

**VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL**

**CIVIL DIVISION**

**BUILDING AND PROPERTY LIST**

**CATCHWORDS**

Timber and bamboo flooring in two homes damaged by reason of moisture ingress. Dispute between builder and flooring sub – contractor as to cause of, and responsibility for, the damaged flooring. Sub – contractor’s further claim for money owed.

VCAT Reference No. BP 450/2015

**APPLICANT** SBG Building Group Pty Ltd (ACN 136 789 841)

**RESPONDENT** Mr Brian Medler t/as MI Property Services

VCAT Reference No. BP 1050/2015

**APPLICANT** M.I. Property Services

**RESPONDENT** SBG Building Group Pty Ltd (ACN: 136 789 841)

**WHERE HELD** Melbourne

**BEFORE** Senior Member Farrelly

**HEARING TYPE** Hearing

**DATE OF HEARING** 5 May 2016 and 25 May 2016

**DATE OF ORDER** 8 June 2016

**CITATION** SBG Building Group Pty Ltd v Brian Medler (Building and Property) [2016] VCAT 934

**Findings**

In proceeding BP 450/2015, the tribunal finds the respondent, Mr Medler, liable to the applicant, SBG Building Group Pty Ltd, for damages assessed at \$12,611.50.

In proceeding BP 1050/2015 the tribunal finds the respondent, SBG Building Group Pty Ltd, liable to the applicant in the sum of \$23,234.37.

After setting off these sums, the tribunal orders:

## **ORDERS**

### **PROCEEDING BP450/2015**

1. Costs reserved with liberty to apply by not later than 8 July 2016. Any application for costs shall be listed for hearing before Senior Member Farrelly with 90 minutes allocated. If no application is received by 8 July 2016, there will be no order as to costs.

### **PROCEEDING 1050/2015**

1. The respondent, SBG Building Group Pty Ltd, must pay the applicant, Mr Medler, \$10,622.87.
2. In addition, the respondent, SBG Building Group Pty Ltd, must also pay the applicant, Mr Medler, interest in the sum of \$894.60.
3. Costs reserved with liberty to apply by not later than 8 July 2016. Any application for costs shall be listed for hearing before Senior Member Farrelly with 90 minutes allocated. If no application is received by 8 July 2016, there will be no order as to costs.

## **SENIOR MEMBER M. FARRELLY**

### **APPEARANCES**

#### **BP450/2015**

For Applicant

Mr D. Pumpa of Counsel

For Respondent

Mr B. Medler in person

### **APPEARANCES**

#### **BP1050/2015**

For Applicant

Mr B. Medler in person

For Respondent

Mr D. Pumpa of Counsel

## REASONS

- 1 SBG Building Group Pty Ltd (“SBG”) is a builder in the business of constructing homes. Brian Medler, trading as “MI Property Services”, is in the business of supplying and installing timber flooring. SBG and Mr Medler have had a working relationship extending back approximately 10 years. In that period, Mr Medler has been engaged many times by SBG to supply and install timber flooring to homes being constructed by SBG.
- 2 SBG and Mr Medler are in dispute over the flooring supplied and installed by Mr Medler in 2 homes constructed by SBG.
- 3 One of the homes is located in Alice Mary Road, West Cranbourne, Victoria (“the Alice Mary home”), where Mr Medler supplied and installed spotted gum timber flooring in September 2013, and subsequently sanded and varnished that flooring in around early December 2013. SBG paid Mr Medler \$13,307.25 for the works.
- 4 The other home is located in Limeburner Grove, Botanic Ridge, Victoria (“the Limeburner home”), where Mr Medler supplied and installed bamboo flooring in around May 2013. SBG paid Mr Medler \$12,722.60 for those works.
- 5 The contract between SBG and Mr Medler for each of the flooring jobs was verbal. Having worked together for around 10 years, the parties were familiar with each other’s practices. SBG asserts, and Mr Medler accepts, that each of the contracts - to supply and install the flooring - carried implied terms that the materials supplied would be fit for purpose and that the services would be rendered with due care and skill.
- 6 In each home, the flooring was “direct stuck” to the concrete slab. That is, after a moisture/vapour barrier had been applied to the surface of the slab, the flooring was glued to the sealed slab surface.
- 7 Several months after the installation of the flooring in each of the homes, the floors began to “cup” or “peak”. The cupping/peaking steadily grew worse and, ultimately, SBG engaged a different flooring contractor, R&C Homes & Extensions Pty Ltd (“RC Homes”) to replace the flooring in each of the homes. At the Alice Mary home, the spotted gum timber flooring was replaced with new spotted gum timber flooring. At the Limeburner home, the bamboo flooring was replaced with spotted gum timber flooring.
- 8 SBG says that Mr Medler bears responsibility for the defective flooring, and that he is liable to SBG for the cost of replacing the flooring in each of the two homes. In respect of the Alice Mary home, the sum paid by SBG to RC homes was \$31,493. In respect of the Limeburner home, the sum paid by SBG to RC Homes was \$25,223. In proceeding BP 450/2015, SBG claims the total of these two sums, \$56,716, plus interest and costs.

- 9 There is no dispute that the cupping and peaking to the flooring in each of the homes is primarily the result of the floorboards expanding because of moisture ingress into the floorboards. Mr Medler says that the moisture ingress is the result of the concrete slabs taking on higher than acceptable levels of moisture after the floorboards were laid, such excessive moisture then migrating from the slabs into the floorboards. Mr Medler says that he is not responsible for the excessive moisture arising after the flooring was laid.
- 10 SBG says that responsibility for the damaged flooring lies with Mr Medler who has failed to install the flooring in an acceptable manner and with due care and skill. In particular, SBG say that poor installation of the moisture vapour barrier and inadequate expansion allowance for the flooring have caused the excessive peaking of the flooring.

### **Mr Medler's claim**

- 11 In proceeding BP 1050/2015, Mr Medler brings a claim against SBG for monies owed on four flooring installation jobs, unrelated to the Limeburner home and the Alice Mary home.
- 12 Mr Medler says that in around mid-2014 he had become frustrated at the time being taken by SBG to make payment on invoices issued by Mr Medler. He says he discussed his concerns with Mr Sottile of SBG. Mr Sottile was also looking for a better deal for SBG on the cost of flooring jobs contracted to Mr Medler. Mr Medler says that agreement was reached whereby SBG would receive a 10% discount on flooring jobs, conditional upon SBG making payment on Mr Medler's job invoices within two weeks of the date the invoices were received by SBG. If invoices were not paid within the two week period, Mr Medler would be entitled to an extra 10% late payment charge.
- 13 Mr Medler claims a total of \$23,234.37, calculated as follows :
- a) \$20,555 being the sum of 3 unpaid invoices to SBG, all dated 8 October 2014; and
  - b) \$2055.50 being the 10% late payment charge in respect of those 3 unpaid invoices; and
  - c) \$623.15 being the 10% late payment charge on a fourth invoice. The invoice, in the sum of \$6231.50, is dated 1 August 2014. SBG paid the invoice in full, but not until 17 October 2014. Accordingly, Mr Medler says he is entitled to the additional 10% late payment charge.
- Mr Medler also claims interest and costs.
- 14 Mr Sottile agrees that an agreement was reached in 2014, however he does not agree that the 10% late payment charge entitlement was triggered 2 weeks after the date SBG received the invoices. He says that the 10% late payment charge arose only if an invoice was not paid by SBG by the end of the month following the month in which the invoice was issued. The

difference is immaterial in respect of Mr Medler's claim because none of the four invoices were paid by the end of the month following the month in which they were issued.

- 15 SBG does not dispute that it has not paid the invoices or the late payment charges. It says, however, that it is entitled to withhold payment as a set-off against the damages it is claiming from Mr Medler in respect of the defective flooring in the Limeburner home and the Alice Mary home.
- 16 I am satisfied, on the evidence of Mr Medler and Mr Sottile, that a 10% late payment charge agreement was reached and that SBG was, from around October 2014, indebted to Mr Medler in the sum of \$23,234.37 in respect of the unpaid invoices and late charges. As discussed later, I find that the debt is only partially set-off by Mr Medler's responsibility in respect of the Limeburner home floor.

## **THE HEARING**

- 17 The hearing was listed for two days commencing on 5 May 2016. At the commencement of the hearing, Mr Pumpa of Counsel sought leave to represent SBG. Mr Medler did not object and, considering it appropriate in this case to allow legal representation for either party, I granted leave for SBG to be represented by Mr Pumpa. Mr Medler represented himself.
- 18 At the commencement of the hearing, I questioned the parties as to the witnesses, in particular expert witnesses, they intended to call. Mr Pumpa confirmed that SBG had arranged for its expert witness to attend to give evidence. Mr Medler needed to confirm the availability of his expert witnesses. I stood the matter down briefly to allow the parties to discuss a suitable time when the expert witnesses could attend to give evidence concurrently. On resumption of the hearing, Mr Medler confirmed the unavailability of his expert witnesses on either of the two listed days for the hearing. After some further discussion and phone calls, and with my approval, the parties agreed to adjourn the second day of the hearing to 25 May 2016, that being the next available date at the tribunal suitable for both parties' expert witnesses.
- 19 On the first day of the hearing, Mr Sottile, construction manager for SBG, gave evidence for SBG. Mr Medler gave evidence for himself.
- 20 On the second day of the hearing, Mr Liam O'Sullivan, an employee of Mr Medler, gave evidence. Concurrent expert evidence was given by Dr Eilenberg, a building consultant, Mr Scarpella, a timber flooring consultant and Mr Mudge, a consulting engineer specialising in concrete. Dr Eilenberg was called by SBG. Mr Scarpella and Mr Mudge were called by Mr Medler. The experts also produced written reports.

## **THE ALICE MARY HOME**

- 21 Mr Medler's employee, Mr O'Sullivan, ordinarily attends to preparation and sealing of a slab (installation of the vapour barrier) before floorboards

are laid. As part of his responsibility, Mr O’Sullivan takes moisture readings of the slab surface, using a “Tramex” moisture meter, before any preparation works are carried out. If the moisture reading is higher than 5.5%, Mr O’Sullivan must advise Mr Medler before any further works are carried out. If the moisture reading is 5.5% or less, the acceptable range, Mr O’Sullivan will proceed to prepare the slab surface. The preparation includes grinding the slab surface as necessary to achieve an acceptable levelness, and then applying a moisture/vapour barrier to the surface of the slab.

- 22 As confirmed by the expert witnesses Mr Scarpella and Dr Eilenberg, in respect of a recently laid concrete slab, a slab surface moisture reading of 5.5% or less is generally accepted as suitable for laying timber (or bamboo) floorboards. Anything above 5.5% is considered unsuitable. The moisture level in a slab is expected to steadily reduce after it has been laid.
- 23 In this instance, Mr O’Sullivan carried out the preparatory works without any notification to Mr Medler as to the slab moisture content readings. On this basis, Mr Medler is confident that Mr O’Sullivan measured the moisture content in the slab at 5.5% or less.
- 24 On the first day of the hearing, Mr Medler produced a written statement of Mr O’Sullivan in which Mr O’Sullivan states that he takes slab moisture readings with a Tramex meter, and that in respect of the Limeburner home and the Alice Mary home:

I remember not only testing both slabs before continuing to seal them, but I also do not recall any issues with the moisture content readings. Further to this I have looked back into my records and have not found any high readings with either of the slabs leading me to believe that both slabs were in a “normal” condition when I worked on them and suitable to accept timber coverings.

- 25 When giving evidence, Mr O’Sullivan confirmed the contents of his written statement. He also explained his usual floor preparation practice:
- first, he visually inspects the home and the slab for any signs of water leaking or water ingress;
  - next, he will moisture test the slab with his Tramex meter at the perimeter of the slab and then towards the middle of the slab. If he gets any readings higher than 5.5%, he will contact Mr Medler before doing any further work;
  - if the slab moisture content readings are acceptable (5.5% or less) he will clean and prepare the floor, including grinding as required;
  - last, he will install the moisture/vapour barrier.
- 26 Mr O’Sullivan’s recollections in respect of the Alice Mary home and the Limeburner home were, at least initially, a little confused. He mistook one home for the other. However, despite this initial confusion, I am satisfied that Mr O’Sullivan’s evidence – that the slab moisture readings he took in

each of the homes was within the acceptable range (5.5% or less) - is reliable. Mr O'Sullivan estimates that he might prepare approximately 50 floors in any 12 month period. He says that a slab moisture content reading outside the acceptable range is a rare occurrence. I accept this evidence, and I am satisfied that Mr O'Sullivan would certainly have recalled a slab moisture content reading outside the acceptable range in respect of the Alice Mary home and the Limeburner home.

- 27 I am satisfied that, as part of his normal preparatory works, Mr O'Sullivan took slab moisture content readings at each of the Alice Mary home and the Limeburner home with a Tramex meter, and that those readings were within the "acceptable" range, 5.5% or less.
- 28 The vapour barrier applied to the slab of the Alice Mary home (and the Limeburner home) was "Wakol PU 280 Moisture Barrier" ("Wakol"). It is applied to the slab using a roller, much like a paint roller. Mr Medler says he uses the Wakol brand because of its strong water resistant properties.
- 29 Mr Medler says that he and his employees installed the spotted gum flooring the day after Mr O'Sullivan applied the Wakol vapour barrier.
- 30 Mr Medler believes that the flooring would have been delivered a couple of days prior to its installation.
- 31 The floorboards began to "peak" several months after the owners moved into the home. Mr Medler says he inspected the flooring on about 3 occasions after SBG first advised him of the "peaking" flooring. He says the peaking was noticeably worse on each successive inspection.
- 32 On 30 October 2014, Mr Medler sent a letter to Mr Sottile dealing with a number of matters, including the flooring at the Alice Mary home. In the letter Mr Medler states:

It seems the floor at Alice Mary would be my responsibility to rectify as the timber was laid at a moisture content too low.
- 33 Mr Medler says he made the above comment because he believed, on the basis of his visual inspection of the floorboards at that time, that the boards may have been laid with too low a moisture content. When placed into a higher moisture environment, boards will "take up" the higher ambient environment moisture, thus causing them to expand and peak. Mr Medler says that the general peaking observable across the floor at the time was, in his experience, consistent with floorboards having, at the time they were laid, a moisture content lower than the ambient environment moisture.
- 34 However, Mr Medler subsequently made enquiries to "Melbourne Floors Mart", the supplier from whom he sourced the spotted gum floorboards for the Alice Mary home. Mr Medler produced an undated letter from Melbourne Floors Mart which states that the spotted gum timber was delivered to Alice Mary Road in two lots, one on 11 September 2013 and the other on 18 September 2013, and that :

The first lot had an average moisture content reading of 10.3%, and the second had an average of 10.85. Both of these average readings are considered to be acceptable for the geographic location the timber was delivered to.

- 35 Mr Medler says that, having been provided this information by Melbourne Floors Mart, he no longer believed that the floorboards had an unsuitable low moisture content at the time they were laid.
- 36 Mr Medler now concludes that *after* the floorboards were laid, the slab took in moisture to such a degree that the Wakol barrier was unable to prevent the migration of moisture from the slab into the timber floorboards, causing the expansion and peaking of the flooring. Mr Medler's reaches this conclusion from the following:
- a) First, relying on the advice from Melbourne Floors Mart, he says that the floorboards when delivered contained an acceptable moisture content level of between 10.3% and 10.85%;
  - b) Next, in reliance on Mr O'Sullivan's evidence, he says that the slab moisture content at the time the flooring was laid was within the acceptable range, that is 5.5% or lower;
  - c) Finally, he relies on the expert evidence of Mr Mudge that, at the time Mr Mudge tested the slab moisture content in January 2016, the slab had an excessively high moisture content.
- 37 Mr Medler says that these three factors support his conclusion that the cause of the extensive peaking (and in several instances, the more severe "tenting") of the flooring - excessive moisture ingress - was excessive moisture ingress to the slab *after* the flooring was installed. He does not know the exact cause of the excessive moisture in the slab, however he believes it is likely related to the fall of the land surrounding the house and inadequate drainage.
- 38 Mr Mudge was called in to test the moisture content in the slab at the suggestion of Mr Scarpella.
- 39 Mr Scarpella inspected the floor on 18 December 2015. Using a moisture meter, similar to the Tramex meter used by Mr O'Sullivan, Mr Scarpella took a number of moisture content readings of the floorboards throughout the home. The readings varied from 11% to 14.6%.
- 40 Because these readings were significantly varied and higher than the "as delivered" moisture content of the floorboards as advised by Melbourne Floors Mart (10.3% to 10.85%), Mr Scarpella surmised that the concrete slab was the likely cause of the increased moisture in the floorboards. He recommended that the concrete slab be more thoroughly tested for its moisture content, and pursuant to that recommendation, Mr Medler engaged Mr Mudge.
- 41 Mr Mudge tested the slab in January 2016 using Vaisala Relative Humidity testing apparatus SHM40. A 16 mm hole is drilled into the slab to



approximately 70 mm depth. An electric probe is inserted into the hole and left for at least 16 hours. After such period of time, the humidity in the drilled hole will have stabilised to match the humidity of the concrete slab, so that a humidity reading then taken via the probe will, in effect, be an accurate humidity reading of the slab itself at the location of the drilled hole. In this sense, a relative humidity test reading provides a moisture content reading of the slab proper, not just the slab surface.

42 Mr Mudge made six such tests in six different locations in the slab. The results, the relative humidity slab moisture content readings, are as follows:

- front door 85%
- end of hall 85%
- end of island bench 82.7%
- back left corner 90.7%
- centre rear 92.8%
- back right corner 86.1%

43 Based on these readings, and the relevant Australian standard, Mr Mudge says that the floor slab “*is excessively and unacceptably wet*” and unsuitable for the timber flooring. The relevant Australian Standard is AS 1884 – 2012. It prescribes test measures suitable for determining whether a concrete subfloor moisture content is suitable for the installation of resilient floor coverings. AS 1884 references test method ASTM F2170 as an appropriate testing methodology. The standard also states:

Concrete subfloors shall be considered sufficiently dry when measurements taken in accordance with **ASTM F2170** do not exceed 75% relative humidity.

44 Mr Mudge confirms that the testing he carried out was in accordance with ASTM F2170.

45 Mr Scarpella says that the test results obtained by Mr Mudge confirm that the slab has excessively high moisture content and, by reason of this, it is unsuitable for timber flooring. He says that no timber flooring will perform satisfactorily on a slab with such moisture content.

46 Neither Mr Mudge nor Mr Scarpella have identified the exact cause of the excessive moisture in the slab. There are many possible causes, including the lay of the land, poor drainage, poor ventilation and leaking pipes.

47 Dr Eilenberg says that the excessive peaking of the flooring is the result of a number of factors including:

- failure to acclimatise the floorboards adequately prior to laying;
- inadequate provision for expansion of the boards;
- inadequate application of the moisture barrier;

- 48 In relation to the concrete slab moisture level, Dr Eilenberg says in his report that *“I checked the current moisture levels and found no indication that there was any problem with moisture in the slab”*. As I understand it, Dr Eilenberg’s checking of the slab in this regard was limited to general visual observations, and he may also have taken a surface moisture reading of the slab, using a meter such as a Tramex meter, where a small portion of the timber flooring had been removed.
- 49 The slab moisture testing carried out by Mr Mudge was more thorough and reliable and I prefer his opinion, based on the results he obtained through his testing, to the opinion of Dr Eilenberg.

#### **Application of the Wakol moisture barrier**

- 50 As to the application of the moisture barrier, Dr Eilenberg says in his report: *“The waterproofing laid on the slab appears to be less than the 1 mm required and unevenly applied to the concrete slab”*. This observation is based on a visual observation of the small area of the slab where the timber flooring was removed.
- 51 Mr Medler says that the Wakol moisture barrier will, as it is supposed to, soak in to the slab to a certain degree, depending on the porosity of the slab. Mr Scarpella agrees with Mr Medler in this regard, and he does not accept that there is evidence of inadequate application of the Wakol moisture barrier.
- 52 I also accept the evidence of Mr Medler and Mr Scarpella that moisture barriers installed under timber floors, such as the Wakol barrier, are not totally water “proof”, and nor are they intended to be. Moisture will migrate from a slab through a vapour barrier into timber floors. The problem in this case is that the amount of moisture migration was excessive.
- 53 I prefer the evidence of Mr Medler and Mr Scarpella to the evidence of Dr Eilenberg. I am satisfied that the Wakol moisture barrier was an appropriate product, and there is insufficient evidence to find that the Wacoal barrier was inadequately or improperly applied.

#### **Acclimatisation of the floorboards prior to installation**

- 54 It is clear from Mr Medler’s evidence that there was very little period of acclimatisation of the floorboards before they were laid. Mr Medler says the floorboards were delivered just a few days prior to them being installed, and there is no evidence to suggest that the boards were stacked in a way to optimise acclimatisation.
- 55 However, in my view the means and period of acclimatisation of the boards prior to installing them is not relevant. The advice provided by Melbourne Floors Mart - that at the time of the delivery the floorboards and a moisture content reading of between 10.3% and 10.85% - is not

disputed. Mr Scarpella says that this is an acceptable level of moisture content, and his evidence in this regard is not disputed.

56 Accepting, as I do, that the moisture content in the slab at the time Mr Mudge tested it in January 2016 was unacceptably high, and accepting Mr Scarpella's evidence that no timber flooring could satisfactorily perform on such a moist slab, I am satisfied that no amount of acclimatisation of the boards prior to them being laid would have made any significant difference.

### **Expansion allowance**

57 The same can be said for the alleged lack of expansion joints in the flooring. Dr Eilenberg, Mr Mudge and Mr Scarpella agree that the floor would still have peaked excessively even if greater allowance for expansion had been provided at the time the floor boards were installed. As such, I am satisfied that the amounts for expansion of the flooring is not the cause of the damage.

### **Conclusion on the Alice Mary home**

58 On all the evidence, I am satisfied that the cause of the extensive peaking in the flooring is excessive moisture, and the source of the moisture is the excessive moisture in the slab.

59 I am also satisfied that immediately prior to the floorboards being installed, Mr O Sullivan tested the slab and found it to be within acceptable moisture range. As such, I am satisfied that the excessive moisture in the slab has arisen *after* the floorboards were installed by Mr Medler. It is not necessary to make a finding as to the actual cause or causes of the excessive moisture ingress into the slab. Whatever the cause, it is not Mr Medler's responsibility.

60 Accordingly, I find that Mr Medler is not responsible for the damage to the flooring, and he bears no liability for the cost of rectification.

### **THE LIMEBURNER HOME**

61 The bamboo flooring installed at the Limeburner home is "BT Strand Lock" clip lock bamboo boards supplied by "Eco Flooring Systems". At the hearing, SBG produced the relevant Eco Flooring Systems installation instruction manual, dated May 2013 ("the Eco manual").

62 As with the Alice Mary home, SBG say that Mr Medler is responsible for the excessive peaking of the floorboards. SBG says that Mr Medler:

- approved the "direct sticking" of the bamboo to the slab, contrary to the express recommendation in the Eco manual;
- failed to acclimatise the bamboo flooring prior to installation in accordance with the recommendations in the Eco manual;
- failed to adequately seal the slab;

- failed to provide adequate expansion allowance in accordance with the Eco manual;

63 As with the Alice Mary home, Mr Medler says that the excessive peaking of the bamboo flooring has been caused by excessive moisture ingress into the slab *after* the bamboo flooring was laid.

### **Direct sticking of the bamboo flooring**

- 64 Bamboo is not timber.
- 65 Mr Sottile says that the owners of the Limeburner home requested bamboo flooring, in preference to timber. Mr Sottile says that he asked Mr Medler to provide some samples of bamboo flooring from which the owners could select their preferred product. Mr Medler duly provided to SBG a number of samples of bamboo flooring, and the owners made their selection. Mr Sottile advised Mr Medler of the owners' selection.
- 66 Mr Medler agrees with the above-mentioned account of events, save for one additional matter. He says that when Mr Sottile advised him of the owners' selection, Mr Sottile also advised him that the owners specifically requested that the flooring be "direct stuck" to the slab, rather than a "floating" method of installation where an underlay is installed between the sealed concrete surface and the bamboo floor boards. Mr Medler says that Mr Sottile asked him if that could be done, and that he confirmed to Mr Sottile that it could be done.
- 67 Mr Sottile has no recollection of the owners requesting the direct sticking of the bamboo in preference to a "floating" installation with underlay. As such he does not believe that he passed on any such request/instruction to Mr Medley.
- 68 In my view, it is of little relevance whether the owners instructed Mr Sottile that the bamboo flooring be direct stuck to the slab. If the problem with the flooring – the extreme peaking – has been caused by the "direct stick" method of installation, Mr Medler bears responsibility, or at least some responsibility. This is because he confirmed to SBG, who had sought his opinion on the point, that it was acceptable to direct stick the floor in lieu of "floating" it.
- 69 Mr Medler does not shy away from this. He accepts that his advice was relied upon, and he maintains his view that the direct sticking of bamboo flooring to the slab, including "clip – lock" flooring as was used in this case, is an acceptable practice and one that he has carried out many times with no problems.
- 70 The Eco manual provides that the bamboo product *is designed to be installed as a floating floor with no nails or glue*. It is a clip lock system intended to be installed on top of an underlay, the underlay itself having been laid on top of a suitable moisture barrier. The Eco manual makes no reference at all to a direct stick method of installing the floorboards.

- 71 Mr Medler maintains that direct sticking of bamboo flooring is an acceptable, and not unusual, method of installing bamboo flooring. To illustrate that it is not an unusual practice, Mr Medler produced excerpts from various bamboo installation instruction manuals (other than the Eco manual) which reference “direct sticking” as an acceptable means of installing at least some types of bamboo flooring. Mr Medler obtained these product manuals excerpts from the Internet. Unfortunately they are not dated.
- 72 Mr Medler has considerable experience in laying timber floors. He says that in the past, direct sticking of bamboo flooring was often referenced in product installation manuals as an acceptable installation method. He says that in recent years, however, product manuals ceased recommending the direct stick method. He says the change came about as the flooring industry generally came to appreciate the susceptibility of bamboo to moisture ingress. He maintains, however, that the direct stick method is acceptable provided a suitable moisture barrier is installed over the face of the slab.
- 73 Mr Scarpella supports Mr Medler’s evidence in this regard. He too has considerable experience with timber and bamboo floors. He agrees that the direct sticking of bamboo flooring, although no longer expressly recommended in most product manuals, is still frequently done. In his view it is an acceptable practice if done properly.
- 74 I am satisfied, on the evidence of Mr Scarpella and Mr Medler, that direct sticking of bamboo flooring to a concrete slab is an acceptable method of installing a bamboo floor.
- 75 However, I am also satisfied that a “floating” method of installation, as recommended in the Eco manual, provides an improved capacity for expansion movement for the flooring. Mr Scarpella and Dr Eilenberg agree on this point, and I accept their evidence.

### **Acclimatisation of the floorboards**

- 76 I accept Mr Medler’s evidence that that he and his employees installed the bamboo flooring the day after Mr O’Sullivan had completed the preparatory works, including application of the Wakol moisture barrier.
- 77 I also accept Mr Medler’s evidence that the bamboo boards were probably delivered to site a few days prior to the installation, and that up until the day they were installed, the boards were stored in their packaging in the garage at the Limeburner home.
- 78 The Eco manual recommends a period of acclimatisation of the bamboo boards before they are laid:

Flooring should be delivered at least 2 – 5 days prior to installation and stored internally. The boxes [containing the floorboards] should be opened to allow the flooring to adjust to normal room temperature and humidity in the room it is being installed. The shrink wrap should

be removed and the boards stacked off the ground to allow for complete air circulation...

- 79 In cross-examination, Mr Medler was asked why, prior to laying the bamboo boards, he did not “acclimatise” the boards in accordance with the Eco manual instructions. Mr Medler says that because he was using the direct stick installation method, rather than the floating installation method prescribed in the Eco manual, he did not feel bound to follow any of the recommendations in the Eco manual. He says also that attempting to acclimatise boards to the environment where they are to be installed is difficult, if achievable at all, because the surrounding environment will inevitably change soon after the boards have been laid. The environment in which floorboards are laid – usually a home not being lived in at the time – is significantly different to the lived in environment that follows not long after floorboards are laid. The environment of a home will change significantly as the people living in the home use windows, heaters and air-conditioners to adjust the temperature and humidity.
- 80 Mr Scarpella and Dr Eilenberg agree that it is prudent for a floor installer to measure the moisture content of floorboards before they are laid. Mr Medler did not do that. He by-passed the opportunity to check the suitability of bamboo floorboards, in terms of their moisture content, before installation. Had he not by-passed that opportunity, he might well have discovered that the boards were suitable for installation. On the other hand, however, he might have found that the boards were unsuitable for installation and required a further period of acclimatisation, or alternatively, he might have decided that the boards should be replaced with a more suitable product.
- 81 As discussed below, at his inspection on 19 March 2015, Mr Scarpella took a moisture reading of leftover uninstalled bamboo floorboards, apparently kept on site in their packaging since they were delivered. The moisture reading was 12%. I do not accept that this can be taken as the moisture reading of the floorboards at the time of delivery and installation in May 2013. In the period of almost 2 years since they were delivered, the boards may well have acclimatised to the surrounding environment.

### **Expansion allowance**

- 82 The Eco manual provides:

Because the humidity of a room can vary due to differences between seasons, the floor must be able to expand and contract in all directions. It is critical that an expansion gap of 15 mm is allowed around the full internal and external parameters of the floor i.e.: at all walls and fixed vertical obstructions e.g. kitchen islands, pipes and columns....

For floors widths over 6m or where extra allowance for expansion is required (moist locations) expansion joints need to be used. We recommend an expansion strip every 6m across the width of the

boards allowing for additional expansion and contraction when there are extremes in temperature and humidity...

- 83 Mr Medler confirmed in evidence that the expansion allowance he allowed was less than the allowance prescribed in the Eco manual. In accordance with his usual practice, he allowed an expansion gap of only 10 to 12 mm around the perimeter of the floor only. He provided no further allowance throughout the floor where the width exceeded 6 metres.
- 84 Again, he says that the allowance prescribed in the Eco manual was applicable to a floating floor, and because he was using the direct stick method he did not feel compelled to comply with the Eco manual recommendations.
- 85 Dr Eilenberg says that the allowance for expansion of the floorboards was inadequate. The direct stick method inhibits the capability of flooring to expand into expansion gaps, and the expansion gaps provided were, in any event, undersized and inadequate.
- 86 Having regard to the Eco manual, and accepting Dr Eilenberg's evidence, I am satisfied that Mr Medler provided inadequate expansion allowance for the bamboo flooring.

#### **Slab moisture content**

- 87 I am satisfied, on Mr O Sullivan's evidence, that before applying the Wakol moisture barrier over the surface of the slab, Mr O'Sullivan carried out his usual preparatory works, including taking slab moisture content readings, and that the moisture readings were within the acceptable range of 5.5% or less.
- 88 On this evidence, I accept that at the time the bamboo flooring was installed, the slab was not, by reason of its moisture content, unsuitable for the installation of the bamboo floorboards.
- 89 Mr Scarpella inspected the floor on 19 March 2015, and produced a report following his inspection.
- 90 At his inspection, Mr Scarpella measured the moisture content of the bamboo flooring at 13 to 14% around the entrance and the front portion of the home, and at 15% at the rear of the home. There was also one high reading of 18% in respect of a small section of flooring adjacent to a storage room.
- 91 As noted above, at his inspection Mr Scarpella also tested the moisture content of one unopened box of bamboo floorboards apparently left on site since the time the bamboo flooring was installed. Presumably he was informed by the owners that the leftover box of bamboo floorboards had remained on site since the bamboo flooring was first installed. He measured the moisture content of these boards at 12%.
- 92 From this information, and from his general experience including his knowledge that strand woven bamboo floorboards are generally around

3% lower in moisture content than timber floorboards, Mr Scarpella surmised that the bamboo floorboards must have taken up moisture after they were installed, and he believes the source of the moisture was most likely the slab.

93 On 26 May 2015, Dr Eilenberg inspected the home and he subsequently produced a report dated 19 August 2015.

94 Later in 2015 (the exact date is not known) Mr Scarpella produced a supplementary report wherein he says:

As the originally “suspected” source of moisture exposure/ingress, the concrete slab is now reported to be confirmed as the contributing factor via the results provided from additional subfloor/concrete slab inspections – as carried out since this ATFA inspection, which has necessitated this supplement.

Therefore the information presented in these reports suggests that the concrete subfloor has demonstrated a condition considered to be well above that expected of a concrete slab of this type and age, and outside of that suggested within the relevant Australian standard.

95 At the hearing, Mr Scarpella clarified that what he meant by the above comments was that he had been provided with some further report material which confirmed his suspicion that the concrete slab was excessively moist. The further report material was an email extract from “Mr Mehmet Ucar” to the owners of the Limeburner home dated 14 July 2015, the extract appearing in Dr Eilenberg’s report dated 19 August 2015.

96 In November 2013, the owners of the Limeburner home commenced a proceeding in this tribunal (“proceeding D1245/2013”) against SBG in respect of various alleged defective building works, including the bamboo floor. In the course of that proceeding (which was ultimately settled), the owners engaged Dr Eilenberg to inspect the floor and prepare a report. In the course of that proceeding, the owners also engaged Mr Ucar to carry out moisture tests on the floor slab. Mr Ucar reported his test results briefly to the owners in an email dated 14 July 2015, and he attached some photos to the email. Mr Ucar’s email and attached photographs were filed in proceeding D1245/2013, as was Dr Eilenberg’s report dated 8 June 2015. In his further report dated 19 August 2015, filed in this proceeding, Dr Eilenberg produced a portion of Mr Ucar’s email to the owners. I have examined Mr Ucar’s email and attached photographs. Amongst other things, Mr Ucar says in the email:

... I have not been able to put together a formal report in relation to the moisture testing performed today so I hope this email will suffice for the time being.

As per our discussion this morning the moisture readings at your property suggest that there is an elevation in moisture content within the concrete slab, results from the



3 test locations were as follows:

Bedroom – Carpet floor covering: 78.5% RH @ 12.7 Degrees Celsius

Family room – Bamboo floor covering: 86.5% @ 16.1 Degrees Celsius

Walk in cupboard – Bamboo floor covering 75.6% @ 16.5 Degrees Celsius

At this present moment all 3 test locations are above the ASTM f 2170 recommended dry standard for installation of this type of flooring especially in the family room where the moisture level is much more elevated and visible damage to the floorboard is the most pronounced...

I have also attached some photographs taken during my initial inspection of your floor and installation of the concrete moisture testing plugs...

- 97 The photographs attached to the email depict moisture meters attached to probes inserted into holes drilled into a slab through bamboo floorboards. The meter readings depicted are the three RH readings referred to in the email.
- 98 Mr Scarpella says that the matters contained in Mr Ucar's email to the owners of 14 July 2015 - relative humidity test results - confirm excessive moisture in the slab at the time the tests were done.
- 99 Mr Ucar was not called to give evidence. As such he could not be questioned as to his qualifications and experience or the exact methodology of his testing of the Limeburner home slab. His email to the owners of 14 July 2015 is not an expert report compliant with the requirements of the Tribunal's practice note PNVCAT2 in respect of expert evidence.
- 100 However, SBG does not dispute that Mr Ucar carried out relative humidity testing to the bamboo floor on or around 14 July 2015, and that his test results are set out in his email of 14 July 2015 to the owners. Indeed, a portion of Mr Ucar's email dated 14 July 2015 is reproduced in Dr Eilenberg's expert report filed in this proceeding.
- 101 Bearing in mind also that the tribunal is not bound by the rules of evidence<sup>1</sup>, and noting that Mr Medler has had no legal representation in these proceedings, I am satisfied that Mr Ucar's email of 14 July 2015 may be accepted into evidence, albeit with less probative weight than expert evidence, such as the evidence of Mr Mudge in respect of the Alice Mary home, given at the hearing.
- 102 At his inspection on 26 May 2015, Dr Eilenberg measured the moisture content of the bamboo flooring in several areas using a "Protimeter". All of the readings were between 8.8% and 10%. He also took readings with

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<sup>1</sup> Section 98(1)(b) of the *Victorian Civil and Administrative Tribunal Act 1998*

his Protimeter of various walls and tiled floor areas, and in all cases the readings were between 8.8% and 10%.

- 103 Dr Eilenberg also inspected the exterior slab edge where it was exposed in several places. He also generally inspected the interior and exterior of the home, including the surrounding landscape. He says he saw no signs of excessive moisture.
- 104 On all the evidence, I am satisfied that at the time the bamboo flooring was installed in May 2013, the slab was not abnormally moist or unsuitable for laying timber/bamboo flooring, and that by around the middle of 2015 the slab moisture level had risen above expected normal levels, more so in some areas than others.

#### **Application of moisture barrier**

- 105 Dr Eilenberg did not actually inspect the Wakol moisture barrier because none of the bamboo flooring was removed to expose it at the time of his inspection. Having satisfied himself as to the satisfactory “dryness” of the site and the slab, and having regard to the excessive “peaking” of the floorboards, Dr Eilenberg surmises that the moisture barrier may have been inadequately applied, allowing excessive moisture to migrate up into the floorboards.
- 106 In my view there is insufficient evidence to find that the Wakol moisture barrier was inadequately or improperly applied.

#### **Findings on the Limeburner home**

- 107 On all the evidence, I find as follows.
- 108 At the time the bamboo flooring was installed, the slab moisture content was within acceptable range and suitable for installing floorboards.
- 109 The bamboo flooring has taken up moisture after it was laid, causing it to expand.
- 110 The increase in moisture in the floorboards was at least partially attributable to the rise in the moisture content in the concrete slab *after* the flooring was laid. An increase in the slab moisture content after the floorboards were laid is a matter beyond the control and responsibility of Mr Medler.
- 111 However, it is possible that the excessive moisture uptake in the floorboards was partially attributable to the condition of the boards, their relative “dryness”, at the time they were installed. Mr Medler did not take prudent measures to check the suitability of the boards at the time they were installed.
- 112 The bamboo flooring was installed with inadequate expansion allowance. With little room to move as it expanded, the flooring has cupped/peaked excessively. Had Mr Medler provided greater expansion allowance in

accordance with the recommendations in the Eco manual, the cupping/peaking would, at the very least, have been less severe.

- 113 For the above reasons, I am satisfied that Mr Medler is partially responsible for the excessive cupping/peaking of the flooring, and I think it fair and reasonable that he bear 50% of the cost of rectification.

### **Rectification cost**

- 114 Having viewed photos of the damaged bamboo flooring, and having heard evidence from Mr Scarpella and Dr Eilenberg who both inspected the damaged flooring, I am satisfied that the cupping/peaking in the flooring was so pronounced and widespread that it was appropriate to remove and replace the entire bamboo floor, as was done.

- 115 As I understand it, at the owners requested that the bamboo flooring be replaced with spotted gum timber flooring. The owners desire to avoid bamboo is understandable given their experience with the initial bamboo flooring.

- 116 Before the replacement flooring can be installed, the existing flooring must be removed and the slab prepared for the new flooring. This is a time-consuming process. The RC Homes invoice to SBG itemises the various costs making up the total of \$22,930 (before GST is added), including the following:

- hire of jackhammers concrete grinder and vacuum, \$1,500;
- waste bin and tip fees, \$1,000;
- demolition, 5 men x 4 days, \$5,600;
- grind glue from slab, 1 man x 2 days, \$600;
- Lay slab compound. 1 man, 1 day, \$300;
- Supply and install spotted gum flooring, \$11,000;
- supply and fit new skirting, \$500;
- painting of new skirts and repainting of affected walls, \$1,800;
- clean up, \$400;
- plumber to reconnect dishwasher, \$180.

- 117 SBG says that the cost of supplying and installing the spotted gum timber was comparable to the cost of supplying and installing replacement bamboo flooring. To substantiate this, SBG produced two quotations obtained by the owners of the Limeburner home for the supply and installation of (replacement) bamboo flooring to their home. One of the quotations, from “Smith’s Floors” dated 3 May 2015, notes the cost to supply and install bamboo flooring at \$10,200 (inclusive of GST). The second quotation, from “Top Notch Flooring Australia” dated 1 June

2015, notes the cost to supply and install bamboo flooring at \$11,996.05 (inclusive of GST).

118 The RC homes invoice allows \$11,000 (\$12,100 after including GST) as the cost to supply and install the spotted gum timber flooring.

119 Noting also that Mr Medler does not dispute that the supply and installation cost of bamboo is comparable to spotted gum, I am satisfied that the replacement of the bamboo flooring with spotted gum timber flooring is of no consequence in terms of quantifying the reasonable cost of rectifying the floor.

120 There is no evidence before me upon which I might find that the charge rates of RC homes were excessive or unreasonable. Accordingly, I accept that the overall charge by RC homes, \$25,223, for the removal and replacement of the bamboo flooring, including all consequential rectification works, was reasonable.

121 I find that Mr Medler should bear half the cost, that is \$12,611.50.

#### **INTEREST AND SET-OFF**

122 As discussed earlier in these reasons, I find that in October 2014, SBG became indebted to Mr Medler in a sum of \$23,234.37. In my view it is appropriate that Mr Medler's liability in respect of the Limeburner home floor, \$12,611.50, be set – off against the debt, leaving a balance of \$10,622.87 owing to Mr Medler.

123 Both parties have also claimed interest.

124 The contractual arrangement between SBG and Mr Medler did not include any entitlement to interest on overdue payments, other than the 10% late payment charge. The 10% late payment charge has been included in the debt sum found to be owed to Mr Medler.

125 It is a discretionary matter for the Tribunal as to whether any further allowance for interest should be made.

126 The *Domestic Building Contracts Act 1995* makes provisions in respect of domestic building disputes. A “*domestic building dispute*” includes a dispute between a builder and a sub- contractor<sup>2</sup>, such as the dispute between SBG and Mr Medler in these proceedings. Section 53 of the Act provides that the tribunal may make any order it considers fair to resolve a domestic building dispute, including an order for damages in the nature of interest.

127 Section 53(3) of the Act provides that in awarding damages in the nature of interest, the Tribunal may base the amount awarded on the interest rate fixed from time to time under section 2 of the *Penalty Interest Rates Act 1983* or on any lesser rate it thinks appropriate.

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<sup>2</sup> Section 54 (1)(b) of the *Domestic Building Contracts Act 1995*

- 128 Having regard to the fact that the debt owed to Mr Medler arose in October 2014, but having regard also to my finding that SBG has been partially successful in its claim for damages against Mr Medler, resulting in a partial set – off of the debt, I think it fair to award interest on the balance debt owed to Mr Medler from the date Mr Medler commenced the proceeding BP 1050/2015 until the date of these reasons. I think it fair also that the interest be calculated at the applicable rate under section 2 of the *Penalty Interest Rates Act* 1983. The applicable rate for the period commencing on 21 July 2015 (the date Mr Medler commenced proceeding BP 1050/2015 by filing his application at the Tribunal) and ending 8 June 2016 is 9.5%.
- 129 I calculate interest on the balance debt, \$10,622.87, for the applicable period at the applicable rate to be \$894.60.

### **CONCLUSION**

- 130 For the reasons set out above:
- In proceeding BP 450/2015, I find Mr Medler liable to SBG for damages assessed at \$12,611.50, but there will be no order for payment because the whole sum shall be set-off against the award in Mr Medler’s favour in proceeding BP 1050/2015.
  - In proceeding BP 1050/2015 I find SBG liable to Mr Medler in the sum of \$23,234.37, and after allowing a set-off for the damages sum found in SBG’s favour in proceeding BP 450/2015, I will order that SBG pay Mr Medler \$10,622.87. I will also order SBG to pay interest on this sum fixed at \$894.60.
- 131 I will reserve costs with liberty to apply by not later than 8 July 2016. If no application for costs is received by 8 July 2016, there will be no order for costs. I also draw the parties’ attention to sections 109 to 115D of the *Victorian Civil and Administrative Tribunal Act* 1998 which sets out the Tribunal’s power to award costs.

**SENIOR MEMBER M. FARRELLY**