

## Project Home Building is not Volume Home Building!

A whitepaper by Dale Ipsen, [Synergy Information Systems](#) (Vic) to assist 'Volume Homebuilders' come to terms with their 'Projects' Division and the differences in methodology.

### Introduction

Many of the volume homebuilders have "projects" divisions – which are primarily setup to build homes, but on a larger scale. Most of these developments are retirement living, or unit developments, where the builder is contracted to build a "stage" – not an individual home.

The first thing that as a volume homebuilder we need to "undo" is the thinking that we are building individual homes. As a project, we are regularly building the same unit 20 times, but with various configurations. We want to be able to take advantage of the repetition in the project setup. What we have found is that it is easier to think of the income of the project, and the costs – independently if your systems allow for it.

There are some underlying principles that we do definitely want to maintain as part of the project division though. The process of 'Invoice must match a purchase order' must be strictly maintained as it is the key to the volume homebuilder's accounts payable structures, and provides for a controlled manageable process. We have to take into consideration how your suppliers\subcontractors will invoice you to allow for the ease of this methodology.

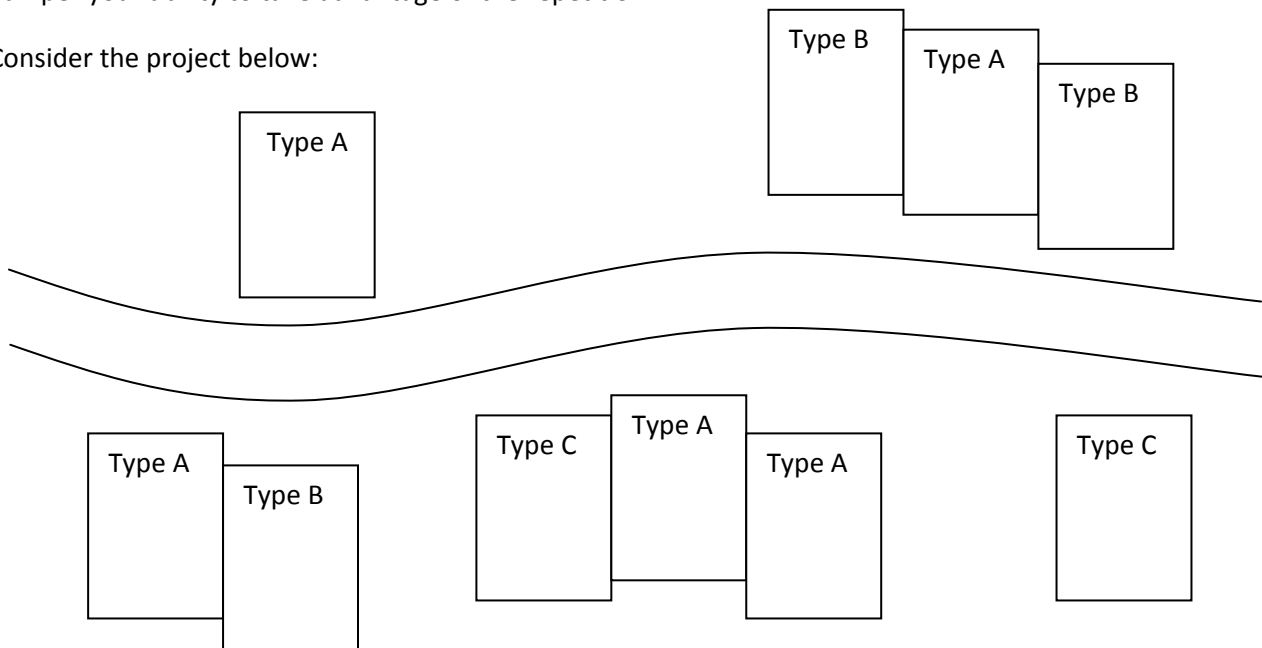
Probably the most different process in a 'projects' division, is the method of getting paid. In a large project – your contract will most likely be claimed on a % complete basis – and not based on reaching stages as is normal for volume homebuilding. There is no "Base, Frame, Lock up, Fix, Final" claims. Each home will be judged at the end of the month as to its % complete, and you will be able to claim and be paid from the developer on that basis. (There are some developers who will only pay you on the basis that the whole project is complete. **You must ensure that the cost of this cashflow provision is included in your tender as you will have to finance the whole job at some stage until payment is made)**

The cost reporting structures are also paramount. Unlike volume homebuilding, any mistake made in a project is unfortunately quite often multiplied by the number of units of that type in the project, so it is important to be able to track and quantify any errors (or in volume homebuilding terms "Extra to Schedule" or "Extra to Order").

## Jobs

The way you will break up the job to estimate and capture costs does not have to relate to a unit or 'home' as you would traditionally think about it. In fact – if you think about the project like this you will hamper your ability to take advantage of the repetition.

Consider the project below:



In summary you have 5 x Type A units, 3 x Type B units and 2 x Type C units = 10 Units

Now if we were to consider each job as a unit – because of the configuration of the external walls, roofs, and slabs, there is no repetition at all in this project.

But what we suggest is you think about this job in the following:

- Project Level costs
- Structure Costs – there are 5 structures (The structure is the Slab, Roof, and External walls (all the way to the paint on the plasterboard of the external wall))
- Internal Unit costs.

Therefore there are 16 jobs that you can break this project up into.

Now you can use the repetition of the units themselves, and just measure the type A, type B, and type C units. A considerable number of trades will also provide their quotes in this manner. They take into consideration they have capacity to do the 10 units, and then just measure the 3 types. As far as the roofer is concerned, there are 5 units (or structures) that he has to work on.

We issue the purchase orders for the project on this basis as well. That way the roofer only gets paid when he has finished a “structure” – not a unit. (We try to avoid % complete claims with the trades as this overcomplicates things).

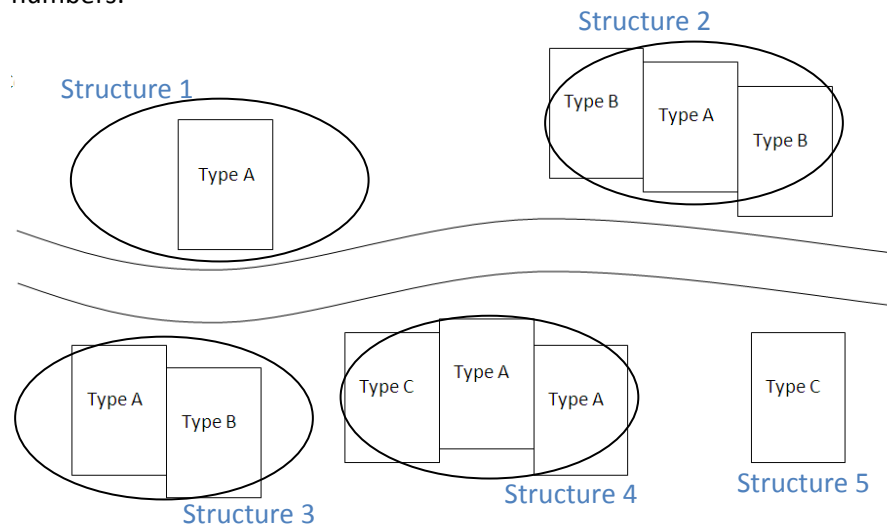
What we try to do next is come up with a job number system that allows for us to manage the costs at this level, but still report the costs on the project as is necessary to compare to the income – which is at the project level.

The job number can be segmented into:

Project Code - Phase/Building - Lot/Unit

ie. PL01-010-001 – might be a the first job for Primelife, Structure number 10, Unit 1

Using the segmentation of the job number the project described below would have the following job numbers:



PL01-001-000	Project Job
PL01-001-000	Structure 1
PL01-001-001	Unit 1 (Type A)
PL01-002-000	Structure 2
PL01-002-002	Unit 2 (Type B)
PL01-002-003	Unit 3 (Type A)
PL01-002-004	Unit 4 (Type B)
PL01-003-000	Structure 3
PL01-003-005	Unit 5 (Type A)
PL01-003-006	Unit 6 (Type B)
PL01-004-000	Structure 4
PL01-004-007	Unit 7 (Type C)

PL01-004-008	Unit 8 (Type A)
PL01-004-009	Unit 9 (Type A)
PL01-005-000	Structure 5
PL01-005-010	Unit 10 (Type C)

Because of the segmentation or structure to the job number it is easy to determine the way the project sits together, and when you review the orders or invoices – it will be reasonably obvious the relationship to the project.

Sometimes we also have a separate job setup for “Client Variations”. This just saves us having to raise 10 variations for each job where say they want to add a door bell to the front door, or these can be aggregated into the “project job”.

## Estimating

Again the repetition here is the key. As a ‘project division’ you will most likely receive better pricing and buying power than you would as a volume homebuilding business. Added to that is the requirement to match the client’s specification for finishes and fixtures, not your own standards as is the case in the volume business. Essentially this is because you can purchase 10 baths, all the same, delivered to the one address. The use of your price file from the volume business will be minimal, and used usually only as a guide or during estimating stage – to work out what is the most you should pay for a particular item. Therefore the “Request for Quotes” will be the standard way of working for most of this, even with subcontractor. Most of the quotes as previously explained will come in various manners, from a quote for a particular unit type, or just for the project. It is important the order is raised in line with the subcontractor’s quote to avoid confusion. (i.e. If the concretor has given you a quote for the structure, having to break that down into a cost per “unit” is time consuming, and is not how we will pay the concretor anyhow. )

You need to have systems in place to track who you have requested quotes from, which ones have been received, and orders let.

This pricing should be loaded to your purchasing system for use on this project only.

## Accounting – Accounts Payable

As previously noted – we want to ensure that this process remains as ‘normal’ as possible for the accounts team. The only real addition is more emphasis should be placed on the checking of workcover and relevant insurance cover details, and payment should not be made to particularly subcontractors where this is not current. The workcover implications are onerous and potentially expensive.

## Accounting – Accounts Receivable

As previously noted the method of claiming\invoicing is certainly different. There is a two step process involved in the process of receiving payment for works complete. Firstly you have to make a “claim”. The contract is more than probably going to have some finance involved, which means invariably that there will be quantity surveyor that will also assess the progress of the works, and test your claim for validity. Once you have agreed the ‘claim’ value (usually by a certificate from the superintendant of the project) then you can submit an invoice for that value which will be paid as per the terms of the contract.

The setup of the claim schedule is important to get right – to give the quantity surveyor less to pick on, and ensure your claims are paid in full as you expect. Usually the breakdown of trades, unit by unit is most common method of assessment for the claim. Especially on a unit basis – it is often easier to claim for works that is complete – and not deal with % complete too much – depending on the value of the item, and the chance of being ‘knocked back’.

## Construction

Being a project – with most certainly a larger value contract – your site will more than likely be a unionised site. It also means your requirements for documents like ‘Work method statements’ etc. should be well prepared. You will more than likely have just one site manager or project manager for the site who can fill out site diary’s noting who are on site, etc. which are requirements of a larger project.

The scheduling of the ‘project’ is important for this – again – not on a unit level – although it can be measured in that manner.

Even-flow is a hot management concept among volume homebuilders. Builders are even embracing the idea, despite the well-earned notoriety for forcing large numbers of houses into production all at once – to boost closings at the end of each month, in desperate efforts to meet their own KPI’s. But it's now hard for anyone to ignore the direct correlation, documented by builder after builder, between regularised housing production, customer satisfaction and profitability.<sup>1</sup>

Even-flow allows moving many trade crews directly from one house to the next, so the sub- contractor can schedule his best crew onto your jobs week after week, and months in advance. If a builder does 12 houses a year, and each one takes four weeks to frame, he can keep the same framing crew moving from one house to the next, all year. That's full capacity. Fewer than 12 houses a year may leave gaps in a system. But a rate of 12 to 24 lends itself to an even-flow system that almost manages itself.<sup>1</sup>

This technique can be readily implemented for a ‘project’ builder, and should be considered as part of your scheduling methodology.

1 – Source: Custom Builder, Bill Lurz, Senior Editor, Business

## Cost Control – Contract Administration

There are many different forms of cost control and job costing and being able to forecast the final cost for the project becomes an important tool.

So it is important you track from this – your initial budget as tendered for the project (This is again unusual for a ‘volume homebuilder’ who regularly mistake the orders for their budget.)

Then the tracking of your project commitments or orders as let

The costs that have occurred on the job – and how they relate to orders etc.

Most importantly after these is the forecast. Forecasting is NOT a replacement for issuing subcontract orders or entering budgets– is for allocating money against risks and opportunities that might occur in the project.

Below is a typical example of how a forecast report might look to manage a particular project.



<b>Forecast Cost Report</b>															
<b>Original Contract Sum</b>		2,971,403.00		<b>Revised Contract Sum</b>		2,980,445.50		<b>Billed</b>		881,758.77 29.58%		<b>Payments Received</b>		0.00	
<b>Original Budget</b>		2,431,148.01		<b>Anticipated Final Cost</b>		2,560,194.76		<b>Cost</b>		486,576.49 16.33%		<b>Cheques Drawn</b>		382,595.58	
<b>Original Markup</b>		540,254.99 18.18%		<b>Revised Markup</b>		420,250.74 14.10%		<b>Net Job Profit</b>		395,182.26		<b>Job Cashflow</b>		-382,595.58	
Cost Code	Description	Original Budget	Approved Budget Var's	Revised Budget	Original Subcontracts / P.O.'s	Approved Var's to Subcontract	Revised Subcontract / P.O.'s	Unapproved Var's to Subcontract	Costs allocated to Orders	Costs Not allocated to Orders	Forecast Adjustment	Anticipated Final Cost	Gain-Loss		
<b>03-003 NW Warehouse - Western</b>															
02-003	Preliminaries	22,796.20	0.00	22,796.20	1,000.00	2,000.00	3,000.00	0.00	2,009.09	-2,210.00	4,000.00	4,790.00	18,006.20		
02-007	Safety	0.00	0.00	0.00	5,000.00	0.00	5,000.00	0.00	5,000.00	0.00	0.00	5,000.00	-5,000.00		
02-010	Project Signage	2,950.00	0.00	2,950.00	101,000.00	1,000.00	102,000.00	0.00	100,000.00	2,950.00	2,000.00	106,950.00	-104,000.00		
02-020	Temporary Installations	17,130.42	0.00	17,130.42	53,000.00	0.00	53,000.00	0.00	1,000.00	8,000.00	0.00	61,000.00	-43,869.58		
02-040	Temporary Roads, & Tracks	1,000.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,000.00	0.00		
02-045	Site Sheds & Offices	3,660.00	0.00	3,660.00	1,000.00	0.00	1,000.00	0.00	0.00	2,727.27	0.00	3,727.27	-67.27		
02-050	Duties And Attendance	15,155.00	0.00	15,155.00	0.00	0.00	0.00	0.00	0.00	0.00	4,000.00	19,155.00	-4,000.00		
02-110	Contract Security	23,250.00	0.00	23,250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23,250.00	0.00		

The management of the variations that might happen to a project are extremely important to track. For example how each variation affects the contract value, your budget, and any order or commitment.

You will find that the process of managing this will mean in addition to the site manager or project manager; contract administration will be required throughout the project – most unlike an order house.

## Conclusion

Just summarising, there are a number of differences that need to be considered in the 'project' division as opposed to the volume homebuilding parts of your business. We hope this gives you some food for thought on some of the major differences – and how you need to adjust your systems and procedures to best manage the projects you are contracted to complete.

### About Synergy Information Systems.

Synergy work exclusively with building and construction organisations throughout Australia and are recognised as the leading integrator of financial and operation construction and building software throughout Australia. To contact Synergy please call 1800 552 455, or view the website at

[www.synergy-group.com.au](http://www.synergy-group.com.au)