

INTRODUCTION

Since 1999, the Building and Construction Authority (BCA) have produced a series of 9 Good Industry Practices Guides. These guides detail work processes and methods of installation for various finishing trades e.g. ceramic tiling, timber flooring, waterproofing works, etc. If the guidelines are followed closely, one can expect the resultant end product to be a high quality building of workmanship excellence. These guides have been used as reference standards in quality assessments under BCA's CONQUAS or Quality Mark (QM) schemes.

While it is possible to achieve high quality standards by following closely these guides, sometimes the proper design, detailing or choice of material can often reduce the time and effort required during construction to achieve the same or better end result. Some conventional methods, materials or designs may require the employment of more skilled workers to work in difficult circumstances and therefore take a longer time to complete the works. Such skilled workers are invariably in short supply and as projects usually have to be completed within very tight schedules, workmanship quality is often sacrificed.

Good design is an integral and essential part of construction. Good design facilitates construction work to be carried out optimally within time and cost constraints. It addresses the following aspects:

- Safety
- Meeting end-user's needs
- Functionality
- Build Quality
- Buildability
- Sustainability
- Aesthetics

To strike a balance in all the aspects and achieve good quality in the final product, plans and specifications should be carefully designed, reviewed at each stage and corrected before construction starts. Overlooking any of these may result in additional time and cost to rectify the works.

This guide attempts to distill many good design practices and material choices observed in various CONQUAS and QM projects that have achieved workmanship quality excellence as reflected in their high CONQUAS/ QM scores. Industry professionals can learn and apply these practices in their projects for better quality achievement. As each building's design objective may be different from another, it may be necessary to be selective or customize the mentioned practices to meet the specific needs of the project. This guide has made comparisons with some designs choices that may be difficult to build or has inherent difficulties in achieving quality. This does not mean such designs cannot be employed. It only means that more time, attention and higher cost may be incurred to achieve the same quality result.

This guide is the first of 2 volumes and focuses on good design choices for workmanship excellence. The subsequent volume will cover other design choices and material selection that impacts quality.