

4.3.1 Update from the 3rd March visit

Opening up on site has shown a straight divide between two panels of masonry, the most likely reason is that the rear section was constructed at a later date to the original house and was not adequately toothed in during construction. The crack is likely as a result of natural movements of the two structures and as such to prevent the further cracking reinforcing bars should be installed as shown in figure 3, in the area of the first floor landing..



Figure 4 - Opening up has shown a straight crack between two panels of masonry, image 1 of 2



Figure 5 - Opening up has shown a straight crack between two panels of masonry, image 2 of 2

4.4 Crack in wall in 3rd floor bedroom

The finishes in front of the crack in the 3rd floor bedroom over the crack have been removed and it can be observed that the crack does not follow through the into the masonry, which suggests that the crack is not structural in this case. There is no requirement for structural intervention here.



Figure 6 - Removal of the finishes over the crack in the 3rd floor bedroom wall shows no sign of affecting the masonry structure

Various cracking was noted on the front portico which was opened on site by the builder which revealed that the portico was not of stone construction but is a plastered finish around concreted beams with steel plates to the underside. The cracking appears to have been caused by water ingress resulting in the steel plates corroding and spalling the concrete.



Figure 19 - Opened up Portico at the end column



Figure 20 - Opened up Portico to the underside of a beam

Having consulted with a concrete repair specialist (Fosroc) it was decided that the areas which have been opened up should be repaired as this is where the cracking/spalling is at it's worst. This would involve removing all the defective concrete, expose the corroded steel and grit blast, apply an anti-corrosion primer, apply the repair mortar and then reinstate the decorative plaster. In areas where the cracking is minor the cracks should be repaired with the repair mortar to ensure no further water ingress. It is also noted that the water proofing to the slab above the portico was also to be repaired.