Dear Sir/Madam,

ACHIEVING HIGHER QUALITY AND PRODUCTIVITY THROUGH CONQUAS® 9TH EDITION

BCA is pleased to announce the launch of CONQUAS® 9th edition which is aimed at strengthening the existing scheme / criteria to better promote and recognise the synergies between quality & productivity. CONQUAS (The Construction Quality Assessment System) was first introduced in 1989 to measure the quality of building projects. Since then, it has evolved to keep pace with changes and improvements in processes and technology and meet end-users' expectations.

2. The CONQUAS® 9th edition is the latest development with 2 main objectives, viz.
   - Promote the adoption of Design for Manufacturing and Assembly (DfMA) which supports both quality and productivity; and
   - Ensure CONQUAS score commensurate with end-users’ expectations on workmanship quality

3. The key changes in this edition are summarised in the Annex.


5. I would be grateful if you could disseminate the contents of this circular to your staff/members. Please contact Mr Goh Thiam Lai at DID: 67304497 (email: goh_thiam_lai@bca.gov.sg) or Ms Gloria He at DID: 6730 4572 (email: gloria_he@bca.gov.sg) if you need further clarifications.

6. Thank you.

Yours faithfully,

TAN BOON KEE
DIRECTOR
QUALITY & CERTIFICATION DEPARTMENT
for CHIEF EXECUTIVE OFFICER
BUILDING AND CONSTRUCTION AUTHORITY
ANNEX

Promote the adoption of DfMA which supports both quality and productivity

1. Higher bonus points are now awarded to projects to further encourage the use of prefabrication technologies and productive materials, which lead to higher quality and productivity. This not only supports BCA’s buildability and constructability drive, but also recognises the efforts of builders which adopt less labour-intensive design and material choices. These include the use of prefabricated prefabricated volumetric construction (PPVC), prefabricated bathroom unit (PBU), mass engineered timber such as cross laminated timber/glue laminated timber and productive materials such as engineered wood and vinyl flooring. The use of such prefabricated technologies and materials will also greatly reduce the need to deploy skilled manpower to carry out the finishing works which are highly labour intensive. A summary of the points given under the 9th edition bonus point framework is as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Bonus Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of Precast Concrete (PC) Elements (PC elements supplied by SCI accredited precasters)</td>
<td>2 points</td>
</tr>
<tr>
<td>Usage of Prefabricated Prefinished Volumetric Construction (PPVC supplied by suppliers accredited under SCI/SSSS MAS)</td>
<td>3 points</td>
</tr>
<tr>
<td>Usage of Prefabricated Bathrooms Unit (PBU supplied by suppliers accredited under SCI MAS)</td>
<td>1.5 points</td>
</tr>
<tr>
<td>Usage of Mass Engineered Timber (e.g. cross laminated timber, glued laminated timber, etc.)</td>
<td>2 points</td>
</tr>
<tr>
<td>Usage of Productive Materials (e.g. engineered wood flooring, vinyl flooring, etc.)</td>
<td>Max. 3 points</td>
</tr>
<tr>
<td>Quality Mark Projects (Projects with Tiered Rating)</td>
<td>Max. 1.5 points</td>
</tr>
<tr>
<td>Employment of Certified CONQUAS/QM Personnel</td>
<td>Max. 1 points</td>
</tr>
</tbody>
</table>

Note:

a) Award of bonus points for productive technologies will be aligned with definitions provided in Buildability Code of Practice;
b) MAS – Manufacturer Accreditation Scheme

Ensure CONQUAS Score commensurate with end-users’ expectations on workmanship quality

2. Architectural trades are more visible to end-users as compared to structural works. Thus the 9th edition places higher emphasis on architectural works and has increased the scoring weightage by 15% and reduced by a similar percentage for structural and mechanical & electrical works. In addition, a homeowners’ survey and data analysis revealed that end-users are more concerned with ceiling, door and window elements among the architectural trades, particularly accessories defect, functionality and evenness of surface. Hence, the weightages of the quality standards for these elements have been adjusted accordingly to align with end-users
expectations. The revised weightages for all categories of buildings under the 9th edition is as follows:

<table>
<thead>
<tr>
<th>Components</th>
<th>CAT A Commercial, Industrial, Institution &amp; others</th>
<th>CAT B Commercial, Industrial, Institution &amp; others</th>
<th>CAT C Public Housing (Sold Flats)</th>
<th>CAT C Public Housing (Rental Flats)</th>
<th>CAT D Landed Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Works</td>
<td>10%</td>
<td>15%</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>Architectural Works</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>80%</td>
<td>75%</td>
</tr>
<tr>
<td>M&amp;E Works</td>
<td>15%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>CONQUAS Score</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

3. To further enhance the robustness of the CONQUAS score, scoring under the 9th edition will now take into consideration major defects (e.g. water seepages through wall/window, inter-floor leakages, functionally deficient doors/windows etc.) detected during the internal finish assessments. The scoring will be adjusted to factor in the severity of these major defects. Adverse feedback from end-users on major defects that surface during the defects liability period of a project will also be considered when finalising the CONQUAS score.
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