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| **STAGE 4** |
| Technical Design |

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| **Job no** |  |
|  | |
| **Job Title** |  |
|  | |
| **Team members** |  |
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**Instruction for use**

This checklist is an rtf (rich text format) form, optimised for editing in Microsoft Office Word. Parts of it have been temporarily locked to preserve the default wording found in the *RIBA Job Book* (Tenth Edition). The parts that are not locked are the check boxes, the ‘notes’ fields and the ‘completed on’ fields. In other words, it is possible to add your own text and subsequently edit these fields.

It is recognised that the default wording, which is currently locked, may need to be added to and edited. To unlock it, please follow the instructions below:

**Microsoft Office Word 2003**

* Select *View>Toolbars>Forms* from the main menu. The *Forms* toolbar will appear.
* Click the *Protect Form* button  to unlock the checklist. To lock it again, click it again.
* If needed, click the *Form Field Shading* button  to hide the grey shading that appears around the editable fields. To show it again, click it again.

**Microsoft Office Word 2007**

* Click the Office button  to bring up a menu. Select *Word Options* from the bottom of the menu.
* The *Word Options* dialog window will open. Select the *Show Developer Tab* option. At the bottom of the window, click *OK*.
* A new *Show Developer* tab appears at the top of your screen. Click on it.
* In the *Protect* group, select *Protect document*. A window will appear on the right-hand side of your screen.
* In this window, select *Stop protection* from the bottom of the list.

**Microsoft Office Word 2010**

* Click the *File* tab to bring up a menu. Select *Word Options* from the bottom of the menu.
* The *Word Options* dialog window will open. Select the *Customize Ribbon* option.
* Select *Developer* box in the right hand side menu and click OK on the bottom of the screen.
* A new *Show Developer* tab appears at the top of your screen. Click on it.
* In the *Protect* group, select *Restrict Editing*. A window will appear on the right-hand side of your screen.
* In this window, select *Stop protection* from the bottom of the list.

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|  | Activities |  | |  |
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| 1. | Establish the scope of the activities to be carried out during this stage and produce a design programme that meets the overall project programme. Check that available staff resources are both sufficient and appropriate. Progress should be monitored regularly (say once a week) and if found to be slipping, the necessary actions should be taken to bring the work back on track.  *Development of production information should be a ‘linear’ process and therefore easily programmable. You should have a change control process in place. See Stage 2: Managing project-related change.*  Make sure the client is aware of this and that any changes to the approved spatially coordinated design which are client-originated might mean abortive work, additional fees and expenses and delays.  *Enter notes here* | Completed on | |  |
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| 2. | Obtain the client’s approval of materials and finishes. Obtain samples and submit to the client for approval.  *Enter notes here* | Completed on | |  |
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| 3. | Discuss with the client whether interviews with potential contractors should take place at this stage. Under certain circumstances contractors’ views on operational methods and health and safety during construction could be valuable.  *On some projects it may be appropriate to commence dialogue with the contractor/s earlier during Stage 3.*  Enter notes here | Completed on | |  |
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| 4. | Review the implications of any conditions attached to the planning permission with the design team and discuss these with the planning officer as necessary.  *Enter notes here* |  |
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| 5. | Prepare the technical design and coordinate it with design output developed by other consultants and subcontractors. See ‘Outputs’ for a list of information that might be required.  *Enter notes here* | Completed on | |  |
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| 6. | As the technical design develops, review and update the project strategies.  Enter notes here | Completed on | |  |
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| 7. | Continue discussions with the building control and fire authorities and prepare a building notice for submission under the Building Regulations, or an application for approval by deposit of full plans.  See Stage 4: Building control applications.  Enter notes here | Completed on | |  |
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| 8. | Continue discussions with relevant authorities for highways, drainage, water, gas, electricity  supplies, etc.  The local authority’s website will usually have contact details of the various bodies.  Enter notes here | Completed on | |  |
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| 9. | If they have not yet been served (in Stage 3) and if instructed, issue party wall and/or foundation notices on behalf of the client. If notices are being issued by others, check that all notices have been served.  See Stage 4: Party wall procedures.  Enter notes here | Completed on | |  |
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| 10. | On BIM -enabled projects, if you have been appointed as information manager:  • Assist members of the design team to develop the design using the BIM model, ensuring that data-sharing protocols are followed.  • Check and sign off the model at agreed stages.  • Issue or assist in the issue of design data at agreed times throughout the development of the design.  • Assist in the development of data relative to the agreed levels of detail.  • Assist in the integration of contractors’, subcontractors’ and suppliers’ data into the BIM model.  Enter notes here | Completed on | |  |
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| 11. | On BIM -enabled projects:  • Carry out detailed modelling, integration and analysis using the BIM model.  • Create technical design level parametric objects for all major elements (where appropriate information exists this may be based on Tier 2 suppliers’ information).  • Undertake a final review and sign-off of the BIM model.  • Share data for conclusion of design coordination and detailed analysis with subcontractors.  Enter notes here | Completed on | |  |
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| 12. | Provide information for the cost consultant to prepare a pre-tender construction cost  estimate (or prepare a pre-tender construction cost estimate if appointed to do so) where  using traditional procurement.  The pre-tender construction cost estimate is an essential check prior to inviting tenders.  At this point the estimate should be an accurate prediction of the tender figures. The  design and tender documents may need to be amended if the estimate does not match  the project brief.  Review with the client the implications of the pre-tender estimate.  Discuss possible options with the client. Explain implications for timetable and consultants’ fees if amendments are required to change (or comply with) the brief.  Enter notes here | Completed on | |  |
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| 13. | Amend the technical design if necessary following cost checks.  Enter notes here | Completed on | |  |
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| 14. | If the programme for tendering needs to be maintained, establish whether changes are to be reflected in the building contract documents (which will then differ from the tender documents) or whether amendments are to be the subject of immediate variations under instruction by the contract administrator when the building contract has been entered into.  Enter notes here | Completed on | |  |
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| 15. | Check the effects of any amendments on specialist subcontract work and arrange for  adjusted tenders if necessary.  Enter notes here | Completed on | |  |
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| 16. | Prepare the Stage 4 report, which should include:  • Final cost plan.  • Estimated construction contract programme.  • Copies of all technical design information.  • A note of any planning conditions.  • Building Regulations approval (if undertaken through the ‘Full Plans’ route).  Enter notes here | Completed on | |  |