

Cost comparisons and design
considerations for an 8
storey timber apartment
building

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ITS NOT ABOUT ME

A BIT ABOUT ME

AND TIMBER

The Ultimate and Only
Question
'Timber vs Concrete/steel'

Which is cheaper?

CONCRETE?

no

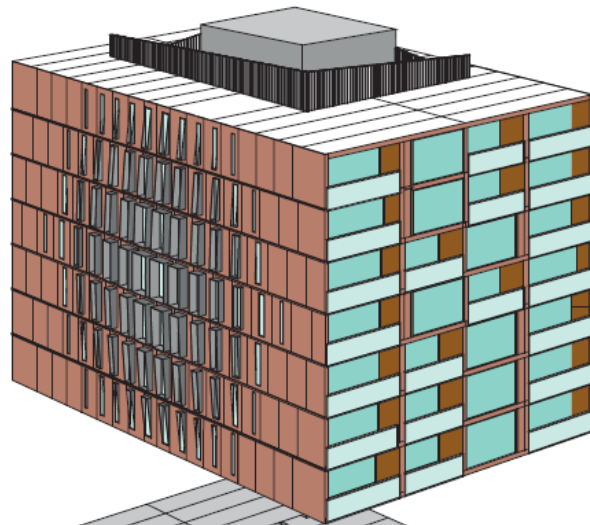
Timber?

Yes.

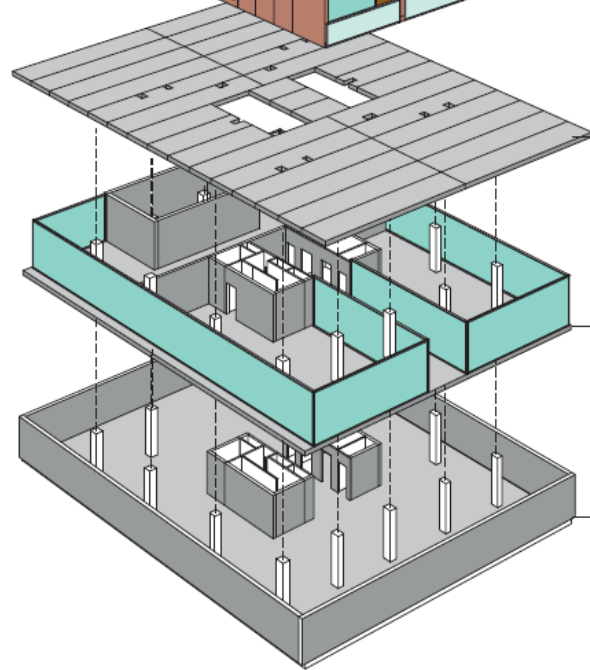
But can a humble QS prove
it?

method

We carried out a detailed
measure, priced it and then
gave it to builders



7 Story Apartment Building



Concrete Floor /Plinth

Retail Level

Basement

RESULTS: THE MIDDLE AGED QS OPINION

Element	Concrete	CLT	Timber
Columns	\$ 337,373	\$ 33,150	\$ 33,150
Upper Floors	\$ 1,517,633	\$ 1,470,378	\$ 1,313,292
Roof	\$ 137,561	\$ 145,818	\$ 146,680
External Walls	\$ 1,135,070	\$ 1,086,240	\$ 1,047,822
Internal Walls	\$ 1,193,057	\$ 1,556,506	\$ 1,432,204
Ceiling Finishes	\$ 459,085	\$ 597,955	\$ 597,995
Preliminaries	Base Case	- \$ 287,000	- \$ 287,000
TOTAL	\$ 4,779,780	\$ 4,603,048	\$ 4,284,102

CLT = 4% CHEAPER
TIMBER 11% CHEAPER

ELEMENT	conc	CLT	timber	INITIAL COMMENTS (PRIOR FORMATTING)
COLUMNS	\$337,373	\$33,150	\$33,150	no columns required due to timber load bearing walls (see also internal walls)
UPPER FLOORS	\$1,517,633	\$1,470,378	\$1,313,292	timber cassettes cheapest form of material
ROOF	\$137,561	\$145,818	\$146,680	much of a muchness
EXTERNAL WALLS	\$1,135,070	\$1,086,240	\$1,047,822	SLIGHTLY CHEAPER FIXING DETAIL WITH TIMBER
INTERNAL WALLS	\$1,193,057	\$1,556,506	\$1,432,204	LOAD BEARING WALLS HENCE EXPENSE
CEILING FINISHES	\$459,085	\$597,955	\$597,955	Extra layer of timber on soffit
PRELIMINARIES	Base Case	-287,000	-287,000	6 WEEKS SAVING
	\$4,779,779	\$4,603,047	\$4,284,103	
		4%	11%	SAVING ON CONCRETE OPTION (%)
		\$176,732	\$495,676	SAVING ON CONCRETE OPTION (\$)

RESULTS: THE BUILDERS
STAGE 1 (the knee jerk)

And the builders said?
'Concrete is easier for us'

RESULTS: THE BUILDERS - STAGE 2

the builders pricing the estimate and including their premium for working with an 'unknown' material

AND THE BEGRUDGING
REALISATION...

RESULTS 2: THE REALITY. THE BUILDERS OPINION

Element	Concrete	CLT	Timber
Columns	\$ 337,373	\$ 33,150	\$ 33,150
Upper Floors	\$ 1,517,633	\$ 1,470,378	\$ 1,313,292
Roof	\$ 137,561	\$ 145,818	\$ 146,680
External Walls	\$ 1,135,070	\$ 1,086,240	\$ 1,047,822
Internal Walls	\$ 1,193,057	\$ 1,556,506	\$ 1,432,204
Ceiling Finishes	\$ 459,085	\$ 597,955	\$ 597,995
Preliminaries	Base Case	- \$ 287,000	- \$ 287,000
TOTAL	\$ 4,779,780	\$ 4,603,048	\$ 4,284,102

SAME TABLE + OR - 4%

conclusion

THIS IS THE START

THERE'S MORE GOOD NEWS.

CHANGES TO CODE MAKING TIMBER EASIER TO IMPLEMENT
SUSTAINABILITY

WASTE

SPEED

EASE

- THE HUMAN PERSPECTIVE
A NEW DESIGN PALETTE

ALL POSITIVES

POSITIVE = CA\$H

THERE ARE NO LOGICAL
REASONS TO HOLD UP
PROGRESS

WHAT ARE WE WAITING
FOR?

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