

# Designing Comfortable Homes: Guidelines On The Use Of Glass, Mass And Insulation For Energy Efficiency

**Michael R Donn; Grant Thomas; New Zealand; Cement & Concrete Association of New Zealand**

Passive Solar Home Design Department of Energy homes. Designing comfortable preview an introduction to guidelines on the use of glass, mass and insulation for energy efficiency ... Designing Comfortable Homes - guidelines on the use of glass . ISSUU - Canterbury Today Issue 116 by Academy Publishing THERMAL MASS AND INSULATION for TEMPERATE CLIMATES solar design creates an energy efficient, comfortable home that reduces energy consumption . Increased south-facing glass area - allows sunlight to help warm the home in winter months. ... at night can also be used to help trap the heat absorbed by the thermal mass. .... Guideline 5: Insulate the thermal mass surfaces. Retrofitting Thermal Mass into New Zealand Houses - Associated . Design for climate requires that homes be designed or modified to ensure . as are energy efficient heating and cooling systems, and smart behaviour by the occupants. ... Humans are comfortable only within a very narrow range of conditions. .... Use well-insulated thermal mass to even out temperature ranges with night ... Energywise Building 3 Dec 2012 . Designing Comfortable Homes – A Free Guide to Passive Solar ... combinations of glass, thermal mass and insulation are used. ... with the energy efficiency requirements of the New Zealand Building Code is best practice. homes Designing comfortable Insulation and thermal mass are highly effective ways to reduce energy use and improve comfort in buildings . and cooling requirements and improving comfort. If the design does not comply with all the . “Designing comfortable homes: Guidelines on the use of glass, mass and insulation for energy efficiency”, ... Affordable Passive Solar Planbook - Appalachian Energy Center 8 Feb 2013 . By combining good design with effective insulation, you can collect and ... and dampness, and make your home healthier and more comfortable. ... to use an insulated concrete floor for thermal mass to retain heat .... and guidance for designing energy-efficient and passive solar houses in New Zealand. Blown In Insulation - Mass.Gov Title, Designing Comfortable Homes: Guidelines on the Use of Glass, Mass and Insulation for Energy Efficiency Volume 37 of Technical manual. Authors ... Passive Solar Design developments in concrete that have extended its design potential and given concrete . creation of affordable, comfortable, stylish, durable and energy-efficient homes. ... Eight out of 10 new homes in New Zealand have a concrete slab floor. .... poor standards of insulation: .... GUIDELINES ON THE USE OF GLASS, MASS. Can Glass Houses Be Energy-Efficient? - Green Compliance Plus . A lot of heat energy is required to change the temperature of high density . Appropriate use of thermal mass throughout your home can make a big ... Insulate slab edges in cold climates or where in-slab heating or cooling is ... Thermal comfort during sleeping hours is a primary design consideration in tropical climates. ComingHomeToConcrete.co.nz Designing Comfortable Homes Guidelines on the use of glass, mass and insulation for energy efficiency. Preface . . . . . 3 1. INTRODUCTION . GUIDELINES ON THE USE OF GLASS, MASS & INSULATION FOR ENERGY . guide for anyone interested in designing comfortable energy efficient homes. Designing Comfortable Homes - CCANZ of NZ homes surveyed for the Housing End-use Energy Project . Glass still loses heat, but more slowly when insulated .... Designing Comfortable Homes: guidelines on the use of glass, mass and insulation for energy efficiency, from the. Passive heating - Smarter Homes Designing comfortable homes [PDF, 3.3 MB]. Site position. The best building site for a warm, energy efficient home is north-facing, sunny and ... has good insulation - to trap in the free heat from the sun; uses thermal mass - like a ... most houses can meet Building Code requirements with adequately sized and located ... ?Cement & Concrete Association of New Zealand [WorldCat Identities] Designing comfortable homes : guidelines on the use of glass, mass and insulation for energy efficiency( Book ) 1 edition published in 2001 in English and held . Design comfortable home Download Pdf 26 May 2015 . Official Full-Text Publication: Designing Comfortable Homes - guidelines on the use of glass, mass and insulation for energy efficiency on ... Ecotect Mark Fielding Residential Design Energy Systems 26 Jul 2012 . Architect Roger Buck, who has long advocated energy-efficient construction and ... On an individual level, Roger recommends home owners take a look at Designing Comfortable Homes, 2nd Edition, which is a set of guidelines on the use of glass, mass and insulation for energy efficiency, approved by the ... Household Economy Queensland's four climate zones has been used to identify suitable design . The objective of the energy efficient housing standards is to use a range of passive design ... comfortable home. ... increased insulation in the roof space and walls ... Good design and energy efficiency is integral to a sustainable house, which uses ... Thermal mass - Your Home ?6 Jan 2012 . Designing comfortable homes: guidelines for the use of glass, mass and insulation for energy efficiency. Cement and Concrete Association of ... Think Brick Australia, 2006, Energy Efficiency and the Environment: The Case for Clay Brick, . This is sometimes known as 'Passive Solar Design'. ... of mass and its uses in common buildings and provide guidance in areas where ... such as glass area and protection, insulation, orientation, ventilation and building usage. External shading when building - Level Designing Comfortable Homes. GUIDELINES ON THE USE OF GLASS, MASS. AND INSULATION FOR ENERGY EFFICIENCY. 2nd Edition. Design guide for 6-star energy equivalence housing - Department of . Some 90% of the total energy used in buildings is for heating, cooling and lighting. ... thermal mass, it must be used in conjunction with higher thermal insulation, window ... Further financial savings can be

achieved as a result of concrete's ability to ... \*Designing comfortable homes: guidelines on the use of glass, mass and ... ENERGY ACTIONS – GAIN HOME ENERGY EFFICIENCY existing New Zealand housing stock and how energy is used in those dwellings. Six ... draft-stopping and employing efficient methods of heating. ... insulation and this is a major factor in the generally poor thermal performance of the ..... Designing comfortable homes: Guidelines on the use of glass, mass and insulation. Green buildings Stuff.co.nz Unless your home was constructed with special attention to energy efficiency, . Use the recommended levels of insulation for exterior walls for new house ... To maintain comfort, the heat lost in winter must be replaced by your heating system ... Following these guidelines will provide you with a more energy efficient home. Designing a Performance-oriented House envelope Based on a . . Efficiency and Conservation Authority publication Designing comfortable homes – guidelines on the use of glass, mass and insulation for energy efficiency, ... Thermal Mass & its Role in Building Comfort and Energy Efficiency 23 May 2011 . Energy modeling software shows that even a house with mostly glass ... in Truro, Massachusetts (by Zero Energy Design) which had acres of glass everywhere. ... cooling performance, insulation levels, maximum allowable glazing areas, .... Alas, no reports on actual energy use or comfort here, either – but ... Designing Comfortable Homes: Guidelines on the Use of Glass . both aesthetics and energy performance, and gain more efficiency for the . adjustable geometric properties (windows, insulation and thermal mass) of a ..... M.: 2010, Designing Comfortable Homes: Guidelines on the Use of Glass, Mass and. Design for climate - Your Home Energy Efficiency Design Guide for Indian Housing - Environmental . Passive solar design refers to the use of the sun's energy for the heating and cooling of . buildings with low energy costs, reduced maintenance, and superior comfort. ... Interior design elements of a home in our region also play a strong role in the ... South facing glass; Thermal mass to absorb, store, and distribute heat. Publication: Guidance for complying with new energy efficiency re . Choose building professionals experienced in energy-efficient house design . In some areas, zoning or other land use regulations protect landowners' solar access. ... comfort during the cooling season through the use of nighttime ventilation. ... In well-insulated homes in moderate climates, the thermal mass inherent in ... Publications Michael Donn - Victoria University of Wellington Passive Solar Design Strategies: Guidelines for Home Builders, published by the. Passive Solar .... insulation levels, window types, and solar glazing areas are given for. 43 U.S. .... comfortable only by the use of prodigious amounts of energy. If the ..... through south-facing glass and stores solar energy in thermal mass--.