LANDSCAPE ONTARIO CONGRESS:

Job Costing: Financial Fundamentals

Roy Sieben & Greg Clarke | January 11, 2011

Presenters

Roy Sieben, CA, Partner
905.633.6313 rsieben@sbpartners.ca

In a 24/7 global economy, effective tax planning and nuanced investment strategies are vital to remaining competitive. Roy works with owner-managed and private businesses in a variety of industries including manufacturing, distribution and construction, working on their behalf to create wealth through effective tax and estate planning, and investment strategies.

At SB Partners, Roy has built on his first-hand business experience and management expertise gained as a Corporate Controller of a national retail company to become an excellent advisor for his clients. Roy works with business owners to identify issues critical to success, and develops a plan to keep his clients focused on achieving those objectives.

“Spending time with my clients is the first step towards addressing their concerns,” says Roy. “Together we think through their strategic objectives, and then develop a plan that fits their situation and business goals.

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Presenters

Gregory Clarke, CA, Partner
905.633.6323 gclarke@sbpartners.ca

Greg Clarke is one of SB Partner's foremost resources for assurance and advisory services. His experience in international accounting and corporate and investment banking means that his clients will get strategic advice to help them meet their long-term goals.

"My role as a professional is to give my clients all the options and information they need to make informed decisions," says Greg. "It's important for them to have practical solutions to their challenges and a realistic assessment of all available opportunities."

Greg enjoys the diversity of industries that his clients represent. He is part of the Auto Dealership Practice Group and has experience working with many different sectors including manufacturing, technology, auto dealerships, financial services, real estate, health care and not-for-profit, and can speak knowledgeably to a variety of clients about their industries.

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The Why of Job Costing

- Provides a basis for estimating and sales quotation
- Provides a basis of accountability for management
- Provides a basis for forecasting and planning for the future

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Components of Cost

- Expenses incurred in the delivery of the project or service

- Main components consist of
  - Direct Costs
  - Indirect Costs

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Components of Cost

- Direct Cost – cost that can be traced directly or identified with a specific project or service.
- Usually under the control of the company
- Examples include:
  - Materials such as gravel, flagstone & plants
  - Labour incurred at the job site

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Components of Cost (continued)

- Indirect Cost – cost not incurred specifically for a project or service but is incurred in the operation of the company
  - Indirect Labour such as supervision
  - Overhead costs such as rent, utilities, & insurance

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Job Costing

- Recordkeeping
  - Manual Records
    - Can be as simple as a file folder containing copies of invoices
    - Generally time consuming and inefficient
    - Difficult to do proper job costing in a manual environment

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Job Costing (continued)

- Computerized
  - Costing of direct materials and labour allocated to jobs as supplier invoices and payroll are recorded
  - Relatively inexpensive software packages available for small businesses
  - Growth may dictate the need for more sophisticated software solutions

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Material Cost

- Specific material order and delivered to the job site
- Inventoried product such as screenings, mulch, top soil, etc.
  - Requires requisition orders to be prepared and controlled by accounting process
  - Generally requires the use of standardized units of measure

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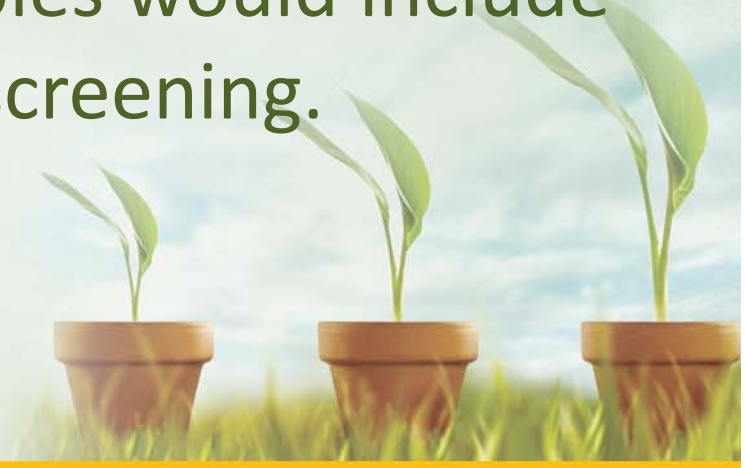
Materials Cost (continued)

- Costs that are attributable to a specific job can be allocated directly to that project. Examples may include flagstone, plants, etc.
- Other materials may be kept on hand for various projects due to their particular nature and frequency of use. Examples would include such items as gravel, soil or screening.



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Materials Cost (continued)

Problem: How to allocate this cost when the items are typically purchased in bulk and stored at the main business location.

Answer: Calculate a standard charge!

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Materials Cost (continued)

- Example: A order of gravel worth $1,000 is delivered. The order is 2,000 cubic yards. Your tractor bucket holds 20 cubic yards.

Order Cost:	$1,000
Order Size:	2,000 yds
Cost per cubic yard	$0.50
Cost per bucket	$10

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Materials Cost (continued)

What about extra materials that are returned?

- This can also be tracked by the bucket and reversed against the project cost using the same standard cost!

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Labour Costs

- Direct labour will require time a sheet system through which employees allocate their time to specific jobs.
- Cost per direct labour hour will include:
  - Wage cost
  - Benefit costs – EI, CPP, EHT, WSIB, Group Benefits
  - Benefit costs will frequently be determined as a percentage of hourly wage rate

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Indirect Labour & Overhead (continued)

- Generally based on the annual amount budgeted
- Need to determine a basis of allocation, frequently, direct labour hours or dollars
- Total budgeted cost divided by total budgeted direct labour hours or dollars provides the per hour or per dollar cost for supervision and overhead

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Indirect Labour & Overhead (continued)

- Budgets for costs and direct labour inputs will have to monitored throughout the year to ensure the rates remain relevant

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Labour Hours

Employee	Wage	Expected Hrs	Subtotal	Benefits	Total
Frank Masi	21	2,500	52,500	2,350	54,850
Marco Juliani	18	2,500	45,000	2,100	47,100
Carlo Trimani	16	2,500	40,000	1,975	41,975
Henrik Revi	17	2,500	42,500	2,020	44,520
Paul Scodini	16.75	2,500	41,875	1,830	43,705
Jeff Smith	16	2,500	40,000	1,900	41,900
Ken Armstrong	18	2,500	45,000	2,100	47,100
Jevi Kinoki	17	2,500	42,500	2,030	44,530
		20,000			365,680

Expected Hours for 2010	20,000		
Standard Rate - Labour	18.28	use	18.30

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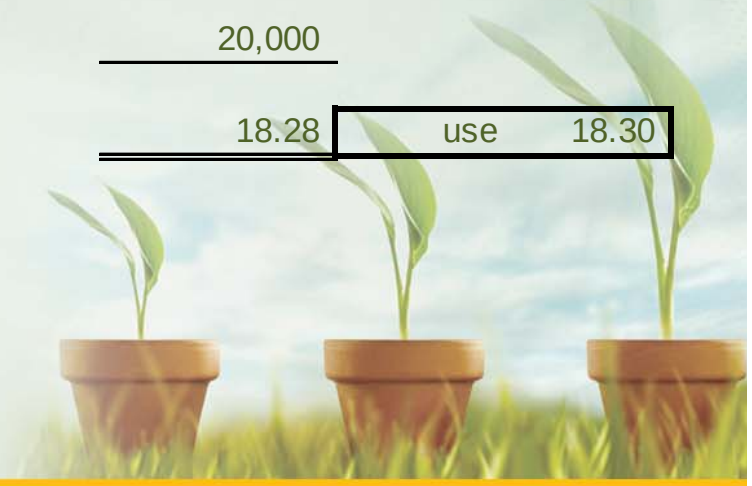

Machine Hours

- Budget for annual machine cost will have to prepared
- Budget for annual machine hours will have to be generate
- Cost should include a factor for:
  - Depreciation or lease cost
  - Fuel
  - Repairs and maintenance
  - Insurance

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Machine Hours (continued)

- Rates can be determined for individual machines, a grouping of similar machines or overall company wide machines
- Obviously, more categories will provide a stronger basis for assigning cost

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Machine Hours (continued)

- Again, a system of time sheets will be required to log machine hours by job
- Rates or charges may be applied to a job to cover float charges to and from job sites

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Machine Hours (continued)

- The best allocation method for the cost of machines is to develop a standard cost which is allocated based on machine hour usage.
- Example – Facts:

Cost:		$ 25,000
Estimated Remaining Usage:		10,000 hrs
Yearly Estimated Usage:		1000 hrs
Yearly insurance		$ 1,000
Yearly operating cost	Gas	$ 5,500
	R&M	$ 1,000

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Machine Hours (continued)

Standard Cost per hour:

Cost:	$	25,000
Remaining Usage (hrs)		2,000
Allocation	$	12.50
Yearly usage		600
Annual allocation	$	7,500

Yearly costs		
Base cost	$	7,500
Insurance	$	1,000
Operating costs	$	6,500
	$	15,000

Estimated yearly usage		600
Per hour allocation	$	25

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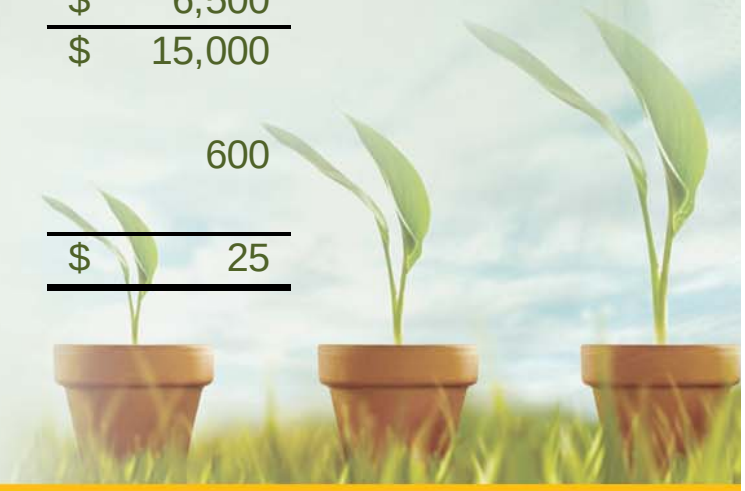

Work in Progress Listing

Date	Memo		Hrs	Rate	Other	Charge
Direct Hours						
3/24/2010	Frank Masi		6	18.30		110
5/21/2010	Marco Juliani		8	18.30		146
5/21/2010	Carlo Trimani		8	18.30		146
5/21/2010	Henrik Revi		8	18.30		146
5/22/2010	Marco Juliani		8	18.30		146
5/22/2010	Carlo Trimani		8	18.30		146
						842
Materials						
5/23/2010	Slate's Quarry	Gravel			360	360
						360
Equipment						
5/24/2010	Bobcat		2	25.00		50
Subcontract						
5/22/2010	Jerry's Equipment	Backhoe			3,500	3,500
5/22/2010	Sam's Rental	Tractor			1,000	1,000
						4,500
		Total				5,702

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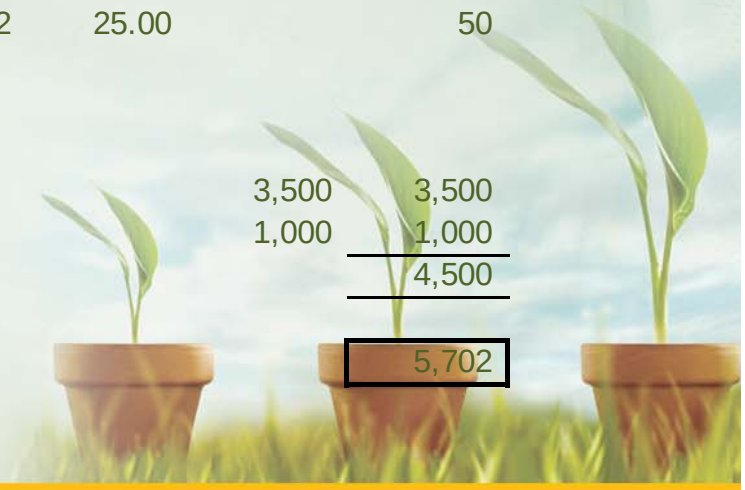

Pricing Model

- A pricing model needs to take into account several factors including:
    - Direct Labour Costs
    - Direct Material Costs
    - Equipment Usage
    - Subcontract Costs

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Pricing Model (continued)

- This will determine the direct costs to do the project. Once that is done, you need to determine a profit allocation to cover overhead costs and a profitability factor.

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Pricing Model (continued)

- Overhead – need to determine a profit allocation to cover non-direct operating costs. This can be done as an allocation based on estimated direct hours

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Pricing Model (continued)

Overhead	
Management Salaries	225,000
Administrative Salaries	150,000
Amortization	25,000
Rent	150,000
Insurance	70,000
Benefits	25,000
Vehicles	82,000
Tools	5,000
Office	20,000
Utilities	25,000
Miscellaneous	15,000
Subtotal	792,000
Expected Hours for 2010	20,000
Standard Rate - overhead	40

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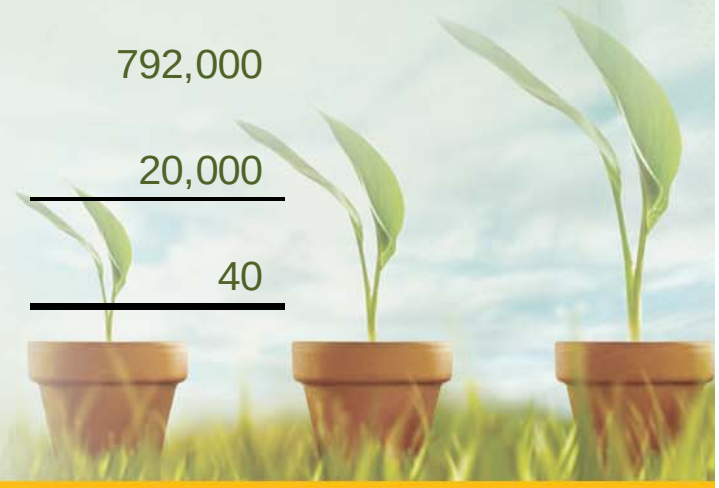

Pricing Model (continued)

- Profit Markup – This is the final part where you allocate a profit markup to the project
- Markup should be sufficient to cover unexpected overruns/costs, contingencies, business risk, etc
- The pricing model is used to develop estimates/quotes for pricing of projects

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Pricing Model (continued)

Design cost		1,000
Project Construction Costs		
Direct Hours	125	2,288
Materials		3,000
Equipment		1,000
Subcontact		1,000
Overhead		4,950
		13,238
Markup @ 20%		120%
Estimate		15,885

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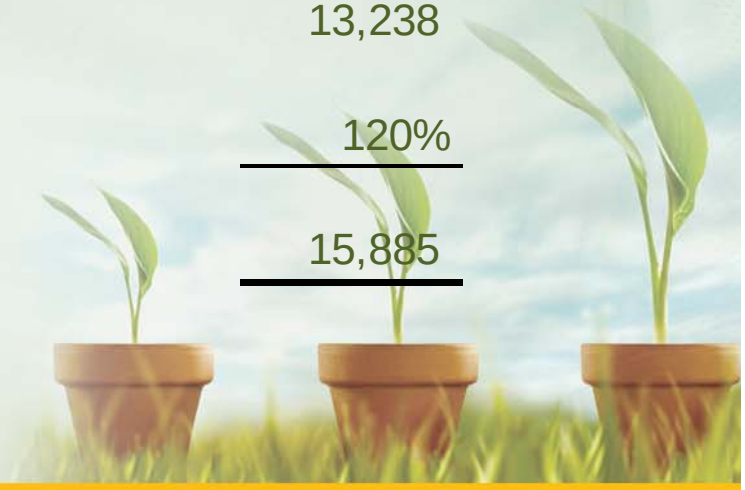

Review

- An important aspect of job costing and estimating is the post project review or estimate to actual to determine the profitability of a project.

- Allows you to identify potential issues in the company and the management of the project.

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Review (continued)

		Estimate		Actual	Variance
Design cost		1,000		825	175
Project Construction Costs					
Direct Hours	125	2,288	133		2,288
Materials		3,000		2,765	235
Equipment		1,000		1,143	(143)
Subcontact		1,000		987	13
Overhead		4,950		5,267	(317)
		13,238		10,987	2,251
Markup @ 20%		120%			
		15,885			

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Questions?

Contact Info:

Roy Sieben

Partner

905-633-6313

rsieben@sbpartners.ca

Greg Clarke

Partner

905-633-6323

gclarke@sbpartners.ca

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