering, the development and implementation of supervision work has a vital impact on the engineering quality. Therefore, enterprises should actively pay more attention to related work, and at the same time effectively realize the construction of supervision and management personnel to provide guarantee for the improvement of enterprise architectural design work level.

2. To optimize the level of enterprise architecture and design strategies

2.1 To effectively do a good job in the early field visits and to ensure the scientificity of the design

In the process of architectural engineering design and construction, in order to better guarantee the scientificity of drawings, designers should actively go to construction site for on-the-spot investigation, so as to carry out reasonable design and consideration of architectural engineering in combination with climatic conditions, soil conditions and hydrological conditions in the construction area. For areas where the foundation is too soft for construction, corresponding treatment should be carried out or construction should be stopped to avoid collapse

of architectural engineering. On this issue, a large number of practices show that the reasonable implementation of field investigation will help designers to further improve and optimize the drawings, and will have a good promotion significance for the improvement and optimization of the comprehensive quality of construction^[4]. And through the smooth development and implementation of field investigation, designers can effectively make full use of the favorable factors around the construction site, which plays a good role in promoting the scientific and rational improvement of the engineering structure and has positive value for improving the comprehensive quality of the project.

2.2 To actively evaluate engineering design and improve the safety level of the project

On the issue of engineering evaluation, after a lot of analysis, the researchers pointed out that through the development and implementation of engineering evaluation, construction enterprises can effectively analyze and explore the rationality of architectural engineering design, so as to realize the adjustment and improvement of design scheme in time, and lay a good foundation and guarantee for the scientific improvement of design scheme. In terms of specific practices, after the architectural design work, enterprises should invite relevant industry experts and senior practitioners to jointly evaluate the scientificity of design drawings of relevant design schemes in an all-round way, so as to further realize the reasonable guarantee of the scientificity of drawings. In this process, the relevant problems found by experts and scholars should be corrected in time, so as to lay a solid foundation for the scientificity of design and construction, and then realize the reasonable guarantee of the comprehensive quality of the project^[5]. In addition, a large number of studies have confirmed that through the evaluation work, the relevant staff can better realize the systematic analysis of the project, which has a good role in promoting the optimization of the comprehensive level of the project.

2.3 To carry out reasonable training of designers and strengthen the professional quality of designers

From the point of view of design staff, in order to effectively improve the comprehensive level of architecture and design work, enterprises should effectively

strengthen the reasonable construction of staff involved, so as to promote the construction of high-quality talent team and provide help for the reasonable development of architecture and design work. On this issue, the researchers said that on the one hand, enterprises should actively introduce advanced talents, so as to use advanced talents to effectively guide internal designers to fully understand and recognize advanced knowledge, and thus effectively enhance the comprehensive quality of internal architecture and design teams^[6]. On the other hand, enterprises should effectively train the internal staff to better understand and master the professional knowledge of architecture and design. In terms of specific practices, enterprises should actively carry out regular assessment of designers, so as to fully understand the shortcomings of designers in professional knowledge literacy, and organize targeted intensive training for designers in order to help them better realize the promotion and improvement of professional ability. The researchers point out that the development and implementation of the above work will help enterprises to further realize the establishment and optimization of high-quality design staff, and have positive value for the benign development of enterprises.

2.4 To implement the construction of supervision and management team to ensure the effective realization of architectural design

In terms of supervision, the researchers believe that in order to reasonably improve and optimize the level of construction and design work, enterprises should actively carry out and implement supervision work in their daily work, so as to achieve effective control over all aspects of construction projects^[7]. On this issue, a large number of practices show that through the establishment and improvement of the supervision system, enterprises can effectively control all aspects of architecture and design work, so as to find problems in time and deal with them reasonably, avoid the tendency of problems expanding, and provide a strong guarantee for the promotion of the comprehensive level of enterprise architectural design work. On the other hand, a large number of data show that through the orderly development of related work, enterprises can further realize the supervision work and accumulation of architectural design, so as to help enterprises further realize the establishment and optimization

of architectural design and construction system, which has good promotion significance for the long-term development of enterprises.

3. Conclusion

From the perspective of development, in recent years, with the improvement and optimization of economic development level, the number and scale of construction projects in China have been increasing. Based on this, in order to better improve the level of construction and design work, relevant enterprises should effectively reflect on their own work contents according to their actual work, so as to continuously promote the promotion and improvement of the comprehensive quality of construction management system, so as to lay a solid foundation for the development of enterprises. Practice shows that by building a reasonable design team, it is conducive for enterprises to achieve the improvement and optimization of design level^[8]. At the same time, through the reasonable establishment and improvement of the supervision team, the relevant staff can do a good job in the reasonable supervision of relevant contents in the construction and design work, so as to timely discover the potential safety hazards, which has a good impetus to the orderly solution of related problems. In this regard, relevant research shows that by formulating the supervision system and regulations on supervision responsibility, enterprises can guide supervisors to better realize their rights and responsibilities, which is of good promotion significance to the improvement of

supervision quality.

References

1. Gu F. Analysis of the role of construction enterprises as investment subjects in infrastructure PPP projects (in Chinese). *China Market* 2019; (34): 94–95.
2. Wang J. Research on the problems and coping strategies in accounting management of architectural design industry (in Chinese). *Accounting Learning* 2019; (24): 134, 136.
3. Li X. Developing green buildings is the historical mission of real estate developers—Interview with Zhang Chuanjing, deputy chief designer of China Merchants Property Green R&D and Application Center (in Chinese). *China Housing Facilities* 2014; (1): 59–61.
4. Jin M. Analysis of the influencing factors of construction cost and the method of reducing construction cost (in Chinese). *Construction Materials & Decoration* 2018; (48): 134–135.
5. Zhou W. The effective application of building structure design optimization method in building structure design (in Chinese). *Engineering Technology Research* 2018; (11): 156–157.
6. Nan X, Cui J. On the role of learning enterprise culture in improving the quality management system of architectural design enterprises (in Chinese). *Co-Operative Economy & Science* 2015; (1): 116–117.
7. Liu Y. Research on design quality management of architectural design enterprises based on BIM (in Chinese). *China Building Materials Science & Technology* 2017; 26(4): 87–88.
8. Lu J. Talking about the problems and scheme design in quality cost management of construction enterprises (in Chinese). *Doors & Windows* 2015; (2): 129–130.