SURVEYING THE SURVEY

Malcolm Hollis and Keith Bright

Department of Construction Management & Engineering, University of Reading, PO Box 219, Reading, RG6 6AW, UK

Surveyors provide advice upon the condition of property in many circumstances. This advice should be based upon an investigation into the condition of a building made during the course of construction or at any other time in its life. If the advice is going to be reliable then the inspection must be sufficient to identify the condition of the building and the report must be reliable.

The results of our research into the understanding of the recipients of reports confirm that many are being misled by the content of the document and the expectation of reliance that may be placed upon its content. The research started in 1988 and has been repeated in 1999. This confirms that public understanding of the standardized survey reports has not changed in that period.

The level of inspection carried out in existing property has been shown to be varied. The techniques now used have changed little since 1960. The extent of the defects within new-built-residential property suggests that the inspection of ongoing building operations is insufficient to prevent defects being built into new buildings. The implication upon construction is that the same level of inspection that has been used to examine the final product is used to monitor and control building operations. That suggests that the profession may be incapable of ensuring the quality of new work, assessed both during and after completion, without a change in work practices and the development of new techniques.

Construction quality assurance cannot be achieved if those involved seek to rely upon defects being identified by either a building inspector or a surveyor who may be monitoring the work.. The implication is that there is a need to re-think the approach to the monitoring of building operations if one is to assure the quality of the finished building.

The failure of the pre-purchase report suggests that there is a need for the introduction of, and the maintenance of, a building record. This also has an impact on the Government proposal for Vendor surveys.

Keywords: monitoring, survey, vendor surveys.

INTRODUCTION TO THE RESEARCH

The survey of a building requires the use of a combination of talents which the surveyor acquires through both training and experience. Training should introduce the surveyor to the expectation of defects within certain construction types. Experience will provide valuable knowledge of where defects occur, the appearance and the smell of building failures and the implications of test results. The best results will be achieved by those who inspect, consider, reflect and advise. The survey of residential property within the UK is undertaken predominantly by members of one of the two main professional associations for surveyors - the Royal Institution of Chartered Surveyors (RICS) and the Incorporated Society of Valuers and Auctioneers (ISVA). These two bodies have agreed to merge from the 1st January 2000 if 75% of the ISVA members vote in favour of the merger.

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The basis of the Channel Four Television's "Dispatches" programme (Dispatches 1999) of the 25th February 1999 was built on the findings of research carried out both this year and over the past eleven years. This research looked at, firstly the public perception of what they expect and receive from the surveying professions in their inspection and reporting on the condition of residential property and secondly at the quality of the survey inspection and reports that are being provided within the United Kingdom.

The research considered the frequency of major defects in residential properties and the number of complaints about deficiencies in the reporting procedures. The information gathered for the making of the "Dispatches" programme confirmed the findings of the longer study and showed the existence of a very worrying deficiency across the whole spectrum of events that constitute the way some residential survey inspections are perceived, carried out and reported.

Research findings described in the "Dispatches" programme were based upon three separate phases. The first phase re-examined the results of earlier research reports and re-tested the findings (Hollis 1988) (Harris 1999). The second phase examined the reports of ten surveyors who had undertaken a Homebuyer Survey and Valuation report (HSV) on the same London House (Hollis 1999) and a third phase, which relied upon the observed survey inspections upon a different property by two of the worst performers in the second phase of the work. This paper describes the methodology adopted and the findings of the second phase of the research.

THE THEORY

The preliminary stage of the research identified that a suggested 4% of all surveys failed to identify defects that would cost in excess of £2,500 to correct. (Hollis 1998) The research identified that such defects were present in at least 5% of properties. If these figures were representative, then that suggested a very high failure rate. Consideration was given to the extent of any omission in the survey report that should constitute an error in either the report or the inspection, and whether cost of repair alone or the amount of repair cost was an appropriate form of measurement of the quality of the surveyor's work.

THE TEST

In January and February 1999, ten surveyors were commissioned to undertake Homebuyer Survey and Valuation reports on the first property. The house exhibited a number of defects that, it is suggested, should have been readily identified and suitably identified in the survey report. The defects, which could reasonably have been expected in a property of the age and type, were capable of identification with a minimum amount of equipment. Most of the key defects could have been identified by visual inspection alone.

THE SURVEYORS

It was considered essential that the selection of the surveyors should represent a typical sample of those readily available to anyone commissioning a survey in this location. They should be selected on a random basis (given the constraints of the location of the premises). To achieve this, the surveyors were selected by the producers of the programme from a list that included companies owned by large bank and building societies, major estate agency chains, and those operated as a small

business or as a sole practitioner. Whilst the names of the surveyors will be withheld in all references to their work, it is considered that they were a representative sample of those undertaking such work on a regular day-to-day basis. Eight surveyors were members of the RICS and two were members of the ISVA.. Of the total number, nine surveyors were male and one female.

THE PROPERTY

The building selected was located in London. There was no motive behind using London except that it was convenient to the programme makers and the researchers. It is an area in which ten surveyors could be selected at random, within relatively easy travelling distance of the property and with the minimum risk of cross filtration of information between the surveyors.

The house used, which was selected from over thirty properties examined by the research team, was a late Victorian mid-terraced house on two levels with the rear extension being of less height than the main floors to the front of the property. The building type is representative of a large sample of similar buildings, both within London and all major urban areas. It is considered that the building chosen represented one that should have been familiar to all surveyors and did not in itself represent a 'special' test.

The house was chosen because it contained a range of defects targeted by the research team as being typical in a property of its age and type. These included a major fault, visible sub-defects and deficiencies requiring interpretation. Specialist equipment or specialist testing was not required to detect these defects. It was considered that the faults should have been reported upon within the survey report as both having been seen and the consequence of their presence explained. The report should have communicated an understanding of each of the problems posed.

The defects included:

- An unsupported chimney within the rear roof void. The breast below had been removed,
- A rear extension that had a 100mm subsidence together with settlement in the reverse direction of over 50mm. A ceiling below which had failed and room doors that would not close. Further investigation was required,
- Window frames to the rear of the building which had inadequate sills or inadequate junction with the window sills,
- Water entry which was taking place due to defective gutters and non-connected downpipes which were emphasized by heavy staining on the rendered walls,
- Water entry which was taking place below windows - in part due to the defective sill design - and internal paper which was peeling from walls and dry lining which had been added to conceal possible faults,
- Rendering to the rear part of the building which was cracked following wall movement, bulging and old age. Render replacement and subsequent redecoration was required,

The building also had a requirement for minor repairs to roof timbers, the presence of dampness to the ground floor, failed plaster to the front of the building and a need to

deal with path levels. These minor elements have not been regarded as key faults for the purpose of this research.

THE TYPE OF SURVEY SELECTED

The Homebuyer Survey and Valuation report format was selected because it provided a stable report layout. This report format is published by the RICS in conjunction with the ISVA. It requires the surveyor to report against a series of headings. The comparative studies of the content of each report was facilitated because they were each in the same form. The HSV had also been suggested as an appropriate vehicle for the Government's initiative to introduce vendors' surveys (DETR 1998) and it was familiar to the surveying profession because it has been in use for more than 18 years. A new layout of report was introduced in 1998.

The HSV is the subject of a practice note issued by the RICS in association with the ISVA. Practice note 12, incorporated within the RICS Appraisal and Valuation Manual, (RICS 1999) sets out mandatory requirements (RICS 1999 - 3) for the reporting in the HSV report and maintains that it has nothing to do with "*how the Surveyor inspects the property*." The description within the Practice Note does define what is not to be inspected as part of the service. Item BI states that the Inspection "is a *general surface examination* of those parts of the Property which are accessible". Notwithstanding the assertion that this Practice Note has nothing to do with the inspection, Annex A to Practice Statements Appendix 12 is headed "The Inspection".

The full text of Description Part B reads:

> *B1 The inspection is a general surface examination of those parts of the Property which are accessible: in other words, visible and readily available for examination from ground and floor levels, without risk of causing damage to the Property or injury to the Surveyor. Due care is therefore exercised throughout the inspection regarding safety, practicality and the constraints of being a visitor to the Property (which may be occupied). So furniture, floor-coverings and other contents are not moved or lifted and no part is forced or laid open to make it accessible.*

The footnotes to section B1 amplify the areas where examination will take place and note that this includes staircases, and within accessible roof voids and sub-floor areas. Loose corners of carpet which can be lifted without the use of tools may of course be lifted.

The equipment that the surveyor would be expected to have available include a damp meter, a torch and a 3 metre ladder. The surveyor may, but is not obliged to use other equipment at his discretion. The use of cameras, while encouraged, is discretionary. There is no objection, the Annex A states, to the use of machines for recording site notes.

In so far as services are concerned the surveyor is to inspect them, "but the Surveyor does not test or assess the efficiency of electrical, gas, plumbing, heating or drainage installations, or compliance with current regulations, or the internal condition of any chimney, boiler or other flue. If a problem is suspected within any of these areas, advice is given on what action should be taken." The guide also confirms that no research into the presence of contamination.

It is probable that a misunderstanding of the extent of the inspection to be carried out exists within both the surveying profession and the public who receive this form of

report.(RICS 1999 -2) “The contrast between the HSV and a structural survey has never been clearly explained to or, indeed, understood by the general public.” (Melville 1992) There are those who believe that a roof inspection is dealt with by a head and shoulders glance from an access hatch, there are those who believe that doors should not be opened and closed to check their fit, or that windows should not be opened as part of the inspection. There are many who believe that the HSV has become a vehicle which protect the surveyor rather than serves the customer (Richards 1995).

It has been held that the inspection for the HSV requires the same level of expertise as that for a structural survey inspection (RICS 1984). Because of the debate over the extent of the inspection this paper will rely only upon those defects identifiable within the level of inspection over which there remains no debate.

MONITORING THE PERFORMANCE OF THE SURVEYORS

The property was checked before each inspection to ensure that, as far as possible, the property presented the same challenge to each surveyor. Unfortunately, problems did occur with the proliferation of pin holes in the plaster caused by the use of moisture meters, underlining the presence of the location of some water penetration. However, it is interesting to note that the worst report was produced by the surveyor undertaking the seventh inspection in the sequence. For each survey, the weather conditions were logged by the research team, two of the inspections taking place in heavy rain. All inspections were undertaken with the property furnished but unoccupied at the time of the inspections.

The time of arrival and departure of each surveyor was logged, and the front of the house was monitored during the period of time each surveyor was in the building. The duration of each inspection was recorded.

ESTIMATED COSTS OF REPAIRS

It was estimated by the research team that the major defects, being the first six listed above, would cost in excess of £10,000 to repair. However, it was also estimated that there remained a downside risk that the total cost of repairs could reach £20,000.

PERFORMANCE RESULTS

Each of the ten surveys was evaluated to establish how each surveyor had dealt with the defects set out above. The content of each report was categorized under three headings in relation to the report upon those defects:

- those reports where no comment had been made,
- those reports that noted the deficiency in whole or in part, but did not offer advice upon the implications of the fault,
- those reports that advised upon the consequence of the defect

Of the six defective areas described above, one surveyor identified all six items within the report, one surveyor identified five items and three surveyors identified four items. One surveyor identified two of the items listed. Three surveyors identified only one item and one surveyor did not identify any of the defects in the schedule.

In the case of the lack of support to the chimney, two surveyors failed to see and or report upon the defect. Five surveyors failed to see and or report upon the defective

windows and two surveyors failed to see (or feel) the movement of the floor and walls of the back extension. In the case of the damp penetration below windows, four surveyors failed to find the problem, and two surveyors both missed the defects to the gutter, the downpipe, the defective walling and cracking to the render to the rear extension of the building.

The overall picture suggests a failure rate of 90 %. If one accepts that all six deficiencies should have been reported within a HSV report format then only one of ten surveyors was successful. Taking the most favourable approach to the findings it could be argued that just 20% of the reports were adequate. It is suggested that at least 60% of the survey reports failed to reach an adequate standard but that the most probable figure would remain 90%. The variation in levels of acceptability depends upon the evaluation of the reports provided by each surveyor. A failure has been logged where the surveyor failed to report upon the deficiency and its consequence.

APPRAISAL CONSIDERATIONS

It could be suggested that the test and the assessment of the findings do have a series of limitations. Initially, the approach was to assess the surveyors' reports within the relevant sections as being either right or wrong. It is acknowledged that whilst this may be appropriate in deciding whether or not the surveyor had seen that the chimney was inadequately supported, assessing how surveyors dealt with the interpretation of floor slopes to the first floor by this method may be inappropriate. Therefore, the assessment of the findings was widened to differentiate between the surveyor who had identified, for example, that the floors were not level, and those that had also interpreted that, as a result, a problem may exist. In this respect the findings were reinterpreted.

A line was postulated, below which the survey was considered to be deficient. It is clear that what can be learnt from this research about the absolute quality of the work of surveyors will depend upon where that line is drawn. For example, is it appropriate to say that the surveyor failed because s/he did not warn that there was a risk of water entry below a window? If the surveyor had tested the area and at the time of inspection it was dry - should a warning still have been given, bearing in mind the visible sill deficiencies to the exterior?

The assessment of performance was based upon how each individual surveyor dealt with the elements that were defective within the property. To do this, the research team made the following judgements:

- in terms of cost of repair, the most important element was considered to be the sloping floors to the rear of the first floor of the building,
- the defect that presented the greatest risk to the occupants in the event of failure was considered to be the unsupported chimney stack,
- water penetration through the defective installation of windows, the poor quality of the gutters and downpipes and cracked render facings represented a substantial risk of progressive failure.

The assessment of importance of each of the defects as described above is shown in Table 1.

Table 1: Ranking of defects

Defect	Ranking by cost	Ranking by risk	Ranking preferred
The back extension (outrigger, rear rooms) of the house was suffering from subsidence, a cross fall of 100mm and settlement where internal timbers had moved under the weight of internal partitions and possible water damage. Two of the doors to the first floor would not close, one to the bathroom they had loosened the screws in the hinge to enable the door to be closed, and the ceiling below had partly failed.	1	3	2
The rear walls were faced with render. The flank of the rear extension bulged badly and there were many small cracks in the render face. The render had blown where water had penetrated in to the brick walling. The render needed to be removed, some strapping to the bulge in the wall and the walls re-rendered together with decoration.	2	6	6
There were a number of other minor defects, including roof timber repairs, dampness to the ground floor and the front of the building, etc.	3	7	7
The replacement windows were in the wrong place letting rainwater flow behind the external sill and into the building.	4	4	3
There was damp penetration below the windows to the building generally, and particularly because of sill defects. The paper on the wall had lifted and bubbled.	5	5	4
The rear chimney stack was unsupported in the roof space - the chimney breasts having been removed within the two floors below. The unsupported chimney was clearly visible within the rear roof void.	6	1	1
There was damp penetration because of gutter defects, where water penetration had stained the exterior of the render faced walls and left dampness on the internal face. A section of rainwater pipe was not connected to the gutter. Part of the internal walling had been dry lined.	7	2	5

The assessment based upon cost alone placed at number six the chimney stack, the defect that represents the greatest risk to the occupants of the building. Cost is not the only issue. Indeed, a second concern that occurs by adopting a cost only approach is that the risk of progressive damage is undervalued. In this case the defective guttering, which may have contributed to the floor distortion, has a high probability of causing severe consequential damage if the fault is not rectified. Therefore, it was necessary to develop an order of preference for the assessment that also took into account the level of consequential risk (see Table 1)

The table was amended to reflect an order of preference in the 'discoverability' of the deficiencies within the building. In this respect, it was considered appropriate to rank defects in a way to:

- consider missing the unsupported chimney as a severe indictment of a surveyor's ability to inspect a building.
- consider the identification of the gap between window frame and sill and the poor quality of the sills as being typical of the type of everyday decision most surveyors should be able to establish, and deal with, easily.

Table 2: Results of performance

		Performance of ten surveyors		
Rank – preferred	**Defect**	**Seen and interpreted**	**Seen but not interpreted**	**Missed**
1	Chimney support	8	0	2
2	Movement - floor of back extension	5	4	2
3	Incorrectly installed windows	2	3	5
4	Dampness to the sub sill internally	4	2	4
5	Gutter and down-pipe faults	5	3	2
6	Defective render and wall bulging	5	3	2
7	Sundry minor defects	3	4	3

- consider that establishing the presence of dampness below the window as the consequence of the defective sills should be identified, or alluded, to as a risk.

The final arrangement of the preferred ranking priority together with the performance of the surveyors in terms that described above, is shown in Tables 1 and 2

This consideration if applied to earlier research, may suggest that judgements made upon claims data must understate the number of defective surveys. For this reason, the early part of the research has been reconsidered so that evidence of complaints, as opposed to claims, could be used to estimate the probability of survey failures set against the assumptions made of the state and condition of the residential property stock.

TIME ON SITE AND AVERAGE FEES

Interpretation of the findings of the ten survey reports established that the time spent on site was directly related to the failure of the inspection and the subsequent report.

The three worst inspections were carried out by surveyors who spent an average of 1 hour and 7 minutes on site. The average inspection time for the remaining seven surveyors was 2 hours and 12 minutes. The three worst inspections were carried out in half the time of the average time spent by the other surveyors in this sample.

There is no guidance given to surveyors who carry out a HSV about the period of time a survey inspection should take. Different surveyors, with different experience will take different times for the work. What has been stated by the RICS is that the time required for the inspection should be sufficient for the work to be carried out to an adequate standard.(CSM 1999). Clearly, whilst there is a debate as to whether the inspection differs in any way from that which is required for other building surveys the period of time that may be required will vary. However, what is clear from the research is that the inspections that took the shortest period of time, based upon the quality of report, did not allow sufficient time for the collection of data, the testing of the building with a moisture meter and reflection upon the consequences of the data and test results obtained.

The average fee for undertaking the survey was £380 with the highest fee being over £520 and the lowest being around £270. The two surveyors who spent the least time in the property did not charge the lowest fees, one charging only £30 below the average fee and the other charging over £90 above the average. The surveyor who spent the most amount of time in the property (about 3½ hours) charged slightly less

than the average, and the surveyor who charged the highest fees was in the property about 2 hours.

It is suggested that if £80 per hour represents a reasonable fee for a surveyor, then the average fee suggests about 4½ hours worth of total involvement should also be reasonable. With travelling time of approximately ½ hour, plus preparation of report of approximately 1½ hours, it is suggested that 2½ hours should have been available to inspect this property. Only two surveyors took more than two and a half hours to insect the building, and four surveyors were in the property for 50% of that time.

CONCLUSIONS

The research findings suggest:

- a noticeable level of public concern about the quality of residential surveys
- a theory that a substantial proportion of existing residential surveys may be sub-standard

The theory, where tested, confirmed that there was:

- a poor standard of inspection,
- a poor standard of recognition of defects or potential defects,
- limited consideration of problems where they have been recognized within the survey report.

The techniques now used have changed little since 1960.

The level of survey inspection of residential property has been shown to be varied. The research further suggests that there is a grave risk that the general standard of inspection and reporting upon the condition of a residential property, by way of the HSV format of report, is of an unacceptable standard.

The defects that are being found in new-built-residential property suggests that, if the same survey standards are being applied to the inspection of ongoing building operations, they are insufficient to prevent defects being found and remedied during construction.

If correct, the implication for this upon construction is that the same level of inspection that has been used in the building survey is used by those who monitor and control building operations. That suggests that the surveying professions may be incapable of ensuring that new construction is of an adequate standard.

If the results of this research can be applied to a wider body of building inspections, then construction quality cannot be achieved by relying upon all defects being identified by the monitoring of construction work. by either a building inspector or a surveyor.

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