

Our Ref: APPBCA-2016-10

Building Plan & Management Group

19 October 2016

See Distribution List

Dear Sir/Madam

CHANGES TO BUILDING INFORMATION MODELLING (BIM) E-SUBMISSION REQUIREMENTS FOR PLAN SUBMISSION TO BCA

Objective

This circular is to inform the industry on the following:

- A. The launch of the Code of Practice for BIM e-submission and voluntary submission of architectural and engineering plans in Native BIM format; and
- B. Preparations for mandatory submission of architectural and engineering plans in Native BIM format

Background

2 Currently, plans for new developments with Gross Floor Area (GFA) larger than 5,000 m² are submitted to BCA in BIM format. BIM e-submissions are done in Lightweight file formats so as to manage the file size. Lightweight file formats are compressed versions of Native BIM files which are created within their authoring software.

3 We have received feedback from the industry about the extra efforts required to reinstate annotations that are lost during the compression of the Native BIM file to lightweight file format. The annotations are necessary to ensure that the submission contains sufficient information necessary for regulatory approval.

A) Launch of Code of Practice

4 To address the industry's feedback, BCA has been working with various industry stakeholders to study the feasibility of regulatory submissions in Native BIM format to **reduce the efforts needed for BIM e-submissions**. To facilitate BIM e-submissions in Native BIM, BCA recently launched the Code of Practice (CoP) for BIM e-Submission. The CoP sets out the minimum modelling standards and regulatory information required to be provided in the BIM model, moving away from lightweight file format submissions.

B) Preparations for Mandatory Requirements

5 With effect from 19 October 2016 (for architectural plans) and 01 October 2017 (for C&S/MEP Engineering plans), BCA will accept voluntary BIM e-submissions in Native BIM format. Such submissions **should be prepared in accordance with the prevailing CoP**. The CoP for Architecture, C&S and MEP may be downloaded from [http://www.corenet.gov.sg/general/building-information-modeling-\(bim\)-e-submission.aspx](http://www.corenet.gov.sg/general/building-information-modeling-(bim)-e-submission.aspx). The voluntary submission phase is a good opportunity for Industry to practise submissions in Native BIM in preparation for the proposed mandatory submission requirements.

6 BCA is working towards mandating BIM e-submissions in Native BIM format in the second half of 2017 (for architectural plans) and second half of 2018 (for C&S and MEP Engineering Plans). The Native BIM e-submissions **should be prepared in accordance with the prevailing CoP**.

Submission to BCA for new developments with GFA more than 5,000 sqm	Voluntary submission in Native BIM	Proposed mandatory submission in Native BIM
Architecture	19 October 2016	Second half of 2017
C&S Engineering	01 October 2017	Second half of 2018
MEP Engineering		

- 7 New developments include:
- a) New building and infrastructure projects; and
 - b) A&A projects involving reconstruction or addition of any new building or infrastructure.

A list of Frequently Asked Questions on BIM e-submissions requirements are provided in Annex A.

8 BCA will be conducting complimentary monthly briefing sessions to explain the details of the BIM e-submission requirements. The scheduled dates of these briefing sessions are as follow:

Architectural E-submission Briefing		
Dates	Venues	Times
24 October 2016	BCA Academy, Block H, Level 2 Auditorium	3:30pm – 5:00pm
14 November 2016		
12 December 2016		

C&S Engineering E-submission Briefing		
Dates	Venues	Times
14 November 2016	BCA Academy, Block H, Level 2 Auditorium	1:00pm – 3:00pm
12 December 2016		10:00am – 12:00pm

MEP Engineering E-submission Briefing		
Dates	Venues	Times
14 November 2016	BCA Academy, Block H, Level 2 Auditorium	10:00am – 11:30am

Clarification

9 We would appreciate it if you could convey the contents of this circular to the members of your organisation. Should you need further clarifications relating to Native BIM e-submissions, please email bca_enquiry@bca.gov.sg. For matters relating to the CoP, you may contact the following officers:

Discipline	Contact Person	Contact Number / Email
Architecture - CoP	Mary Ann Samaniego	DID: 6730 4539 Email: Mary_Ann_SAMANIEGO@bca.gov.sg
C&S - CoP	Sonny Andalis	DID: 6730 4438 Email: Sonny_ANDALIS@bca.gov.sg
MEP - CoP	Liu Ziwen	DID: 6730 4527 Email: LIU_Ziwen@bca.gov.sg

Yours faithfully,



TAN JWU YIH
ACTING DIRECTOR
BUILDING PLAN AND MANAGEMENT GROUP
for COMMISSIONER OF BUILDING CONTROL

ANNEX A

FREQUENTLY ASKED QUESTIONS ON BIM E-SUBMISSION REQUIREMENTS

1. How do the new requirements differ from the mandatory BIM e-submission requirements of 1 July 2015?

At the moment, the industry are submitting the plans in BIM Lightweight file format (e.g. DWF and PDF) under the mandatory BIM e-submission requirements of 1 Jul 2015.

In the new requirements, BCA will accept Native BIM format for voluntary submission of architectural plans from 19 October 2016 onwards. We are looking at mandating BIM e-submissions of architectural plans to be prepared and submitted in Native BIM format from the second half of 2017 onwards.

In the case of C&S and MEP engineering plans, BCA will accept voluntary submission of these plans in Native BIM format from 01 October 2017 onwards. We are working towards mandating BIM e-submissions of C&S and MEP engineering plans to be prepared and submitted in native BIM format from the second half of 2018 onwards.

2. Will projects with GFA smaller than 5,000m² require Native BIM e-submission?

No. Plan submission made in Native BIM will be on a voluntary basis.

3. Must all plan submissions be prepared in accordance with the Code of Practice for BIM E-Submission requirements?

Where building plans are submitted in Native BIM format on or after 19 October 2016, they must be prepared in accordance with the Code of Practice for BIM E-Submission (Architectural Requirements).

Where C&S and MPE engineering plans are submitted in Native BIM format on or after 01 October 2017, they must be prepared in accordance with the Code of Practice for BIM E-Submission (C&S Requirements) and Code of Practice for BIM E-Submission (MEP Requirements) respectively.

- 4. For first submissions in Lightweight file formats made before the timeline for the proposed mandatory native BIM submissions (i.e. second half of 2017 for architectural plans and second half of October 2018 for engineering plans), must the subsequent amendment submission be made in Native BIM?**

BCA will continue to accept Lightweight file formats based on the file format in which the first submission was made.

DISTRIBUTION (via e-mail):

President
Institution of Engineers, Singapore (IES)
70 Bukit Tinggi Road
Singapore 289758
ies@iesnet.org.sg

President
Real Estate Developers' Association of Singapore (REDAS)
190 Clemenceau Avenue #07-01
Singapore Shopping Centre
Singapore 239924
enquiry@redas.com

President
Singapore Contractors Association Limited (SCAL)
Construction House
1 Bukit Merah Lane 2
Singapore 159760
enquiry@scal.com.sg

President
Singapore Institute of Architects (SIA)
79 Neil Road
Singapore 088904
info@sia.org.sg

President
Singapore Institute of Building Limited (SIBL)
70 Palmer Road #03-09C
Palmer House
Singapore 079427
josephine@sibl.com.sg

President
Singapore Institute of Surveyors & Valuers (SISV)
110 Middle Road #09-00
Chiat Hong Building
Singapore 188968
sisv.info@sisv.org.sg

President
Society of Project Management (SPM)
MacPherson Road P.O. Box 1083
Singapore 913412
sprojm@yahoo.com

President
Board of Architects (BOA)
5 Maxwell Road 1st storey
Tower Block MND Complex
Singapore 069110
boarch@singnet.com.sg

President
Professional Engineers Board, Singapore (PEB)
52 Jurong Gateway Road #07-03
Singapore 608550
registrar@peb.gov.sg

President
Singapore Structural Steel Society (SSSS)
1 Liang Seah Street #02-11/12
Liang Seah Place
Singapore 189022
secretariat@ssss.org.sg

Director of Infrastructure
Infrastructure And Facility Services Division
Ministry of Education HQ (Ghim Moh)
285 Ghim Moh Road Blk C Level 3
Singapore 279622
eng_wee_tong@moe.gov.sg

Deputy Chief Executive Officer (Building)
Housing & Development Board (HDB)
480 Lorong 6 Toa Payoh
HDB Hub
Singapore 310480
fong_chun_wah@hdb.gov.sg

Deputy Chief Executive
Infrastructure & Development
Land Transport Authority (LTA)
1 Hampshire Road Block 8 Level
Singapore 219428
chua_chong_kheng@lta.gov.sg

Director
Technical Services Division
JTC Corporation (JTC)
8 Jurong Town Hall Road
The JTC Summit
Singapore 609434
koh_chwee@jtc.gov.sg

Senior Director (Building & Estates Management)
People's Association (PA)
9 King George's Avenue
Singapore 208581
foo_soon_leng@pa.gov.sg

Director
Best Sourcing Department
Public Utilities Board (PUB)
40 Scotts Road #18-01
Environment Building
Singapore 228231
koh_boon_aik@pub.gov.sg

Chief Planner
Urban Redevelopment Authority (URA)
45 Maxwell Road
The URA Centre
Singapore 069118
lim_eng_hwee@ura.gov.sg

President
Singapore Institute of Planners (SIP)
93 Toa Payoh Central #05-01
Singapore 319194
info@sip.org.sg

Director
Building and Infrastructure
Defence Science & Technology Agency
71 Science Park Drive
Singapore 118253
ong_yew_hing@dsta.gov.sg

Head (Fire Safety and Building Control)
Building and Infrastructure
Defence Science & Technology Agency
1 Depot Road
Defence Technology Tower A
Singapore 109679
hahmeng@dsta.gov.sg

Manager (Architectural Plans)
Building and Infrastructure
Defence Science & Technology Agency
1 Depot Road
Defence Technology Tower A
Singapore 109679
lhaikong@dsta.gov.sg

Deputy Chief Executive Officer
Sentosa Development Corporation
33 Allenbrooke Road, Sentosa
Singapore 099981
agencies_circulars@sentosa.com.sg

Chief
Health Infrastructure Project
MOH Holdings Pte Ltd
1 Maritime Square #11-25
HarbourFront Centre
Singapore 099253
bengthong.koh@mohh.com.sg

President
Association of Consulting Engineers Singapore
Thomson Road Post Office
PO Box 034
Singapore 915702
secretariat@aces.org.sg

Chief(Sports Facilities)
Singapore Sports Council (SSC)
230 Stadium Boulevard
Singapore 397799
kenneth_hui@ssc.gov.sg

All CORENET e-Info subscribers