

Reincarnated McMansion

34.

Auditing, Dismantling, Rebuilding

Trouble shooting:

Problem:

A building site requires adequate room to move around the building during construction – for safety purposes and for construct ability. Unless you are on a large property with ample room for storage, my thought is that you are going to have to remove building materials once dismantled to allow for this. This would mean transporting offsite and transporting back to site. How do you propose to eliminate the embodied energy by double transport times for materials?

Solution:

The selection criteria for the site will include making an assessment of the available room on the site for the purposes of storing materials. For materials that require protection a shipping container will be provided on the site.

Problem:

Frame Construction - most frames are pre-fabricated and delivered to site and are erected in a 1-4 days. Hand Constructing a Frame onsite is going to use more resource time to make and you will be dealing with Timbers that are already cut to size for the existing dwelling? You will be using power tools to construct onsite, how do you propose to track this embodied energy?

Solution:

Frames may be able to be used in their current prefabricated form, or dismantled and re-used. Hand constructing frames does consume more resource time however this is offset by the substantial gains in utilising a recycled material.

To monitor the power used during construction the meter will be read at the beginning and on completion to determine the total power consumed for construction. Sub metering of certain activities may be undertaken.

Problem:

Have you accounted for testing any home by way of pest and building report – you would need to ensure that these reports are undertaken to ensure suitability of materials? – including the review of any dwelling for asbestos?

Solution:

Once we have our McMansion, all the materials will be carefully audited - those that do not meet pest control regulation will not be used. Should asbestos be found on site, standard procedures will be employed to remove the material.

Problem:

Accommodation for McMansion owners during build



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Trouble shooting (continued):

Solution:

Relocate to rented premiss

Problem:

The Timber Framing Code has changed over time and the legal requirements for framing would be much greater than what was required 10-20 years ago. How do you propose testing timber members for suitability for structural and wind loadings under the code? i.e. the Timber Framing Code will determine what structural grade the timbers for the frame must be?

Solution:

Existing structural drawings may be available to be sourced from Council or the current owner to determined the as designed ratings. As much of the timber will be reconfigured the structural engineer on the design team will make an assessment of the grade and design for wind loadings etc as per the code. Most structural engineers have experience in working with recycled materials.

Problem:

Using Volunteers to dismantle the existing McMansions, how do you propose to satisfy the requirements for work cover under the OHS Act for this project and how can volunteers be covered for any form of Workers Compensation or liability claims for accidents during the dismantling of the building

Solution:

We will employ a labour hire company with experience in construction work; the 'volunteers' insurance will be covered under their policy. All volunteers will inducted before going onsite.

Problem:

The project will be labour intensive - wage costs.

Solution:

Materials saving from recycling will counter balance this loss. Possibly employ or seek volunteers from TAFES and architecture universities

Problem:

Recycling bricks - dealing with broken bricks

Solution:

Since the 1960's, cement, rather than mortar has been used to lay bricks. The cement is stronger than the bricks - making reuse of the bricks almost impossible. We propose to crush the existing McMansions bricks (along with excess tiles and concret) into a pipe or ramed earth wall.

