



Thermal Insulation Association of Canada
The Voice of The Mechanical Insulation Industry

Association Canadienne de l'Isolation Thermique
La voix de l'industrie de l'isolation mécanique

Top Notch Operations

AUGUST 24, 2017

Please note we will be covering a wide variety of material in an overview manner. I have not printed out the material as it runs to almost one hundred pages. Because of that and to ensure that you have the information necessary to operate a Top Notch Operation the documents will be available until the end of October 2017 at the following location.

<https://goo.gl/W7uzN4>

In addition to these documents I will also recount certain stories. If you would like copies of those email me or if you have any questions or need clarification on any points we cover do email me your questions.

ronald@ronaldcoleman.ca

Wishing you happy and successful contracting,

Ron

August 24, 2017

A. **Care & Feeding of Monkeys** by Oncken & Wass (5 pages)

This is an article on the value of assigning, delegating and controlling. It is a quick read and has excellent content. I would recommend you distribute and review with your team.

B. **Productivity checklist** (1 page - copy attached)

This is a checklist which I believe can add significant value to your ongoing project management. It is a tool that can be used in a variety of ways.

C. **Role of the Project Manager** (4 pages)

Clarifying the role of the project manager, understanding the resources liaison and team coordination is essential. Also know what skills a successful PM should have and what to look for in a PM. I have also included a list of open ended questions for interview purposes.

D. **Role of the Estimator** (2 pages)

Similar to above except for Estimator.

E. **Project Start Up Procedures Manual** (19 pages)

This publication provides information on pre-planning your construction project.

F. **Management Methods Manual MCAA** (800+ pages) Not included. Do Google search

This Manual replaces the Alliance Project Management Manual which was issued in 1998. It is an excellent resource and covers the following areas:

- | | |
|--|---|
| 1. Accounting & finance | 15. Legal |
| 2. Business forms | 16. Legislation |
| 3. Change orders | 17. Management innovation |
| 4. Contracts | 18. Marketing (see MCAA guide to marketing your business) |
| 5. Corporate Planning | 19. Overtime |
| 6. Education & training | 20. Productivity |
| 7. Estimating | 21. Purchasing |
| 8. Fabricating | 22. Quoting & bidding procedures |
| 9. Human Resources (also see MCAA guide to human resources planning) | 23. Safety |
| 10. Insurance | 24. Subcontracts |
| 11. Bonding | 25. Taxes (US taxes) |
| 12. Job management | 26. Technology (refer to MCAA's Technology Publications) |
| 13. Joint Ventures | 27. Tools & Equipment |
| 14. Labour relations | |

F1. Small Projects Management - Because I can't include the above document I have included this Gold Seal program from the Canadian Construction Association that I wrote.

G. **Short Term Interval Planning** (2 pages)

This is a guide to using labour hours and productivity to manage your projects on a bi-weekly basis.

H. **Work-In-Progress** (4 pages)

This guide will ensure that you don't under or over state your profits monthly or at year-end.

I. **Change orders, Productivity, Overtime** MCAA (Not included) Do Google search

This is a new publication from MCAA and covers off information on the key elements of change orders including productivity and overtime.

J. **Change Order Protocol** (7 pages)

This is a Canadian document compiled by a variety of trade contractors across Canada, including the Master Insulators' Association of Ontario Inc. It is an excellent resource for calculating your entitlement for remuneration for changes, including impact costs.

K. **Proposal checklist of items not included in estimate** (8 pages)

There are a variety of costs we incur on a project that many contractors treat as overhead. This causes us to mark up lower direct costs by higher overhead. As a result we often lose jobs we should get and get jobs at prices that are not to our advantage. Getting the right balance is critical for our ongoing success.

L. **Financial Ratios - See attached** (4 pages)

These are the key ratios that we should be monitoring on a regular basis. You can only manage what you can measure - ***The Three Ms -Measure, Monitor, Manage***

PRODUCTIVITY

1	<i>Low Craftsman Morale</i>	Grade on a scale of 1 to 5 - 5 being great
2	<i>Inefficiency</i>	
3	<i>Progress delayed</i>	

1	<i>Low Craftsman Morale</i>	Grade	Comments
1	Unqualified foremen		
2	Tool shortages		
3	Material shortages		
4	Changes and rework		
5	Frequent foremen turnover		
6	Uncertain job future		
7	Weather extremes		
8	Employee turnover		
9	Absenteeism		
10	Substandard employee facilities		
11	Management/labour conflict		
12	Adverse site conditions		
2	<i>Inefficiency</i>		
1	Support equipment missing		
2	Inadequate instructions		
3	Crowded work area		
4	Cluttered work area		
5	Double handling of materials		
6	Poor sequencing of work		
7	Poor work area lighting/heating		
8	Materials not on hand		
9	Tools not available		
10	Excess workers for task		
3	<i>Progress Delayed</i>		
1	Complex design		
2	Procurement delays		
3	Strikes/shutdowns		
4	Quality control requirements		
5	Poor decision making		

SHOCKING CONTRACTING LTD.
Income Statement
For the Year Ending

LINE		AMOUNT	% OF SALES
1	NET SALES	\$3,200,000	100.00
2	Cost of Sales/Job costs		
3	Direct Materials	1,250,000	39.06
4	Direct Labour + burden	1,200,000	37.50
5	Direct Subcontract	110,000	3.44
6	Job Permits	20,000	0.63
7	Other Direct (Job) Costs	44,000	1.38
8	Total Cost of Sales/job costs	\$2,624,000	82.00
9	GROSS PROFIT	\$576,000	18.00
10	Operating Expenses		
11	Advertising & Promotion	1,800	0.06
12	Auto & Truck Expenses	46,000	1.44
13	Bad Debts	3,000	0.09
14	Communications	17,000	0.53
15	Interest	14,000	0.44
16	Meals & Entertainment	13,000	0.41
17	Miscellaneous	5,000	0.16
18	Office Expenses & Supplies	13,000	0.41
19	Travel	19,000	0.59
20	Unapplied Labour	12,000	0.38
21	Unapplied Material	8,000	0.25
22	Amortization	40,000	1.25
23	Dues & Subscriptions	4,000	0.13
24	Insurance	14,000	0.44
25	Licenses & Taxes	9,000	0.28
26	Professional Fees	8,000	0.25
27	Rent	30,000	0.94
28	Repairs & Maintenance	4,000	0.13
29	Salaries - Management	60,000	1.88
30	Salaries - Office	45,000	1.41
31	Salaries - Engineering/Estimating/Sales	85,000	2.66
32	Salaries - Supervision	18,000	0.56
33	Shop Supplies & Tools	12,000	0.38
34	Utilities	7,000	0.22
35	Warranty	8,000	0.25
36	Total Operating Overhead (Expenses)	\$495,800	15.49
37	NET PROFIT BEFORE INCOME TAX	\$80,200	2.51

SHOCKING CONTRACTING LTD.
Balance Sheet – As at December 31, 200x

LINE			
1	ASSETS		
2	CURRENT		
3	Cash		\$5,000
4	Accounts receivable		300,000
5	Holdbacks receivable		15,000
6	Material inventory		45,000
7	Prepaid expenses		10,000
8	Total Current Assets		\$375,000
9	CAPITAL		
10	Autos & Trucks	\$80,000	
11	Building	200,000	
12	Equipment	40,000	
13	Office Equipment	25,000	
14	Total Amortizable Assets	345,000	
15	Less: Accumulated Amortization	60,000	
16	Net Book Value		285,000
17	Plus: Land		100,000
18	Net Capital Assets		\$385,000
19	OTHER		
20	Investments		5,500
21	Total Other Assets		5,500
22	TOTAL ASSETS		\$765,500
23	LIABILITIES		
24	CURRENT		
25	Accounts Payable		\$210,000
26	Bank Overdraft		60,000
27	Accrued Expenses		45,600
28	Current Portion of Mortgage		10,000
29	Income Tax Payable		18,400
30	Total Current Liabilities		\$344,000
31	LONG-TERM LIABILITIES		
32	Mortgage, long-term portion		70,000
33	Total Long-Term Liabilities		\$70,000
34	TOTAL LIABILITIES		\$414,000
35	NET WORTH		
36	Share capital		\$45,700
37	Retained earnings		305,800
38	TOTAL NET WORTH		\$351,500
39	TOTAL LIABILITIES & NET WORTH		\$765,500

NAME:			DATE:			
		RATIO	FORMULA	CALCULATION	ANSWER	TARGET
LIQUIDITY	Working Capital	\$	Current Assets- Current Liabilities			
	Current	Ratio to 1	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$			> 1.5
	Acid Test (Quick)	Ratio to 1	$\frac{\text{Cash} + \text{Receivables}}{\text{Current Liabilities}}$			> 1.0
LEVERAGE	Debt/Equity	Ratio to 1	$\frac{\text{Total Liabilities}}{\text{Total Net Worth}}$			< 2:1
ACTIVITY	Working capital turnover	Times/ Year	$\frac{\text{Annual Sales}}{\text{Working Capital}}$			8 to 12
PROFITABILITY	Gross profit/ sales	%	$\frac{\text{Gross Profit}}{\text{Sales}} \times 100$			
	Overhead /sales	%	$\frac{\text{Overhead}}{\text{Sales}} \times 100$			
	Net profit B4 tax/Sales	%	$\frac{\text{Net Profit}}{\text{Sales}} \times 100$			> 5%
	Break-even sales	\$	$\frac{\text{Overhead}}{\text{Gross profit \%}} \times 100$			
	Return on equity (net worth)	%	$\frac{\text{Net Profit}}{\text{Equity (net worth)}} \times 100$			> 20%

NAME:			DATE:			
		RATIO	FORMULA	CALCULATION	ANSWER	TARGET
LIQUIDITY	Working Capital	\$	Current Assets- Current Liabilities	375,000-344,000	31,000	
	Current	Ratio to 1	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	$\frac{375,000}{344,000}$	1.09	> 1.5
	Acid Test (Quick)	Ratio to 1	$\frac{\text{Cash} + \text{Receivables}}{\text{Current Liabilities}}$	$(5,000+300,000+15,000)/344,000$	0.93	> 1.0
LEVERAGE	Debt/Equity	Ratio to 1	$\frac{\text{Total Liabilities}}{\text{Total Net Worth}}$	$\frac{414,000}{351,500}$	1.18	< 2:1
ACTIVITY	Working capital turnover	Times/ Year	$\frac{\text{Annual Sales}}{\text{Working Capital}}$	$\frac{3,200,000}{31,000}$	103	8 to 12
PROFITABILITY	Gross profit/ sales	%	$\frac{\text{Gross Profit}}{\text{Sales}} \times 100$	$\frac{576,000}{3,200,000} \times 100$	18.0	No target
	Overhead /sales	%	$\frac{\text{Overhead}}{\text{Sales}} \times 100$	$\frac{495,800}{3,200,000} \times 100$	15.49	No target
	Net profit B4 tax/Sales	%	$\frac{\text{Net Profit}}{\text{Sales}} \times 100$	$\frac{80,200}{3,200,000} \times 100$	2.51	> 5%
	Break-even sales	\$	$\frac{\text{Overhead}}{\text{Gross profit \%}}$	$\frac{344,000}{18.00}$	1,911,111	No target
	Return on equity (net worth)	%	$\frac{\text{Net Profit}}{\text{Equity (net worth)}} \times 100$	$\frac{80,200}{351,500} \times 100$	22.8	> 20%