

J.R. Huston Enterprises, Inc.

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Topic/title: Pricing Large Maintenance & On-Site Maintenance Projects

HTPLIP: From chapter 26 of How to Price Landscape & Irrigation Projects

Exhibits:

- Use Exhibit 10 in the back of HTPLIP pp 548 - 555

Key terms

On-site maintenance

PURPOSE: To explain the process of pricing large maintenance and on-site maintenance projects

INTRODUCTION

Knowing your costs and using accurate cost estimating methods is critical for successfully bidding large commercial maintenance projects. Too often, contractors use formulas and methods that are archaic and inflexible. These methods often contain false mathematical assumptions, which cost the contractor using them jobs and money. Today's competitive market requires estimating methods that calculate costs accurately and which can adapt to new market strategies.

******Main point:** Too often, contractors use formulas and methods that are archaic and inflexible..... which cost the contractor using them jobs and money. ****

******How it works- start ******

George and his partner Bill had a thriving full-service maintenance business, which specialized in the municipal market. Multi-year contract options were common. Many projects reached annual amounts of \$500,000 plus. Crews were on the same site five days a week. When bidding a job, George and Bill would get into one of their pickup trucks together and drive the site.

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The rule was that neither would say a word, unless they had a question about the site, until they were ready to make their “guesstimate.” They’d then go back and forth trying to decide how many full-time laborers they’d need on the job. It was all very subjective, but their combined 40 years of experience usually got them close. Once the number of full-time laborers was decided, equipment, materials, subcontractor costs, margins and markups were then applied to the bid. George and Bill wanted to break into the commercial maintenance market, and knew they needed a more accurate and flexible method to calculate their costs and for pricing their jobs.

Bob, on the other hand, had started his company in the mid-1980s while going to college. He specialized in residential lawn maintenance work. His sales in 1990 were a little over \$200,000. He also wanted to break into the commercial, full-service maintenance market. His method of estimating was similar to what George and Bill used, but on a smaller scale.

Bob would look at a site and “guesstimate” the amount of time his crew would be at the residence, and then multiply the amount of time by his hourly rate. For instance, a two-man crew on site for 30 minutes would bill out at \$25 (.5 crew hours x \$50/crew hour). Bob was smart enough to realize he needed more accurate methods for bidding the larger commercial work.

******How it works- end ******

The challenge and the opportunity

Large maintenance jobs, which bill out a minimum of 40 hours per week, pose particular challenges (and opportunities) for the seasoned estimator who knows his or her numbers. The 40-hour-per-week minimum is significant because it opens the possibility to **on-site maintenance**, where a designated one-man crew can be on site five days a week. Substantial savings in drive-time labor and the crew pickup truck costs may be possible, along with increased productivity. On-site maintenance also offers some significant marketing advantages through increased customer satisfaction. Many customers like the idea of a full-time, designated “gardener” on their site.

Small residential jobs, where the crew visits 10-15 sites per day, and even some small commercial maintenance projects, can be effectively bid using a crew-hour maintenance package approach (i.e., \$90/crew hour for a three-man crew). However, jobs billing \$500 to \$1,000 per month and more require more accurate bidding methods.

The method

When bidding large maintenance projects, you should first decide if the site possibly qualifies for a designated full time on-site crew throughout the season. To do so, the customer must agree with the concept, but there are important logistical hurdles to cover. Where will

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equipment and materials be stored? Will the crew have a secure office? How will the crew communicate with the main office? Will a pickup truck be needed on site 40 hours per week or will a less costly utility cart be sufficient? Each of these questions and their answers can affect the costs involved on such a project and, consequently, the final price to the customer.

Production costs

Once the on-site maintenance question is effectively addressed, the project should be broken down into its phases (i.e., spring cleanup, mulching, fertilizations, pesticide applications, mowing, fall cleanup, shrub and tree pruning, etc.). These phases are then broken down into their on-site production cost components: materials, labor with burden, equipment and subcontractor costs.

Mowing areas should be measured and the hours for each mower used on the job should be calculated based on its hourly production rate. Hours of use for trimmers, edgers, blowers, etc. should likewise be calculated. These hours, and the accompanying labor hours, should then be multiplied by their respective cost per hour and crew average wage rates.

General condition costs

Your general conditions, which contain the same four cost components identified in production costs, are then added either to each phase or as a lump sum item on the bid. Estimated material costs are included at cost. Estimated labor hours are multiplied by the crew average wage or by a specific rate for supervisors, crew leaders, etc. Equipment hours are multiplied by the predetermined cost per hour for the respective pieces of equipment. Subcontractor costs are included at cost.

Your general conditions should contain such things as drive time, load/unload time, the crew pickup or utility cart, supervisory time, administration time for the crew leader, dump fees, time to pick up materials, etc. I define general conditions in great detail. As a benchmark, general condition costs usually comprise eight to 15 percent of the final price of a maintenance project. Labor hours in general conditions usually comprise 15 to 25 percent of the total labor in the bid.

Breaking out general conditions this way provides the estimator with a checklist of ratios and percentages that can be used to compare to industry benchmark standards. However, the key issue is not whether an item is in production costs or general condition costs but whether it's included in the bid at all.

On-site maintenance impacts general condition costs in at least two important areas. First, drive time is usually significantly reduced. Drive time usually comprises 10 to 15 percent of the total paid hours per day for a normal maintenance route. On-site projects, where the crew reports to the site, can reduce drive time significantly. Overtime is often eliminated and/or the crew can spend more time on site. Replacing a crew pickup truck with a utility cart or reducing the time it

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spends on site can also reduce costs. The savings can then be passed on to the customer, thus making your bid more competitive. Or you can maintain your price and increase your net profit margin on the job.

Margins and markups

Margins and markups are then added to the production and general condition costs. Sales tax is added to materials (in some states, it's added to all costs). Labor burden (e.g., FICA, FUTA, SUTA, workers' compensation, general liability and medical insurance for field labor, field labor vacations, sick pay and holidays) is added to labor.

G&A overhead is then applied to the bid using the G&A overhead per hour (OPH) method. Your G&A OPH will usually range from under \$4 per billable field-labor hour to over \$12. Extremely large commercial and municipal maintenance companies that operate in the field 12 months a year realize a very low OPH. Smaller companies that operate in the field 8 to 10 months a year have a much higher OPH. To calculate the amount of G&A overhead to allocate to a job, simply multiply the number of labor hours in a bid by the OPH for your company or division.

Remember two important caveats regarding your G&A OPH: First, for your OPH to be accurate, your projected G&A overhead costs and billable field-labor hours need to be within 15 percent of what they really are, or will be at the end of the year. This is why you should monitor these costs and hours throughout the year to ensure their accuracy.

Second, indirect G&A overhead costs should not include field equipment or field labor burden costs. Otherwise, you'll overstate your OPH. You'll also run into other more significant field cost problems down the line.

Once you allocate indirect G&A overhead costs to the bid, you've calculated the break-even point (BEP) for the job. This is the dollar amount that equals all your costs, both field and office, for the job. Next you add a contingency factor to your BEP, if desired. The contingency factor is a subjective amount you may or may not add to a bid to absorb some risks about which you're uncertain.

Your net profit margin is then added to the bid. This amount usually ranges from eight to 15 percent. However, it's the sum total of net profit, G&A overhead recovery, and the contingency factor that provides the estimator with a very useful tool or benchmark standard. The sum of these three numbers determines the gross profit margin (GPM) on the bid. Put another way, $GPM = Price - total\ direct\ costs$.

The GPM on large commercial and residential maintenance projects usually falls in the 30 to 40 percent range. However, I've seen it drop to the low 20s in extremely competitive markets. I've also seen it climb to the high 30s or low 40s in some markets on occasion.

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Negotiated work usually has a GPM that's five to 10 percent higher than competitively bid jobs. Estimators need to keep this in mind when bidding. Otherwise, they might leave money on the bid table. Because negotiated work has the highest profit margins and usually comprises the least amount of risk for the contractor, it should be a contractor's goal to obtain as much negotiated work as possible, especially multi-year contracts.

Common mistakes

The above method for bidding large maintenance projects is detailed and requires the estimator to know production rates, equipment costs and more. In essence, it requires the estimator to do his or her homework. Some consider it too complex and detailed. I'd agree, if the contractor could bid work faster and make plenty of money on the bottom line without going to all this trouble. However, as markets tighten and/or as bottom lines erode, more thorough cost analysis and bidding methods are required.

Many contractors use quick, simplistic methods, which contain erroneous mathematical assumptions and fatal flaws. One mistake is including field equipment costs in indirect general and administrative overhead. These costs are then allocated to bids on a percentage basis, or they're put onto jobs using a per-hour method similar to the OPH method described previously.

Both are inaccurate, because field equipment costs are evenly spread on jobs. Jobs requiring very little equipment are bid with the same amount of equipment costs as jobs that are very equipment intense. Consequently, labor intense jobs are bid too high and equipment intense ones too low. The contractor can't be competitive on labor intense jobs, while he wins the equipment intense ones because he's underpriced them.

A second common mistake occurs when the contractor bids jobs using a flat rate (i.e., \$25, \$30 or \$35 per man-hour). Essentially this method makes a similar mistake as the one above. Labor intense work is overpriced while equipment intense work is underpriced. Why charge the same \$35 per hour for an \$8-an-hour laborer pulling weeds as you would for your \$14-an-hour crew leader mowing grass with a 72" ride-on mower that costs you \$9 to operate? It's not mathematically accurate. Your costs and prices for a bid should accurately reflect true costs and reality.

Remember, "The market isn't stupid." If you're willing to underprice work, the market will give you plenty of it. Anyone can get plenty of work by underpricing it.

**** Main point: Remember, "The market isn't stupid." If you're willing to underprice work, the market will give you plenty of it. Anyone can get plenty of work by underpricing it. ****

Back to the future (where are they now?)

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******How it works- start ******

George and Bill never made the adjustments in their estimating methods. Consequently, they weren't successful entering the commercial maintenance market. They're still battling it out in the extremely competitive municipal maintenance market. They've consistently lost market share because they failed to develop the tools and methods to accurately adjust their bidding, according to new production methods and costs.

Bob, on the other hand, made the adjustments, and has made a complete shift from residential to full-service commercial maintenance work. His company is very profitable and his annual revenue is well over \$2 million (and climbing). On-site maintenance comprises much of his work, while the balance consists of a mix of regular weekly visits and installation extras for his existing client base. The future is very bright for Bob, even though he's in a very competitive market. This contractor has developed flexible estimating tools and methods, which allow him to accurately calculate a job's true costs in any situation.

******How it works- end ******

SUMMARY

Bidding large maintenance projects requires special estimating skills, methods and tools. The contractor bidding such work often uses inflexible, antiquated methods, which simply do not calculate job costs accurately. These methods contain faulty mathematical assumptions, which can do a contractor much harm. Many a "good old boy" contractor has been done in by "bad old boy" arithmetic in his estimating system.

**** Main point: Many a "good old boy" contractor has been done in by "bad old boy" arithmetic in his estimating system. ****

On the other hand, many aggressive young contractors, armed with flexible yet accurate estimating methods, are grabbing market share. They're very profitable because they have the tools to bid jobs, and to adapt to virtually any production method or market. They know their costs and they know their markets. And that's a recipe for success.

ACTION POINT

Review the large commercial maintenance bid in Exhibit 10 in the back of the book.

Note:

The costs used in our scenarios are for illustration purposes only. Your costs will vary from the ones used in these examples. The key is for you to build a typical one-day scenario for the different crew, materials and equipment mixes you use. Round up these rates as appropriate.

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If your costing structure is accurate, the rates you calculate should be very close to your current ones and to those generally seen in your market.

This article was adapted from James Huston's new book and audio book, *How to Price Landscape & Irrigation Projects*, released in July 2003 and his previous book, *Estimating for Landscape & Irrigation Contractors*. The author is president of J.R. Huston Enterprises, Inc., which specializes in construction and services management consulting to the Green Industry. Mr. Huston is a member of the American Society of Professional Estimators and he is one of only two Certified Professional Landscape Estimators in the world. For further information on the products and services offered by J.R. Huston Enterprises, call 1-800-451-5588, e-mail JRHEI at jrhei@jrhuston.biz or visit the J.R. Huston Enterprise web site at <http://www.jrhuston.biz>.