

SAMPLE SPECIFIC DEFECT REPORT

Mr & Mrs XXXX
Address
Address

Date

Dear Mr & Mrs

Inspection of cracking to conservatory at the rear of XXXX

Further to your written instructions, my inspection of the property was undertaken on XXXX. Mrs XXXX was present during our visit, and the weather conditions were dry and sunny. The weather conditions in previous weeks have been generally dry and warm.

Our inspection and findings are summarised below.

1.0 Instruction

Mr & Mrs XXXX contacted our office to obtain advice on structural cracking which has occurred to low level walls on a conservatory built to the rear of their property. It is understood that our Clients noticed this cracking approximately 2 years ago, and have since been in communications with the conservatory installer and Trading Standards. Our instructions were to try and establish the cause of the cracking, for which the conservatory installer has denied responsibility.

XXXX is formed by a relatively modern two storey detached house believed to have been built approximately 11 years ago. The property is of traditional cavity brick construction, with a pitched and tiled roof. It is understood that Mr & Mrs XXXX employed XXXX to construct a conservatory to the rear of the property. These works were undertaken and completed in July 2007. The invoice for the works is understood to have been in paid in full.

Mr & Mrs XXXX became aware of cracking within the conservatory, between the threshold of the adjoining patio doors and conservatory floor. This cracking seemed to progress, and was eventually accompanied by further stepped cracking to the external brick work on the right hand elevation of the conservatory. This is believed to have occurred within 2 years of the conservatory being constructed.

2.0 Inspection

At the time of our inspection, Mr XXXX had dug a trial hole down the side of the conservatory to expose the foundations. This followed a previous telephone conversation with ourselves. On inspecting the internal parts of the conservatory, a noticeable gap was found between the abutment of the conservatory and rear elevation of the property. The gap can be found between the floor tiles and a tiles skirting which measures approximately 30mm in depth. Viewing the conservatory externally, there are wide stepped cracks to the right hand elevation of the conservatory, which measure 35mm at their widest point. On inspecting the trail hole, the conservatory walls have been built off of a shallow raft foundation which is approximately 300mm thick with the top of the foundation being found at external ground level.

Directly adjacent to the cracked masonry, there is an underground surface water drain which takes rainwater from the conservatory. This rainwater drain appears to run directly beneath the foundation to the conservatory. This surface water drain is thought to be the original drain to the main building, but the original down pipe to the main house has been moved, allowing rainwater to terminate onto the ground.

All other parts of the conservatory structure appear to be in a satisfactory condition.

2.0 Findings

The internal and external cracking appears to have been caused by significant subsidence of the foundations, in the area located directly adjacent to the rear elevation of the property. These cracks measure between 30-35mm which is considered very severe by the Building Research Establishment Digest 251 which states that cracks greater than 25mm in width show a potential danger from failed or fractured structural elements and for instability.

It is our opinion that the cause of this subsidence is related to two main factors.

1, The foundations to the conservatory are considered to be inadequate. The trail hole revealed that the ground is formed from mainly a clay sub soil. British standard 8004 recommends that any small building built upon a clay sub soil should have foundations with a minimum depth of one meter. Approved document A of the building regulations suggests a minimum depth of 0.75 meters, although they advice that this depth will commonly need to be increased in order to transfer the loading onto satisfactory ground. Whilst the loads from the conservatory are relatively minimal, the present situation would not allow the conservatory to be protected against changes in ground conditions which occur at this minimal depth.

2, The foundations have been laid directly across a surface water drain. Following our inspection, a specialist CCTV drainage inspection was undertaken by XXXX. This revealed that whilst the drains were still functional, they have suffered some deflection by the loads imposed above. If any building is constructed above a drain, it is common building practice for the drain to be protected by a structural element. The loads imposed by the ????? foundation have therefore caused the drain to deflect slightly, therefore creating a void. It is likely that this settlement will continue until the drain eventually collapses.

4.0 Conclusion

It is our opinion that the conservatory has suffered significant structural failure caused by inadequate foundations and the lack of protection above a surface water drain. Whilst construction of the conservatory would not have required local authority regulation approval, we feel that providing adequate foundations to any building element is a matter that should be given consideration by any competent building contractor. We also feel that building directly over a surface drain is an action which would always put the structure at risk.

In its present form, there is a distinct possibility that further structural failure could occur to the conservatory structure. It is therefore our opinion that the only long term solution is to have the foundations and masonry walls demolished and re-built on correctly laid strip footings.

We hope we have interpreted your instructions correctly, and that the above information has been fully understood. If you do have any further questions relating to this matter, please do not hesitate to contact us on the telephone number provided above.

Yours sincerely

Derbyshire Surveyors