The PFE¹ Change Management Supplement²

for use with the

JCT98 Standard Form of Building Contract, Private Edition, With Quantities Incorporating Amendments 1-4, 2002³







Articles of Agreement

*Article 8 The term 'the Risk Manager' in the Conditions shall mean the Architect, or 4

of

or, on the occurrence of the death of the Risk Manager or his ceasing to be the Risk Manager for the purposes of this Contract, such other person as the Employer shall nominate within 14 days after such death or cessation, being a person to whom within 7 days of nomination the Contractor has not given in writing to the Employer reasonable cause to object."

Conditions of Contract

Clause 1.3 Definitions

Date for Completion

Delete "the date fixed and stated in the Appendix"

Add

"the date indicated on any Programme by which the Contractor intends to complete the Works by reference to that Programme. For the avoidance of doubt, any reference in this Supplement to Date for Completion includes the Date for Completion of any Section as defined in the Sectional Completion Supplement, if applicable, and shall be construed accordingly."

Completion Date

Delete "the Date for Completion"

Insert "the date"

After "acceptance of a 13A Quotation"

Add

"For the avoidance of doubt, any reference in this Supplement to Completion Date includes the Completion Date of any Section as defined in the Sectional Completion Supplement, if applicable, and shall be construed accordingly."

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⁴ Delete whichever is inapplicable

Insert

"Activity: An operation or process consuming time and possibly other resources forming a measurable element of the Master Programme that an individual or work team can manage.

Draft Programme: any Programme that has not been accepted as the Master Programme.

Employer's Cost Risk Event: an event listed at clause 26.2 as being one for which, if it causes the Contractor to suffer loss or expense, the Employer is obliged to compensate him.

Employer's Time Risk Event: an event listed at clause 25.4 as being one for which, if it is likely to cause delay to the Date for Completion after the Completion Date, the Employer is obliged to grant the Contractor relief from liability for liquidated damages by extending the Completion Date.

Key Date: the date by which the start or finish of any defined process, delivery, activity, work package, section, or part of the Works defined in Schedule 2 is to be monitored.

Master Programme: the accepted Programme from time to time, which represents the Contractor's intentions for the future conduct of the Works at the time it is Published.

Milestone: the indication on the Master Programme of a Key Date linked to the activity or activities, preceding and/or succeeding it.

Programme: a critical path network as described in Schedule 2 together with a method statement as described in Schedule 3.

Progress Records: the records of resources referred to in clause 5A.5.

Publish and Publication: the supply to those Identified at Schedule 1 to the Conditions of Contract of any information in the form of a computerised editable file, in the specified software, by disk or electronic mail, for acceptance by the Risk Manager.

Risk Manager: the person named in Article 8, or any successor duly appointed there under, or otherwise agreed as being the Risk Manager."

Clause 1.5 Contractor's Responsibility

Line 4, after

"whether or not"

Add "the Risk Manager accepts the Master Programme, or"

Clause 5.3 Copies of Documents, Descriptive Schedules etc.

Clause 5.3.1.2

Delete the whole of clause 5.3.1.2

Clause 5.3.2

Line 3 Delete the words

"referred to in clause 5.3.1.2"

Add "or update"

Clause 5.4.1 Information Release Schedule

Delete from line 4, the words

"in the Schedule provided....vary any such time."

Add "in the Master Programme."

Clause 5.5 Availability of certain documents

Delete from line 3, the words

", one copy of the Master Programme referred to in clause 5.3.1.2 (unless clause 5.3.1.2 has been deleted)"

**Add "one Published copy of the Master Programme"

Clause 5.6 Return of drawings etc.

Delete clause 5.6

Add "5.6 Upon final payment under clause 30.8:

- If so requested by the Architect, the Contractor shall forthwith return to him all drawings, details, descriptive schedules, other documents of a like nature, including copies thereof, which bear the name of the Architect.
- .2 The Employer shall return to the Contractor any resource details, method statements, critical path networks, or other documents bearing the Contractor's name, within 14 days of the receipt of any written request by the Contractor to do so.
- Insofar as any document referred to in clause 5.6.2 has been Published, then as well as the return of the documents referred to in clause 5.6.2, the Employer shall procure the deletion of such files permanently from the computer system or systems in the control of the persons identified in Schedule 1 and, within 14 days of receipt of a written request to do so, shall confirm in writing their deletion."

Clause 5.7 Limits to the use of documents

Delete clause 5.7

Add "5.7 None of the documents provided in accordance with the Information Release Schedule or mentioned in clause 5 or 5A shall be used by the Employer or the Contractor for any purpose other than in respect of the performance of this Contract,

or the determination of the parties' rights and liabilities arising under, out of, or in respect of it. Save as may be required by any lawful authority (other than pursuant to any agreement entered into by either party with a third party) the persons identified in Schedule 1 shall not divulge or use, except for the purposes set out above, any of

- .1 the rates or prices in the Contract Bills
- .2 the method statements, resource plans or critical path networks, whether or not accepted
- .3 the records of progress achieved

After clause 5.9

Add "5A Management Information

5.A.1 Preparation, Publication and Submission

- 5A.1.1 The Architect shall issue instructions from time to time for the expenditure of the provisional sum included in the Contract Bills for the preparation and Publication of drafts for acceptance as provided for in clause 5A.1.2, for the Publication of the Master Programme and all updates thereto as referred to in clauses 5A.2, 5A.4 and the Progress Records required under clause 5A.5.
- 5A.1.2 Within 28 days of the receipt of instructions under clause 5A.1.1, the Contractor shall prepare and Publish his first Draft Programme for acceptance.

5A.2 Acceptance of Programme and Method Statement

- 5A.2.1 Provided that the Draft Programme Published by the Contractor complies with the Contract, the Risk Manager shall accept it as the Master Programme, which acceptance shall be conclusive evidence of the Contractor's intentions as to programming for the future conduct of the Works.
- 5A.2.2 If the Risk Manager, acting reasonably, considers that any Draft Programme Published for acceptance does not comply with the Contract, the Risk Manager shall, within 7 days of receipt thereof, reject the draft with reasons, or if he does not reject it within those 7 days it shall be deemed to be accepted.
- Within 7 days of receipt of the Risk Manager's rejection of the Draft Programme, the Contractor shall amend or revise the Programme to conform to the Risk Manager's reasonable requirements. In the alternative, the Contractor and the Risk Manager shall be at liberty to agree, within 28 days of receipt of the first submission, a Master Programme that reasonably fulfils the Contractor's obligations under the Contract. In the absence of either, the Risk Manager's decision shall be deemed not accepted by the Contractor and shall then be referred by either party to a person appointed pursuant to the procedures under this Contract relevant to the resolution of disputes or differences.

5A.2.4 Acceptance by the Risk Manager that the critical path network described in Schedule 2, the method statement in Schedule 3 or the Contractor's Master Programme complies with the Contract does not require that the Works shall be constructed in accordance with any of them. Acceptance by the Risk Manager shall not relieve the Contractor from any of his obligations under this Contract and the Contractor shall not be entitled to rely upon any such acceptance as indicating that the accepted Programme is feasible.

Purpose of Master Programme:

- 5A.3 The Contractor and Employer agree that the Master Programme shall be used for
 - .1 planning the intended periods of activity and sequence of those matters identified in Schedule 2;
 - .2 identifying the dates and logic by which the information described in the Information Release Schedule or any other request for information required is to be supplied in relation to the activity or activities to which any such requirement relates;
 - .3 identifying the intended dates and logic by which plant, materials or goods are to be supplied or work to be carried out by the Employer or those engaged or employed by him in relation to the activity or activities to which any relates;
 - .4 identifying any time contingency required by the Contractor, any Nominated Sub-Contractor and/or Nominated Supplier in relation to all activities and any one or more Key Date or Dates;
 - .5 identifying free float and total float that is available to be used by the Contractor and/or the Employer for managing the expenditure of the Contractor's time contingencies referred to in clause 5A.3.4 or the effect of Employer's Time Risk Events listed in clause 25.4;
 - .6 calculating the likely effect of any delay to progress on the Completion Date, if any, caused by an Employer's Time Risk Event as required by clause 25.2;
 - .7 calculating the effect on progress and/or the Date for Completion, if any, caused by Employer's Cost Risk Events referred to in clause 26.2; and
 - .8 recording the degree of progress actually achieved from time to time.

5A.4 Update, Review and Revision

- 5A.4.1 In the event of a material departure from the Master Programme, the Contractor shall review, revise, amend and Publish a revised Draft Programme for acceptance under clause 5A.2
- 5A.4.2 Notwithstanding the provisions of clause 5A.4.1, at intervals no less than the period stated in the Appendix, the Contractor shall in any event Publish an update of the Master Programme identifying actual start and completion dates of activities, if any, together with an estimate of the percentage of completion attained or the remaining

- duration required for completion of any activities in progress. The updated Programme shall incorporate any revisions that the Contractor may deem it appropriate to make to the resources, sequence and/or timing of any incomplete activities.
- 5A.4.3 Within 14 days of the date of the Certificate of Practical Completion, the Contractor shall Publish his final update of the Master Programme, which shall record the actual duration and sequence of every activity carried out during the course of the Works, including those activities comprised in Employer's Time Risk Events.

Provision of Progress Records

At intervals no less than that stated in the Appendix, the Contractor shall deliver to the Risk Manager in the manner specified in Schedule 4, Progress Records of the resources listed in Schedule 4 for each day of the stipulated period together with any other information that may be specified in Schedule 4.

5B Liquidated Damages for Failure to Provide Management Information

- 5B.1 If the Contractor fails to Publish for approval any Programme as required by clause 5A.1.2, 5A.2 or 5A.4, or fails to provide the Progress Records or other information as required by clause 5A.5 the Risk Manager shall so inform the Architect in writing and at any time thereafter the Architect may serve on the Contractor a notice in writing, specifying the Contractor's default and the date of its occurrence and requiring the Contractor to make good its omission within 7 days of the date of service of that notice.
- 5B.2 If the Contractor continues the default thereafter then the Employer may, not later than 5 working days before any liquidated damages fall due for payment, either:
 - .1 require in writing the Contractor to pay the Employer liquidated and ascertained damages, as they accrue from time to time, at the rate stated in the Appendix for the period between the Architect's service of the aforesaid notice of default and the date of remedy of the default, if any; or
 - give a notice or successive notices pursuant to clause 30.1.1.4 or clause 30.8.3 to the Contractor that he will deduct from monies due to the Contractor liquidated and ascertained damages, as they accrue from time to time, at the rate stated in the Appendix for the period between the Architect's service of the aforesaid notice of default and the date of remedy of the default, if any.
- If, at any time after the first deduction of liquidated damages, the Risk Manager should be reasonably of the opinion that the Contractor has made good its default, he shall inform the Architect and Employer in writing and, provided always that the Employer's opportunity to manage its risks under the Contract has not been materially prejudiced by the Contractor's default the Employer shall, as soon as is reasonably practicable, refund the amount of damages previously deducted. For the avoidance of doubt, such refund shall not carry interest or ancillary finance charges."

Clause 13.1

After clause 13.1.1.3

Add "13.1.1A the alteration or modification of

- .1 the Master Programme so as to reduce, overcome, or avoid the likely effects of any delay to progress caused by one or more Employer's Time Risk Events
- .2 the duration, sequence or timing of any activity or activities
- .3 any period of time whether by reference to a lead, lag, or otherwise
- .4 the date of any Milestone or Key Date
- .5 the resources to be used in connection with any activity or activities
- .6 the requirements of Schedules 1,2,3 or 4.

For the avoidance of doubt, a Variation shall not include any of those matters set out in clauses 13.1.1A.1 to 13.1.1A.6 insofar as they are occasioned by any omission or default of the Contractor."

Clause 13A Variation Instruction – Contractor's quotation in compliance with the instruction 13A.1.1

At line 2, after

"to enable the Contractor to"

Insert "identify the likely effect of the variation on the Master Programme and"

Clause 13A.1.2 Contractor to submit his quotation

At the penultimate line

After "whichever date is the later..."

Insert "the Programme shall be deemed to have been Published for approval under clause

5A.2"

At the last line, after

"7 days from...

*Add "Acceptance of the Master Programme in accordance with clause 5A.2 by the Risk

Manager, or"

After "Quantity Surveyor"

Add ", whichever is the later"

Clause 13A.2.2 Content of the Contractor's 13A Quotation

Delete "an earlier Completion Date than the Date for Completion"

*Add "an earlier Date for Completion than the Completion Date)"

Delete "given in the Appendix)"

Clause 13A.2.4

Delete

"and, where specifically required by the instruction, shall provide indicative information in Statements on"

Clause 13A.2.5

Delete "the additional resources (if any) required to carry out the Variation;"

**Add "an update of the Master Programme, if not already updated, to record progress actually achieved to a date no earlier than 7 days before the date of the 13A Quotation;"

Clause 13A.2.6

Delete "the method of carrying out the Variation"

Add

"a sub-network of the Master Programme illustrating the work content of the Variation including the duration of the activities and sequence of the activities, and/or any suspension of work caused or likely to be caused by the Variation;

the Contractor's Published revised Programme for acceptance, including the clause 13A.2.6 sub-network and logic between the sub-network and the Works on the clause 13A.2.5 updated Programme; and"

13A.2.8 a written statement describing the Variation, the sub-network and its effect on the updated Master Programme."

Clause 13A.3.1

After "If the Employer wishes to accept a 13A Quotation the Employer shall"

Insert ": 13A.3.1.1"

After "so notify the Contractor in writing not later than the last day of the period for acceptance stated in clause 13A.1.2"

Add "; and

13A.3.1.2 accept as the Master Programme the Draft Programme Published under clause 13A.2."

Clause 13A.3.2

Renumber Clause 13A.3.2.4 as Clause 13A.3.2.5

Delete Clause 13A.3.2.3

Add "13A.3.2.3 The Contractor's Programme submitted in connection with the Quotation is accepted as the Master Programme

13A.3.2.4 The Revised Completion Date (which, where relevant, may be a date earlier than the Completion Date stated in the Appendix) and (where relevant) any revised periods for completion of the Nominated Subcontract work of each Nominated Sub-Contractor."

Clause 13A.4.1

Renumber Clause 13A.4.2 as clause 13A.4.3

Renumber Clause 13A.4.1 as clause 13A.4.2

Insert "13A.4.1 accept as the Master Programme the Draft Programme Published under clause

13A.2.7; and"

Clause 13A.6

After "may use that quotation"

Insert "or the Programme Published in connection therewith"

Delete Clause 13A.7

Clause 13A.8

After "a confirmed acceptance to the Contractor"

Insert paragraph break and "13A.8.1"

In the penultimate/last line, after

"compliance with the instruction requiring the Variation."

Add "; and"

Insert paragraph break and "13A.8.2 The Contractor shall update the Master Programme

and calculate the effect of the Employer's Time Risk Event in compliance with clause

25.2.1."

Clause 18 Partial possession by Employer

Add "18.1.5 The Contractor shall add to the Master Programme the Key Date for the

relevant part or parts of the Works indicating the date on which the Employer took possession thereof, logically linked to its predecessor

activities in the Master Programme."

Clause 25 Extension of Time

Before "Extension of Time"

"Delay to Progress, Delay to Completion and"

Delete Clauses 25.1 – 25.3.6 inclusive

Add "Delay to Progress"

25.1 If, and whenever it becomes reasonably apparent that progress of the work or any offsite fabrication is being or is likely to be delayed, the Contractor shall forthwith give to

the persons identified in Schedule 1, a written notice stating:

.1 the cause of the delay to progress; and whether, in the Contractor's opinion, the cause is:

- .2 one for which the Contractor has provided a time contingency as required by clause 5A.3.4;
- .3 an Employer's Time Risk Event described in clause 25.4;
- .4 an Employer's Cost Risk Event described in clause 26.2.

Calculating the likely effect of a delay to progress on Completion

- 25.2.1 Within 21 days of the occurrence of an Employer's Time Risk Event the Contractor shall calculate the likely effect on the Date for Completion, if any, by:
 - .1 updating the Master Programme, if not already updated, to record progress actually achieved to a date no earlier than 7 days before the occurrence of the Event, and to recalculate the Date for Completion;
 - .2 identifying in a sub-network the Employer's Time Risk Event, the duration and sequence of all the activities and/or any suspension of any work caused or likely to be caused thereby;
 - .3 impacting the sub-network by inserting it into the updated Programme and establishing the logic between the Employer's Time Risk Event, its sub-network and the Works on the updated Programme;
 - .4 recalculating the Date for Completion to establish the likely effect of the Employer's Time Risk Event on any Key Dates and on the Date for Completion, if any;
 - .5 Publishing the updated impacted Programme together with a written description of the Employer's Time Risk Event, the sub-network and its likely effect.

Fixing a New Completion Date

- 25.3.1 If, on receipt of the Contractor's updated Programme, calculation and written description referred to in clause 25.2, the Risk Manager is reasonably of the opinion that:
 - .1 the Employer's Time Risk Event described in the Contractor's calculation has occurred;
 - .2 the sub-network used in the Contractor's calculation is either an accurate record of the activities, durations and sequence that has occurred as a result of the Employer's Time Risk Event, or is a reasonable estimate of the activity durations and sequence likely to flow directly therefrom; and
 - the impact of the Employer's Time Risk Event is reasonably likely to cause the Date for Completion to be delayed beyond the Completion Date;

then, within 14 days of receipt of the Contractor's calculation, the Risk Manager shall advise the Architect of the likely effect of the Employer's Time Risk Event on the Date for Completion so calculated and the Architect shall within 7 days thereafter fix a new Completion Date commensurate with the likely effect of the Employer's Time Risk

Event on the Date for Completion beyond the Completion Date and shall forthwith inform in writing the Contractor and the persons identified in Schedule 1 to the Conditions of his decision.

- 25.3.2 For the avoidance of doubt, nothing shall prevent the Architect from certifying a later Completion Date after the Completion Date has passed.
- 25.3.3 If at any time after the Architect issues an instruction:
 - for the omission of work, or the omission or diminution of an obligation; or
 - .2 resulting in a reduction of work to be carried out;

the Contractor shall recalculate the Date for Completion in accordance with clause 25.2 and a new Completion Date shall be fixed in accordance with clause 25.3, not earlier than the Completion Date stated in the Appendix.

- 25.3.4 If, after the Completion Date has passed an Employer's Time Risk Event should occur, then the Contractor shall calculate the likely effect of the Event in accordance with clause 25.2 and if, on receipt of the Contractor's updated Programme, calculation and written description, the Risk Manager is reasonably of the opinion that
 - .1 the Employer's Time Risk Event described in the Contractor's calculation has occurred:
 - .2 the sub-network used in the Contractor's calculation is either an accurate record of, or is a reasonable estimate of the activity durations and sequence likely to flow directly from the occurrence of the Employer's Time Risk Event:

then, within 14 days of receipt of the Contractor's calculation, the Risk Manager shall advise the Architect of the duration of the sub-network referred to in clause 25.3.4.2 and the Architect shall, within 7 days thereafter, fix a new Completion Date by extending the contract period commensurate with the duration of the activities on site comprised in the sub-network and shall forthwith inform in writing the Contractor and the persons identified in Schedule 1 to the Conditions of his decision.

25.3.5 Within 7 days of any decision by the Architect under clauses 25.3.1, 25.3.2 or 25.3.4, the Contractor shall serve a copy of the Architect's decision upon any Nominated Sub-Contractor or Nominated Supplier whose work has not yet achieved Substantial Completion."

Clause 25.4

Delete "Relevant"

Add "Employer's Time Risk"

Add "Delay Management

Acceleration when in Culpable Delay

25A.1 If in accordance with clause 5A.4, as a result of delay to progress caused by events other

than those listed in clause 25.4 as Employer's Time-Risk Events, the Contractor Publishes a Programme indicating that any part or parts of the Works are likely to be completed later than a Key Date or Dates or the Completion Date, the Risk Manager shall consult with the Contractor as to possible means to overcome or avoid the envisaged delay to the Key Date or Dates or the Completion Date. The Risk Manager shall (using his discretion but having regard to the consultation) deliver to the Architect written proposals and state whether in his opinion the Contractor may reasonably be instructed to:

- .1 reschedule one or more specific activities or sequence of activities or parts of the Programme;
- .2 change the resources to be applied to one or more specific activities; or
- .3 take any other action necessary properly to re-sequence the Programme so as to illustrate the Contractor's revised intentions.
- 25A.2 Provided always that the Risk Manager is reasonably of the opinion that it is practicable for the Contractor to comply therewith (though, for the avoidance of doubt, compliance shall not be regarded as impracticable solely by reason of the cost likely to be incurred by compliance) and the Architect is of the opinion that it is reasonable to do so, within 7 days of receipt of the Risk Manager's proposals he shall instruct the Contractor to Publish the proposals in a revised Master Programme and the Contractor shall comply therewith at no cost to the Employer.

Acceleration when Entitled to an Extension of Time

- If, as a result of any delay to progress caused by an Employer's Time Risk Event listed in clause 25.4, the Contractor Publishes a Programme indicating that any part of the Works is likely to be completed later than a Key Date or Dates or the Completion Date then, at any time thereafter, the Architect may instruct the Contractor to consult with the Risk Manager to assist the Risk Manager in drafting proposals to overcome or avoid the likely delay, in whole or in part, to the Key Date or Dates or the Completion Date. The Risk Manager shall (using his discretion but having regard to the consultation) deliver to the Architect written proposals to overcome or avoid the envisaged delay and state whether in his opinion the Contractor may reasonably be instructed to:
 - .1 reschedule one or more specific activities or sequence of activities or parts of the Programme;
 - .2 change the resources to be applied to one or more specific activities; or
 - .3 take any other action necessary properly to re-sequence the Programme so as to illustrate the Contractor's revised intentions.
- Provided always that the Risk Manager is reasonably of the opinion that it is practicable for the Contractor to comply therewith and the Architect is of the opinion that it is reasonable to do so, within 7 days of receipt of the Risk Manager's proposals the Architect shall instruct the Contractor to Publish the proposals in a revised Master Programme.

- For the avoidance of doubt, the Architect may not instruct the Contractor to accelerate completion of the Works to a date earlier than that stated in the Appendix by means of proposals made or implemented under instructions given under clauses 25B.
- Any instruction given under clause 25B is a Variation Instruction. The Contractor shall keep such records as are reasonably necessary to substantiate the costs of preparing any proposals required by the Architect under clause 25B.1 and of complying with any instruction issued by the Architect to implement such proposals under clause 25B.2.

Damages for Failure to Accelerate

Notwithstanding the provisions for default in compliance with an Instruction under clause 4.1.2, if the Contractor fails to comply with an Instruction issued pursuant to clause 25A or 25B, the Contractor shall reimburse the Employer for all the loss and expense, costs and damages that the Employer thereby incurs. The Employer shall be entitled to deduct such sums from any monies due or to become due to the Contractor or may recover them as a debt. For the avoidance of doubt, the Employer's entitlement hereunder is distinct from and not included within any entitlement to liquidated damages recoverable or deductible pursuant to clause 24. However, in computing his losses, the Employer shall give credit for any liquidated damages that have been deducted or paid as liquidated damages under clause 24."

Clause 26.1 in the title

Delete "Matters"

Add "Employer's Cost-Risk Events"

At Line 7, after

"by any one or more of the"

Delete "matters"

Add "Employer's Cost-Risk Events"

Clause 26.2 in the title

Delete "Matters"

Add "Employer's Cost-Risk Events"

Clause 26.2

Delete "matters"

*Employer's Cost-Risk Events

Delete Clause 26.3

Add "26.3 If and to the extent that delay to progress or disruption has occurred and it is necessary during the course of the Works for the ascertainment under

clause 26.1 of loss and/or expense caused thereby, the Risk Manager shall state in writing to the Architect whether as a result of the Employer's Cost Risk Event any change has been caused to:

- .1 the start or finish of any activity;
- .2 the start or finish of any chain of activities;
- .3 the start or finish of the subcontract works;
- .4 the productivity of any resource;

and the Architect shall then ascertain, or shall instruct the Quantity Surveyor to ascertain any loss and/or expense suffered thereby, if any."

Delete Clause 26.4.2

Add "26.4.2 If and to the extent that it is necessary for the ascertainment under clause 26.1 of loss and/or expense during the course of the Works the Risk Manager shall state in writing to the Architect, with a copy to the Nominated Sub-Contractor concerned, whether as a result of the

.1 the start or finish of any activity;

Employer's Cost Risk Event any change has been caused to:

- .2 the start or finish of any chain of activities;
- .3 the start or finish of the Sub-contract Works; or
- .4 the productivity of any resource;

comprised within the work of a Nominated Sub-Contractor and the Architect shall then ascertain, or shall instruct the Quantity Surveyor to ascertain, the loss and/or expense, if any, suffered thereby, by the Contractor."

Add "26.7 Calculation of periods of time for purposes of compensation for prolongation

- 26.7.1 Within 28 days of the Publication of the final update of the Master Programme in accordance with clause 5A.4.3, the Contractor shall calculate:
 - any delay to completion of the Works and the work of any Nominated Sub-Contractor actually caused by each and every Employer's Cost Risk Event, in isolation from any other cause, if any;
 - any delay to progress of the works caused by an Employer's Cost-Risk Event in isolation from any other cause, and the date on which such delay to progress started and finished;
 - any delay to progress of the Works caused other than by an Employer's Cost Risk Event in isolation from any other cause, and the date on which such delay to progress started and finished; and

.4 the cause of any delay to progress that actually had an effect on the Completion Date and the Completion Date of the work of any Nominated Sub-Contractor, concurrent in whole or in part with any delay to progress caused by an Employer's Cost Risk Event and the duration, start date and finish date of any such concurrency;

and shall deliver to the Risk Manager the Contractor's calculation in writing and Publish the Programme identifying the periods referred to.

- 26.7.2 Within 28 days of receipt of the Contractor's calculation and Programme referred to in clause 26.7.1, provided he is satisfied that the periods of time have been properly calculated, the Risk Manager shall notify the Architect and Quantity Surveyor in writing of the periods of time caused by an Employer's Cost Risk Event for which:
 - .1 the Contractor is entitled to compensation for any loss and/or expense that may have been suffered as a result of prolongation of his overheads; or
 - .2 any Nominated Sub-Contractor is entitled to compensation for any loss and/or expense that may have been suffered as a result of prolongation of the relevant Sub-Contractor's overheads;

and the Architect shall then ascertain, or shall instruct the Quantity Surveyor to ascertain any loss and/or expense actually suffered thereby.

- 26.7.3 Within 7 days of any decision by the Architect under clauses 26.7.2, the Contractor shall serve a copy of the Architect's decision upon all Nominated Sub-Contractors.
- 26.7.4 If the Contractor fails to deliver to the Risk Manager the calculation required by clause 26.7.1 and/or Publish the Master Programme as required by clause 5A.4.3, the Architect may serve upon the Contractor, a notice in writing requiring the Contractor to comply therewith.
- 26.7.5 If, within 14 days of receipt of a notice under clause 26.7.4, the Contractor has failed to comply with clause 26.7.1 then at any time more than 7 days thereafter by a further notice in writing, the Architect may employ and pay others to make and deliver the calculation and Publish the Programme and deduct any cost or expense so incurred from any monies due, or to become due to the Contractor under this Contract, or recover it as a debt."

Clause 35.14.2

At Line 2, Delete

"particulars and estimate"

"and information specified in clause 2.3"

Appendix

1.3 Delete	"Date for Completion"	
Add	"Completion Date"	
Insert	"5A.4.2 Period of update of the Master Programme	
	5A.5 Period for supply of Progress Records	
	5B.2 Liquidated and ascertained damages at the rate of	£ per"

Schedule 1 - List of Persons

Anything that is required by the Conditions of Contract to be Published, shall be delivered to the following persons by electronic mail with electronic receipt, or be delivered on compact disk by recorded delivery, to the following persons:⁵

Title	Name	Postal Address	E-Mail
Risk Manager			
Architect			
Employer			
Quantity Surveyor			
Project Manager			
Structural Engineer			
Mechanical Engineer			
Electrical Engineer			
Interior Designer			
Landscape Architect			
Clerk of Works			
Mechanical Clerk of Works			
Electrical Clerk of Works			
Structural Clerk of Works			

⁵ Delete those not required and add any others required

Schedule 2 - Critical Path Network

- 1. The critical path network shall describe the Contractor's intentions for the future conduct of the Works from time to time.
- 2. The critical path network shall be fully cross-referenced to the activities described in the method statement described in Schedule 3.
- 3. The Contractor shall submit to the Risk Manager sufficient information as may be reasonably necessary to enable him to interpret, evaluate and accept the critical path network as being compliant with the Contract requirements.

The critical	path network is to be prepared in precedence diagram format using
	software available from
E 1 . 1	. C. 11: .: . C.1 .: .: 1 1 1
From the da	te of publication of the critical path network and any update thereto
i.	For the period ending weeks/months from publication, the
	duration of any activity shall not exceed (days/weeks).
ii.	For the period commencing at the end of the period identified in paragraph 5.i
	and ending weeks/months from publication, the duration of
	any activity shall not exceed(days/weeks).
iii.	For the period commencing at the end of the period identified in paragraph 5.ii
	and ending at the Date for Completion, the duration of any activity shall not
	exceedweeks.

- 6. The duration of any lead or lag shall not exceed 50% of the duration of the predecessor activity.
- 7. No lead or lag between activities of duration greater than zero days shall be less than zero days. Nothing in this clause shall prevent the identification of the Key Date by which information, plant, materials, drawings, submissions or other materials may be planned to be provided in advance of an activity to which it is the logical predecessor.
- 8. No activities shall be constrained by
 - i. Mandatory date constraints
 - ii. Preferential early or late finishing constraints
 - iii. Zero float constraints.
- 9. All activities shall be planned to have as successor either the milestone indicating a Key Date, the milestone indicating the Date for Completion or another activity.
- 10. The activities shall be coded according to a Work Breakdown Structure as follows:
 - i. Level 1: The Whole of the Project
 - ii. Level 2: Defined Section of the Works
 - iii. Level 3: Designated zone of each Section
 - iv. Level 4: Floor of each zone
 - v. Level 5: CISfb Table 2 Element

- vi. Level 6: Contractor Sub-Contractor or Supplier
- vii. Level 7: Design, fabrication, delivery and work
- 10a. The activities shall be coded according to the Activity Code structure as follows:6
 - i. Section
 - ii. Zone
 - iii. Floor
 - iv. Element
 - v. Responsibility
 - vi. Work Type
- 11. Apply the following codes to all activities to which they relate
 - i. Employer's Time Risk Event
 - ii. Employer's Cost Risk Event
 - iii. Contractor's time risk contingency
- 12. Each activity and/or milestone on the critical path network shall bear a single description relating to its unique Activity ID.
- 13. In relation to each activity scheduled to be commenced within the period identified at paragraph 5.i above (other than a contingency activity referred to in clause 5A.3.4) the Contractor shall indicate the labour and plant resources planned to be needed to carry out each activity within the duration planned.
- 14. In relation to each of the resources identified in paragraph 14 above the Contractor shall identify the period during each day and each week of the period planned to be working periods and non-working periods.
- 15. The critical path network is to indicate all periods during which it is planned that no work shall be carried out including all holiday periods or other non-working days between the Commencement Date and the Date for Completion.
- 16. The critical path network shall include the logical interface and Key Dates by which the following are to be provided by the Employer:⁷

1	Access to the site, or any part thereof
2	The supply of information contained in the IRS
3	Any statutory permits and/or approvals, or licences, or permits including party wall
	awards or agreements, necessary for the proper carrying out of the Works
4	The start and finish date of each item of defined work to be carried out by the Employer
	or by persons employed or engaged by him as scheduled at table 1 below
5	The date for delivery of materials, goods, plant or equipment to be supplied by the
	Employer or by persons employed or engaged by him as scheduled at table 2 below

⁶ Delete 10, or 10a whichever is applicable

⁷ Delete those not required and add any others required

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17.	The critical path network shall include the logical interface and Key Dates by which th
	following are to be provided by the Contractor, his Sub-Contractors and Suppliers including
	Nominated Sub-Contractors and Suppliers, Statutory Undertakings, Statutory Authorities
	or Utility Providers:8

1	Design work
2	Off-site fabrication and delivery
3	Work on site
4	Temporary works
5_	Test and/or commissioning period for any plant, machinery, equipment, fitting or element
6	Drawings, materials or samples and the approval period in respect of each submission of design work for approval
7	The contingency time provisions required to accommodate foreseeable adverse weather conditions
8	The contingency period for culpable slippage in the critical path network and/or the making good of defective and/or incomplete work before the Completion Date
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⁸ Delete those not required and add any others required

18.	The critical path network shall illustrate with milestones the logical interface preceding	,
	and succeeding the following Key Dates:9	

1	Practical Completion of the Works
2	Practical completion of the defined Sections of the Works
3	The start and finish of the work of any Nominated Sub-Contractor or Supplier
4	The start and finish of the work of any Domestic Sub-Contractor or Supplier
5	The date of inspection notices under the Building Regulations
6	The date when the Works are wind and weather tight
7	The date when power is switched on
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⁹ Delete those not required and add any others required

Shedule 3 - Method Statement

- 1. The method statement is the Contractor's description of the activities durations and sequence and resources referred to in the critical path network produced in accordance with Schedule 2.
- 2. The method statement shall be fully cross-referenced to the activities to which it relates in the critical path network.
- 3. The Contractor shall submit to the Risk Manager sufficient information as may be reasonably necessary to enable him to interpret, evaluate and accept the method statement as being compliant with the Contract requirements.

4.	The me	thod	statement	is	to	be	Published	using		
	software	availa	ble from							

- 5. From the date of publication of the Master Programme and any update thereto during the period identified in paragraph 5.i of Schedule 2 the method statement shall include by reference to each Activity ID on the critical path network:
 - i. A description of each activity planned to be carried out during the period in sufficient detail to enable the work to be monitored.
 - ii. Where the logical interface between one activity and another is illustrated on the critical path network to be by way of start-start or finish-finish relationships, the method of calculation of the time lag represented by each relationship, in sufficient detail to be able to identify the critical path, if any.
 - iii. A schedule of all activities lying on the paths containing the least float, namely the critical activities.
 - iv. In relation to each Activity ID listed as critical under paragraph 5.iii, in sufficient detail to explain the Contractor's activity durations, details of the Contractor's resource requirements in terms of Sub-Contractor, Supplier or other work force by name and trade, in relation to each activity
 - 1. manpower
 - 2. gang sizes
 - 3. tradesmen
 - 4. work rates
 - 5. plant
 - 6. equipment
 - 7. materials, and
 - 8. quantities of work.
 - A schedule of all activities that may be expedited by use of overtime, additional shifts, rescheduling or by any other means, identifying the relevant activities and explaining any management or other constraints on any such acceleration.

- vi. A schedule giving the monetary value of each activity together with the payment items applicable to the activity monetary values.
- 6. From the date of publication of the Master Programme and any update thereto during the period from the end of the period identified in paragraph 5.i of Schedule 2 until the Date for Completion the method statement shall include by reference to each Activity ID:
 - A description of each activity planned to be carried out during the period in sufficient detail to enable the work to be identified in relation to the Contract Documents.
 - ii. Where the logical interface between one activity and another is illustrated on the critical path network to be by way of start-start or finish-finish relationships, the method of calculation of the time lag represented by each relationship, in sufficient detail to be able to identify the intended critical path, if any.
 - iii. A schedule of all activities lying on the paths containing the least float, namely the critical activities.
 - iv. In relation to each Activity ID listed as critical under paragraph 6.iii, in sufficient detail to explain the Contractor's activity durations, details of the Contractor's resource requirements in terms of Sub-Contractor, Supplier or other work force by name and trade, in relation to each activity:
 - 1. manpower
 - 2. gang sizes
 - 3. tradesmen
 - 4. work rates
 - 5. plant
 - 6. equipment
 - 7. materials, and
 - 8. quantities of work.
 - v. For each Sub-Contractor and/or Supplier appointed, the planned manpower, gang sizes, tradesmen, work rates, items of plant or equipment and materials and quantities of work allowed for in sufficient detail to explain the Contractor's activity durations.
 - vi. A schedule giving the monetary value of each activity for cash flow purposes.
 - vii. The sum of all the monetary values calculated under clauses 5.vi and 6.vi of Schedule 3 shall total the Contract Sum.

Shedule 4 - Progress Records

- 1. The Progress Records are the Contractor's records of the resources applied and the start and finish dates and percentage complete of each of the activities referred to in the Master Programme from time to time.
- 2. The Progress Records shall be fully cross-referenced to the activities to which they relate.
- 3. The Contractor shall submit to the Risk Manager sufficient information as may be reasonably necessary to enable him to evaluate the progress achieved in relation to planned progress from time to time together with the name and status of the person responsible for compiling and/or disseminating the information.

4.	The Progress Records are to be published using	5	
	software available from		

- 5. From the date of commencement of the Works indicated on the Master Programme and at the intervals indicated in the Appendix, the Contractor shall publish to those persons listed in Schedule 1 the following Progress Records for each day of the reporting period:
 - a. A Resource Allocation Sheet for planned activities indicating for each activity that is planned to have been started, finished or progressed during the reporting period, as relevant:
 - i. The Activity Description
 - ii. The Activity ID
 - iii. The date the activity started
 - iv. The date the activity finished
 - v. The estimated degree of completion achieved as a percentage of the whole, or the remaining duration to complete
 - vi. If not started, the reason for non-commencement
 - vii. If started but without progress during the reporting period, the reason for the absence of progress
 - viii. The name and status of each item of labour allocated to an activity in progress and the hours worked by each
 - ix. The name of each item of plant allocated to an activity in progress and the hours worked by each item
 - x. Any materials delivered
 - xi. The Sub-Contractor, Nominated Sub-Contractor, Supplier, or Nominated Supplier responsible, if any.
 - b. A Resource Allocation Sheet for unplanned activities indicating for each activity that was not contemplated by and included on the Master Programme during the reporting period:
 - i. A description of the activity
 - ii. The activity's designated identification reference and coding

- iii. The reason for executing the activity
- iv. The date the activity started
- v. The date the activity finished
- vi. The estimated degree of completion achieved as a percentage of the whole or the remaining duration to complete
- vii. If started but without progress during the reporting period, the reason for the absence of progress
- viii. The name and status of each item of labour allocated to an activity in progress and the hours worked by each
- ix. The name of each item of plant allocated to an activity in progress and the hours worked by each item
- x. Any materials delivered for use in connection with the activity
- xi. The Sub-Contractor, Nominated Sub-Contractor, Supplier, or Nominated Supplier responsible, if any.

c. A Site Diary recording:

- i. Any drawings, details, information or instructions requested and the activity or activities start or completion dependent upon their issue.
- ii. Any drawings, details, information or instructions issued and the activity or activities affected by their issue.
- iii. The occurrence of any Employer's Time Risk Events
- iv. The occurrence of an Employer's Cost Risk Events
- v. Any standing time or unproductive resources and the reason for such loss of productivity
- vi. Any visitors to the site
- vii. Any inspections or tests carried out and the result thereof, listing deficiencies identified, together with the corrective action taken or to be taken
- viii. job safety evaluations
- ix. progress photograph records taken
- x. The weather conditions, maximum and minimum temperature, inside and out, at 0800hrs, 1200hrs and 1600hrs.
- 6. The following requirements must be observed in the Publication of the Progress Records: 10
- In relation to Resource Allocation Records, each Activity ID shall occupy a separate line and the information referable to that ID shall occupy the same line as the Activity to which it refers
- In relation to Site Diaries, each Diary shall occupy a separate line and the information referable to that Diary shall occupy the same line as the date to which it refers

¹⁰ Delete those not required and add any others required

3	Each information requirement shall occupy a separate cell or other identifiable database record and shall be set out consistently from report to report
4	Each report shall bear a unique identifying chronological number, the date upon which it was prepared, the reporting period dates, week commencement number and contract week number
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