

# **GUIDELINES** ON PLANKING ARRANGEMENT FOR PROVIDING WORKING PLATFORMS ON BAMBOO SCAFFOLDS

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#### Disclaimer

Whilst reasonable efforts have been made to ensure the accuracy of the information contained in this publication, the CIC nevertheless would encourage readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions.

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#### Preface

The Construction Industry Council (CIC) is committed to seeking continuous improvement in all aspects of the construction industry in Hong Kong. To achieve this aim, the CIC forms Committees, Task Forces and other forums to review specific areas of work with the intention of producing Alerts, Reference Materials, Guidelines and Codes of Conduct to assist participants in the industry to strive for excellence.

The CIC appreciates that some improvements and practices can be implemented immediately whilst others may take more time to adjust. It is for this reason that four separate categories of publication have been adopted, the purposes of which are as follows:

- Alerts Reminders in the form of brief leaflets produced quickly to draw the immediate attention of relevant stakeholders the need to follow some good practices or to implement some preventative measures in relation to the construction industry.
- Reference Reference Materials for adopting standards or Materials methodologies in such ways that are generally regarded by the industry as good practices. The CIC recommends the adoption of these Reference Materials by industry stakeholders where appropriate.
- Guidelines The CIC expects all industry participants to adopt the recommendations set out in such Guidelines and to adhere to such standards or procedures therein at all times. Industry participants are expected to be able to justify any course of action that deviates from those recommendations.
- Codes of Conduct Under the Construction Industry Council Ordinance (Cap 587), the CIC is tasked to formulate codes of conduct and enforce such codes. The Codes of Conduct issued by the CIC set out the principles that all relevant industry participants should follow. The CIC may take necessary actions to ensure the compliance with the Codes.

If you have attempted to follow this publication, we do encourage you to share your feedback with us. Please take a moment to fill out the Feedback Form attached to this publication in order that we can further enhance it for the benefit of all concerned. With our joint efforts, we believe our construction industry will develop further and will continue to prosper for years to come.

# 1. Purpose

- 1.1 The guidelines in this publication apply to buildings under construction and to existing buildings undergoing large-scale renovation works. They aim to provide practical guidance on the roles and responsibilities of Main Contractors and Subcontractors in the provision of suitable working platforms on bamboo scaffolds, in order to prevent violating legislation and endangering workers due to insufficient coordination between these contractors, resulting in a lack of such working platforms.
- 1.2 The Labour Department (LD) has agreed to make reference to this publication when enforcing safety regulations relating to the use of bamboo scaffolds for work at height, such as the "Construction Sites (Safety) Regulations", "Factories and Industrial Undertakings (Safety Management) Regulations", the general duties provisions under the "Factories and Industrial Undertakings Ordinance" and related codes of practice on work safety.

### 2. Definitions

- Main In relation to construction work, means Contractor(s) any person or firm engaged in carrying out construction work by way of trade or business, either on his own account or pursuant to a contract or arrangement with entered into another person. including private the sector, the Government of the Hong Kong Special Administrative Region or any public body. This includes the registered contractor appointed for a private sector project.
- Subcontractor(s) (a) Any party who enters into a contract with a Main Contractor to perform all or any part of the work which the Main Contractor has undertaken to perform; or (b) Any other person who enters into a contract to perform all or any part of the work which a Subcontractor has undertaken to perform.

## 3. Introduction

- 3.1 As the responsibility for ensuring workers' safety when using bamboo scaffolds to work at height are not clearly delineated between Main Contractors and Subcontractors, some Subcontractors bring their own planks to lay on the bamboo scaffolds as working platforms, and remove the planks upon completion of their tasks. As a result, Subcontractors responsible for subsequent works on the bamboo scaffolds are not provided with any suitable working platform. Such unsafe conditions endanger workers working at height.
- 3.2 This publication makes reference to core elements of a safe system of work and safety management system, and recommends necessary precautionary measures, including a clear delineation of the roles and responsibilities of Main Contractors and Subcontractors in the provision, laying and use of planks as working platforms on bamboo scaffolds through agreements or contracts, so as to enhance work safety on bamboo scaffolds.

## 4. Limitations

4.1 It is important to note that compliance with this publication does not of itself confer immunity from legal obligations in Hong Kong. Employers or contractors are reminded to observe and comply with statutory provisions, relevant codes of practice and other government departments' requirements so as to discharge their legal and other pertinent duties related to work on bamboo scaffolds.

#### 5. Risk Assessment

5.1 Before commencing work, contractors should conduct

job-specific risk assessments to identify the locations of working at height and the associated hazards, assess the level of risk, and formulate safe method statements and risk control measures accordingly, which include minimising the need to work-at-height.

5.2 If there is a need to work-at-height on the exterior walls, the contractors should consider all factors, including the work nature, the appliances and materials to be used, working height, and working environment, in the implementation of effective safety measures.

#### 6. Selection of Subcontractors

- 6.1 When engaging Subcontractors, the Main Contractors should select those who can meet work safety standards, including those with a good safety track record and with the necessary skills, and ensure that the Subcontractors are capable of implementing adequate safety measures.
- 6.2 During the selection process, the Main Contractors should require the Subcontractor to submit an outline of a work plan for working on the exterior wall, and give preliminary information on the work. Depending on the complexity and requirements of the work, the outline should precisely describe the work procedures, the necessary facilities, the monitoring and emergency procedures, etc.
- 6.3 Once appointed, the Subcontractor should, based on the outline submitted earlier, formulate a detailed work plan comprehensively explaining the method of carrying out the work safely and effectively, and coordinate with the Main Contractor who should then incorporate the detailed work plan into the project's safety plan.

# 7. Delineation of the Roles and Responsibilities of the Main Contractors and the Subcontractors

- 7.1 The Main Contractors and Subcontractors should clearly delineate their roles and responsibilities in the provision, laying and use of planks and toe boards as working platforms on bamboo scaffolds through agreements or contracts.
- 7.2 When formulating the contracts, the Main Contractors and Subcontractors should clearly stipulate the arrangements (including the responsibilities of the parties concerned) in contract terms to ensure that relevant safety measures can be fully implemented.
- 7.3 In setting the tender price, the Subcontractors should include the cost of the safety measures required to ensure that they can be fully implemented.

## 8. Laying Planks as Working Platforms on Bamboo Scaffolds

- 8.1 To avoid the situations mentioned in Section 3.1, resulting in a lack of suitable working platforms for working at height, the construction industry has reached a consensus on the delineation of responsibilities. The Main Contractors shall be responsible for providing suitable planks and toe boards, while the Subcontractors shall be responsible for monitoring their workers in using the working platforms safely. The delineation is detailed as follows:
  - (a) The roles and responsibilities of the Main Contractors
    - Providing suitable planks and toe boards, and ensuring that the planks are of good construction, adequate strength and thickness. The standard for planks is not less than 200 millimetres in width and not less than 25 millimetres in thickness; and not less than

150 millimetres in width if the plank exceeds 50 millimetres in thickness. Please refer to Schedule 3 of the "Construction Sites (Safety) Regulations" for detailed requirements;

- Providing adequate quantities of planks and toe boards to construct at least three consecutive layers of working platforms<sup>1</sup> on bamboo scaffolds at the exterior walls of buildings. This is to ensure that all trades of workers would have suitable working platforms to use continuously when working at the bamboo scaffolds at the exterior walls of buildings;
- (iii) Designating a location for storage of planks and toe boards, notifying all Subcontractors of the storage location and appointing a person / team to communicate and coordinate with the Subcontractors' designated person, so as to ensure that the Subcontractors can access all the necessary planking materials effectively;
- (iv) Supervising the plank laying work to ensure that it is carried out safely and properly;
- (v) Ensuring that the strength and stability of the working platforms and the bamboo scaffolds are inspected by a competent person; and
- (vi) Managing and supervising the proper use of the working platforms.
- (b) The roles and responsibilities of the Subcontractors
  - (i) Arranging for their workers to take the necessary materials to lay the planks and toe boards;

<sup>&</sup>lt;sup>1</sup> Note: To ensure the strength, loading capacity and stability of bamboo scaffolding, all parties should comply with "Code of Practice for Bamboo Scaffolding Safety" issued by the Labour Department, which includes (i) A scaffold greater than 15m in height should be designed and approved by a professional engineer. (ii) For a scaffold less than 15m in height, at the same bay, if more than 2 consecutive layers of working platforms are used at the same time for very light duty purpose or more than 1 working platform for a heavy duty purpose, a professional engineer should be appointed to verify the stability of the scaffold.

- Properly laying the planks according to the instructions and requirements of the Main Contractors and maintaining their safe condition;
- (iii) Appointing a person to communicate and coordinate with the Main Contractors' appointed person / team in order to ensure that the working platforms have been inspected and approved by the Main Contractors before use;
- (iv) Establishing a monitoring system that should be strictly executed to ensure that the planks and toe boards are properly laid;
- (v) Ensuring the working platforms are used properly;
- (vi) Providing necessary safety information, instruction, training and supervision to the workers concerned; and
- (vii) Informing the Main Contractors immediately if any damage to the planks or toe boards is discovered, and replacing the defective parts under the supervision of the Main Contractors.
- 8.2 The arrangement stated in Section 8.1 aims to set out a clear delineation of work, effective management and multilateral collaboration, to ensure that both the Main Contractors and Subcontractors implement, on ground, the relevant safety responsibilities. In particular, the arrangement spelt out in Section 8.1(a)(i) takes into account the work flow of major types of works on the exterior wall, the time required for completing the works continuity. The Main Contractors and their and the Subcontractors should also consider the uniqueness of individual trades (such as upward construction work on the exterior wall) and coordinate and arrange for laying planks on the bamboo scaffold on the exterior wall, so as to ensure that safety responsibilities are fulfilled and the work concerned is carried out safely. Workers should also cooperate with contractors and follow their instructions to use the working platforms safely.
- 8.3 Examples of the above-mentioned bamboo scaffold working platforms are depicted in Annex A (Figures 1 and 2).

## 9. Monitoring the Safety Performance of Subcontractors

- 9.1 A monitoring system should be developed, implemented and maintained by the Main Contractors to ensure that all Subcontractors engaged in bamboo scaffolding work, or other Subcontractors using the bamboo scaffolds, are fully aware of and have discharged their safety responsibilities and that the relevant safety legislation and the safety requirements of agreements or contracts are complied with.
- 9.2 Main Contractors should constantly review the work and the safety performance of the Subcontractors and request that the Subcontractors regularly attend safety meetings. If any unsafe working conditions are found, the Main Contractors should suspend the works involved immediately. The works under suspension can only be resumed when improvement measures have been implemented effectively.

# Annex A

Examples of bamboo scaffold working platforms



(Figure 2 – Not to Scale)



# Feedback Form [GUIDELINES on Planking Arrangement for Providing Working Platforms on Bamboo Scaffolds]

Thank you for reading this publication. To improve our future editions, we would be grateful to have your comments.

1. As a whole, I feel that the publication is:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Informative					
Comprehensive					
Useful					
Practical					
2. Does the publication enable you to	to Yes No		No	No Comment	
understand more about the Planking					ב
Arrangement for Providing Working					
Platforms on Bamboo Scaffolds?					
3. Have you made reference to the publication	Quite Of	ten	Sometimes	Ne	ver
in your work?					ב
4. To what extent have you incorporated the	Most		Some	No	ne
recommendations of the publication in					
your work?					
your work? 5. Overall, how would you rate our	Excellent	Very Good	Satisfactory	Fair	Poor
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(Please put a " $\checkmark$ " in the appropriate box.)

\* The personal data in this form will be used only for this survey. Your data will be kept confidential and dealt with only by the Construction Industry Council.

^ Circle as appropriate.

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