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A Brief Discussion on Construction Quality Control of Building Tall Template

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ABSTRACT At present, China's construction industry is being launched along with the rapid development of urbanization, the building in functionality are becoming more complex, a growing number of high-rise buildings. Tall template in today's construction work has been widely recognized and applied. High quality construction template has a very large impact on the overall quality and safety of the project, so the quality of the construction of up to template control. In this paper, building construction quality control measures were analyzed to provide a reference for the industry.

KEYWORDS
Building project
Construction template
Quality control

1. Introduction

In the new era, China's construction industry is rapidly evolving, new large-scale construction is also growing. However, in recent years the building with serious quality problems, often tall template collapse accident, seriously affecting the safety of the construction. Therefore, the construction of tall template quality control is very important to strictly control the construction process safety tall template construction, reducing major accidents occur during construction houses, security engineering quality in the construction process.

2. Tall template construction process problems

2.1. Shear quality problems

Shear wall construction process, the possibility of external walls Jiecha wrong stubble phenomenon appears very high may cause uneven Jiecha plasma leakage problems and problem Honeycomb shear occurs, seriously affecting the quality of the concrete wall.

Jiecha wrong stubble main reason may be due to unreasonable formwork and reinforcement process, due to the construction process does not strictly comply with the relevant industry specifications and requirements of the construction on the template directly on the floor surface above. Such a construction method will directly lead to the flatness of the floor surface receive the impact, concrete pouring and after the link will also be insufficient flatness impact, concrete slurry from the cracks in the loss experience, resulting in leakage of plasma phenomena. Concrete shear wall panel side is also affected by the pressure, because the distance between the wall and the screw template is large, but also by concrete lateral pressure is relatively large, thus resulting in mold and other problems run up die shear panel, for shear walls. The overall quality has a great influence. In addition, during construction, steel shear effect on the quality of the material can't be ignored [1]. Some construction units in the template project construction in order to reduce costs and the use of a thin wall steel pipe, steel pipe which can't be met in the stiffness of the reinforcement Wall desired force standards, may result in the construction process very serious Quality issues. There are some quality problems are due to the shear wall screw bolt reinforcement process did not meet the corresponding requirements, resulting in the phenomenon of shear drum mold. Meanwhile, if the pound during the pouring of concrete vibrators inaccurate or missing shock, there will be quality problems to make the template project.

2.2. Stair step size standardization

In the process of building construction, the stair step size often not uniform. Since the construction of stairs template provided no support in accordance with the requirements of the reinforcement, resulting in the latter part of the kick plate were prone to raise concreting mold problems. If the

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building stairs appeared stepping width is not uniform issue, but also a serious impact on the staircase renovation. The main causes of non-standard size stair step are the construction unreasonable stairs when the kick panel reinforcement. Typically, the kick panel reinforcement to the two wooden boards with nails fixed kicking, effectively preventing the kick plate up mold phenomenon, but in order to facilitate concrete pouring pound, many works will be removed before pouring pound wooden reinforcement resulting kick plate due to the lateral pressure of concrete and deformation, resulting in up mold problems. If the construction process of concrete pouring pound excessive vibration intensity is too large, it is likely to cause up mold problems [2].

2.3. Shear yin and yang angle patchwork node processing problem

Processing patchwork node has a great influence on the shear angle of yin and yang. If handled properly patchwork node, it will result in up mold problem occurs when concrete pouring pound. If the node is not tight seam, it will appear in the seams plasma leakage, after removal of the template will appear in the Honeycomb Yang angle, yin and yang angle not straight and so on. This problem is mainly caused because of the yin and yang angle shear patchwork node is not carried out in accordance with the relevant provisions or requirements process, patchwork node template stiffness non-compliance, but there is no remedy in the late cause problems. In addition, the material and quality can also affect the process template patchwork nodes. Template recycling may cause flash template deformation and other quality problems that affect the quality of the construction.

3. Tall template construction process engineering control points

Before tall template construction, engineering units should strictly check all construction workers job qualification certificate, ensure that the construction personnel with professional qualification. To avoid no certificate of workers into the field operations, in order to avoid problems due to construction or accidents caused by human factors. Prior to construction, the project technical programming staff to tests, and construction workers, technical specifications and security technology. To the construction process, such as pole spacing, spacing bracket, shear erection and other technical support focuses on data, but also to ensure that the construction in strict conformity with norms and requirements of the construction technology, the construction technology fully implement the specification to which the whole process of construction. In tests, aspects of security technology, security issues should be emphasized that the construction, standard operating procedures of the construction process, in strict accordance with the right technology require workers to perform work rules. Labor insurance articles to regulate properly use, but also the safety rules and regulations project was stressed, so that the project quality and safety priorities and difficulties rooted in the hearts of every worker in the construction process fully implemented. Also targeted control in the construction process.

Before tall template support construction, want to steel, fasteners and other key materials of Review, to avoid non-compliance or quality defects of materials into the construction process, reduce support workpiece quality problems caused by quality problems and security issues. Project Department materials, staff must be on the steel, fasteners rigorous inspection to ensure that the workpiece stiffness, strength and stability, but also to ensure that inspection of a workpiece with a complete production licenses and product certification.

Pound during pouring sclerosis has a professional foreman for the construction of concrete axis is determined, and pop pole spacing lines. Construction worker tests, should strictly abide by the requirements of the program, to ensure the construction process quality and safety. During the horizontal bar and a vertical pole to pole fixed before calibration to ensure that the bar remains level. Construction workers have to be avoided during construction on the same plane, to avoid accidents.

During form removal, can't be arbitrarily removed dry and shear vertical and horizontal support level, prior to removal of the template for each layer of concrete for testing to ensure the strength of standard concrete. No longer needed after the confirmation template, the template can be tall support demolition work. Before demolition work, to set up a safety net in the periphery, in order to prevent accidents caused by falling. When removing a piece is not removed, the template should be removed one by one. The removal process should avoid impact on the floor, the template should be promptly dismantled under removal, and make sure that when you order the removal of scientific and reasonable.

4. Tall formwork inspection and acceptance

Construction team leader should work after the end of each day to check on the tall template support work day. To step frame fasteners must be strictly checked with a torque wrench to check whether the fastener bolt tightening torque reaches the standard. For slide wire bolt must also be strict investigation to ensure the integrity of the fastener, no breakage. Check whether the vertical pole, rod convergence at the position is shifted. If you find a construction problems, to timely rectification, the problem is nipped in the bud, to avoid problems after the system, increasing rework the workload, affecting the quality and safety of the whole project [3].

Project department technical director of scissors to strictly carry out the erection quality inspection to ensure compliance with the requirements of bridging the erection

of construction scheme, while bridging to check whether the diagonals pole good combination, whether the activities have been stuck fastener, whether the diagonals angle 60° or more, whether through the entire support system. Scissors erection should be avoided in the same line, the staff to check whether the bridging support frame and the support frame in accordance with the tests, subject to strict connection locking scheme, on the tube card Shuangkou pieces stuck confirmation, guarantee scissors. The construction quality; technical personnel of the project in a timely manner after checking problem for problem rectification organizes the construction team to ensure the safety of construction.

Technical director of the project during construction quality inspection should be strictly based on "special construction plan" and "tall template stent safety checklist points" in the construction safety standards, the construction process in every aspect of each inspection, construction After the completion of the requirements of the relevant personnel of the entire construction project to conduct a comprehensive inspection, and to report to the technical department inspection records construction units, project chief supervision engineer to check the results of the review and acceptance, only to continue with the work after acceptance.

5. Conclusion

With the construction of a number of buildings in various fields growing tall template support system has been in the construction industry it has been widely used. In order to better ensure the building construction process, quality and safety, construction units should be strictly controlled tall template quality problems, strict adherence to industry standards and specifications, according to the construction plan of steps to expand the schedule, control the quality of each link, to improve the quality and the safety factor tall template.

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