PITCHMASTIC V BIRSE No1 [2000] 19981 TCC 159Q 19th Mat 2000

JUDGMENT HIS HON MR JUSTICE DYSON :

Overview

1. This dispute arises out of roofing works carried out by Pitchmastic PLC ("Pitchmastic") as subcontractor to Birse Construction Limited ("Birse"). Pitchmastic claims the balance of the sub-contract sum, plus certain additional payments. Birse admits that there is a balance due in respect of the sub-contract sum, denies Pitchmastic's other claims, and seeks to set off a counterclaim for losses claimed in respect of the delay and disruption allegedly caused by Pitchmastic.

2. Birse was engaged by Tesco Stores Limited C'Tesco") to design and construct a new national distribution centre at Fenny Lock, Milton Keynes, Buckinghamshire. The centre consists of a large warehouse, together with a number of smaller ancillary attached "Pod" buildings. One of these buildings is known as the "VMU'. For construction purposes, the warehouse was divided into 7 zones. Tesco specified that the building should incorporate a proprietary roofing system known as "Trocal". The total area of roofing was approximately 50,000 m2. Pitchmastic specialises in the laying of Trocal. The Trocal system consists of a layer of corrugated metal known as "decking". On this is placed a layer of insulation. Above the insulation is laid Trocal PVC sheeting. These sheets are welded together with a solvent so as to form a continuous membrane.

3. Pitchmastic and Birse entered into a sub-contract which incorporated an amended version of the DOM/2 conditions. The sub-contract sum was £1,155,443 plus VAT. The sub-contract period was 13 weeks. The sub-contract programme showed a sequence of work starting at zone 1 and progressing to zone 7, with the Trocal laying following the fixing of the decking at intervals which ranged from I to 4 weeks. The commencement date eventually agreed between the parties was 9 September 1997. Accordingly, the completion date was 8 December 1997. Pitchmastic asserts that it achieved practical completion of the sub-contract works on 16 February 1998. Birse contends that practical completion was not achieved until 21 March.

The unpaid balance

4. The Claimant claims £141,990.12 as the unpaid balance in respect of the sub-contract works. It is conceded by Birse that, subject to its set off and counterclaim, it is liable to pay Pitchmastic £148,338.46. The only issue that arises here is whether Pitchmastic is also entitled to be paid the retention money of £33,551.66. The sub-contract provided that a retention of 5% was applicable until Practical Completion of the Main Contract Works, and 2.5% until receipt of the Certificate of Making Good Defects under the Main Contract. Practical Completion of the Main Contract Works was certified as having been achieved on 22 May 1998. The Defects Liability Period, therefore, ended on 21 May 1999. No Certificate of Making, Good Defects has yet been issued under the Main Contract. It is conceded by Birse that as at 21 May 1999, there were no outstanding defects in any of the work that had been undertaken by Pitchmastic.

5. Mr Harding submits that Birse cannot rely on the absence of the Certificate of Making Good Defects as a defence to the claim for the release of the final instalment of the retention money. He relies on Article 3.2 of the sub-contract which provides:
"If an[d] insofar as any provision of this Sub-Contract DOM/2 leaves any matter or thing to the decision or opinion of any person ... the same shall not prevent the Court in determining the rights and liabilities of the parties hereto from making any finding necessary to establish that such decision or opinion was correctly made or expressed on the facts found by the Court or to establish what or what other decision or opinion should have been made or expressed and giving effect thereto as if no decision or opinion had been made or expressed. Notwithstanding the generality of the above, the Court is hereby empowered to open up, review and revise any certificate issued under this Sub-Contract or pursuant to the Main Contract."

6. He argues that the court, therefore, has jurisdiction to determine any issue relating to any certificate issued under the main contract, for the purposes of determining the rights and liabilities of the parties to the sub-contract, and that I should therefore declare that a certificate of making good defects should have been issued in relation to the Pitchmastic work. In my view, this argument is misconceived. Article 3.2 cannot be used to confer rights on the parties which are inconsistent with the clear express terms of the subcontract. The bargain that these

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two parties struck was that Pitchmastic would be entitled to the second instalment of the retention only when the Certificate of Making Good Defects had been issued under the main contract. On the other hand, if it could be shown that Birse prevented the issue of the certificate, then on well-established principles, the absence of the certificate would not operate as a bar to recovery of the money: see **Roberts y Bury Commissioners** [1870] LR 5 CP 310,326, and **Panamena Euro en Navigation v Frederick Leyland** [1947] AC 428. During the course of his final submissions, Mr Harding sought rather half-heartedly to advance a case along these lines. But the problem with this is that the question whether Birse prevented the issue of the Certificate of Making Good Defects is essentially one of fact. Paragraphs 11 and 12 of the amended statement of claim merely assert an entitlement to the retention money. There is no allegation that Birse prevented the issue of the Certificate of Making Good Defects. The reason why the certificate was not issued was not explored in evidence, beyond Mr Harding's eliciting of the fact that there were no defects in Pitchmastic's work. On this exiguous material, I am not prepared to find that Birse "prevented" the issue of the certificate within the meaning of the **Roberts v Bury Commissioners** principle. In my view, it is not sufficient for Pitchmastic merely to show that the architect witheld the certificate because there were outstanding defects in the work that had been carried out by Birse or other sub-contractors. Provided that Birse (and its sub-contractors) were proceeding with reasonable diligence to make good the defects, Birse was not preventing the issue of the certificate within the meaning of the **Roberts v Bury Commissioners** principle. Some defects take longer to put right than others. There may be genuine difficulties in deciding what remedial work is required. For these reasons, the claim for £33,651.66 must be rejected.

Summary history of the subcontract works

7, The remaining issues in this case all involve an examination of the course of the subcontract works. Pitchmastic claims that the rooflights variation comprised on site instructions 48 and 91 caused disruption and a 6 week prolongation to its sub-contract period. Birse denies that the variation caused any delay or disruption. In its turn, Birse alleges that Pitchmastic completed its work late for reasons which do not qualify for an extension of time. Birse contends that, as a result of this delay, it became liable to compensate a number of other subcontractors, whose claims it has settled for sums which it now seeks to recover from Pitchmastic by way of counterclaim. I shall consider these claims and counterclaims ***later in*** this judgment. It will be convenient first to give a brief overview of the history of Pitchmastic's works.

8. On 8 August 1997, Birse issued site instruction 48 for the supply and fixing of **galvanised metal** support kerbs to the main warehouse roof, to which 303 rooflights were to be fixed. No rooflights were incorporated in the original design of the sub-contract works. Site instruction no 91 for the actual fixing of the rooflights was not issued by Birse until 23 October 1997. As early as 6 August, Pitchmastic had produced a draft programme (DPI) showing how completion of its work would be achieved within the 13 week subcontract period, if the works were varied to include the fixing of the kerbs and rooflights.

9. The date for commencement of the sub-contract works was initially agreed as 25 August. Work could not, however, proceed, in part at least because the structural steelwork was not sufficiently advanced. There were also problems about the adequacy of the safety method proposed by Pitchmastic for its work.

10. The safety issue continued to be a problem until about 25 September. The Health and Safety Executive indicated their concerns to Birse about the adequacy of Pitchmastic's safety arrangements. Birse instructed Pitchmastic to stop work until the various concerns that had been expressed were resolved. By a letter dated 8 September, the HSE made it clear to Birse that they would have issued a prohibition notice if Birse had not stopped Pitchmastic's work immediately. It is clear that a number of days were lost by reason of the failure of Pitchmastic to maintain an adequate safety system. Mr Evans, the Commercial Manager of Pitchmastic , who was its principal witness of fact, thought that the delay was of the order of 3.5 to 5 days

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11. At a meeting held on 17 September, as I have already said, the parties agreed a revised start date of 8 September. They also agreed that Pitchmastic should receive additional payment in the sum of £8500 to compensate it for the delays and disruption caused as a *result of the* delayed start date. Pitchmastic was asked to produce a revised programme. Mr Evans and Mr Ogley produced a "target programme" (DP3) dated 17 September. It shows the sub-contract works being carried out within the 13 week period. The significance of DP 1 and DP3 is that they both purport to take account of the effect of the rooflights variation,

12. The next important meeting took place on 17 October. Birse was by now concerned that Pitchmastic was not devoting sufficient resources to the job, and that the rate of progress was inadequate. Mr Ward, Birse's Project Manager on the Tesco contract, asked Mr Mayall, the managing director of Pitchmastic, to attend the meeting. At the meeting, there was discussion about the progress of the sub-contract works. Mr Maya]] said that Pitchmastic would use its best endeavours to ensure that completion was achieved by 8 December. This could only be done by increasing the number of men on the site. Mr Mayall insisted that the target programmes produced by Pitchmastic showing a completion period of 13 weeks were no more than that. By issuing *these programmes, Pitchmastic* did not undertake that, despite the delays which it has always contended were caused by the rooflights variation, it would complete within the 13 week period. Whether completion within that period would be achieved would depend on whether additional labour could be recruited to the site. Mr Evans admitted in cross-examination that Pitchmastic believed that both DPI and DP3 were achievable. I took that to mean that he considered that Pitchmastic would be able to attract sufficient labour resources to complete the subcontract works within the 13 week period.

13. By 2 December 1997, Pitchmastic had achieved completion of the decking in all areas except Goods in Automation, which was one of the Pod buildings. The decking in this building was completed on 21 December. The last working day before the Christmas break was 23 December. The following table shows the completion dates actually achieved for laying the Trocal as compared with those shown on the sub-contract programme:

ZONE	PLANNED COMPLETION	ACTUAL COMPLETION	DELAY WEEKS
1.	22.09.97	13.10.97	3
2.	06.10.97	04.11.97	4.5
3.	10.11.97	08.11.97	0
4.	17.11.97	23 11-97	1
5.	24.11.97	03 12.97	1.5
6.	01.12.97	14.01.98	6
7.	08.12.97	23.01.98	6.5
VMU	22.09.97	28.01.98	18.5
Goods In	17.11,97	15.01.98	8.5
Goods Out	10.11.97	11.01.98	9
Goods Auto	24.11,97	28.01.98	9

14. By a proposed amendment to its Statement of Claim, Pitchmastic claimed that it was entitled to an extension of time of 14 weeks 5 days to 21 March 1998 as follows: (a) 12 weeks 4 days (with 4 weeks 6 days concurrent with (b) below) for the storm damage caused during the Christmas break; (b) 7 weeks as a result of the rooflights variation; and (c) 5 weeks all concurrent with (b) above as a result of other pleaded delay and/or disruption Claims (a) and (c) were abandoned during the trial. Claim (b) has been reduced to 6 weeks, and I shall return to it shortly.

15. It follows that, even on Pitchmastic's own case as it has finally crystallised, there was a substantial delay for which it was not entitled to an extension of time. The main thrust of Mr Harding's attack on the counterclaims in respect of disruption and delay is that Birse has not proved that such breaches of contract as were committed by Pitchmastic caused any of the alleged delay and disruption which is the subject of its counterclaims. In these circumstances, I do not find it necessary to examine in detail the reasons why Pitchmastic failed to lay the Trocal in accordance with the sub-contract programme. It suffices if I state the principal reasons in outline.

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16. First, some delay was caused by the suspension of work due to the safety issues to which I have already referred. Secondly, time was lost as a result of poor workmanship and the need for Pitchmastic to rectify defects. Reference was made in the evidence in particular to problems cause by a Mr Moore and his gang, whom Pitchmastic had to dismiss. Thirdly, Pitchmastic did not have sufficient labour resources on the contract. Fourthly, a great deal of time was lost due to bad weather, especially in October and November 1997. Fifthly, progress was delayed because Pitchmastic failed to organise its work properly, so that damage was caused to the roof and productivity was lost. Finally, I should refer to the alleged "storm" damage. The claim for 12 weeks 4 days extension of time under this head has been withdrawn. It is clear that time was lost following the Christmas break in making good the damage that had been caused to the roof during the Christmas break. Pitchmastic claimed £55,756 for the cost of repairing this damage.

17. It is time to turn to consider Pitchmastic's claims.

Pitchmastic's claims

18. Pitchmastic claims that it incurred (a) 6 weeks' additional preliminaries, and (b) disruption costs as a result of complying *with* the rooflights variation. I shall deal with these in turn.

(a) Extended preliminaries: claim for £10,950

19. As I have stated, there were two elements to the rooflights variation: SI 48 whereby Birse instructed Pitchmastic to form the openings and fit the kerbs to the steel purlins; and SI 91 whereby Birse instructed Pitchmastic to fix the plastic rooflights to the kerbs. The valuation of these variation instructions has been agreed in the sums of £41,897.67 and £79,090.37 respectIvely. Pitchmastic's claim is for additional preliminary costs said to have been incurred in complying with these instructions. It has been agreed that Pitchmastic's site costs of preliminaries were £1825.00 per week.

20: This claim is made pursuant to clause 16.3.3.3 of the sub-contract, which provides that in the valuation of any variation, "allowance, where appropriate, shall be made for any addition to or reduction of preliminary items of the type referred to in the Standard Method of Measurement". I was not referred to the Standard Method of Measurement, but Mr Harding did not dissent from the submission of Mr Goddard that preliminary items of the "type referred to in the SMM" are individual items, for example of plant and equipment, associated with the carrying out of particular items of work. I am satisfied that clause 16.3.3.3 is not apt as a peg on which to hang a claim for extended *preliminaries* incurred by reason of prolongation attributable to variation instructions. Such a claim is conventionally made as a claim for loss and expense. No doubt, Pitchmastic would have made the claim under clause 13 of the sub-contract, if clause 13.3.7 had not been varied so as to exclude variation instructions from its ambit. In my view, this claim is a misconceived attempt to circumvent the clear intention of the parties to the sub-contract that Pitchmastic should not be entitled to recover direct loss and expense for the consequences of variation instructions (whether in the shape of extended preliminaries or otherwise).

21. That is sufficient to dispose of this claim. Mr Goddard also submits that the claim should be rejected on the grounds that it has been settled by means of a 15% uplift to the measured value. It is true that a 15% addition was agreed between the parties, but the evidence does not disclose what the 15% represented. Mr Harding submits that it could have been for profit and overheads. I agree with Mr Goddard that it is inherently unlikely that Pitchmastic would have agreed valuations of the variations which included sums for profit and overheads, but not for extended preliminaries. If it were necessary to do so, I would find that the claim has been settled.

22. Although I have rejected this head of claim, it is convenient at this point to consider what delay (if any) to the completion of Pitchmastic's work was caused by the rooflights variation. This will become relevant when I deal with Birse's counterclaims. The claim as originally calculated by Mr Crane, Pitchmastic's planning expert, was for an extension of time of 7 weeks. He took 1.09 man days as a reasonable period for cutting, forming and weathering each rooflight, ie 330 man days for 330 rooflights; and 2 man hours to fix each rooflight, ie 75 man days. This gave a total of 405 man days. On the basis of Pitchmastic's tender resource level of 16 men for this sub-

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contract, these 405 man days would have required 25.3 days, or 5 weeks on the basis of a 5 day week. To these 5 weeks must be added 2 further weeks for the Christmas period: hence the period of 7 weeks.

23. It was accepted by Mr Crane that the 75 man days must be excluded, since the work of fixing the rooflights was carried out by Colt, and not by Pitchmastic operatives. The men who did this work were not part of the assumed 16 man team. He also agreed (as did Mr Evans) that the cutting and Forming took far less time than the weathering of the rooflights. The weathering of the upstand involved tucking Trocal flashing under **the flat** ***Trocal roofing. Mr Crane also*** agreed that about one hour's work per rooflight was reasonable. The cost of the weathering work was recovered separately under site instruction no. 25. Mr Crane accepted that, if one omitted the weathering element, then the rooflight variation appeared to involve about 2.5 days extra work. Mr Harding objected that it was effectively common ground in the pleadings that I man day was reasonably required for cutting, forming and weathering each of the 303 rooflights. He submitted that it was not open to Birse to exclude the time taken for the weathering on the footing that it was the subject of S1 25. 1 agree with Mr Harding that, in considering whether Pitchmastic had grounds for an extension of time beyond 8 December, account should be taken of S1 25 as well as S1 48 and S1 91. The weathering element was clearly the most time-consuming part of the additional work that was introduced as part of, and to accommodate, the rooflights. The problem is to determine what extension of time (if any) was reasonably required to take account of the instructions. The mere fact that an item of additional work takes X man days to execute does not mean that an extension of time based on X man days should be awarded. In the present case, Pitchmastic indicated by programmes DPI and DP3 that it thought it could complete by 8 December taking account of the additional work, and Mr Evans said that he thought that this was achievable. I have not been persuaded by Pitchmastic's evidence that the rooflights variation (including the weathering work) caused more than modest delay (if any). I am certainly not persuaded that this additional work was causative of Pitchmastic's failure to complete its work (at the latest) by 19 December ie. 2 weeks after the sub-contraet completion date of 8 December.

(b) Disruption: claim for £25,502.

24. As originally formulated by Pitchmastic, the claim for lost productivity in the laying of the Trocal attributable to the rooflights variation was assessed on the basis of 23m2 per man day, being the difference between a tender allowance of 70m2 and an actual output of 47m2. Mr Crane did not feel able to support these figures. He calculated that the average actual output was 38m2, and estimated that 60m2 was the best that Pitchmastic could reasonably achieve without the rooflights, taking account of its own inefficiencies and the **exigencies of** the weather. He refined these figures further in his Note dated 13 March 2000. In this Note, he reaffirmed the average actual productivity of 38m2, but also dealt with the question of weather. According to his evidence, the records show that an average of 50% of working time was lost to the weather. If time lost *by reason of the* weather is taken out of the picture, the average productivity achieved by Pitchmastic was 81 m2

25. Mr Crane said that a tender rate of 60m2 per man day was reasonable, but it was not possible from the records to say what allowance Pitchmastic had actually made for Labour productivity in laying Trocal. In particular, he could not say what allowance had been made for bad weather. This is an important gap in the evidence. If the allowance made for weather in the tender was as little as 25%, that would have been a serious underallowance in the events that occurred, which alone would have accounted for the shortfall between the average output achieved (38m2) and the assumed **reasonable tender** allowance of 6Om2.

26. Mr Crane, therefore, calculated the cost to Pitchmastic of the disruption caused by the rooflight variation as 311 man days, being the difference between the number of man days on the basis of an output of 38m2 and an *output of 60m2 per man per* day. Applying the agreed cost of £82 per man day, Mr Crane reached a figure of £25,502.

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27. Mr Crane admitted that, although he had made what he considered to be a reasonable **allowance for the effects of** bad weather on productivity, he had made no allowance for any other disrupting factors which may have affected Pitchmastic's progress. For the reasons mentioned earlier, there were significant other such factors. I am not satisfied that Pitchmastic has proved that it suffered any additional costs by reason of disruption as a result of the rooflights variation. Indeed, Mr Crane's calculation of an average output of 81 m2 (if weather is left out of account) suggests that that the roof lights variation did not in fact cause any disruption. Even if I were, however, to be satisfied that it did suffer some disruption, I would find it quite impossible on the material before me to quantify it. In the **absence of** evidence as to **what allowance was** included in the tender for loss of output due to bad weather, any allowance that I would assess would be a guess. Even more problematic is the fact that Mr Crane has not made **any allowance** for the other disrupting events. The consequences of the "storm" damage alone are highly significant. Much time and labour costs were incurred in rectifying this damage. The time spent in doing this work should have been excluded from Mr Crane's calculation. The same point can be made in relation to the other time spent by Pitchmastic's labour unproductively on this project as a result of its own inefficiencies.

28. For these reasons, I reject this claim.

The Birse counterclaims

29. Birse contends that the delays by Pitchmastic caused delay and disruption to the progress of the works as a whole, and in particular caused *other* sub-contractors to suffer disruption and delay to the progress of their works, A number of sub-contractors made claims against Birse. These have now all been settled. Birse now seeks reimbursement from Pitchmastic of sums paid in respect of these sub-contractors' claims. 1n addition, Birse claims damages in respect of certain items that it alleges were physically damaged by reason of breaches of contract by Pitchmastic. It is to these claims that I must now turn.

(a) Essex Electrical PLC <u>Prolongation.</u>

34. Essex was the electrical sub-contractor. Its sub-contract period was 2.4 weeks. The original start date for its work was 15 September 1997, with a completion date of 27 February 1998. In fact, Essex started 2 weeks earlier on 1 September, and completed on 24 April ie 8 weeks later than the original completion date, or 1 0 weeks later **if full** account is taken of the earlier start date. In its original claim, Essex alleged that it was entitled to 14 or 15 weeks extended costs. The whole of the claim by Essex (including the claim for disruption to which I shall come) was eventually settled in the sum of £140,000.

    It seems that there was no agreed split of the figure of £140,000 as between prolongation and disruption costs. It has been agreed before me, however, that a reasonable sum for Essex' preliminaries is £7272.59 per week. Birse say tHat Essex was reasonably entitled to payment of 8 weeks' extended preliminaries ie £58184.72. Pitchmastic contends that the true figure should be based on 3.5 weeks' preliminaries. There is no agreement as to whether any part of the preliminaries to which Essex is reasonably entitled is attributable to breaches of contract by Pitchmastic.

31. Birse contends that the 8 weeks' prolongation of the Essex sub-contract was caused by Pitchmastic 's failure to complete the Trocal laying in accordance with the Pitchmastic sub-contract programme. Birse's argument runs as follows, All or at any rate part of the Essex work could not be carried out until the blockwork had been completed. The blockwork could not be started until the ground floor slab had been completed. The slab could not be cast until the Trocal in the area above the slab had been laid. Accordingly, in any given area, the completion of the laying of the Trocal was critical to a sequence of activities culminating in the installation of the services. If there was a delay to the Trocal, that would be likely to cause delay to all the following trades to which I have referred, including the services work.

32. It is Birse's case that delay by Pitchmastic particularly in carrying out the Trocal work in zone 7 of the warehouse and in the VMU caused delay to the slab, block-work and in turn to the

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services. In summary, this allegation lies at the heart of the claim for the cost of 8 weeks' prolongation costs paid by Birse to Essex.

The warehouse

33. It is now necessary to examine the facts. I start *with the* warehouse. The critical relevant relationship is that between the roofwork and casting the ground floor slab. As we have seen, the Trocal was planned to *be completed in* zone 7 on 8 December 1997, and it was not in fact completed until 23 January 1998. The ground floor slab was planned to be completed on about 23 November, and it was not in fact completed until 23 December. The evidence of Mr Ward, who was Birse's Project Manager, was this. It was decided to construct the slab in zones 2 to 7 under the decking alone, but the decision to allow the slab to proceed before the Trocal had been laid was only taken after agreement had been reached between Birse and Pitchmastic that Pitchmastic should provide temporary gutters and manage the water during the carrying out of the works so as to prevent it from entering the building. In fact, Pitchmastic did not manage the water effectively, and there were serious problems of water ingress (see further paragraphs 58 and 63 below). Mr Ward said that one of the effects of the water ingress was that the floor slab programme was changed so that it would be poured following the completion of the Trocal in each zone. This change of sequence was not carried into effect in part of zones 6 and 7, where Mr Ward says "we were forced to pour under an incomplete roof'. Mr Ward explains that the reason why it was decided to take this course was because the Christmas break was imminent, and it was essential to complete the slab before the break. The laser *screed* machine was booked to another contract in the New Year. Mr Ward regarded this as a risky course to adopt, and so it proved to be, because an area of the slab was damaged by water ingress. The progrannme D Ward/2 was produced by Mr Ward and was accepted by both parties as accurately representing the planned and actual programming of the slab and roof work. This programme shows in zones 1,2 and 3 (both as planned and as carried out) the **concrete slab starting after** a start had been made on the Trocal. It also shows in the remaining 4 zones a divergence between what was planned and what actually occurred. Thus in zones 4, S, 6 and 7, the slab is shown as planned to start before the start of the Trocal, but actually starting after the start of the Trocal,

34. But the reason why the slab in the warehouse was completed 4 weeks later than programmed is not to be found in the events of December. The ground floor slab programme showed the 7 zones being started and completed one week at a time in successive weeks between the week commencing 13 October and the week commencing 17 November. What in fact happened was that the slab in zone 1 was started and completed one week later than planned ie in the week commencing 20 October. Then there was a 4 week gap. The slab in zone 2 was started and completed during the week commencing 17 November. The remaining slabs were started and completed one slab per week in successive weeks between week commencing 24 November (zone 3) and week commencing 22 December (zone 7). Thus there was *an overall* delay of 5 weeks to the slab works, but the main delay was the 4 week hiatus in the work between the week beginning 20 October and the week beginning 17 November.

35. Was this delay caused by Pitchmastic? It will be recalled that the completion dates actually achieved for the Trocal laying in the first 4 zones were 13 October (zone 1), 4 November (zone 2), 8 November (zone 3), 23 November (zone 4). There is evidence that Birse was expressing concern to Pitchmastic in mid-October about the effect of its progress on the programme for the slab. Indeed, Mr Mayall, Pitchmastic's managing director, said that he was told that Pitchmastic's lack of progress might be delaying the floor slab sub-contractor.

36. I find that the reason why the slab in zone 2 was not laid as programmed in the week commencing 20 October was that the laying of the Trocal in that area was not completed until 4 November, ie during the week commencing 3 November. It might be said that this would not explain why the slab sub-contractor (Stuarts Industrial Flooring Limited) did not start in the week commencing 10 November, I heard no evidence on this point. I do not, however, find it surprising that, once the smooth flow of slab work was interrupted and Stuarts had left the site, arrangements could not be made for them to return to site immediately work was available. It

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was obviously sensible that Stuarts did not remain on site after laying the slab in zone 1, incurring costs, When Stuarts returned to site on 17 November, they were unable to resume work until 20 November for reasons for which Pitchmastic was responsible (see paragraph 59 below). I conclude, therefore, that Pitchmastic was responsible for the failure of Stuarts to complete the slabs to all zones in the warehouse until 23 December.

37. Work resumed in the warehouse after the Christmas break. The next relevant trade was the blockwork, which was undertaken by M .Bliss Subcontract Brickwork Limited. The blockwork in zones 5,6 and 7 remained to be done. Bliss started work on 12 January, and completed 6 weeks later on about 24 February. It is difficult to determine how much time the Bliss sub-contract programme allowed for the blockwork in these three zones. The whole period allowed for the warehouse was 11 weeks, but there was very little blockwork in zone 7. Doing my best, I assess the period allowed for zones 5, 6 and 7 as four weeks. Mr Ward accepted that there was no reason why Bliss could not have started on 5 January. The correspondence suggests that there were several reasons why Bliss proceeded slowly. These included problems in relation to steelwork and windposts. Mr Goddard points out that Bliss was doing work in some of the Pod buildings during January and February, and suggests that this was a further reason why Bliss took so long to do the blockwork in zones 5, 6 and 7 of the warehouse. But the Bliss programme always envisaged that Bliss would work concurrently in the warehouse and some of the Pod buildings. I find that there was a delay of 3 weeks to the Bliss work in zones 5, 6 and 7 which was not attributable to Pitchmastic: 1 week for the delayed start, and 2 weeks because the work lasted 6 instead of 4 weeks. Mr Harding submits that Bliss could and should have started (and finished) the blockwork in zones 5 and 6 before Christmas, Mr Ward explained that the floor slab would sterilise any given area for about 3 weeks before blockwork could begin. This was the time required for preparation, pouring and curing of the slab. I see no reason to reject this evidence. The fact is that, as I find, but for delays on the part of Pitchmastic, the floor slab in the warehouse would have been laid in sufficient time to enable Bliss to complete the blockwork before Christmas.

38. I turn now to consider the position with regard to Essex. The Essex programme showed completion of its work on 27 February, one week after Bliss completed its work in the warehouse. In fact, Essex achieved completion of its work on 24 April, 8 weeks later than required by its programme. If Bliss had completed its work three weeks earlier than it did (on about 30 January), then Essex ought to have been able to complete its work three weeks earlier than it did. It was not suggested that Essex failed to proceed with reasonable expedition with its work. I would, therefore, ascribe 3 weeks of the delav suffered by Essex to Bliss, and the balance of 5 weeks to Pitchmastic

39. I conclude, therefore, that 5 weeks of the prolongation costs paid by Birse to Essex were caused by the delay to the blockwork in the warehouse. which in turn was ultimately caused by delays on the part of Pitchmastic . The sum recoverable under this head is therefore £36362.95 . I have endeavoured to explain how I arrive at this conclusion. I should say that I heard a great deal of evidence from Ilr Ward and Mr Crane about difFerent programmes. Some of it was of a somewhat theoretical nature. I hope that I will be forgiven if I do not burden this long judgment with a detailed critique of this evidence.

The VMU Building

40. I turn to consider what happened in the VMU. The position here is that the Trocal was completed on 28 January 1998; work on both the slab and block-work started in the week commencing 9 February and was completed on 27 February; and Essex started work in the week commencing 2 March, and completed its work on 8 May. I have already referred to the evidence of Mr Ward as to why he said it was decided not to pour the concrete slab until the Trocal was completed. This sequence was reasonable in the light of the water ingress problems that had occurred. Mr Ward said that the slab in the VMU building was of a high tolerance and susceptible to water damage, and that the blockwork was fairfaced and painted. He explained that this is why neither the blockwork nor the slab should be executed prior to the completion of a waterproof roof. I accept that this was a reasonable view to take.

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41. The programme requirements for the relevant elements of work in the VMU building were as follows. The Trocal was to be carried out during the week commencing 15 September, the week after the date for fixing the decking. In fact the decking was not fixed until the week commencing 10 November. The slab was to be laid between the week commencing 20 October and 17 November. The blockwork was to be done between the week commencing 24 November and the week commencing 15 December. Finally, the Essex programme showed a period between the week commencing 15 December and the week commencing 16 February for its work. I am in no doubt that Pitchmastic ought to have completed its work in the VMU building well before Christmas. The reason why it failed to do so was not that it was prevented from doing so by reason of the state of progress in the VMU. It was because, with some encouragement from Birse, it diverted its ***limited resources from the*** VMU to the warehouse. It was felt that the potential exposure to claims by others for disruption and delay in the warehouse was far greater than it was in the VMU.

42. I find, therefore, that Pitchmastic was in serious delay in completing the Trocal in the VMU building, and that it was reasonable for Birse to decide not to allow the slab and other dependent activities to proceed until the Trocal was in place. How much delay was caused as a result to Essex? I note that there was an interval of 2 weeks between the completion of the Trocal and the start of the slab. This delay has not been explained. In view of the considerable loss of time that had been suffered, it was incumbent on Birse to arrange for Stuarts to resume work as soon as possible. I would exclude this 2 week period from the computation of any delay in the Essex work for which Pitchmastic is to be held responsible. Next, it is unclear why Essex could not have started its work before Bliss had completed the blockwork. It is true that the programme showed Essex starting after all the blockwork had been completed. But in view of the delay that had already occurred, there was an obligation on Birse to explore ways of retrieving any lost time. I have not been persuaded that the delays by Pitchmastic caused Essex any greater delay than were caused by Pitchmastic's delays in the warehouse. The 8 week period claimed by Birse in relation to the VMU coincides with the 8 week period claimed in relation to the warehouse. Taking account of the two factors to which I have just referred, I would reduce the period in respect of the VMU by 3 weeks. I do not think that the evidence justifies a finding of more than 5 weeks' extended prelirninaries in relation to the VMU.

43. My overall conclusion on the Essex claim for prolongation costs, therefore, is that Birse is entitled to £36,362.95

Disruption.

44. Essex claimed a sum in excess of £250,000 for disruption, based on the difference between the number of man hours allowed in its tender and the number of hours actually worked. The factors *relied on by* Essex as having caused disruption were the same as those relied on in support of its prolongation claim. Mr Austin negotiated the settlement of this head of claim with Essex. He agreed a round figure of 25% of the sums claimed, £58,284,85, Birse claim that this was a reasonable settlement sum.

45. I am satisfied that Essex did suffer disruption to the progress of its work which, in the nature of things, must have caused it to incur additional expense, and that the poor performance by Pitchmastic caused some of that disruption. The problem *is: how much?* Mr Austin negotiated the settlement with Essex. The figure at which he agreed to settle the claim by Essex for disruption was for all disruption suffered by Essex for which {as between Essex and Birse} Birse was contractually responsible. Having heard Mr Austin give evidence, and having been shown numerous documents which indicate that Essex did indeed suffer considerable disruption on this project, I am satisfied that the settlement sum was a reasonable one for Birse to pay. In arriving at this settlement figure, Mr Austin did not agree any apportionment with Essex as to the various causes of the disruption. This is understandable. In these proceedings, Birse contends that the whole of the disruption suffered by Essex was caused by Pitchmastic .

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46. I do not consider that Pitchmastic caused all the disruption suffered by Essex. The Essex claim made in July 1998 identified 13 events which it alleged had delayed and disrupted its work. By no means all of these could be attributed to Pitchmastic . I refer, for example, to obstructions in the underground cable ducts in the North Car *Park, late* preparation of ground work, late construction of LV switchroom and Transformer and Generator Plinths. Of particular importance is the issue of variation instructions. In its response to the claim by Essex, Birse said that it did not accept that the effect of the variations on the progress and completion of the Essex works was "relatively insignificant". The value of these variations was about £900,000. In his evidence, Mr Ward said that this response exaggerated the effect of these variations, since most of them were scheduled to be carried out after the completion of the project.

47. I find it very difficult to assess the contribution made by Pitchmastic to the Essex disruption. I am, however, satisfied that it was a very significant contribution. Many of the events retied on by Essex in its claim documents were attributable to fault on the part of Pitchmastic . There are many references in the documents to Essex having been disrupted and delayed by matters for which Pitchmastic were responsible. I include in these delays to the slab and blockwork, since, for the reasons given earlier, I consider that Pitchmastic was responsible for these to a considerable extent.

48. On the footing that £68,285 was a reasonable settlement figure of the whole disruption claim, can I assess the proportion of that figure that should be attributed to Pitchmastic? In view of the paucity of evidence that has been placed before me, I think that I should err on the side of caution. I strongly suspect that Pitchmastic was responsible for substantially more than 50% of the disruption caused to Essex. I am satisfied that if I award Birse £25,004 under this head, I will not be over-compensating there for the consequences of Pitchmastic's breaches of contract.

(b) Mellor Bromley Limited

49. Mellor Bromley was the mechanical services sub-contractor. Its original claim was for £45,528 on the basis of 12 weeks' prolongation costs at £3744 per week. Mr Austin negotiated a settlement of this claim in the sum of £34,061.40, on the basis of 12 weeks' prolongation costs at the rate of £2838.42 per week. It is common ground that a weekly rate of £2838.42 is reasonable. The issues relating to this claim are for all practical purposes the same as those raised in respect of the Essex claim. This is because all the services works were programmed to be carried out at more or less the same time. No separate arguments have been raised, nor separate evidence adduced (save in relation to the amount of the weekly costs). For the reasons given in relation to the Essex prolongation claim, I propose to award 5 weeks' additional preliminaries under this head: that is 114,192. 14.

(c) Hall and Kay Fire Engineering Ltd

50. Hall and Kay was the sprinkler installation sub-contractor. Its prolongation (originally for £14,005) was settled by Birse in the sum of 13 211 It is common ground that a weekly rate of £356.78 is reasonable. The issues relating to this claim are the same as those raised in respect of Essex and Mellow Bromley. I award £1783.90

(d) M Bliss Subcontract Brickwork Limited

51. Bliss was the brickwork and brockwork sub-contractor. The amended programmed start date for the Bliss sub-contract was 6 October 1997, and the completion date 19 December. The work was not in fact completed until 24 February 1998. Bliss made a claim against Birse. It sought recovery of 21 weeks' extended preliminaries at 14014 per week as well as other heads of loss which it claimed to have suffered. A settlement of this claim was negotiated by Mr Austin. There is uncertainty as to what the settlement figure was. It comes about in this way. The Bliss final application was in the sum of £360,734. This included a claim for loss and expense in the sum of £62,511.98. This comprised £35,090 for prolongation costs on the basis of an overrun of 16 weeks, and the balance was for the cost of inflation mainly on labour costs.

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This figure of £350,734 was reduced by agreement to £325,135. The difference between £360734 and £325,135 is £35599. It is clearly important to know what this reduction of £35599 represented. If it was a reduction of the claim for loss and expense, it must be taken into account in the current proceedings, but not so if it was a reduction of the measured account. The problem is that there is no documentary material which indicates the position either way. Mr Austin said that he considered that the reduction was in relation to the measured account, since the loss and expense had already been agreed. But it transpired that all that had been agreed was the weekly rate for preliminaries, and not the number of weeks. Mr Austin was not able to identify the measured work items which were the subject of the alleged reduction in the measured final account. Moreover, it is inherently far more likely that the reduction was in respect of the notoriously contentious question of the value of a claim for loss and expense than in respect of the measured account. For these reasons, I am not prepared to find that any part of the reduction was in respect of the measured account. The burden is on Birse to prove its counterclaim. In relation to this part of this head of loss, Birse must prove that the reduction was in respect of the measured account. It has failed to do so. The maximum value of this head of the claim is, therefore, £62,511 less £35599 = £26912.

52. Subject to two points, Mr Crane agreed with Mr Ward that Bliss was entitled to 8.5 weeks extended costs by reason of the delays caused by Pitchmastic. The first of Mr Crane's reservations was that ***what he*** called the "logic link" between the roofing, slab and blockwork was not demonstrated by the Birse contract programme. For the reasons given earlier when I discussed the delay to the Essex work, I am satisfied that the intended sequence of work was Trocal, slab, blockwork, and that, in the events that occurred, this was a reasonable sequence for Birse to adopt. Mr Crane's second reservation is what he calls "concurrency". By this, I think he meant that, in assessing the delay caused to Bliss by Pitchmastic , account should be taken of other factors which concurrently caused the same delay. But I am satisfied that even if Pitchmastic was not the sole cause of the agreed delay of 8.5 weeks, it was an effective cause of it, and that is sufficient. I did not understand Mr Harding to take issue with the proposition that it would be sufficient if' it were proved that Pitchmastic was an effective cause of delay.

53. It follows that Birse would be entitled to 8.5 weeks preliminaries in respect of the delay caused to Bliss. The sum is 8.5 x 2609 = £22,176.50.

54. There remains the question of the other head of the claim for loss and expense made by Bliss, namely the uplift for inflation on labour costs. The sum of £25,172 was claimed under this head. Mr Austin agreed that no deduction from these inflation costs had been made in respect of the 6 weeks period of delay, which he accepted were not attributable to Pitchmastic . Mr Harding has produced what I accept to be a reasonable calculation reducing this claim pro rata to the **reduced value of the** preliminaries. His figure is £6456. Since the maximum that Birse can recover in respect of the Bliss loss and expense claim is £26912, and since I have already assessed the claim for 8, 5 weeks' preliminaries as £22176, all that is required is that I should be satisfied that the value of the inflation costs claim that can be attributed to Pitchmastic exceeds £4736. I am satisfied that it does.

55. Accordingly, I award Birse £26912 under this head.

(e) F K Roofing Roofing Services Limited

56. F K Roofing was the wall cladding and parapet sub-contractor. It claimed £25,$36.41 from Birse in *respect* of loss and expense. This claim was settled by Mr Austin in the sum of £16,0$0.45 on the basis of 16 weeks' extended site preliminaries Birse also agreed to pay 0211,77 disruption costs recorded on variation orders 10,1 1 and 13. It is agreed between Birse and Pitchmastic that F K Roofing was entitled to 7.5 weeks extended preliminaries, but here too there is no agreement as whether any part of this is attributable to Pitchmastic. Mr Ward conceded during his evidence that the only connection between **the wall cladding** work and the roofing work was at the parapet capping. The only part of F K Roofing's work that could be delayed by Pitchmastic was the parapet capping. It is clear that the reason for the delay to F K Roofing's

works was not Pitchmastic's performance. Other factors are referred to in the documents, such as delays to the steelwork and additional work. I award Birse nothing in respect of delay to F K Roofing.

57. As for the disruption costs of 13211, 1 do not feel able on the material before me to reach a conclusion on this head of claim. Accordingly, I reject it.

(f) FullflowLimited

58. Fullflow was the syphonic drainage sub-contractor_ The syphonic system outlet was to be fixed to the roof on top of the Trocal. Until the outlets were fixed, Fullflow could not complete its connection of the drainage pipework to the outlets. Fullflow made two modest claims against Birse. The first was for £3587 for the loss of production on the grounds that insufficient working areas were made available by Pitchmastic. The second was for £4795 for the cost of remedial works to damaged and blocked gutters. The damage was caused, at least in part, by Pitchmastic operatives. The syphonic drainage was blocked by the rubbish and debris which Pitchmastic allowed to accumulate on the roof. These claims were the subject of evidence given by Mr Ward and Mr Austin. I accept their evidence. The *two claims were* reduced somewhat by negotiation to a total of £7823. 1 award Birse this sum.

(g) Stuarts Industrial Flooring Limited

59. It is common ground that Birse has paid Stuarts £14297.86 and it is accepted by Pitchmastic that Birse was liable to Stuarts, and that the sum paid was reasonable. There is an issue as to whether Pitchmastic has any liability. The sum that has been paid comprises three elements, The first is £6000. When Stuarts arrived on site on about 17 November 1997 to start work in zone 2, they were held up for 3 days because the Pitchmastic roofing was leaking rainwater badly from gridline 45 southwards into the area where Stuarts were to start work. The sum paid represented the cost of 3 days' hire of the specialist plant that Stuarts required to carry out their work, and approximately 20 men being on site and unable to do any work,

60. The second is £5000. This was for the cost of (a) breaking out and replacing 40m2 of slab, which was damaged by water emanating from roof level, and (b) other work carried out to the slab to repair surface damage caused by water leakage. The water damage was caused by leakage from the roof valleys on the left hand side of zone 7.

61 The third element is £3297_86. This was in respect of a delay of 2 *days suffered by* Stuarts. Once again the problem was one of water damage. Stuarts had prepared an area to lay concrete. Rainwater got into the warehouse, and damaged the stone foundation. The stone had to be replaced and recompacted. This operation took 2 days, and caused 2 days delay to Stuarts. There was no other work for them to do.

62 I accept the evidence of Mr Austin in relation to these claims, and find each of them to have been proved. Accordingly, I award £ 14297, 86.

(h) Sinbad Limited

63. It was Birse's intention to backfill the area around the dock levellers with as-dug material which had been stored inside the building in 2 stockpiles at about gridline 48 in zone 4. They were stored about 7 or 8 metres in from the perimeter of the building. In early December, it was discovered that about half of this material could not be used because it had become saturated as a result of the ingress of water. The agreed reasonable cost of replacing this material was £35117.66. In addition, some previously consolidated hardcore was found to be saturated and it too had to be replaced. The agreed reasonable cost of replacing this material was £3496.72. The remaining limb of this head of claim is for £1154.50 in respect of retrimming costs of the stone formation prior to the concreting of the floor slab. On behalf of Birse, Mr Austin claims that these problems were caused by Pitchmastic's failure (a) to ensure that the roof construction was made watertight when planned, and (b) to effect water management in accordance with its contract. It had been agreed between Pitchmastic and Birse that Pitchmastic would be excused the obligation to instal temporary gutters round the perimeter of the roof, provided that they enlarged the valley gutters, and installed outlets that were to be fixed to temporary pipes that were to be connected to the permanent drainage. Mr Austin says that this temporary piping

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operation was not carried out by Pitchmastic, or at least was not carried out properly. The result was that water accumulated in the valley gutters and either leaked through the gutters, or ran down their length and flowed over their ends Either way, substantial water ingress resulted.

64. Mr Ward attributes the saturation of the hardcore solely to the fact that the excavated material was left exposed to the elements for longer than it should have been. He does not say that a failure to manage the roof water contributed to the problem. As Mr Harding points out, Pitchmastic applied the decking in zone 4 on time. The Trocal was laid in zone 4 only 1 week later than required by the contract programme. I accept, therefore, that the problem was not caused by a failure to apply the decking or Trocal in due time. It is a striking feature of the evidence on this part of the case that Mr Ward did not mention the part played by the alleged failure to manage the water, although it is assumed that he was aware that Mr Austin was saying in his witness statement that this was a cause of the problem. I conclude that it was not an oversight on the part of Mr Ward that he failed to mention water management in this context. Mr Ward was the Project Manager and must have had a more direct and better knowledge of what happened on site than Mr Austin, who was the Senior Project Quantity Surveyor. For this reason I do not feel able to accept Mr Austin's water management explanation. In the course of his cross-examination, Mr Ward said that the hardcore was exposed to the elements for 3 or 4 weeks longer than it should have been because the decking at zone 4 was not properly weatherproofed. I take this to mean that the Trocal was not applied properly. There is probably a reflection of the same or a similar point at paragraph 45 of Mr Austin's Supplemental Statement, which says. " As a consequence of the roof construction not being watertight when planned and the rooflights and smoke vents not being fixed in a methodical sequenced manner and ... rainfall which fell on to the roof ended up within the warehouse ...".

65. It is suggested by Mr Harding that the material was saturated by rainwater being driven in from the sides of the building, which *at the material time was* still open to the elements. It seems to me that this is a most unlikely explanation. There would have had to be a most extraordinary combination of heavy rain and driving winds to saturate material stored 7 or 8 metres away from the perimeter of the building. Nor is there any evidence that this is what happened. It seems to me that a far more likely explanation is that the water penetration was through the roof in the way explained by Mr Ward in his evidence. I have seen a video taken on various days in late 1997 and early 1998. This shows that there were great pools of water lying on the floor well away from the perimeter. There was evidence that the weather was particularly wet in the autumn of 1997. 1 find, therefore, on the balance of probability that Birse has made out its claim in relation to the backfill and hardcore.

66. The remaining limb of this head of claim is for £1154.50 in respect of retrimming costs of the stone formation prior to the concreting of the floor slab. It is said by Birse that this work was rendered necessary by water ingress from the roof in November and December 1997. It seems likely that this work was required for the same reasons as the need to replace the hardcore. It is not to the point (even if true) that the trimming and stone formation work was programmed to be carried out before the roof. The question is whether the costs were incurred as a result of fault on the part of Pitchmastic.

67. Accordingly, this head of claim succeeds, and I award £39,767.86.

0) Colt International Limited

68. Colt supplied the rooflights and smoke vents. They were purchased by Birse, who arranged for them to be delivered by Colt to Pitchmastic. It was Pitchmastic's responsibility to hoist them up to roof level and fix them to the prepared upstand kerbs. It is common ground that Birse has paid £12,565. 95 to Colt for 7 replacement rooflights, and for the cost of repairing damaged rooflights and smoke vents. There is no dispute that Birse incurred this expenditure, or that the expenditure was reasonably required Birse contends that Pitchmastic was responsible for the

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fact that 7 rooflights went missing and had to be replaced. Tt is also Birse's case that the damage was caused by carelessness in the hoisting of the items up to roof level, and/or poor storage methods.

69. It is common ground that most of the damage was caused during the Christmas break by what Pitchmastic contended was a "storm" within the meaning of the sub-contract. This contention has now been withdrawn. Mr Harding submits that it is not apparent on what contractual basis Birse claims to be entitled to charge Pitchmastic for the cost of replacing items which it (Birse) was not obliged under the sub-contract to replace. It is not necessary to decide who owned the items that were damaged at the time when the damage occurred. If the property had not passed to Pitchmastic, then it remained **in Birse, and on** this basis, the real question would be whether the damage was caused by negligence or breach of contract on the part of Pitchmastic If (as I would hold) it was, then Birse would be entitled to recover the cost of replacing and repairing the damaged items. If it was not, then presumably the property had passed to *Pitchmastic, since* the items had not yet been fixed. In that event, the risk of damage lay with Pitchmastic, and Birse would be entitled to recover the cost of repair and replacement from Pitchmastic in restitution.

70. Whichever is the correct analysis, it seems to me that this is a good claim. I award Birse the sum claimed of £12,656.95

Birse uplift

71. Birse seeks what Mr Goddard calls a "modest" percentage to be applied to the total of the other claims that I have awarded to cover its own costs for overheads and profit. Mr Austin contends for 4.79% for head office overheads, 6.43% for site overheads, and 0.76% for profit. The first and thirst of these percentage figures are derived from the company accounts. I reject this claim. There can *be no* question of awarding anything for loss of profit. The cost of negotiating and settling these claims has not caused any loss of profit. Nor is there an entitlement to recover overheads. Any contractor must be taken to include in his tender price an element to reflect the cost that is likely to be incurred in settling accounts and claims by sub-contractors against it, as well as settling accounts and claims made b_v it against the employer. This is part of a contractor's life. In an exceptional case, he may be able to show that he has incurred exceptionally heavy costs in meeting claims by X as a result of the breach of contract by Y But that would have to be demonstrated, and the additional costs proved. Simply to apply a percentage figure to the amounts at which the sub-contractors' claims are eventually settled is wholly arbitrary and unacceptable. In my view, Birse has not proved any loss under this head.

Conclusion

72. In the result, and excluding any award for interest, the effect of my judgment is as follows. Pitchmastic's claim succeeds to the extent of £108,338.46.

73, Birse's counterclaim Essex:

Mellor Bromley: Hall & Kay: Bliss:

Fullflow: Stuarts: Sinbad: Colt:

succeeds to the following extent: 61362.95

14192.10 178390 26912 7823 14297.86 39767, 86 12656.95

Total: £178796.62

Richard HARDING (instructed by Messrs Nabarro Nadtanson for the Claimants) Andrew GODDARD (instructed by Messrs Masons for the Defendants)

JUDGMENT HIS HON MR JUSTICE DYSON : I direct pursuant to CPR Part 39 PD 6.1 that no official shorthand note shall be taken of this judgment and that copies of this version, subject to editorial corrections, may be treated as authentic.

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