

The conclusion recommendations construction essay



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BUSTER**

From the unstructured interview it appears that Anthony is somewhat frustrated with the lack of support for timber frame housing. Anthony has successfully constructed two five-storey apartment blocks of timber frame without any problems, yet the public are concerned about two storey timber structures. More needs to be done to market the benefits of timber frame housing and to educate the public.

Although Anthony suggests that timber frame construction will become more popular in the future due to new building regulations requiring increased thermal performance and the Code for Sustainable Homes, it cannot be expected to happen overnight. Despite the governments drive for sustainable developments and using renewable construction materials, such as timber, their support to the timber industry is limited. However, the timber industry cannot wait any longer in the hope that the government will help to persuade the public to construct their homes of timber frame. The timber industry need to take the initiative and invest in marketing techniques that are beneficial to the industry. The government, designers, builders and developers all have a major part to play in raising the awareness of timber frame construction.

Over three-quarters of Anthony's work is in the public sector. With government funding reducing year on year and limited profits to be made from public housing Anthony is dependent on private houses. He is keen to do more bespoke timber frame houses but until public perception changes he knows bespoke timber frame houses are sparse.

8. 0 conclusion & Recommendations

8. 1 Introduction

After carrying out the primary and secondary research, a thorough understanding of timber frame construction has been developed. It is felt that all requirements set out in the aims and objectives have been achieved.

The literature review discussed in detail the current state of timber frame construction in the United Kingdom and the important role it has in the future of the construction industry. The various components, design parameters and regulations of timber frame construction were discussed in detail. Timber frame was compared against traditional masonry in many aspects throughout the research. The case studies demonstrated how flexible timber frame design and construction can be. The interview and questionnaires highlighted the many factors that are restraining timber frame construction in Northern Ireland and what can be done to help it progress.

8. 2 Conclusion

Traditionally, houses in the UK and Ireland are constructed of brick and mortar, and timber frame is seen as an alternative method of construction. There are many barriers preventing timber frame from progressing from an alternative method of construction into a mainstream competitor of traditional masonry. In the housing sector, it appears timber frame construction is suffering due to the public's negative perception. As was shown in the questionnaire, although a large number of the public recognise

the benefits of timber frame construction they are still wary of it and the majority would prefer to build their own homes using traditional masonry.

The questionnaire also highlighted the problems the public perceived timber frame construction to have, such as structural instability, poor fire resistance, poor value on the property and limited design. Timber frame construction is the most popular form of construction used throughout the world, but here in Northern Ireland it is seen as cheap and fragile and as a result people do not rate it on the same level as traditional masonry. This investigation has proven all the perceived problems to be untrue and established there is a general lack of understanding, knowledge and widespread availability of information, which has led to the public resisting change from traditional forms of construction.

The construction industry is traditionally conservative towards new methods of construction hence many developers and contractors believe it to be a substantial risk to incorporate timber frame construction into their private housing schemes. Housing associations are keen to use timber frame as they want to achieve level 3 of the Code for Sustainable Homes with minimal costs while benefitting from the accuracy and minimal waste that prefabrication offers. Private developers will not use timber frame construction until they are certain the public are prepared to purchase a timber frame home as they do not want to devalue their site.

A perceived problem within the industry was the unfamiliarity of timber frame from design through to construction. There is some unease within the industry regarding timber frame construction, whilst some are accepting it;

others are oblivious to its existence. The construction industry, as a whole, need to start to familiarise themselves with timber frame design, timber frame detailing and timber frame construction. For timber frame construction to develop, it's critical that the industry professionals accept timber frame construction and pass the benefits onto clients.

Although the case studies demonstrated that timber frame is a versatile method of construction, until public and industry appreciation of the benefits of timber frame increases, masonry construction will remain the dominant form of construction within the UK. It is important that the benefits of timber frame construction are well demonstrated in order to gain acceptance within the industry and the general public.

Upon examination of the information collected during the course of this investigation, it appears that timber frame construction has the ability to be used in the construction of complex bespoke homes. Timber frame construction can offer the public and the industry many benefits, however, the research indicates that until timber frame perception changes, it will struggle to impact Northern Ireland in a way that it potentially could. With new building regulations, due to be released in the second half of 2010, a further increase in regulations due in 2013, zero carbon homes in 2016 and the introduction of The Code for Sustainable Homes; it is likely timber frame will grow in popularity due to its thermal ability and environmentally friendly nature. However, public and industry awareness need to increase before the significance of timber frame construction can be fully appreciated.

8. 3 Limitations

The questionnaires had to be short and concise, and not overly technical to keep the interest of the respondent. This could have resulted in insufficient data being collected. Although a total of sixty questionnaires were distributed in the North West, only forty were returned. To achieve a broader spectrum of results more questionnaires could have been handed out and posted to further regions of the province, such as Belfast.

The single interview conducted was very beneficial in getting a timber frame manufacturers view on different aspects of the industry. Although arrangements were in place to interview another two timber frame manufacturers, the interviews never materialised. It would have been beneficial to conduct further interviews to gather a wider range of views.

The two case studies provided an insight into two opposing timber frame structures. It would have been constructive to investigate a second bespoke house to gain a further insight into the methods used to construct bespoke timber frame homes.

8. 4 Recommendations

When carrying out research for this investigation the public, and some professions within the construction industry, appeared to have a negative perception of timber frame construction. A further area that could be investigated is how these negative perceptions can be changed. Further research could be undertaken into marketing campaigns to increase awareness of timber frame construction. Investigate how advertising and

promotion could be used to educate people on the benefits of timber frame construction and see if government support is required.

Another area of further research could be industrial training. There is a lack of knowledge within the industry about timber frame design and detailing. An investigation into how further timber training is required within the industry. Possibly there are not enough courses and support available, or maybe there is no government funding therefore no incentive for employers to send their workforce. Timber frame design and detailing could also be looked at in university courses. Napier are offering timber engineering degrees, this is possibly the way of the future.