

STEEL-FRAMED QUALITY - MORE THAN MEETS THE EYE

Several years ago, a consumer made a successful claim against a fast food retailer because the burger they were sold did not match the appearance shown in the sales poster. The claim was unusual in that it did not involve those factors commonly associated with food complaints, eg ingredients, nutrition, taste, contamination, etc. The consumer's expectation was formed mainly by the photographic appearance of the product. Product safety and performance, even if it was quite satisfactory, was a secondary consideration.

This type of consumer expectation, and the trading laws supporting it, has profound implications for homebuyers, investors and building practitioners. Just about every part of a house, everything it has, does and displays, falls into one of three categories: structural, functional or visual. Any one home can achieve a higher or lower standard in one, two or all three of these. Some house attributes can be objectively described and evaluated, others only subjectively – in the eye of the beholder. Some attributes are immediately obvious, while others require expert knowledge or investigation to reveal.

There has been a trend in recent years to rely on “sample” specification when judging the look and feel of a finished house, and to incorporate these perception into building contracts. The client's home should be like the display in functionality and finish, because these are the things which can be pinned down by reference to the sample. TV “makeover” programs, in which a group of renovators blitz a property to increase its sale value, reinforce the notion that appearance counts for everything, regardless of what's underneath.

Many people form their expectations of new home appearance and performance by reading journals and by visiting display home villages, at which many of a home's design and appearance features may be evaluated; the size and shape of the spaces, their configuration and inter-relationship, the nature and colour of the surface finishes, the appliances and inclusions. The underlying materials and features of the home, and their long-term contribution to the “look and feel” of the display, are rarely mentioned and ever less rarely considered in detail.

This as-per-sample trend encourages the definition of “quality” in purely superficial terms. It draws attention to the visual and functional attributes at the expense of the structural ones, even if the structural attributes are needed to support the functional and visual ones. It shortens the expectation of building life by focussing on the shell, on those things which can be maintained and, if necessary, changed or updated by the client.

From both the client's and the community's point of view, this direction is potentially quite harmful in the longer term. It has the potential to undermine the long term value of buildings and improvements, by discounting the value of stronger, safer, more robust and more durable structural materials. As long as the paint is uniform, the tile lines and brick courses straight and the included appliances work, the underlying structure is assumed to be equally satisfactory. Almost like a theatrical illusion, style prevails over substance and the substance remains largely concealed from view. Providing the building can survive its defect call-back period, and its statutory warranty of 6 or 7 years, any shortcomings are neatly transferred to the owner as “repairs and maintenance”. It shouldn't be like this; quality should be embedded, not cosmetic.

The codes and standards which govern homebuilding in Australia embody an important principle: that homes should be designed and constructed to last a minimum of 50 years. They say very little about paint finishes and straight lines of bricks and tiles, and

quite rightly they shouldn't have to. These things have nothing to do with health, safety or functionality, and builders and their customers should rarely be arguing about them. The discussion should revolve around quality and value; how long will the building last, what structural materials will be used, what maintenance will be required and how easily can the building be modified or extended? If the underlying quality is missing, you can't simulate it with a paint job or a glossy brochure.

When it comes to framed construction – the most common choice for Australian homes – the contribution of the frame to the durability and longevity of the home is immense. All wind loads, and all but a tiny proportion of the dead and live loads, to which the home is subjected are borne or transferred by the frame. The frame also supports all cladding and lining materials and most fixtures. Failure of the frame to fulfil this function indefinitely in any part of the home can have serious consequences.

Such an important function would dictate that the frame should always be made from durable materials, with no less than 50 years' expected defect-free life, and that any part of it made from anything else should be readily inspectable to assess any deterioration. The manner in which most homes are designed and constructed makes this inspection impossible for many parts of the frame, including wall frames, intermediate floor framing and cathedral ceiling structures. [See NASH Fact File on "Structural Pests" for more information on concealed structures.]

Quite apart from the physical structural deterioration of the frame, its contribution to the serviceability of the building is significant. The frame provides the strength, stiffness and geometric stability of the building. Its ability to stay straight and square indefinitely, through varying seasons with temperature and humidity changes, is vital to just about everything which is attached to it – the brick exterior skin, roof tiles or sheeting, window units, door frames, plasterboard wall linings and so on. Superficial and so-called "nuisance" defects in these materials like sticking doors and windows, brickwork and cornice cracks, nail popping in wall linings and sagging roof lines can often be traced to instability in the frame. Whilst they do not threaten the structural integrity of the home, the contribution of these defects to the overall cost of ownership and to the deterioration of building value can be significant.

When strength, durability and quality are the important selection factors, steel framing is the natural choice for brick-veneer and direct-clad home construction. Steel framing also offers other outstanding homebuilding advantages:

- **Design flexibility**, to easily create optimum architectural forms to suit your living needs and building conditions.
- **Wide availability**, so the design you want can be built virtually anywhere in Australia.
- **Fire resistance**, with excellent early fire hazard properties so you just can't ignite it, and it doesn't add fuel to a fire.
- **Low maintenance requirements**, requiring low cost and effort to keep its design qualities intact.
- **Trade familiarity**, so you'll always have access to the skills to modify or extend your home
- **Reliability**, so you'll never need to replace your steel building products because of technical fashion or new research

NASH believes homebuyers and building practitioners should adopt the same definitions when it comes to the quality of the homes in which they share a common interest:

Consumer Quality:

- *A well-informed consumer acting in a reasonable manner is satisfied with the appearance and functionality of the building at hand-over.*

Asset Quality:

- *A well-informed consumer acting in a reasonable manner is satisfied that the building has a 50 year life expectancy with reasonable maintenance.*

Reasonable Maintenance:

- *An annualised maintenance cost not exceeding an agreed percentage of the original construction contract value.*