

Checklist	Remarks	Action (X)
<p style="text-align: center;"><b>Project System Audit Architectural Consultant</b></p> <p><b>Note:</b> Not all items of the checklist shall be checked. It depends on the status of the work and whether it is the first, second or third audit.</p> <p><b>1. Project Definition</b></p> <p><b>1.1</b> What evidence can be shown that the contract and related documentation has been properly screened for completeness?</p> <p><b>1.2</b> Has architectural questionnaire been filled out and backed up with sufficient documentation of experiences of both the organization and its employees?</p> <p><b>1.3</b> Have CV's of assigned personnel been issued?</p> <p><b>1.4</b> Have any outstanding questions between consultant and Company been discussed and adequately resolved?</p> <p><b>1.5</b> Are the applicable governmental, local authorities design codes/norms/rules/standards design guides available?</p> <p><b>1.6</b> Have Company/client, standards/norms/guides/ practices/procedures/forms and specifications, applicable and to be used, been defined in the building design specification?</p> <p><b>1.7</b> Is a soil report available containing all data required for detail design?</p> <p><b>2. Engineering Technical</b></p> <p><b>2.1</b> What is the (approval) status of:</p> <ul style="list-style-type: none"> <li>• the definitive building design?</li> <li>• the building permit application package?</li> <li>• building construction specifications?</li> <li>• color schemes, finishing schedules, master schedules, material schedules, master key schedules, static and/or dynamic computations?</li> </ul>		
RB28026.doc	www.red-bag.com	SHEET 1 of 5

Checklist	Remarks	Action (X)
<p><b>2.2</b> How is it ensured that the quality of specifications and calculations prepared by the architectural consultant is in accordance with the applicable design codes and governmental and/or local statutory requirements?</p>		
<p><b>2.3</b> Computer calculations:</p> <ul style="list-style-type: none"> <li>• have your software programs been certified for utilization on this project?</li> <li>• have your programs been approved by Company and/or client?</li> <li>• if a design code is involved how is it verified, that the latest design code issue has been implemented in the program?</li> </ul>		
<p><b>2.4</b> Is it expected that your standard computer programs need to be updated to meet this project's requirements?</p>		
<p><b>2.5</b> Is it anticipated that non-routine calculation methods are to be applied?</p>		
<p><b>2.6</b> To what extent are computer calculation results:</p> <ul style="list-style-type: none"> <li>• being checked?</li> <li>• being uniquely numbered for reference purposes?</li> <li>• substantiated by alternative calculations?</li> </ul>		
<p><b>2.7</b> Are the materials as defined in your building design specification in compliance with the applicable civil codes?</p> <p>What is the Company/client approval status of these materials?</p>		
<p><b>2.8</b> What is the availability status of:</p> <ul style="list-style-type: none"> <li>• electrical design data?</li> <li>• control system design data?</li> <li>• HVAC design data?</li> <li>• civil and structural design data?</li> <li>• architectural design data?</li> </ul>		

Checklist	Remarks	Action (X)
<p><b>2.9</b> What is the status of the design and construction packages for building services?</p>		
<p><b>2.10</b> Has a subcontract plan been issued, indicating type and scope of the building subcontract(s) and key dates?</p> <p>Has this plan been reviewed and/or approved by Company/client?</p>		
<p><b>2.11</b> Who is responsible for review and/ or approval of technical subcontract documents?</p>		
<p><b>2.12</b> Have the authority requirements been established, i.e.</p> <p>Which authorities are involved?</p> <p>Which documents have to be submitted for approval and by whom?</p> <p>Is sufficient time scheduled for presentation and approval time?</p> <p>What is the status of building permits/ approvals to be obtained?</p>		
<p><b>2.13</b> Have all instruction drawings for buildings been certified?</p>		
<p><b>2.14</b> What procedure is used to select potential building contractors?</p> <p>Who does the bid evaluations?</p> <p>If Consultant, what is Company's involvement?</p>		
<p><b>2.15</b> Does the consultant attend pre-award/bid clarification meetings?</p>		
<p><b>2.16</b> Who is responsible for the review/ approval of construction documents?</p>		
<p><b>2.17</b> What is your involvement in the review/ approval of supplier documents?</p>		
<p><b>3. Engineering General</b></p>		
<p><b>3.1</b> What filing system has been followed?</p>		
<p><b>3.2</b> Are checkprints and masterprints of documents available?</p>		

Checklist	Remarks	Action (X)
<p><b>3.3</b> Are previous issues of documents kept on file?  How have they been marked to distinguish them from the latest issue?</p>		
<p><b>4. Job Control</b></p>		
<p><b>4.1</b> Has a list of all deliverables been prepared, complete with titles and numbers assigned?</p>		
<p><b>4.2</b> Does a planning schedule exist for documents to be produced and activities to be performed by consultant?</p>		
<p><b>4.3</b> How much is the measured progress?  State date.</p>		
<p><b>4.4</b> Has a manhour expenditure plan been prepared?</p>		
<p><b>4.5</b> What is currently the relationship between spent and planned manhours?</p>		
<p><b>4.6</b> What is currently the manhour efficiency?</p>		
<p><b>4.7</b> How does the final manhour forecast relate to the estimated manhours?</p>		
<p><b>4.8</b> Are planned milestones met in time?</p>		
<p><b>4.9</b> Is there a regular communication with the Company architectural engineer?</p>		
<p><b>5. Additional Questions</b></p>		

## Product Audit Checklist

Note:

Any major deviation from requirements shall be tagged in the 'No' column and be elaborated on in the main report under Product Audit Findings.

Documents reviewed:

Questions	YES	NO	NA
1. Are input data available?			
2. Have they been formally issued?			
3. Have the data been qualified? (what is/is not included)			
4. Have they been screened for completeness?			
5. Have calculations been performed?			
6. Have these calculations been checked?			
7. Has the product been formally checked?			
8. Is checking evidence available?			
9. Do the issued documents contain sufficient information?			
10. Have multi-discipline input/comments been obtained?			
11. Are the issued documents checked for compliance with client, licensor and authority specifications?			
12. Have all deviations from client, licensor and authority specifications been discussed and formally agreed upon with the relevant party?			
13. Are supplier data included in the document?			
14. Have supplier data been qualified?			
15. Have all requirements of the document been covered?			
16. Have the document requirements been discussed with the internal client?			
17. Have the document requirements been discussed with the external client?			
18. Have any comments been received on earlier issues of the document?			
19. Have all comments been incorporated in later issues?			
20. If not, has agreement been reached about the implementation of comments?			
21. Have changes been clearly indicated?			
22. Has the PM or EM been involved in this discussion in case of comments from the client?			
23. Has the document been reviewed by the discipline manager or his delegate, if required?			
24. Has the document been formally approved at the proper authorization level?			