

# PRICING GUIDE PROFORMA

FOR THE

# PAINTING TRADE

Developed by Resene Paints Ltd.

**Resene**  
the paint the professionals use

In conjunction with Rider Hunt Wellington Ltd.



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## 1. PAINTERS ARE MILLIONAIRES AREN'T THEY?

In 1909 Arthur Seymour Jennings published "The Modern Painter & Decorator" which ran to 3 volumes and microscopically dissected and commented on the trade and its operation.

The work has enjoyed great popularity with serious bibliophiles for its incredible detail and authoritative style. Early editions command a great deal of money.

This is ASJ (1909)

*"Since a great many master painters supervise most of their contracts themselves, in addition to carrying on most of the office work, visit actual and potential clients, take measurements and get out estimates, interview travellers and order materials, to say nothing of fitting in visits to decorators' merchants and their showrooms, it is clear that to run a decorating business with any degree of success is far from being a restful occupation."*

Does this describe you?

or

*"Having thus gone through the whole of the specified work, a price can be found for the prime cost. This, of course, is the amount of money the job will cost the contractor and is quite separate from profits, establishment and overhead charges."*

Did our trade forget something?

The treatise, which covered every aspect of anything to do with painters and painting remains in print and has been successively upgraded as necessary with changes. The basic truths, however, have a prophetic message for our trade.

I seem, after painting for a long time, to be reputed to knowing a thing or two but confess, after meeting with many painters the truth is I have also forgotten a thing or three.

Jennings reminds me that painters operate within rules, invisible at times, but nevertheless governing the results of our efforts.

Our trade seems comfortable to accept some problems, that are contingent to painting generally and, on average and with time, never seem to get sorted.

I have difficulties seeking an explanation but I can set down some of the problems and in some cases, the solution provided action is taken.

After thinking carefully about everything, I comment that my life and times painting have been rewarding in the extreme, on every level, and the potential for the young ambitious tradesman to exceed every wish in life is there for those who use their skills with common-sense and decency.

I have also, from many sources, collated an exact analysis of costs associated with painting. The application of the fixed rules will exactly demonstrate the costs of painting.

**No. 1 Painters Problem**  
**"WE MAKE LITTLE MONEY"**

And deserve to if they only talk about it.

- (a) Most of the business is conducted on lump sum quotes responding to specifications describing the work.
- (b) Some business is undertaken on "time and material" basis.
- (c) Some business is on a formalised schedule of quantities, each measurement applied to a specification of work required.

A typical balance sheet would be made up of revenues derived from a combination of the above.

Most painters have established hourly rates for tradesmen, usually inclusive of small tools etc, usually ranging between \$25 - \$32 per hour. Additional items including materials, sundries, travel, meals, accommodation and scaffolding are charged as applicable often with a plusage on costs. There is hardly anything to go wrong on this system and painters have a good understanding of the costs on this basis.

The problem of little money is generally explained

*"Outrageous competition"*  
*"No work"*  
*"Government"*  
*"Cost of paint"*

*"Tough economy"*  
*"Builders"*  
*"Poor labour"*

These statements are sometimes partly correct but the problem is caused by costs equalling earnings. This is because the dollar rates for work per square metre are prime costs.

The "rates" form a painters dialogue (a sort of language) and most painters are acutely aware of "the rates" in common use in their trading area

Quote: *"If we put our rates up we don't get the job."*  
justifies exactly why there is no money in painting ...

Although painters can easily follow the build-ups necessary to produce an hourly rate, very few can follow the assemblage of the elements of materials and labour that are the factors of a prime cost sum.

At least in 1909 the mathematics specifically commented on the necessity of:

- (a) Prime Costs of Material and Labour
- (b) Establishment costs
- (c) Overhead costs
- (d) Profit

and could exactly explain their vital function.

It is possible to exactly establish the costs of painting a specific surface or of a specific number of operations needed to meet specific requirements.

The result is a Dollar and Cents value per square metre and is a Prime Cost only.

It is the cost of the work, I know the language of painting perfectly, and many many work packages are awarded for the cost of materials and labour.

This is why painters have little money.

**Try this at home:**

- (a) Deduct the cost of materials from your earnings.
- (b) Add up the number of hours worked.

$$\frac{(\text{Total Sales} - \text{Cost of Materials})}{\text{Number Hours}}$$

- (c) Gives the earning rate per hour.

If this is more than your charge out rate pick up the phone and order the new car or whatever.

If not you are not using (b) (c) (d) of your costings properly.

The cost of paint affecting contract outcomes is a myth. There would have to be huge paint cost differences to make any significant impact.

I suggest better products, that are available, should be marketed by Painters

- i.e. "Make a better job"
- "Fantastic colour"
- "Environmentally friendly" etc, etc.

See the analysis of Prime Costs if you could find a way of increasing productivity slightly the effect is huge.

If you understand what your costs are the amount of profit (money) you can make is your business.

### No. 2 Painters Problem

#### **"TRADESMEN ARE SCARCE AND UNSKILLED PEOPLE ARE AWFUL"**

Quite true. If you don't have training and also standards of performance, behaviour and skill this is the result. You can see how much of the cost of painting belongs to the labour content, so the problem needs close attention. There are big social changes and our thoughts should be turning to effective solutions for a perceived decline in skill levels in the industry.

To a degree better materials are an answer because many are user friendly.

Our training programmes and most planning is deficient.

Make up a list of all the elements and things that make up a job.

Record each routine on jobs and think about better ways.

You know, on the job I often see the Boss driving the airless spray.

Why isn't someone trained (with no previous skills) to do this?

The mechanics and the work patterns are, after all, quite different from trade painting.

The mechanical responsibilities are small and the satisfaction levels with minimum training are huge.

- **Get real boss!**

Reduce every function to a system or process.

**Be aware: Labour is the cost of painting, end of lesson.**

### No. 3 Painters Problem

#### **"WE NEED MORE EFFECTIVE MARKETING"**

Many painters express a desire to obtain more advice to be able to present themselves as better painters and businessmen to enhance customer relationships. There are below average (I believe) levels of

self-esteem amongst painters and attention is given to innovative advertising, getting an edge etc.

I think broadly there are two different issues:

- (a) Painters/Customers
- (b) Painters/Painters

There seems a lack of partnership confidence between painter's and their customers.

Good job descriptions, clear quoting advice and positive actions are necessary.

Submitting the quote on time works pretty well too.

Customers really don't like a protracted complicated process of sorting out the job, then being told "thanks but we're too busy for ( ) months now."

Painters need a tidy up nationally.

Individual presentation (i.e. to be better than the others) is over to you and once again is bigger than you. You know, a tidy looking industry is confidence building.

**No. 4 Painters Problem**  
**COMPLIANCE ISSUES - OSH, QUALITY SPECIFICATIONS,  
LICENCES, TAX, ACC**

Lots of painters get grumpy. I say get happy and licence everything.

The harder we can make it to be a qualified painter the better are our opportunities.

All the rest is laziness.

**No. 5 Painters Problem**  
**COLOUR**

I have been baffled by Painters who work with colour, but deny any authority for its use.

Pathetic - Fortress Resene lives on colour - not paint.

Interior designers charge a bit (lot) more than painters for colour choices - you know - \$100's per hour.

There's so many problems, charges, the opportunities are limitless.

### **So What's Wrong?**

The problems painters' face are not new, and my research suggests that "the problems" may be part and parcel of our trade. That they seem to be worse may be that although its bad now, we seem to be able to only remember the sunny summers, not the rainy days, and the problems we perceive could easily be a contingency of our trade.

Personally, I always found the problems a huge advantage, because it is actually quite simple to be better than average in these circumstances.

We are absolutely, as painters, "little" businesses and as such can be whom we want to be if we try harder.

Peter Edmonds 2001

## **2. WHAT YOU NEED TO KNOW**

The following chapters have been written to try and provide you with a true method of establishing all the costs of painting (on a historical basis) and collating them into a **system** that will forecast future contract results.

This is fairly important because the painting industry runs on **quotes for work that will be undertaken and completed in the future**. On large projects you may be quoting 2 or more years before actually starting on site.

The singular problem painting and decorating faces collectively is that the industry does not comprehend costs and lack of money provides a happy breeding ground for all the other problems and excuses.

The Painting and Decorating Industry traditionally operates on the system of quotations for work packages. These quotations are assembled from various information sources that are derived from averages of time, materials and resources used to undertake the work.

It has been quite possible to further develop a system condensed to a unit price per square metre for most of the common activities and requirements.

### **Method of Measurement**

The measurement of surfaces and their description has been formalised into a standard method of measurement carefully described by the New



Zealand Standard NZS4202. This was last updated in 1995 and is under continual review.

This is the common measurement format almost always used by Quantity Surveyors to produce a Schedule of Quantities. Measurements and descriptions prepared using this document **will state** conformance with NZS4202.

There can be and are other (shortened) and condensed versions and most people have their own system of measuring out and collating elements of work. In fact, schedules of quantities are essential to properly measure any area of work.

The general practise is that surface areas under 300mm wide are measured as **metres run (linear)** and over this width, the measure is length x height or **square metres**.

Objects by shape, texture and other peculiarities are usually described as such and collated (or counted) as an item. A rainwater head is a good example.

Generally all surfaces are measured as **flat** surface areas and no account is taken for surface variations, and the estimator **must** be aware of this.

**Examples are:**

1. Corrugated iron has 10.5% **more** surface area than flat measure.
2. Trough sections roofing has 50% **more** surface area than flat measure.
3. Stucco finishes can be easily 40% **more** than flat measure.

Therefore a schedule of quantities is a descriptive measure of flat surface areas and probably a number of individual objects detailing the work processes and is completed by inserting costs for each element at a unit rate multiplied by the measured quantity taking surface variations into account.

	<b>Thus it looks like</b>	<b>Unit</b>	<b>Qty</b>	<b>Labour</b>	<b>Materials</b>	<b>Total</b>
Item 1.	Prepare, seal and apply 2 coats low sheen acrylic to Gibraltar board wall lining	M <sup>2</sup>	100			
Item 2.	And so on ...					
	<b>With naturally a Total</b>					

### 3. THE FOUR COST CENTRES

To be able to properly build up suitable rates for inclusion in a schedule of quantities or such like we must first consider what costs we must allow for.

Firstly we would have the actual cost of materials and labour to carry out the described process. These are the costs associated with material purchase and labour costs and are known as **PRIME COSTS**.

It does not give the degree of difficulty i.e. that it is 18 metres high, nor does it include all the other costs needed to run your business.

To these **PRIME COSTS** are **added**:

- (a) Overhead costs of your business. – what expenses must I cover ?
- (b) Establishment costs of the job – Specific job problems and risks ?
- (c) The profit you need – to make it all worth while !

Therefore to properly allow for the work package each element has to be addressed:

- |   |
|---|
| <ol style="list-style-type: none"><li>1. PRIME COST</li><li>2. OVERHEAD COST</li><li>3. ESTABLISHMENT</li><li>4. PROFIT</li></ol> |
|---|

These can then be expressed as a consolidated or built up costing, which is actually **an average** for all circumstances on a specific job. A proper method, for complete consideration, is to leave the steps separate. This enables one to allow properly for average degrees of difficulty and the profit factor can be used to meet the market.

#### 3a. **PRIME COSTS** - *Labour & Materials*

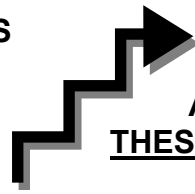
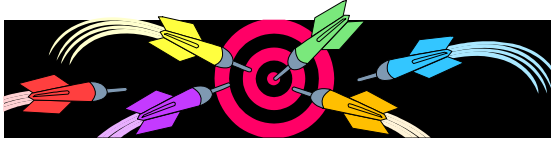
The Painters Great Curse is that **PRIME COSTS** win jobs because this is the commonly discussed and applied rate for quotations.



**HOW DO WE FIND OUT THE ACTUAL PRIME COST?**

## MK2 BULLSEYE

### OTHER GOOD ESTIMATING SYSTEMS



**WE GUESS  
AGAIN, THAT'S HOW.  
THESE SOMETIMES WORK.**

The paint you use has a recommended Theoretical Coverage statement expressed as area per litre.

This is derived from the manufacturers **considered** spreading rate to achieve the best results.

The spreading rate can be calculated by using the volume solids content of the material against the optimum thickness required for the best results.

This is therefore perfectly accurate provided that is all we have to consider, but obviously the surface profile is a factor and whether the paint is applied thicker or thinner than recommended is also a factor to consider.

Because the volume **solids** are the actual content of the **dry** paint film the higher the volume solid content the further it would spread either in **thickness** or **area** is true.

For painting surfaces such as steel to protect against corrosion it is **vitaly** important to **know** the volume solids of the coating to accurately control the rate (thickness) of application because the life of the protection depends on the coating thickness as specified.

Decorative painting on surfaces that do not **depend** on coatings so exactly for protection obviously are less sensitive to these requirements, but here we are establishing **the material cost of the paint per square metre of surface**, and most manufacturers are stating an application rate per litre that is calculated at optimum application conditions and flat surfaces. (They want to look good.)

Therefore a prudent estimator would **average** the spreading rate somewhat downwards to allow for variable surfaces (not too much) and loss (of paint) factors.

A practical man would measure his efforts **actually** painting and form his own conclusions as to the area covered per litre.

Fortunately many people have already done so and for the **Prime Cost** the **material** can be calculated using a Spreading Rate @ 90% of the recommended area per litre. (Remember for peculiarities of measure such as corrugated iron, stucco, this is the mathematics of our **measure** and the differences added as necessary.)

The	<u>Cost of Material</u>	per litre	=	Cost per m <sup>2</sup>
÷	by Area Covered			per Coat

**Which is easy to figure out:**

If Sealer costs \$8.50 per litre  
and covers 11m<sup>2</sup> per litre

it costs 77 cents for every m<sup>2</sup>

**AND**

If Low Sheen costs \$7.00 per litre

at 2 coats each covering 12m<sup>2</sup> per litre it costs 58cents x 2 = \$1.16m<sup>2</sup>

**AND**

The total cost of material for Sealer and 2 Coats = \$1.93

This is not a great deal, and the total cost of materials is much the smallest part of a painters revenue from painting. Quite often the cost of materials **are less** than the **fixed overheads**.

The Prime Cost for the application of the material (Labour) can also be calculated by finding out from timing the process and multiplying this by the amount paid in wages.

This is somewhat compromised by the fact that no two people work at exactly the same rate, and common-sense directs us to averages we derived from lots of measurements. This includes extensions of time and the common-sense average is the output of painting over the average working day.

On Flat Wall areas the average output seems to be 100-130 square metres per coat per day and there is general agreement amongst the trade that 9 hours produces about 100m<sup>2</sup> and accordingly the hours divided by the amount gives a constant factor:

i.e.	$9 \div 100$	=	0.09 factor
	on $100\text{m}^2 \times 0.09$	=	9 hours
<b>The time divided by product = Factor per m<sup>2</sup> of Task</b>			

To this we add on a similar factor for preparation, sanding and filling, and consensus and averages would seem to agree around one third of the productivity rate of painting on a factor 0.03 (9/3 = 3).

For new work a **Labour Factor** of 0.12 represents an average of all tasks per coat.

Consideration of other tasks will produce differing **factors**.

We now have to establish the true cost of Labour per hour and this is multiplied by the factor.

<b>Labour Calculation</b>	<b>(@ \$15.00 per hour)</b>
<b>Ordinary Time 45 hours x \$15 =</b>	<b>\$675.00</b>
<b>1. Add Holiday &amp; Sick Leave (+13.5%)</b>	<b>91.13</b>
<b>2. Public Liability Insurance ACC &amp; First Week Liability (+5.8%)</b>	<b>39.15</b>
<b>Sub Total</b>	<b><u>\$775.28</u></b>
<b>Divide by Productive Hours</b>	
<b>\$775.28 ÷ 43.33 =</b>	<b>17.90</b>
<b>(Deduct smoko time each day)</b>	
<b>Add Tool/Travel/Brushware</b>	<b>1.00</b>
<b>True Labour Cost per Hour</b>	<b><u>\$18.90</u></b>

### CALCULATION SHEET

#### **EXAMPLE A**

#### Holiday Pay & Sick Leave Calculation

<b><u>Total Weeks</u></b> - (Including Leap Year)	<b><u>52.14</u> Weeks</b>
Annual Holidays	3.00 Weeks
Statutory Holidays	2.20 Weeks
Sick Leave	1.00 Week

**Total Non-Working Time =** **6.20 Weeks**

Total Weeks	52.14 Weeks
Non Working Weeks	<b><u>6.20 Weeks</u></b>

**Total Weeks Worked in Year =** **45.94 Weeks**

$$\frac{6.20}{45.94} \times \frac{100}{1} = 13.50\% \text{ (Holiday Pay \& Sick Leave Calculation)}$$

## EXAMPLE B

### Public Liability Insurance, ACC Levy

Public Liability is usually based on taxable wages paid. 1% is allowed, but the rate will vary depending on risk.

ACC Levy is set by regulations at 4.29%.

The employer is liable for 80% of wages for the first week of employment related to accidents.

<b>Public Liability</b>	<b>1.00%</b>
<b>ACC Levy</b>	<b>4.29%</b>
<b>1<sup>st</sup> Week (Employer)</b>	<b><u>0.50%</u></b>
<b><u>Percentage Addition for Insurance and Levies</u></b>	<b><u>5.79%</u></b>

## EXAMPLE C

Tools/Brushware and onto the job is a cost of Labour and must therefore be included. This is a traditional build up based on annual cost. **\$1.00 per hour**

Therefore using the factors we have calculated, the rate for material and labour can now be worked up.

**Example: Apply 1 coat Acrylic Sealer and 2 coats Low Sheen to 100m<sup>2</sup> Gib Walls**

*(Note: By using 100m<sup>2</sup> for establishing Cost prices for differing tasks quick results per m<sup>2</sup> are simple.)*

UNIT	QUANTITY	FACTOR	TOTAL
M <sup>2</sup>	100	Material (0.77 + 1.16) = 1.93 x 100	193.00
M <sup>2</sup>	100	Labour (0.09 + 0.03) .12 x 3 coats = 0.36 x 100 = 36 x 18.90	680.40
<b>TOTAL PRIME COST</b>			<b>\$873.40</b>
<b>OR</b>			<b>\$8.73M<sup>2</sup></b>

And therefore if the painting of doors and frames, for example average differences in material and production, a cost factor can be established to provide a Metre costing.

## **FIXED ON LUMP SUM LABOUR UNITS**

It is quite common to subcontract the labour package (and the responsibility for holiday pay, ACC Levies and sickness, overalls, small tools etc) as either an hourly or lump sum for the work.

Whilst this fixes the cost of the component of labour, either hourly or project specific, this is still a **PRIME COST** and to this must be added your **OVERHEAD** factor, the **ESTABLISHMENT** costs and of course your **PROFIT**.

The advantages are in part knowing the actual labour costs and diminished responsibility for some of the labour needs.

The disadvantages are loss of exact direction of labour, particularly in resource and quality management and the fact that the **Labour Cost** tends to be the **Contract** cost.

## **INFLATION**

Most contracts these days are let on a fixed price basis, to reduce client risk, with no potential for contractors to recover costs if the price of labour and materials goes up during the contract. The recovery of these potential inflationary costs should be built into your tender quote.

On small jobs the question of allowing for inflation or price rises is not really an issue, due to the small time frames involved, but large jobs will require a bit of thought and understanding to ensure adequate cost recovery.

Both material and labour charges are subject to inflationary pressure, whether it is buying tins of paint or employing new tradesmen. Both will cost more if the markets dictate this at the time.

As stated on page 2 of this Guide –

**“The industry runs on quotes for work that will be undertaken and completed in the future”**

How far in the future is based on the size of the project, and because painting is a finishing trade you can expect to be doing your work towards the end.

Because of this we should make some allowance for inflation within our quotes at tender. There are a number of cost forecast indices available and can be obtained from your own bank, The Reserve Bank or the Dept of Statistics.

Inflation over the last ten years has been approximately 1% per year and is forecast to fluctuate between 1.5 – 2.0% per year through to 2005.

If it is possible to set fixed prices on labour and material costs up front, on large projects, then inflation will not be a factor to you, but it will if this is not an option.

Remember, you will price a job at rates you are using today, but you should allow for inflation, on top of your Prime Costs, or it will become a cost you cannot recover when you finish the job in the future.

### **Inflation Adjustment Example**

Using Material and Labour build-ups from pages 13 & 14 of this guide.

On a large job of 10,000m<sup>2</sup> of 3 coat work over two years the potential inflation of your Prime Costs, based on 1.5% movement per year, would be as follows:

Material :  $\$1.93/\text{m}^2 \times (1.5\% \text{ movement} \times 2 \text{ years}) = \$0.06/\text{m}^2$

Labour ;  $\$18.90/\text{hr} \times 0.36\text{hr}/\text{m}^2$   
 $= \$6.80/\text{m}^2 \times (1.5\% \times 2 \text{ years}) = \$0.20/\text{m}^2$

Therefore we should allow an additional \$0.26/m<sup>2</sup> over and above the built-up Prime Costs in order to recover forecast inflationary costs over the 2 years of the contract.

This equates to a total of (10,000m<sup>2</sup> x \$0.26) \$2,600 which is better off in your pocket than the clients at the end of the contract.



3b. **OVERHEAD COSTS – Business Expenses**

Businesses cost money to run and include such things as advertising, vehicle, telephone, interest, stationary and possibly office wages etc. These are the non-revenue costs or **EXPENSES** you generate.

<b>PETER EDMONDS, PAINTING CONTRACTOR</b>		
<i>(Gun Contractor employing 5 people with a part timer in office and leasing a small workshop, running a vehicle and phone/fax etc.)</i>		
1.	Accounting	2,150.00
2.	Advertising	200.00
3.	Bank Fees	600.00
4.	Interest	2,000.00
5.	General Expenses	1,000.00
6.	Office Expenses	1,300.00
7.	Insurances	3,100.00
8.	Legal Costs	500.00
9.	Electricity	200.00
10.	Motor Vehicle Costs	9,960.00
11.	Printing Stationary	600.00
12.	Rent (Lease Workshop)	4,200.00
13.	Repairs and Maintenance	900.00
14.	Training Seminar	450.00
15.	Painting Association	580.00
16.	Telephone/Fax/Mobiles	2,780.00
17.	Hire of Scaffolding etc.	1,670.00
18.	Portabin (Rubbish)	220.00
19.	Office Wages	12,600.00
	<b>Sub Total</b>	<b>45,010.00</b>
20.	Depreciation	1,755.00
	<b>TOTAL</b>	<b>\$48,765.00</b>

The overhead cost is then divided by the Productive hours used during the same time.

Owner	2370		
Painter	2420	(Charge Hand)	
Painter 1	2170		
Painter 2	2080		
Painter 3	2080		
Painter 4	2170		
	<b>13,290 Hours</b>		
Therefore, <u>Expenses</u>	\$48,765		
Hours	13,290	=	<b>\$3.67</b>
<b>AND is 19.42%</b> of our	<b>LABOUR PRIME COST</b>		of \$18.90
Therefore our	<b>OVERHEAD FACTOR</b>		
can be expressed as	+20% of <b>PRIME COST</b> .		

3c. **ESTABLISHMENT COSTS - Job Specific Costs**

These are the particular extra costs you can foresee and add into an estimate.

These can be:

- (a) Scaffolding and other access problems.
- (b) Location and travelling.
- (c) Accommodation.
- (d) Difficult work situations:
  - i) Hard to get at
  - ii) Restricted hours
  - iii) Permit only access
  - iv) Heat / cold
- (e) Risk properly belongs to establishment costs. Obviously the potential **risks** (which can also be treated as **costs**) are greater to undertake, for example, the preparation and painting of a large roof between May and September as opposed to summer. Some Contracts require this timeframe.

Although the **Prime Costs do not** change, the costs can and do. It is your job to consider all possible contingencies and decide the **cost of the risk**.

Establishment and risk are specific costs and should be totalled and added to the bottom of a schedule as separate **lump sums**.

3d. **PROFIT - This belongs to me !!**

Using	<b>PRIME COST OVERHEAD ESTABLISHMENT</b>
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We **know** (provided our inputs are accurate) our costs are covered and therefore **profit** is simply the amount of **money** we wish to earn. The reason for not building it into our rates is that the application of profit margin can be used **competitively** and is the **only** area of our total price that contains any **more than you are earning**. The amount can be 0-100% or more, just as you determine.

Obviously if too great you hardly win tenders, and equally, if you do a lot of work, your profit margin can be slim.

i.e.	<b>5% of NZ \$2 Million</b>
is	<b>\$100,000.00</b>
15%	
is	<b>\$300,000.00</b>
<b>AND</b>	<b>25% is Half a Million Dollars</b>
<b>AND we have all heard of these profit percentages.</b>	

An influence of profit is the volume of potential work and when it is difficult to obtain enough work, competition ensures tight responses.

Ideally, unless you decide to subsidise the work with your own money, the profit component is the proper mechanism to adjust your prices to meet market conditions.

3e. **SUMMARY - Lets Put it Altogether**

**WE WILL USE OUR EXAMPLE (100M<sup>2</sup> OF 3 COAT GIB PAINTING)**

<b>PAINT SEALER X 2 COATS LOW SHEEN 100M<sup>2</sup> GIBBED</b>			
<b>Unit</b>	<b>Quantity</b>	<b>Factor</b>	<b>Total</b>
M <sup>2</sup>	100	Material 1.930	193.00
M <sup>2</sup>	100	Labour 6.804	680.40
1.	<b>PRIME COST</b> <i>(No allowance for inflation)</i>		<b>873.40</b>

2.	OVERHEAD 20%	+	174.68
3.	ESTABLISHMENT <i>(This was 2.400 stud next door)</i>	+	000.00
<b>(OUR M<sup>2</sup> RATE IS \$10.57)</b>			<b>\$1057.68</b>
4.	PLUS PROFIT <i>(Your Call)</i>		

**THIS** rather exhaustive process is a demonstration of the exact basis of costing for painting when the areas (quantities) are calculated either for you (QS Schedule) or by yourself.

Additionally to estimating the **costs** of a particular painting requirement estimates can also be based on the experience of painters who can often, with astonishing accuracy, sum up the total requirements of work and make a quotation based on experience hard won from their workings with the trade, often over many years.

Usually they have long experience based again on simple measurements, but because of flat areas, the domain of the painter has a certain scale, these folk can speed read the area (and often the speed readout is in **dollars** not area), because it is just so familiar.

While this is very pretty to watch, every once in a while this system provides severe penalties and therefore is not for timid or poor practitioners.

Obviously this system has advantages on some existing buildings and structures, because it is rather faster than measuring, but it is useless when the project is a set of plans or some other description of work.

The conclusion must be that there is a place for both systems, and the experienced painting contractors almost universally develops **skill** with both systems, usually putting a little of each against every proposal.

It is now possible to scan a digital photo straight into a programme, but because you are already on site anyway to do this, why not at least check the key elements of measurement and inclusion of all the requirements.

The obvious great problem of estimating, quoting and general business is that all too often, the **Prime Costs** actually make their way onto the painters market of work, and the only relief available is to just figure out ways to go faster longer and smarter to stay ahead of loss making situations. Whilst some people call this market forces, most just **don't** know the **actual** costs.

The analysis provided can be altered if the factors change:

- (a) Cost of Material

- (b) Cost of Labour
- (c) Cost of Preparation (better products)
- (d) Cost of Application (better process)
- (e) Cost of Overheads

**AND** adjusted as required but these are costs.

**AND PROFIT BELONGS TO YOU**

4. **MEASURING PLANS AND PREPARING QUANTITIES**

You need a good scale at least 1:100, 1:10, 1:5 and there are many good composite scales.

You also need a **good** quality adding machine with a quality printer to quickly run up your quantities.

**Method**

1. Check scale of drawings and also verify with your scale that the information is not copied **out** of scale.
2. Check specifications for verification of requirements and make up of various paint systems. Some Architects now specify system numbers directly from manufacturers catalogues, ie. Resene One-Line Specifications.
3. Draw up a list of items as per plans and specifications as follows:

Item 1.	One coat Sealer. 2 Coats LS Acrylic. Gib bd. walls.	<u>M<sup>2</sup></u>	<u>R</u>	<u>I</u>
Item 2.	One coat Primer. 2 coats SGE. Skirtings 150 in width.	<u>LM</u>	<u>R</u>	<u>I</u>
etc...	etc, etc etc ... You will probably make many pages.			

<u>Areas</u> are always	<b>Length x Height</b> and are <b><u>SQUARE METRES</u></b>
<u>Objects</u>	300mm wide are usually measured <b><u>LINEAL METRES</u></b>
	0-150 } Standard 150-300 } Lineal Metres
<u>Area of a Circle</u>	Pi R Squared (TIR <sup>2</sup> ) (Pi) = 22/7 or 3.14 R Squared = Radius x Radius
<u>Area of Corrugated Iron</u>	Flat Area + 10%
<u>Area if Tray Roofing</u>	Flat Area + 40%
<u>Older Roofs</u>	Flat Area + 40% (Includes for <u>slope</u> etc)

Often you find that buildings have a common ceiling height, therefore you can have a running wall measure, aggregating the total **length x height** singly.

**AND** then **deduct** the door + **window** measurements from this total, but **include** for their paint finishes as necessary.

The assembly is simply a system of tidiness, and you only have to do so when the project is not supported with a formal set of quantities.

<p><b><u>YOU MUST REMEMBER TO LOAD</u></b></p> <p>Overheads Establishment <b><u>AND</u></b> Profit</p> <p>to your <b><u>PRIME COST</u></b></p>
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## 5. PREPARATION OF SURFACES

### **MASKING COSTS**

Masking is a real cost and is quite difficult, if not impossible, to express as a rate per square metre, but can have a **profound** effect on outputs, **particularly** airless application.

The usual labour equation to both apply and remove tape/marking etc consumes 1/3 of the productivity as:

9 hour day products 440 flat metres per coat less 1/3.

So effective masking input = 1/3 factor plumage.

Materials, tape and plastic is a consumable expense and costs \$3.50 per 10m wall area if the adjacent ceilings and floors/doors and windows are protected.

For exteriors (where only window/doors and ground exists) add \$0.50/m<sup>2</sup> of wall area. Materials and labour is a reasonable establishment add on.

## **EXISTING SURFACES PREPARATION**

The preparation of existing surfaces is a specific problem area, and requires special care and skill to assess and allow for.

The best practice is job specific. Itemise and allow for as an establishment cost and add in either as a lump sum or reduce to a m<sup>2</sup> factor.

$$\frac{\text{Lump Sum Allowance}}{\text{Area}} = \text{M}^2 \text{ Rate}$$

The rates require some sound assessment of each task, both in labour and material requirements, and then the judgement can be easily worked up into the proposal. The essence of all this is that lump sum fixed price quotations include for everything you know and allow for everything you don't know and should include for.

Therefore the better your system the fewer mistakes. You then may not win every job, but those you do will be worthwhile because everything is properly allowed for.

## PRODUCTIVITY FACTORS - OUTPUT PER 9 HOUR DAY

FLAT WALL AREA	100m <sup>2</sup> per c per day	(Roller)	
ALLOW CAPITAL / COST MASKING ETC.	440m <sup>2</sup> per c per day	(AS @ 3000 PSI)	
DOORS/FRAMES	50m <sup>2</sup> per c per day	(Brush)	
WINDOW FRAMES	60m <sup>2</sup> per day per coat (b)	(Flat measure over gloss)	
		<b>B</b>	<b>A/S</b>
Weatherboards (Flat Measure)	(a) Bevel back	65m <sup>2</sup>	230m <sup>2</sup>
	(b) Rusticated	60m <sup>2</sup>	260m <sup>2</sup>
	(c) Vertical	60m <sup>2</sup>	200m <sup>2</sup>
		<b>R</b>	<b>A/S</b>
* Rough Cast (Flat Measure)	(a) Smooth	100m <sup>2</sup>	400m <sup>2</sup>
	(b) Medium	70m <sup>2</sup>	250m <sup>2</sup>
	(c) Pebbledash	30m <sup>2</sup>	150m <sup>2</sup>
Galvanised Iron (Flat Measure)	(a) Roof Roller	120m <sup>2</sup>	
	(b) Airless Spray	350m <sup>2</sup>	
* Concrete Blocks	(a) Roller	100m <sup>2</sup>	
	(b) Airless Spray	300m <sup>2</sup>	
Hardiflex	(a) Roller	100m <sup>2</sup>	
	(b) Airless Spray	400m <sup>2</sup>	
<b>1<sup>st</sup> Coat suction/texture difficulties. 50% add on (or 1/2) rate.</b>			

### 7. CONCLUSION

Hopefully the aforementioned method statements are easy to follow and understand. We believe they will help you to establish, as accurately as possible, the actual costs and outcome of any **proposed** painting project and in turn enable you to successfully undertake and complete your work.

The methods stated will only provide you with a framework to work within but will not do the work for you.

This is, of course, an entirely different process.

What it will do is to enable you to methodically prepare a proper forecast of revenue to **properly** practise **your skills**. It will also provide you with



valuable historical data to analyse jobs upon completion and provide a ready source of information for your next quotation.

It is now over to you.