Dismantling of bamboo scaffolds

1. Work out a dismantling plan and working procedures.
2. Ensure that the dismantling work is done by trained workmen under the immediate supervision of a competent person.
3. Allow sufficient time for the dismantling work.
4. Install fences on the ground level and post up warning notices.
5. Check the strength and stability of the scaffold before dismantling.
6. Ensure that no component, which endangers the stability of the remaining structure, is removed first while dismantling work is in progress.
7. Prohibit throwing or tipping scaffolding materials from height.
8. Ensure that no materials are stored on the scaffold.
9. Use personal protective equipment.

Points to note

This leaflet is a simple guide to bamboo scaffolding safety. Please refer to the “Code of Practice for Bamboo Scaffolding Safety” and “A Guide to the Provisions for Safe Places of Work under Part VA of the Construction Sites (Safety) Regulations” for further details and legal requirements on work safety. These two publications can be obtained free of charge from offices of the Occupational Safety and Health Branch of the Labour Department.

Inspection and maintenance of bamboo scaffolds

1. The scaffold shall be inspected whether it is safe or needs to be repaired.
2. The scaffold shall be checked before use for the first time, within 14 days immediately preceding each use, and after exposure to adverse weather conditions.
3. The scaffold shall be checked before use for the first time, within 14 days immediately preceding each use, and after exposure to adverse weather conditions.
4. The scaffold shall be inspected whether it is safe or needs to be repaired.

“Competent person” means a person

- who has completed substantial training, i.e.
  - who has satisfactorily completed a formal training in bamboo scaffolding works such as an apprenticeship in the trade of bamboo scaffold under section 28 of the Apprenticeship Ordinance (Cap. 28) or 1-year full-time basic craft course of construction scaffolding works of the Construction Industry Council Training Academy (CICFA) or other similar bamboo scaffolding courses/provider; or
  - satisfactorily passed the trade test for bamboo scaffolder of the CICFA;
- who has possessed practical experience (10 years or more in bamboo scaffolding work) or satisfactorily passed the intermediate test for bamboo scaffolder of the CICFA;
- who has the ability to read and understand the design drawings, specifications and method statements of the scaffolding work;
- who is capable of identifying existing and predictable hazards;
- who is appointed in writing by the contractor and competent to perform the duty for bamboo scaffolding.

“Trained workman” means a person

- who has satisfactorily completed a formal training in bamboo scaffolding works equivalent to any of those mentioned for a competent person or has satisfactorily passed the intermediate trade test for bamboo scaffolder of the CICFA and possesses at least 1 year of experience in bamboo scaffolding works (inclusive of experience under the formal training period); or
- who are registered skilled, semi-skilled, skilled (provisional) or semi-skilled (provisional) workers under the Construction Workers Registration Ordinance (Cap. 181) for the trade of bamboo scaffolds.

Enquiries

If you wish to enquire about this leaflet or require advice on occupational safety and health matters, please contact the Occupational Safety and Health Branch of the Labour Department through:

- Telephone: 2599 2077 (auto-recording service available outside office hours)
- Fax: 2915 1410
- E-mail: enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation is also available on our website at http://www.labour.gov.hk.

For details on the services offered by the Occupational Safety and Health Council, please call 2739 9000.

Complaints

If you have any complaints about unsafe workplaces and practice, please call the Labour Department’s occupational safety and health complaint hotline at 2542 2172. All complaints will be treated in the strictest confidence.
1. Give due consideration to all safety factors in the design of bamboo scaffolds.
2. Include safety requirements in the contract for scaffolding work.
3. Assess site conditions, formulate safety plans and devise safe working procedures.
4. Maintain good coordination of work and close communication with all parties concerned.
5. Prepare a contingency plan for adverse weather conditions.
6. Ensure that work is carried out by “competent persons” and “trained workmen”.
7. Provide personal protective equipment.
9. Train all personnel involved in the work.

The latest Guidelines on Planking Arrangement for Providing Working Platforms on Bamboo Scaffolds issued by the Hong Kong Construction Industry Council should be observed in fulfilling the safety responsibilities of laying planks as working platforms on bamboo scaffolds so as to ensure safety at work on such scaffolds. The following essential points should be taken into account in making the planking arrangement:

1. Erecting bamboo scaffolds should conform to one of the following:
   (1) Laying working platforms on every lift of a bamboo scaffold;
   (2) Erecting a suitable working platform at every working location on a lift where the entire scaffold is designed as closely spaced bamboo scaffold (for definition and drawings of closely spaced bamboo scaffold, please refer to the Guidelines on Planning Arrangement for Providing Working Platforms on Bamboo Scaffolds).

2. For works with contact commencement date before 1 March 2018 and not meeting the requirements in item (i) above, at least three consecutive layers of working platforms should be laid on bamboo scaffolds in compliance with the Guidelines on Planning Arrangement for Providing Working Platforms on Bamboo Scaffolds issued in May 2014.

3. Positions of ties and bracings for bamboo scaffold
   (i) For building under construction, structural anchors for the ties can be preset into the structurally sound members of the building facade.
   (ii) For existing building, structural anchors can be provided by expansion type anchor bolts set into the structurally anchor members of the building facade.

4. Angles:
   - Tying to the standard and the transom: Angle approximately equals to 60˚.
   - Transom/putlog: Angle approximately equals to 60˚.
   - Standard: Angle not greater than 40˚.

5. Steel wires (minimum effective diameter equal to 40mm) should be used as a strut (with effective diameter not less than 40mm).

6. A short length of bamboo of at least 200mm high is required for every 4m or less rise and 7m or less apart horizontally or less on the scaffold, one raker should be provided.

7. The truss-out scaffold should be supported on balcony, sills or ledgers on the outside wall and is limited to a span not greater than 9m.

8. Building/Structure materials and tools should be placed at inner side of the working platform on the scaffold (i.e. the side inside and outside of the working platform).

9. To restrict any inward movement of the scaffold and the building facade, standard erected ledgers and minimum 3 rakers for each scaffold (maximum spacing at 1.3m c/c) should be used to connect between the 3rd or 4th lift and the building facade.

10. Positions of transoms are not shown.

Figure A: Proper working platform of a double-row bamboo scaffold

Figure B: Double-row bamboo scaffold with recommended erection standards

Figure C (1): Positions of ties and bracings for bamboo scaffold

Figure C (2): Details of truss-out arrangement of a double-row bamboo scaffold

Figure D: Position of rakers for bamboo scaffold of height 7m or below

Figure E: Single lift type truss-out bamboo scaffold

Note:
- (i) Each scaffold should be less than 30m in length and no less than 2lm in thickness at every 7m or less apart horizontally.
- (ii) Height of middle work on that in Figure A. It shall apply in a working platform on a double-row scaffold if the top horizontal of the scaffold is more than 2.1m above the ground to form ties between working platforms.

Note:
- (iii) There should be a tight control on the loading of the scaffold during the execution of work on it. All the materials and tools should be placed at inner side or the working platform on the scaffold (i.e. the side inside and outside of the working platform).

Note: The truss-out scaffold should be supported on balcony, sills or ledgers on the outside wall and is limited to a span not greater than 9m.