

“How Works Packages Helped Our Budgeting”

Architect Neil Turner explains how a scientific approach to costs helped his own award-winning remodelling project stay on budget



NEIL TURNER

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JEREMY PHILLIPS

Above: The Author, Outside Treetops

Neil and Anita undertook a huge remodelling and extension scheme (below) to the 1960s home they bought in Northumberland. They spent £300,000 on the project, which won several awards

Building projects can be completed to a budget — I'm living proof. I'm an architect, and I built my own dream home, Treetops, which won the Daily Telegraph Homebuilding & Renovating Award for Best Extension in 2014. As well as the design, I am equally proud of the tight deadline, programme and cost control in completing Treetops.

Cost control is critical and should be applied throughout the project, from design to completion. As an early estimate, a general cost per m² is the best you're going to get — the table in *Homebuilding & Renovating* provides this (p.100). My clients usually ask why this is the case. I usually explain that

each house is so unique and the list of finishes so variable — a kitchen can be £10,000 or £100,000, and even a humble brick can range from 20p to £1 in price.

Estimating in Detail

So how do you start to assess the costs on your project? A project can be divided into separate material costs and their quantities. This is a skill for a quantity surveyor who would 'take off' the building (measuring the drawings and converting them into a list of costs and quantities) to prepare a bill of quantities. An alternative method I undertook was to break the project down into 'work packages'.



COSTS PACKAGES

So what's a work package? Start with the basics of foundations, floors, walls, windows, roofs, electrical, mechanical, external works, statutory supplies, internal finishes, kitchens and bathrooms. These 12 packages of work cover the vast majority of your new build. With my project Treetops, I broke the whole project down further into a series of 147 detailed work packages.

Once you understand the costs of each package, then you can control the real cost of the overall project. Start by estimating costs and fill in with accurate numbers. Take, for example, windows — one of the larger costs on most projects. On Treetops, the elevations showed the number of windows. We sought alternative costs based on the planning elevations. Once a supplier was chosen, we then created a detailed window schedule so each window was numbered, sized and the opening mechanism described (side hung, top hung) and ironmongery selected. The manufacturer could then provide a detailed and accurate fixed cost. With every accurate cost, you gain more cost certainty and your budget becomes more guaranteed.

Creating a List of Packages

So how do you create the lists? Start with the design and the basic list above. Then look at each part of your house design. The external wall of my house had blocks, insulation, render, cedar cladding and zinc. Each was initially given a package number. The roof was also zinc so the zinc surrounds joined the roof package for ease of tendering. More packages can be created if you are using different people, or if one subcontractor does the brick, block and groundworks then packages can be combined.

One top tip — don't kid yourself! It's a bit like spending on credit: be honest with yourself and don't hide the guilty se-

"Prepare to spend a lot of time and tenacity in monitoring and chasing"

crets. If you want the bling chrome bathtub with water coming from the ceiling, then put it down as a package and price it up correctly (along with all the extra plumbing, structure and work time involved). Plus, the more complex the item, the more packages it will impact on.

These days, the Cat 5 cabling, electrical goods, etc. can be an expensive part, so make sure you have allowed for all the fittings and wiring prior to the purchase of your new TV. You don't want to be knocking holes in new plaster — I see it all the time.

TYPICAL PACKAGES AND COST RATIOS

Breakdown of packages for a typical build programme:

Prelims (tools, plant hire, including scaffolding, waste removal)	12%
Footings.....	9%
Ground floor structure.....	4%
Wall build-ups.....	14%
Roof structure.....	4%
First floor structure	1%
Rainwater goods.....	1%
Roof covering.....	8%
Doors and windows.....	15%
Plastering	3%
Internal joinery.....	7%
Electrical.....	4%
Heating.....	4%
Plumbing.....	4%
Decorating.....	10%

So the initial 12 packages will expand. Keep adding to them as rows in your spreadsheet. In the columns, note which is your estimate, a builder's estimate, an accurate quote and a definite fixed price. Before you start on site I would advise that for the majority of packages there's a figure in the fixed price column or at least an accurate quote.

So, hopefully you will have created your list of packages and have fixed costs against most, with an accurate guess against the remaining. You now have a real building budget and a target cost to work against. This target cost is the key to success.

Dealing with Overages

If a package goes over, you can accept it and increase your overall budget or alternatively, look to create a saving in another package, maintaining the overall project cost. You should also have a separate package called 'contingency' for unknown events — aim for 5-10 per cent

of the overall cost. On my project the underpinning came in higher due to ground conditions, so my initial contingency absorbed this painful cost.

This is often the hardest piece of budgeting on a project. An increase isn't necessarily a problem so long as you know about it immediately. Don't accept late requests for additional costs from your subcontractors and insist on knowing why and when. As an architect, my favourite question to builders is 'why?' Continue to ask until you are clear and understand.

Detail is King

I have already mentioned that detailed costs are always best and to achieve that you need detailed information from your architect. The more information and detail the better — and the earlier the better, to allow time for tendering. Subcontractors are great sources of information. When I present a set of details, they may have suggestions. I don't have to accept these, but usually they are suggesting them for good reason. If they have priced up a package and it's too much, then ask for suggestions on how to reduce the costs — there is a difference between bartering (bad) and value engineering a package (good). Through the

course of my project, I constantly monitored the costs, reviewed the extra requests and issued instructions to the builder and the various subcontractors, noting ups and downs in expenditure.

In the end we have created a lovely home — and also an affordable one. Its enjoyment would have been tarnished had the control not been in place. If you are going to run the costs yourself, then prepare to spend a lot of time, patience and tenacity in monitoring and chasing. It's not a skill for everyone, but can be thoroughly rewarding. **H**