

PREDICTING CASH FLOW



Avoid interest payments and late fees by predicting how much money you need and when you'll need it

In the construction business, where large payments are often tied to job progress, poor cash management can lead to trouble, even in a profitable company. The key is a cash-flow budget, which is nothing more than a schedule of expected cash inflow and outflow. More important, it predicts your net cash position at any given

by Don Reynolds

point in time. This budget will tell you if you need to borrow money and how much, or if you have the excess cash to give your crew a bonus or to buy a new piece of equipment.

By following a few simple steps, small contractors can develop a cash budget that will meet most of their needs. If you require anything beyond the level of cash budgeting shown in this article, however,

consider hiring an accountant or financial planner.

You should develop a new cash budget at the start of each construction season, and review it regularly as the year progresses. When you know your cash needs in advance, you'll be able to plan for the lean times instead of searching for funding at the last minute.

Revenue Planning

The first stage in developing a cash budget is to estimate your cash inflow. Assume that during the first six months of the year you will have three projects: a custom home, a labor-only framing subcontract for another general contractor, and a large remodeling job. To find out how much cash you'll take in over this six-month period, list the amount of revenue you expect to earn from each job (see "Cash Inflow," next page).

In addition to job income, add any other types of cash income here to complete the picture. For example, the sale of used equipment, tax refunds, and accounts receivable would all be part of cash inflow.

Cash inflow timing. Once you have estimated your revenues, figure out when you will actually receive each payment. Then create a schedule that shows the total amount you expect to receive for each of the six months. Let's say that for the framing job, which will be started first, you'll be paid half when the work starts and half upon completion. The custom home is scheduled to start next, and you have worked with the customer to establish a draw schedule of four payments. The remodeling project will be done last, and you have agreed to accept three equal monthly payments of \$32,000. In addition, the final payment on the Smith contract, which is already under way, is due in Month 2; the tax refund is due in Month 4; and you're planning to sell that extra trailer when the weather improves in Month 3.

Expense Planning

Next, you need to identify all costs associated with the three projects. First, list only those costs directly associated with revenue producing jobs — materials, labor, and subcontractors. I find it convenient to break these costs down into job-cost categories, such as excavation, concrete, framing, and

so on. Make a separate list to cover overhead costs, such as quarterly insurance payments, and include planned equipment purchases — our example lists a new compressor and nail gun, and the down payment on a new truck (see "Cash Outflow," next page).

Cash outflow timing. You now need to estimate when in the six-month budget period you will actually pay the invoices. As with revenues, this process distributes total expenses by month, according to when you think you'll need the cash. Most costs, such as payroll expenses, are typically paid in the month the services are provided. Some of your suppliers or subcontractors, however, may give you 30-day terms, so you would record the cash outflow in the month following the date service was provided.

Beginning Cash vs. Net Cash

Now it's time to put together all the lists you've been making to predict how much cash you'll need at the end of each month to pay all of your bills. The table you create will tell you how much money you have at the start of each month, how much money you will take in and pay out, and how much money, if any, is left over (see "Cash Flow Summary," page 4).

The Beginning Cash Balance is the total cash on hand at the start of Month 1. In other words, it's the amount you expect to have in your checkbook and savings accounts that is available for use in your

Cash Inflow

Income	Amount	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	6-Month Totals
Jobs								
Custom Home	140,500		10,200	32,000	55,000	43,300		140,500
Frame-In Only	10,200	5,100	5,100					10,200
Remodel	96,000				32,000	32,000	32,000	96,000
Subtotal	246,700	5,100	15,300	32,000	87,000	75,300	32,000	246,700
Other								
Sale of Trailer	1,000			1,000				1,000
Tax Refund	1,600				1,600			1,600
Smith Payment	2,200		2,200					2,200
Subtotal	4,800	0	2,200	1,000	1,600	0	0	4,800
Totals	251,500	5,100	17,500	33,000	88,600	75,300	32,000	251,500

The first two columns of the revenue table list income due from a variety of sources, including all past and upcoming jobs. This revenue is then distributed according to the month in which it will actually be received.

Cash Outflow

Expenses								
Custom Home	Amount	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Totals
Excavation	2,000		2000					2,000
Concrete	11,400		11,400					11,400
Framing Material	20,500		4,500	11,200	4,800			20,500
Carpentry Labor	8,900		4,100	4,800				8,900
Plumbing & Heating	16,500			2,000	8,800	5,700		16,500
Electrical	5,800			500	3,200	2,100		5,800
Drywall	9,100				9,100			9,100
Insulation	2,700			2,700				2,700
Doors & Windows	8,700				6,400	2,300		8,700
Trim & Stain	2,200					2,200		2,200
Custom Cabinets	7,400				7,400			7,400
Other Subs	11,900				7,700	4,200		11,900
All Other Costs	10,200		1,200	2,300	4,000	2,700		10,200
Frame-In Only								
Carpentry Labor	8,200	5,300	2,900					8,200
Remodel								
Framing Material	14,600				10,700	3,900		14,600
Carpentry Labor	18,300				6,400	7,500	4,400	18,300
Plumbing & Heating	12,100					7,300	4,800	12,100
Electrical	4,200					500	3,700	4,200
Drywall	5,800						5,800	5,800
All Other Costs	12,500				2,800	4,400	5,300	12,500
Subtotal	193,000	5,300	26,100	23,500	71,300	42,800	24,000	193,000
Overhead								
Workers Comp.— Q2	1,800				1,800			1,800
Cellular Phone	900	150	150	150	150	150	150	900
Office Supplies	75			75				75
Subtotal	2,775	150	150	225	1,950	150	150	2,775
Equipment								
Compressor & Nailer	700	700						700
Truck - Down Payment	3,000			3,000				3,000
Subtotal	3,700		0		3,000	0	0	3,700
Totals	199,475	6,150	26,250	26,725	73,250	42,950	24,150	199,475

Direct expenses for material, labor, and subcontractors can be broken down by job into categories that correspond to phases of construction. The bottom of this table lists overhead expenses and planned equipment purchases that will require additional cash. As with revenues, distribute all expenses to the month when you expect to make the payment.

Cash Flow Summary

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Totals
Beginning Cash Balance	2,500	1,450	-7,300	-1,025	14,325	46,675	
Cash Inflow	5,100	17,500	33,000	88,600	75,300	32,000	251,500
Cash Outflow	-6,150	-26,250	-26,725	-73,250	-42,950	-24,150	-199,475
Net Cash Position	1,450	-7,300	-1,025	14,325	46,675	54,525	

This table compares revenues with expenses, and calculates any monthly cash surplus or shortage. The Beginning Cash Balance in Month 1 is the amount of cash in your business checking account; in subsequent months, the beginning balance carries over from the Net Cash Position of the month before. The negative numbers in Month 2 and Month 3 mean there won't be enough cash on hand to pay all of your expenses for those months.

business. In this example, we will use a Beginning Cash Balance of \$2,500. Each month, this balance will change depending on cash inflow and outflow.

Next, for Month 1 only, add the total cash inflows and deduct the cash outflows. The resulting total is called the Net Cash Position, or the amount of cash you will have left over at the end of the month.

Now repeat the process for Month 2, then Month 3, and so on, until all six months are complete. The Net Cash Position in Month 1 becomes the Beginning Cash Balance in Month 2, and so on, in a pattern that shows how cash flow changes each month.

If the Net Cash Position for every month is positive — in other words, if there is money left over each month — then you are finished with the cash budget. In our example, however, although there is a positive cash balance of \$54,525 at the end of Month 6, there is a cash shortage in Months 2 and 3. To keep your creditors happy, you will need to find a way to cover the shortage until the cash flow can catch up.

Any of the following options will help to eliminate the negative cash position, although each has potential drawbacks:

Borrow money using a line of credit. This method requires advance planning, and takes time for approval. Depending upon your financial strength, you may have to pledge some assets as collateral.

Borrow money using a home equity loan. This method also requires time to establish, and puts your personal house at risk.

Use a credit card to purchase materials. This can get expensive if you don't pay off the balance within the grace period. Some credit cards have interest rates over 20%, which will quickly eat into your profits.

Hold back or slow down payments to suppliers and subcontractors. I don't recommend this

method, especially if you intend to maintain long-term working relationships. You could find yourself last on the list for getting services, or suppliers and subs may simply stop working with you. If you decide to pursue this option, however, discuss it with the subs and suppliers first — they may be able to help if they understand the problem and its temporary effect on your cash flow.

With any method that requires borrowing money, you are likely to incur interest costs, which in turn will increase cash outflows and ultimately affect the amount you need to borrow. If borrowing money is your solution to negative cash flow, be sure to adjust the chart to account for the cost of interest.

Eliminating Cash Shortages

The real advantage of creating this cash flow budget in the first place, however, is that you can avoid having to borrow money. Instead, you can make adjustments to both revenue and expenses that will improve cash flow and reduce or eliminate cash shortages.

Reexamine the draw schedule. It may be possible to adjust the timing of the draws on a project, such as having them come due at the beginning of a phase rather than the end. Also, putting a higher percentage of overhead and profit into payments for earlier phases may help (see "Adjusted Cash Flow," next page). In some cases, you may have to make these adjustments after the contract has been signed, but a sympathetic client may cooperate, especially if you can show that the revised payment schedule will not outstrip job progress.

Control spending. Another option is to delay the down payment on the new truck for a month or two, or try to squeeze one more job from the old compressor. You might also consider borrowing or

Adjusted Cash Flow

Cash Inflow

Income	Amount	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Jobs							
Custom Home	140,500		15,200	32,000	50,000	43,300	
Frame-In Only	10,200	5,100	5,100				
Remodel	96,000				32,000	32,000	32,000
Subtotal	246,700	5,100	20,300	32,000	82,000	75,300	32,000

Cash Outflow

Equipment							
Compressor & Nailer	700	0		700			
Truck - Down Payment	3,000			0	3,000		
Subtotal	3,700	0	0	700	3,000	0	0
Totals	199,475	5,450	26,250	24,425	76,250	42,950	24,150

Reduce Cash Shortages

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Totals
Beginning Cash Balance	2,500	2,150	-1,600	6,975	14,325	46,675	
Cash Inflow	5,100	22,500	33,000	83,600	75,300	32,000	251,500
Cash Outflow	-5,450	-26,250	-24,425	-76,250	-42,950	-24,150	-199,475
Net Cash Position	2,150	-1,600	6,975	14,325	46,675	54,525	

First, shift \$5,000 in revenue from the third to the first payment on the Custom Home. Then, shift purchases of the compressor from Month 1 to Month 3, and the new truck from Month 3 to Month 4. These two adjustments reduce the Month 2 cash shortfall from \$7,300 to \$1,600.

renting equipment until your cash situation improves. As a last resort, consider your personal cash needs and realize there may be months when you may not get a paycheck, or less than the full amount until cash flow catches up.

Add a small job. If you examine your schedule, you may find time to slip in a small job or two that could be paid in full upon completion. If you feel the time will be available but the schedule may vary, look for a job that will allow for a flexible start and completion date.

Updating Your Cash Budget

No matter how well you plan, your actual results will vary. There might be unexpected expenses, or you might get that small job. When this happens, you can adjust the budget to reflect these changes.

For example, assume you sign a job to build a

small garage in the last week of Month 1. You'll have to pay for the materials and labor (\$3,000) in Month 2, which is also when you'll receive payment (\$4,000). This adds \$1,000 to your Net Cash Position in Month 2, which may further reduce the cash shortage in that month.

When the changes in your building business are significant, such as adding a major new project to the schedule, you should create a whole new cash budget. This process is even easier if you use a spreadsheet, such as Microsoft Excel. But whether you work with a computer or with a pencil and paper, cash budgeting is a small investment in time that will yield big dividends, helping your business to run smoothly and more profitably.



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