

SINGAPORE STANDARD
Code of practice for construction
computer-aided design (CAD)
– Part 4 : CAD drafting conventions

Confirmed 2015



Published by

Enterprise
Singapore

CP 83 : Part 4 : 2001 (2015)

(ICS 01.100.30)

SINGAPORE STANDARD

**Code of practice for construction computer-aided
design (CAD)**

– Part 4 : CAD drafting conventions

All rights reserved. Unless otherwise specified, no part of this Singapore Standard may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from Enterprise Singapore. Request for permission can be sent to: standards@enterprisesg.gov.sg.

ISBN 9971-67-833-0

This Singapore Standard was approved by the Information Technology (IT) Standards Committee on behalf of the Standards Council of Singapore on 9 January 2001.

First published, 2001

The IT Standards Committee appointed by the Standards Council consists of the following members:

	Name	Organisation
Chairman	: Mr Wilson Tan	<i>Standards Council</i>
Executive Secretary	: Ms Pee Gim Onn	<i>Infocomm Development Authority of Singapore</i>
Secretary	: Ms Ho Buaey Qui	<i>Infocomm Development Authority of Singapore</i>
Members	: Assoc Prof Chi Chi-Hung	<i>National University of Singapore</i>
	Ms Susan Chong	<i>Singapore Productivity and Standards Board</i>
	Prof Robert Gay	<i>Singapore Computer Society</i>
	Assoc Prof Angela Goh	<i>Nanyang Technological University</i>
	Mr Kan Siew Ning	<i>Infocomm Development Authority of Singapore</i>
	Dr Low Hwee Boon	<i>Kent Ridge Digital Labs</i>
	Mr Alvin Ong	<i>Information Technology Management Association</i>
	Mr Wee Tew Lim	<i>Singapore Information Technology Federation</i>

The Technical Committee on Construction Industry IT Standards appointed by the IT Standards Committee and responsible for the preparation of this standard consists of representatives from the following organisations:

	Name	Organisation
Chairman	: Mr Edward D'Silva	<i>Singapore Institute of Architects</i>
1st Deputy Chairman	: Mr Lee Chuan Seng	<i>Institution of Engineers Singapore</i>
2nd Deputy Chairman	: Mr Yeo Eng Chang	<i>Housing & Development Board</i>
Secretary	: Mr Wong Wai Ching	<i>Building and Construction Authority</i>
Members	: Mr Goh Ngan Hong	<i>Singapore Institute of Surveyors and Valuers</i>
	Mr Desmond Hill	<i>Singapore Contractors Association Limited</i>
	Mr Christopher Ho	<i>Real Estate Developers Association of Singapore</i>
	Ms Kee Bee Kheng	<i>Singapore Institute of Surveyors and Valuers</i>
	Mr Khor Poh Hwa	<i>Society of Project Managers</i>
	Mr Simon Lee	<i>Singapore Contractors Association Limited</i>
	Ms Lily Leong	<i>Housing & Development Board</i>
	Mr Shaun Leong	<i>Jurong Town Corporation</i>
	Mr Samsul Muarif Lokman	<i>PWD Consultants Pte Ltd</i>
	Mr Steven Neo	<i>Real Estate Developers Association of Singapore</i>
	Ms Ong Sim Lian	<i>Real Estate Developers Association of Singapore</i>
	Mr Ajay Sankaran	<i>Urban Redevelopment Authority</i>
	Ms Rita Soh	<i>Singapore Institute of Architects</i>
	Ms Irene Tan	<i>Building and Construction Authority</i>

	Dr Tan Kee Wee	<i>Building and Construction Authority</i>
Members	: Mr Tan Tian Chong	<i>Building and Construction Authority</i>
	Mr Tay Leng Chua	<i>Defence Science and Technology Agency</i>
	Dr Teo Ho Pin	<i>Singapore Institute of Surveyors and Valuers</i>
	Mr Teo Kong Poon	<i>Institution of Engineers Singapore</i>
	Mr Eddie Wong	<i>Real Estate Developers Association of Singapore</i>

The Design Working Group (WG) appointed by the Technical Committee to assist in the preparation of this standard comprises the following members:

	Name	Organisation
WG		
Convenors	: Mr Lee Chuan Seng	<i>Institution of Engineers Singapore</i>
	Ms Rita Soh	<i>Singapore Institute of Architects</i>
Members	: Mr T K Asokan	<i>Defence Science and Technology Agency</i>
	Ms Shirley Foo	<i>Maunsell Consultants (S'pore) Pte Ltd</i>
	Mr Vincent Han	<i>Parsons Brinckerhoff Consultants Pte Ltd</i>
	Ms Angela Lee	<i>Building and Construction Authority</i>
	Mr Leong Kar Tshon	<i>Jurong Town Corporation</i>
	Ms Lily Leong	<i>Housing & Development Board</i>
	Mr Albert Lim	<i>PCR-Perdana Consulting Pte Ltd</i>
	Ms Belinda Lim	<i>RDC Architects Pte Ltd</i>
	Mr Khalid Mahmood	<i>Maunsell Consultants (S'pore) Pte Ltd</i>
	Mr Ajay Sankaran	<i>Urban Redevelopment Authority</i>
	Mr M K Sunil	<i>PWD Consultants Pte Ltd</i>
	Dr Tan Guan	<i>Association of Consulting Engineers Singapore</i>
	Dr Tan Kee Wee	<i>Building and Construction Authority</i>
	Ms Serene Tham	<i>RSP Architects Planners & Engineers Ltd</i>
	Mr F K Woo	<i>Parsons Brinckerhoff Consultants Pte Ltd</i>
	Mr Yeo Eng Leng	<i>Housing & Development Board</i>

The Technical Committee acknowledges the contribution of Dr Tan Kee Wee, Senior Manager and Ms Angela Lee from the Building and Construction Authority in helping to co-ordinate the preparation of this code.

(blank page)

Contents

	Page
Foreword _____	6

CODE OF PRACTICE

1 Scope and objectives _____	7
2 Drafting conventions _____	7

ANNEXES

A.1 Sheet sizes and title block _____	8
A.2 Standard plot scales _____	9
A.3 Hatch patterns for material representation _____	10
A.4 Line type representation _____	12
A.5 Abbreviations _____	13
A.5.1 List of abbreviations by disciplines _____	13
A.5.2 List of abbreviations in alphabetical order _____	19
A.5.3 List of abbreviations with descriptions in alphabetical order _____	28

Foreword

This code was prepared by the Technical Committee on Construction Industry IT Standard under the direction of the Information Technology Standards Committee.

This code was prepared with reference to some parts of, SS CP 6 : 1978 – ‘Code of practice for building drawing’.

The use of computer-aided design (CAD) has been extensive and is still growing in the construction industry in Singapore. The ability of CAD to allow reuse and sharing of information will contribute greatly to the productivity in building design and construction, which involves extensive information and co-ordination between all parties in the building industry.

CAD files in the form of digital drawings are now a common medium of data exchange between all parties in building industry and the building authorities. The development of a set of CAD drafting conventions for use by all bodies/parties is a component in fully realising the potential of CAD for more efficient work and communication.

This code establishes a set of drafting conventions to be used by all parties in building industry who are involved in preparing and using technical documentation by means of CAD systems. It is envisaged that the set of drafting conventions in this code will be revised and updated regularly to adjust to changes in CAD technology.

This code has made reference to input from various standards organisations. Much of the information in this code has also been contributed by consulting firms, contractors and members of professional institutions. Acknowledgement is made to these firms that have given their permission to use the information in this code.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Code of practice for construction computer-aided design (CAD) Part 4 – CAD drafting conventions

1 Scope and objectives

The scope of this code is to recommend a set of drawing conventions to be used by all parties in the building industry in the preparation of drawings.

The objectives of this code are:

- To provide a set of common drafting conventions for the building industry.
- To facilitate a common understanding and interpretation of information in drawings by different users of the building industry.
- To facilitate easy and efficient exchange of information.