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Selling points of Engineered retaining walls at Lloyd stage 8 and 9

Typically, the heights of retaining walls will be 1.8h compacted to Level 1 compaction
Enabling full use of the block to construct a waffle pod /raft slab design on a flat site.

Certified site to enable standard house plans to be placed on an elevated subdivision
with views and higher end housing estate.

The risk for builders who in the past have relied on a number of different retaining walls
up to 1.2 high using non engineered systems is considerable.

Given that these sites will be 1.8m high and require an engineered retaining wall provides
limited options to make use of full block widths without encroaching on geo grid
reinforcing mesh systems which limits constructions widths within the blocks.
The Magnum stone retaining wall is decorative and structurally engineered.

In brief advantages of Magnum Stone Engineered retaining walls for flat sites

- Decorative in design
- Fully engineered and certified
- Standard house plans can be used
- Floor structures /slabs /waffle pods one level cheapest flooring options on the market
- No additional scaffolding required
- No sub floor costs piers footings posts
- No brickwork/blockwork to underside of floors
- No suspended floor costs
- Full widths of blocks is buildable
- Level sites to landscape
- Rear yards are more useable
- No site works required prior to slab set out

Building on sites with 1.8m cross falls Typically have the additional costs of

- Full redesign of plans
- Full and comprehensive re-design for Structural's
- Additional costs for footings
- Additional costs for all sub floor blockwork/brickwork
- Additional costs for suspended floors
- Scaffolding required for three sides of the house
- Landscape costs considerably more expensive
- Additional costs for structural steel posts beams etc
- Still require retaining walls for driveways/ stairs etc
- Balustrading handrails etc
- Scaffold costs

Cost estimate of building the same designed house on a flat site V a site with 1.8m cross falls and 1.2 m front to rear
Based on a 290m2 footprint

Re-design costs architectural standard house to sloping site	\$2500
Re design for structural additional work for concrete/steelwork	\$2500
Set out costs and surveying	\$1000
Footing costs 60m additional excavation /Reo/concrete/labour	\$15,500
Sub floor walls/block/ brick 120m2	\$15,600
Addition piers/post sub floor x 20	\$5,000
Scaffold costs 4 weeks 310m2 hire	\$3100
Labour to erect and dismantle	\$7750
Cartage	\$500
Additional cost suspended concrete floor over slab on ground	
Concrete/bondeck /290m2 x \$60	\$17,400
Additional sub floor insulation to achieve r2.2 rating	\$2500
Landscaping additional retaining walls low height 1.2below	\$2500
Additional steel supports for structural loads	\$5000
Balustrades and handrails to verandas front and rear	\$5000
Front stairs/rear stairs and retaining walls	\$5000
Sub Total	\$90,850

Cont.

Notes

Major variance in above costs could be cost of Timber possi-truss floors and Pine board flooring V a concrete suspended slab or Hebel suspended slabs
This is also a significant difference in quality of floor

Assuming cost of standard Waffle pod/raft slab is around \$120-140m²

If house is a coloured house there is also additional costs for render/coatings below floor level which haven't been included in above costs.

Other minor costs advantages having engineered filled sites over sloping sites

Build cost in application for DA and CC are reduced, so fees will be lower as above costs are built into land value not build value.

The same for Home owner warrantee insurance with lower build costs so lower premium charges

These prices are indicative only but suggest that they would be within 15% of market values either way and to be used as a guide only.

Anticipated value in purchasing a controlled filled retained site over a building to suite the slope of land is clearly in the positive. Offering a cheaper house on elevated sites with views and higher quality estate values.

Yours truly

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