## Annex A Model Schedule 5 – Construction Manager's Services

This listing is only a model for the services that may be required from the Construction Manager. Where it is to be used, the services will need to be modified to meet particular requirements. For example, depending on the date of the Construction Manager's appointment, some of the services in the model may already have been assigned to or provided by consultants previously appointed by the Employer; deletions and adaptations will also be needed where a Cost Consultant is appointed, depending on the services that the latter is to provide, as shown in Schedule 7. Care must be taken to ensure that the services do not conflict with the Conditions or the other Schedules.

It may be simpler to create a separate document listing the services as an Annex to the Construction Management Appointment and in the printed Schedule 5 merely to refer to that Annex or other identifier of the document. (The document itself should be initialled by the Parties for identification purposes)

(Alternatively, if the printed text below, or parts of it, is sufficiently close to what is required to enable it to be altered in manuscript, those alterations should be clearly shown and each should be initialled.)

## Part 1: Services

## Pre-Construction Period – Planning and Programming

**1.1** The Construction Manager shall supply the services set out in paragraphs 1.2 to 2.5 during the Pre-Construction Period and thereafter as necessary.

## **Establishing the Employer's Requirements**

- 1.2 .1 Within a reasonable period from receipt of the Employer's Initial Brief submit detailed comments and advice to assist the Employer in identifying and defining the Employer's objectives and requirements and in preparing the Project Brief (where such Brief is required).
  - .2 Advise on the strategy adopted or to be adopted for the procurement and for the carrying out and completion of the Project.
  - .3 Advise on the selection of, manage and instruct any specialist inspection agencies that may be required.

## **Design Development**

- **1.3** During the design process, which is primarily the responsibility of the Consultant Team, the Construction Manager shall:
  - .1 attend such meetings as the Consultant Team Leader considers necessary and arrange such meetings as he considers necessary with the Employer, the Consultant Team, the CDM Co-ordinator and any proposed Trade Contractors who are to provide a design service:
  - .2 recommend economies in buildability, methodology, cost and time that are consistent with the Employer's objectives and requirements as given in the Employer's Initial Brief and with sound construction practice;
  - .3 regularly review and comment upon the design and the progress of the Project Drawings, any other relevant drawings and the Project Specification and (where the Construction Manager is not the Principal Contractor) on the Principal Contractor's Construction Phase Plan, with particular reference to compliance with safety requirements and the revisions and updates of the Construction Phase Plan and the other obligations of the Principal Contractor; and similarly in regard to documentation being prepared for the Trade Contracts, including drawings and specifications;
  - .4 advise upon the selection, availability and price of materials and goods;

- .5 advise upon methods of working, building systems and equipment and alternative design solutions:
- .6 advise upon the proposed requirements for Trade Contractors to carry out off-site design and off-site manufacture of components for incorporation in the Project;
- .7 advise on all aspects of added value and buildability in relation to the proposed design for each element of the Project, advise on the feasibility of construction tolerances and suggest any changes to design which could be made with a view to reducing the incidence of labour disputes;
- .8 advise on the need for pre-construction works e.g. exploration works, mock-ups, tests on components;
- .9 advise on any inconsistencies, where found, in any preliminary information issued for comment or in the information issued for construction purposes;
- .10 advise the Employer and cooperate with the Consultant Team on the measures necessary to satisfy the Statutory Requirements (other than planning permission) and their cost implications and suggest, where possible, alternative proposals.

## **Cost Planning**

- 1.4 .1 Together with the Employer and the Consultant Team, consider and assist in the preparation and agreement with the Employer and those consultants of the Project Cost Plan. In particular the Construction Manager should:
  - .1 obtain budget costs of systems, assemblies, equipment and materials;
  - .2 evaluate costed alternative materials, construction techniques, and installation methods;
  - .3 advise on current pricing levels and trends in the area of the Project;
  - .4 prepare a cash-flow forecast for the Project.
  - .2 Where a Cost Consultant is not appointed, prepare and obtain the agreement and signatures of the Employer and the Consultant Team to the Project Cost Plan and append his own signature.
  - .3 Where there is a Cost Consultant, agree and append his signature to the Project Cost Plan prepared by the Cost Consultant.

## **Statutory Requirements**

- 1.5 .1 Liaise with local authorities and Statutory Undertakers in connection with road closures, traffic restrictions, hoardings, services, mains diversions and connections and the like and, by managing the process, ensure that the arrangements made on these matters comply with their requirements to the benefit of the Project.
  - .2 Advise the Employer on the need to place orders with Statutory Undertakers and thereafter manage the implementation of the work.
  - .3 As agent for the Employer monitor compliance with the Statutory Requirements by all Trade Contractors and verify that all necessary approvals have been obtained and advise accordingly.

## **Programming**

- 1.6 .1 Where required by the Employer, define the Sections into which the Project is to be divided.
  - .2 Following consultation with the Consultant Team, prepare the Project Programme, clearly identifying the Sections, the critical path, lead times and key milestones agreed with the Employer. Obtain the agreement and signatures of the Employer and the Consultant Team to the Project Programme and append his own signature.

- .3 As soon as practicable but in any event before any tenders are invited for any Trade Contract, prepare in liaison with the Consultant Team a detailed week by week programme which lists all Trade Contracts identified in the Project Cost Plan and shows how the execution of the Project is to be achieved.
- .4 As soon as practicable and in any event before tenders are invited for any Trade Contract, prepare in liaison with the Consultant Team and the Employer a tender events schedule giving earliest start and anticipated finish dates for each trade element given in the Project Cost Plan.
- .5 Expand, update and adapt the Project Programme in liaison with the Employer and the Consultant Team as necessary to reflect further information, Trade Contractors' detailed programmes or changed circumstances. When appropriate, make proposals for the acceleration of all or part of any Trade Contract.
- In agreement with the Consultant Team and subsequently with the Employer, prepare drawing and information release schedules giving dates for the release of information by the Consultant Team and by Trade Contractors to the Consultant Team and showing, inter alia, procurement periods for major items of materials and equipment. Incorporate in such drawing and information release schedules design approval procedures that allow the Construction Manager and the Consultant Team to comment within a reasonable period of receiving such information and a provision for information to be available for a reasonable period before it is required by a Trade Contractor.
- .7 Expand, update or adapt the drawing and information release schedules as necessary to reflect further information, Trade Contractors' detailed programmes or changed circumstances. Advise the Employer and the Consultant Team at meetings and in writing of the implications of such expansion, updating or adaptation.

#### **Procurement**

#### Work packages

2.1 Advise the Employer, after agreement with the Consultant Team, on an appropriate division of the Project into various Trade Contracts for execution by Trade Contractors and/or Statutory Undertakers. Agree with the Employer and the Consultant Team the allocation against each Trade Contract in the Project Cost Plan. Ensure that all work comprising the Project (except work which forms part of the Reimbursable Cost or comes within paragraph 4.1.2 of this Schedule) is included in a Trade Contract.

#### **Tender preparations**

- 2.2 .1 Prepare in consultation with the Consultant Team lists of suitable contractors from whom tenders may be invited for each Trade Contract. Advise and agree with the Employer an appropriate tender list and obtain references and appraise the resources of each proposed tenderer. Consider with the Employer whether the Trade Contract (CM/TC) or a Special Trade Contract is to be used. Agree with the Employer effective tendering procedures having regard to the time available, quality, cost and (where relevant) public procurement requirements.
  - .2 As appropriate, interview, together with the Employer and Consultant Team, each proposed tenderer to ascertain their suitability and to describe the nature of the Project, the scope of the work, the duties and functions of the Construction Manager (as agent for the Employer under the Trade Contract) and of the Consultant Team, and such other factors that may be reasonably necessary to secure the interest of tenderers in providing competitive tenders.
  - .3 Obtain from the Consultant Team tender designs, drawings, bills of quantities and specifications and procure or prepare such pricing schedules, scopes of works, programmes, health and safety documentation and site rules as are necessary to obtain competitive tenders from Trade Contractors. Check for adequacy, consistency and completeness. Reproduce and collate the various documents and dispatch the same on behalf of the Employer to the agreed tenderers.

#### **Tender evaluation**

- 2.3 .1 Interview, in conjunction with the Consultant Team where appropriate, each tenderer during the tender period to ensure that their tenders will comply with the tender documents. Open all tenders received in the presence of the Employer and Consultant Team. Provide to the Employer and to the Consultant Team a tender report in tabulated form recording the tenders received. Interview tenderers, in conjunction with the Consultant Team, as appropriate to resolve any matters raised by the analysis and to consider possible economies.
  - .2 Analyse, in consultation with the Consultant Team, the tenders received and issue to the Employer a written report agreed with the Consultant Team setting out the analysis of the tenders and recommending a contractor with whom the Employer should enter into a Trade Contract, or if the Construction Manager and the Consultant Team Leader cannot make a joint recommendation, setting out their respective recommendations and their reasons.
  - .3 Conduct any negotiations that may be appropriate to finalise the Trade Contracts and arrange for the Employer and Consultant Team to participate as required. Prepare and collate the Trade Contract documentation for execution by the Employer and Trade Contractors.

## Long lead items

2.4 Advise the Employer in consultation with the Consultant Team of any materials or plant which should be ordered by the Employer prior to the placing of the appropriate Trade Contract in order to expedite completion in accordance with the Project Programme. Prepare in consultation with the Consultant Team the necessary documentation and expedite delivery of the purchased items.

#### **Progress reports**

2.5 Until the Project Completion Certificate, submit monthly reports to the Employer in consultation with the Consultant Team, highlighting progress, achievements, critical issues and proposals for managing them. Progress will be reported by reference to design, procurement, manufacture, construction, quality, health and safety, commissioning and handover.

## Construction Period and Post-Construction Period

3.1 The Construction Manager shall supply the services set out in paragraphs 3.2 to 3.8 during the Construction and Post-Construction Periods (in addition to those services he is required to supply during the Pre-Construction Period but which remain necessary during either or both of these later periods):

#### **Setting Out**

**3.2** Procure the establishment of all datums and basic setting out of the Project and generally coordinate setting out carried out by Trade Contractors.

# Management of Trade Contractors (including, as the Principal Contractor, compliance with CDM requirements)

- 3.3 .1 Upon the Employer's approval of a Trade Contractor's tender, immediately notify the Trade Contractor and make all necessary arrangements for the execution of a Trade Contract and of any other documents, deeds or bonds required by the tender documents.
  - .2 Reproduce from suitable originals supplied by the Consultant Team all necessary copies of drawings issued for the purposes of construction and deliver them to such Trade Contractors and Statutory Undertakers as are identified by the Consultant Team. Provide and deliver further copies of such drawings for the use of the Employer and the Consultant
  - .3 Issue a notice to each Trade Contractor to commence work on site.

- .4 Issue instructions and directions to the Trade Contractors as required in writing by or on behalf of the Employer. The Construction Manager has no authority to issue any instruction or give any approval or do any other thing pursuant to a Trade Contract which would or might alter the cost of the Project to the Employer by more than the limits set out in the Contract Particulars<sup>[1]</sup> without first referring the matter in writing to the Consultant Team Leader, the Cost Consultant and the Employer, with his comments. These limits do not apply to existing entitlements of the Trade Contractors or restrict the Construction Manager's ability to administer the terms of the Trade Contracts so as to give effect to them. The Employer shall notify the Construction Manager in writing within 3 clear Business Days of receipt of any reference from the Construction Manager of his approval or disapproval of it. If the Employer fails to notify the Construction Manager within 3 clear Business Days, the Employer shall be deemed to have given his approval. The Construction Manager shall immediately copy to the Employer, the Consultant Team Leader and the Cost Consultant all instructions, approvals and other things issued or given by him pursuant to a Trade Contract
- .5 Receive and check all applications for payment from Trade Contractors, ensure the preparation of valuations as necessary in accordance with the terms of the Trade Contracts and comment to the Consultant Team and Employer. Agree administrative procedures with the Employer for submitting applications and valuations and for resolving any queries arising in connection with them. Promptly issue to the Employer (with a copy to the Trade Contractors) all certifications for payment at such times as required by and in accordance with the Trade Contracts.
- .6 Prepare and serve notices where necessary or appropriate in accordance with Statutory Requirements and the relevant provisions of the Trade Contracts, including Payment Notices and Pay Less Notices.
- .7 Receive and co-ordinate all shop drawings, product data and samples and check their conformity with information contained in other related documents and transmit them to the Consultant Team for approval. Establish and implement procedures for expediting, processing and approval.
- .8 After consultation with the Consultant Team Leader, issue certificates of practical completion in accordance with the Trade Contracts and advise the Employer of their issue.
- .9 Monitor compliance with the CDM Regulations including compliance with the Construction Phase Plan.
- .10 Review and report to the Employer and Cost Consultant on any variations which result from 'on-site' considerations (including, but not limited to, Construction Manager's instructions) and report and advise on the associated cost and time implications, including, if appropriate, the cost and time implications under other Trade Contracts.
- .11 Carry out such inspections as are necessary to ensure compliance with the Trade Contracts. Inform the Consultant Team of defects in workmanship and/or materials apparent from such inspections and take appropriate action to have such defects corrected in accordance with the instructions of the Consultant Team. Supervise the making good of defects and after consultation with the Consultant Team Leader issue the Certificates of Making Good under the Trade Contracts and advise the Employer of their issue.
- .12 With the relevant Trade Contractors' assistance, prepare the necessary commissioning documentation and check that all plant equipment and materials are complete, prior to advising the Consultant Team of the programme of testing and witnessing. Manage the commissioning of the Project, tabulate the outcome of the various tests, prepare an action/activity schedule of works which may require rectification and provide the Employer and the Consultant Team with proposals for such rectification work.
- .13 Check and approve with the Consultant Team Leader and provide the Employer with a detailed technical specification and drawings showing the Project 'as built' and produce bound volumes (with 4 copies of each) of all operating and maintenance manuals and the health and safety file for the Project.

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<sup>[1]</sup> If this provision becomes a part of Schedule 5 of the Construction Management Appointment, it will be necessary to insert in the Contract Particulars the amount of the limits provided for these items.

.14 With the assistance of the Cost Consultant, collate and assess any Trade Contractor's claims relating to loss and/or expense, extensions of time or variations and report to the Employer and the Consultant Team Leader. Identify and inform the Consultant Team Leader and the Cost Consultant as soon as practicable of any sums to be contra-charged to the Trade Contractors and, with the Consultant Team Leader and/or the Cost Consultant, conduct such negotiations with Trade Contractors as may be appropriate in that connection.

#### Progress, co-ordination and information control

- 3.4 .1 Provide all management, control, administration and planning of Trade Contractors' work. Review Trade Contractors' methods of working and temporary works with regard to their adequacy and safety.
  - .2 Manage and co-ordinate the work of Trade Contractors.
  - .3 Make visits as necessary to the premises of Trade Contractors and their suppliers where located in the United Kingdom (or overseas, where agreed in writing with the Employer).
  - .4 Conduct regular meetings with the Trade Contractors to monitor all aspects of progress both on-site and off-site relevant to the Project Programme and to review all information requirements, and provide monthly written reports of those meetings to the Employer and the Consultant Team Leader.
  - .5 Arrange and chair site progress meetings at intervals agreed with the Employer and the Consultant Team. Prepare and circulate minutes of such meetings.
  - .6 Expand, update and adapt the Project Programme as necessary until completion of the Project to reflect the Trade Contractors' detailed programmes, any extensions of time given under any Trade Contract or any changed circumstances. Report to the Employer and the Consultant Team on any expansion, updating or adaptation of the Project Programme and provide to the Employer and the Consultant Team such information in relation thereto as is reasonably required. Carry out any further programming exercises that may be agreed with the Employer.
  - .7 After consultation with Trade Contractors prepare 'short period' programmes for use in coordinating the work of Trade Contractors.
  - .8 Expand, update and adapt in conjunction with the Consultant Team the Construction Manager's drawing and information schedules for the release of information as necessary to reflect the Trade Contractors' detailed programmes, extensions of time awarded under any Trade Contract and any changed circumstances. Discuss and agree the same with the Employer. Expedite and co-ordinate the supply of information to be provided by the Trade Contractors and by the Consultant Team and report to the Employer as necessary but not less than monthly.
  - .9 Advise the Employer of any objections the Construction Manager may have to drawings or other information provided by the Consultant Team.
  - .10 Advise the Employer and the Consultant Team of any action that it may be necessary for the Employer to take in connection with any of the Trade Contracts or the Trade Contractors. Report to the Employer on all matters related to the progress and quality of the Project. Consult with the Consultant Team on any matter which may cause delay to the completion of the Project.

## **Cost control**

3.5 Monitor the actual expenditure in connection with the Trade Contractors against the Project Cost Plan and produce reports for the Employer, immediately advising the Employer and the Consultant Team of any deviations from that plan. Advise the Employer and the Consultant Team on anticipated expenditure in connection with the Trade Contractors and on any items likely to impact on either the final accounts under the Trade Contracts or the Project Cost Plan. Monitor and report to the Employer on actual and anticipated expenditure by the Construction Manager on items of Reimbursable Cost against the Project Cost Plan and immediately advise the Employer and the Consultant Team of any deviation. Generally, endeavour to keep costs to a minimum consistent with the Employer's requirements, good construction practice and the Project Programme.

#### Management of the site

- 3.6 Organise and manage the site during the Construction Period with regard to the CDM Regulations and all other safety precautions, fire protection (including compliance, where relevant, with the Joint Fire Code), security (including the restriction of access to the site to authorised persons only), transportation, delivery of goods, materials, plant and equipment (including that of the Trade Contractors), control of pollution, maintenance of good personnel and labour/industrial relations. Prepare and issue a manual of rules and regulations to be observed by all persons on the site.
  - .2 Establish and maintain a liaison with occupiers of nearby buildings and others to facilitate the uninterrupted progress of the Project.
  - .3 Provide such management services as the Employer may reasonably require in relation to the procurement, delivery and storage of materials ordered by the Employer for the Project.

## Accounting

- 3.7 .1 .1 Collate and check applications for payment from Trade Contractors for compliance with the Trade Contract and after consultation with the Consultant Team Leader, submit the certifications to the Employer for their payment.
  - .2 On the issue of payment certificates under the Trade Contracts advise the Employer regarding the CIS.
  - .3 In collaboration with the Cost Consultant expedite the verification of the Trade Contractors' dayworks and agree their value.
  - .4 Assist the Employer to keep proper accounts of all monies expended pursuant to the Trade Contracts. Provide him with copies of such information and documents sent to or received from the Trade Contractors and any of the Construction Manager's subcontractors at the same time as they are sent or received.
  - .5 Prepare interim and final statements of account for each of the Trade Contracts, and report to the Employer by means of a regular accounts settlement register and obtaining thereafter from each of the Trade Contractors agreement to the relevant interim or final settlement of account, as the case may be, and signature thereon.
  - .2 Keep proper accounts of all expenditure forming part of the Reimbursable Cost.

## Records

- 3.8 .1 Maintain complete and accurate records and provide the Employer and the Consultant Team with such copies of correspondence and minutes of meetings as may be necessary and any other documentation issued or sent to the Trade Contractors, Statutory Undertakers or others which the Employer and the Consultant Team would not otherwise receive.
  - .2 As agent for the Employer obtain as relevant from each Trade Contractor full operating and maintenance manuals and procure 'record' and 'as-built' drawings as required under the Trade Contracts and all information reasonably required by the Construction Manager as the Principal Designer or, where the Construction Manager is not the Principal Designer, by the Principal Designer for the preparation of the health and safety file(s) relating to the Project.

## Part 2: Additional Services

- **4.1** Subject to clause 5.1, the following additional services shall be provided by the Construction Manager if instructed by the Employer under clause 2.1.2:
  - .1 Settlement of the terms of the Project Brief.
  - Services in relation to work forming part of the Project to be executed by persons who are not Trade Contractors and/or work not forming part of the Project to be executed on the site during the Construction Period by persons who are not Trade Contractors.

- .3 Services in respect of the replacement of work damaged by the occurrence of any event which is the subject of a Joint Names Policy or an Excepted Risk during the Construction Period.
- .4 Services required as a result of insolvency of a Trade Contractor or in respect of a default by a Trade Contractor not due to any negligence or default of the Construction Manager.
- .5 Services related to assisting the Employer in pursuing or defending any claim in respect of Trade Contractors, including in adjudication, arbitration or litigation if necessary.
- .6 Such services as may reasonably be required by the Employer to secure completion of the Project provided that they are not inconsistent with this Contract.