

VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL

CIVIL DIVISION

DOMESTIC BUILDING LIST

VCAT REFERENCE NO. D765/2005

CATCHWORDS

Domestic building work – foundation heave – evidence establishing cause

FIRST APPLICANT	Tony Caruso
SECOND APPLICANT	Sharon Caruso
RESPONDENT	Victorian Managed Investment Authority
WHERE HELD	Melbourne
BEFORE	Senior Member R. Walker
HEARING TYPE	Hearing
DATE OF HEARING	25 September 2006
DATE OF ORDER	14 November 2006
CITATION	Caruso v Victorian Managed Investment Authority (Domestic Building) [2006] VCAT 2295

ORDER

- 1 The spelling of the Applicants' surname is corrected to Caruso.
- 2 Direct that the Applicant's claim be accepted in accordance with the accompanying reasons.
- 3 Costs reserved.

SENIOR MEMBER R. WALKER

APPEARANCES:

For the Applicants

Mr P. Duggan of Counsel

For the Respondent

Mr B. Powell of Counsel

REASONS

Background

- 1 The Applicants (“the Owners”) seek indemnity with respect to defects in their house against the Respondent (“the Fund”) as administrator of the Domestic Building (HIH) Indemnity Scheme.
- 2 The house was constructed for the Applicants by Avonwood Homes Pty Ltd, a company now in liquidation (“the Builder”). It was completed in 1999.
- 3 On 6 July 2005 the Owners made a claim on the Fund seeking indemnity with respect to numerous cracks and distortions in the ceilings, walls and floors of the house. On 13 September 2005 the Fund wrote to the Owners rejecting the claim on the grounds that:

“... because these items are not considered to be the result of any actions, omissions or unsatisfactory workmanship of the builder. The distress apparently at your property is considered the result of inadequate subsoil drainage and landscaping\site works which has allowed excessive moisture accumulation below and beside the foundation\footing of the dwelling.

The excessive moisture accumulation has caused “edge heave” of the perimeter footings due to swelling of foundation soils\clay, leading to destabilisation of the dwelling and the distress that is apparent”.

- 4 The Fund suggested that the conditions had been caused by landscaping and site works carried out by contractors other than the Builder.
- 5 This proceeding is now being brought seeking a review of that decision.

The hearing

- 6 The matter came before me for hearing on 25 September 2006. Mr Duggan of Counsel appeared for the Owners and Mr Powell of Counsel appeared for the Fund. Evidence was given by Mr Caruso and his building expert, Mr Cheong. For the Fund I heard from Mr Rodwell, an engineer. On the afternoon of the first day of the hearing I visited the site with the parties, their Counsel and the expert witnesses.
- 7 There were three defects complained of, namely, foundation movement, a bowing of the rear brick wall and defective construction of the front veranda.

Foundation movement

- 8 The evidence of the experts was that there was some edge heave caused by the swelling of the foundation material below the footing on the southern wall and the lower northern wall near the sub-floor access door. Levels were taken by Mr Rodwell indicating an increase in floor height in these areas. Mr Rodwell’s levels also indicate what he described as a “dishing” of the floor in the centre of the western half of the house which, both

experts agreed, was due to the drying out of the sub floor and the dropping of the supporting stumps in that area. Mr Cheong suggested that perhaps the stumps were not founded at a sufficient depth but his evidence in this regard was based on observations of only one stump and so the point was not established. The real question appears to be, what is causing the heave along the southern wall and the eastern end of the northern wall?

The footings

- 9 The garage on the western side of the house has a footing system connected to the house. The western wall of this garage is separated from the property next door by a relatively narrow garden bed, the level of which is over a metre higher than the finished floor surface of the garage slab. The plans show that the bottom of this garage wall was to be to an engineer's design. The design tendered, which I find on all the evidence to have been the engineer's design referred to in the plans, required the construction of an agricultural drain at the foot of the outside of this western wall for the garage. The area has been excavated and no such drain has been found.
- 10 After the Owners took possession of the house Mr Caruso put his own agricultural drain along the bottom of this garage wall, sheeted the outside of the wall with plastic and backfilled it, placing scoria at the bottom around the drain and soil above. The construction of this drain was criticised by Mr Rodwell on the ground that there ought to have been some permeable material placed against the wall all the way up to the surface. He also said that the ground should have been graded away from the garage. Mr Cheong did not share these concerns and thought that nothing that Mr Caruso did in constructing this drain and backfilling the soil has caused any problems with regard to drainage. Having viewed the photographs I prefer Mr Cheong's evidence. Not only did the Builder not install the drain as the engineer's plans required, the excavation next to the wall was such as to direct any water towards the wall. I think Mr Cheong's evidence that Mr Caruso's work improved the situation is plausible.
- 11 The agricultural drain laid by Mr Caruso drains into a drainage pit that he constructed in the driveway crossover. This pit was of his own construction and commenced next to the stormwater pipe that was intended by the Builder's plumber to drain the rear courtyard.
- 12 Investigation of this stormwater pipe installed by the Builder's plumber shows that, where it passes under the garage floor it has been flattened to a considerable degree, thereby greatly reducing its capacity to drain water away. The flattening of this pipe is attributable to the Builder's workmanship or that of his plumber. It substantially restricts the flow of water through the pipe but has not blocked it entirely. The water that flows into this pipe from the courtyard comes from a pit into which two agricultural drainage pipes enter at a higher level than the stormwater drain that flows under the garage. This would suggest that it was the intention of the plumber that the agricultural drainage system of the back courtyard

would drain into this pit because that is the effect of what he has done. The pit also receives the stormwater drain that collects water from the downpipe. This downpipe drains the gutters from half of the garage and a considerable area of the roof on the western end of the house.

- 13 In addition, the Owners constructed a covered pergola with a gutter that also runs into this downpipe. It is clear to me that in heavy rain there would be a very large amount of water flowing into the pit from this downpipe. Nonetheless, I accept Mr Cheong's point that water flowing off the covered pergola would, if the pergola had not been built, have fallen into the courtyard anyway and have finished up in the same pit. It does not seem to me that the construction of the pergola has contributed to the problem.
- 14 The pit is downhill from the north western corner of the courtyard and so drainage of subsoil water would be expected to pass through the agricultural drain into the pit and out under the garage. Mr Cheong suggested that, if there were a backup of water in the pit this would flow back up the agricultural drain and soak the soil in the courtyard. Mr Rodwell thought this was unlikely, because of the high clay content of the soil and the fact that the trenching which the agricultural pipe was laid was disturbed fill. He said that the water would pass instead along the trench where the pipe was laid. In this regard I prefer Mr Rodwell's evidence.
- 15 If the water flowed, as Mr Rodwell suggested, along the trenches cut for the pipes, then it would inevitably flow into the garage footing because that bisects the excavation for that footing. That excavation is, as stated above, connected with the excavation of the other footings which, on the southern side, are downhill from the courtyard.

Findings

- 16 I therefore find that the water that has caused the edge heave on the southern boundary comes from water that has not been able to drain away from the pit but has flowed instead down the footing excavations. I find there were several reasons for this. First, because the pipe under the garage was flattened the water could not get away quickly enough and so it lay in the pipes from whence it soaked into the excavations where the pipes were laid and then into the footing excavations. Secondly, the pipe penetrations in the sides of the pit were not sealed, allowing any build up of water in the pit to run into the pipe excavations and then into the footing excavations. I find that the water causing the edge heave on the eastern end of the northern boundary of the house flowed from the back courtyard along the footing excavation to the corner and then down the hill where it ponded at the bottom. This is an area where heave has occurred.
- 17 I cannot see any evidence of anything the Owners have done to cause this problem. They did not lay the defective pipe under the garage floor and although Mr Rodwell suspected that the pit installed in the courtyard had been interfered with, there is insufficient evidence for me to make a finding to that effect. The pits the Owners installed themselves are cheaper plastic

pits. The pits installed by the Builder are large heavy concrete pits. It is easy to tell one from the other. In addition, the manner in which the Builder has laid the agricultural pipes has been criticised by Mr Cheong in that they were not laid at a sufficiently low level. I find this criticism is justified.

- 18 Mr Rodwell speculated that perhaps the water came from the raised garden bed adjacent to the garage. However there was nothing to indicate that this is the case. There was no sign of excess water at the foot of the engineered wall that was exposed by Mr Rodwell nor anything to suggest that the agricultural pipe Mr Caruso installed was not performing its function. In addition, as Mr Cheong pointed out, immediately to the west of this narrow garden bed is the adjoining house that he says would block the passage of much of the sub-surface water that might otherwise come from that direction.
- 19 The ground in the area slopes to the house from the north west and, when one takes into account the position of the neighbouring house, that would appear to direct the sub surface-water into the courtyard. The proper construction of the stormwater system was therefore critical.
- 20 Landscaping in this area was done by the Owners. When the Builder left the site the agricultural drain it constructed was at the foot of the batter on the north western corner of the courtyard. Mr Caruso excavated back from the batter to create a large level courtyard and put in a retaining wall. I cannot see how this work could have had any adverse affect on the performance of the agricultural drain. It seems to me it would make no difference if the water passed through a wall or passed through the toe of the batter. Indeed, since the property on the northern boundary has been excavated down to a lower level, the wall might have had the effect of deflecting water into the adjoining property but there was no sufficient evidence of that.

Conclusion as to the edge heave

- 21 I think the edge heave is a result of defective workmanship namely, the defective constructions of the pit and the defective construction of the stormwater drain under the garage that was intended to drain it. Further, by laying the agricultural drain with a fall towards the south western corner of the courtyard it permitted stormwater to pass through the excavated material in the trench to the footing excavations which has I think caused the damage.

The Rear Brick Veneer Wall

- 22 The rear brick veneer wall outside bedroom 3 is bowing out from the middle. This was pointed out to me on site and it is a defect which will have to be fixed.

The front porch

23 The front porch is a concrete slab poured on fill. The external edge of the slab was supported by the external porch wall. Also on the outer edge of the slab are the veranda posts which support the ends of the roof trusses. It is the differential movement between the inner and outer walls that has caused some distress to the bottom chords of the roof trusses in this area. By fixing the water penetration problem into the footings excavation and allowing some time for the footings to stabilise that part of the problem should be resolved. However there is also significant spalling on the inner edge of the veranda slab where it meets the house. Mr Rodwell, who is an engineer, suggested that this was merely due to some movement and did not have any greater significance. However the plans required this part of the slab to be supported on piers and according to a video tape taken during construction no such piers were constructed. This is a defect and the piers must be built and the veranda properly constructed so that it is supported in the manner that the plans required.

Order

24 There will be an order that the claim be accepted.

Rohan Walker

Senior Member