

# On-Site

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# A SYMBIOTIC BOND

## How WIP reports relate to your financial statements

Construction work in progress (WIP) reports are too often ignored and less often fully understood. Your WIP reports share a symbiotic bond with your financial statements — the two should be consistent in the information they present. Let's look at four different schedules of a typical WIP report and discuss how they relate to your financial statements.

### **Schedule 1: Earnings from Contracts**

The first schedule is "Earnings from Contracts." It separately lists earnings from contracts completed during the year and earnings from contracts in progress at the end of the year. Numbers on this schedule will correspond with those on other schedules.

Schedule 2 needs to specify jobs that spanned more than a year and that were completed during the current year.

For example, a dollar figure listed on Schedule 1 as "revenue from contracts completed" ties to Schedule 2, "Contracts Completed." Similarly, a dollar figure from Schedule 1 listed under "earnings from contracts in progress" should match the revenues earned reflected on Schedule 3, "Contracts in Progress."

The Earnings from Contracts schedule ties to your financial statements — specifically, the income statement — in that the two earnings numbers on it



should add up to the total gross revenues on your income statement. You can use this parallel to verify that your financial statements are accurate.

### **Schedule 2: Contracts Completed**

The second schedule of a WIP report is "Contracts Completed." It tracks jobs completed during the statement year.

Schedule 2 shouldn't contain a "billed to date" or an "estimated cost to complete" column because these jobs are completed, and the revenues already earned. Some Contracts Completed schedules may have receivables due, but those receivables aren't relevant to reported earnings.

Schedule 2 needs to specify jobs that spanned more than a year and that were completed during the current year. To do this, a middle portion of the schedule shows revenues and costs that were already recognized in previous years' financial statements for projects completed in the current year.

The Contracts Completed schedule relates to your financial statements in that only those revenues attributed to the current year on this schedule should appear in the income statement as revenues for the current year. This is important because revenue reporting on the income statement must be calculated properly or earnings can be grossly distorted, putting misleading information in the hands of financial statement users such as lenders and sureties.

### **Schedule 3: Contracts in Progress**

The centerpiece of the WIP report is Schedule 3, "Contracts in Progress." It lists all jobs in progress at the end of the year, regardless of whether they started during the year or in earlier years.

Like the schedule of Completed Contracts, Schedule 3 shows revenues that were already recognized in previous years — on those contracts that are still in progress at the end of the current year. Only the revenues that are properly attributable to the current year should be recognized on your construction company's income statement.

Perhaps the most important feature of the Contracts in Progress schedule is the portion that lists the revenues, costs, gross profit, billings to date and other data points for each project since its inception. This is key because the "costs and estimated earnings in excess of billings" and "billings in excess of costs and estimated earnings" columns reflect each job's offset from billings to earnings since you broke ground.

This schedule also helps illustrate how the balance sheet relates to the income statement. Your CPA can use the Contracts in Progress schedule to verify the percentage of completion calculations on each job by taking the total costs to date on each project and dividing by the contract amounts. This way, each job's calculated earnings and total costs will add up to the total reported earnings and the reported costs on the income statement.

### **Schedule 4: Contracts Receivables Detail**

The fourth schedule of a typical WIP report is "Contracts Receivables Detail." This is a fully articulated record of your accounts receivable, showing not only what's owed but what has been paid

## **THE TRICKY BALANCE THAT IS BACKLOG**

Schedule 4 of a Work in Progress (WIP) report, "Contracts Receivables Detail," includes information on unbilled, uncompleted work. (See main article.) This represents your backlog — and it's important to keep a close eye on it.

As you're likely aware, backlog is a tricky thing. You want to ensure uncompleted, unbilled work is large enough to sustain the company into the foreseeable future. But you don't want to overcommit to projects that you lack the time and resources to complete within an acceptable timeframe. This is another reason it's important to regularly generate accurate WIP reports.

and the portion of each contract yet to be billed (in other words, your backlog).

Schedule 4 lists the total contract amount of each project. You can see what jobs are in progress because they're not yet totally billed. The billings on those projects should match the billings for those same jobs in the Contracts in Progress schedule. Jobs that appear on both the Contracts Receivables Detail schedule and the Contracts Completed schedule must be completely billed out.

Careful tracking of your accounts receivable on WIP reports is critical to verifying the accuracy of your financial statements. For example, accounts receivable appear as an asset on your balance sheet. So, showing a high amount of receivables will reflect positively on your company because it strengthens current assets. Of course, you've still got to be able to collect these receivables in a timely manner.

### **Build the bottom line**

When contractors generate WIP reports regularly and accurately, their financial statements benefit immensely. Work closely with your CPA to do so and you'll put yourself in a much better position to avoid unpleasant surprises and build your bottom line. ■

# VIEWING YOUR LENDER AS A BUSINESS PARTNER

It's easy to get intimidated when applying for a business loan. You have the need; the bank has the money — how can you win them over? One way to lower the stress level is to view your lender as a partner rather than a gatekeeper. After all, it needs your business just as much as you need the loan.

## Articulate a clear plan

Say you're asking for money because your construction company has fallen behind on its supplier payments and needs the cash to catch up. There are better ways to phrase this request, such as that you need working capital to complete one or more profitable projects.

Or, as another example, you need the money to bid on jobs beyond your usual geographic area. Here you can support your request by producing solid market analysis that convinces the lender that your construction business stands a good chance of succeeding in the new locale.

The bottom line: Before asking for a loan, make sure you're able to clearly articulate a plan for the use of the cash and that you've documented a reasonable ability to repay the loan. You and your top managers should be able to verbalize your plan but craft a written statement, as well. It can be as short as one page if it clearly describes your business challenge, your strategies for overcoming it and how the lender's money plays into this solution.

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## Shop around

When you look at a new financing arrangement as a partnership, you can shop for a lender, just like a lender is selective about its customers who borrow money. If you have a long-standing relationship with a banker, make that your first call. It's important to have good communication and an amicable rapport when negotiating terms.

But should your local banker not offer loan terms that are favorable to you, don't hesitate to shop around. Look for a lender with multiple loan products, so you have a better chance at

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structuring one to your liking. And get some references to the quality of service and support.

If yours is a small business, check into the availability of Small Business Administration or other government-backed loan programs. These are often designed to boost local economies, so you'll probably be able to achieve more favorable loan terms and interest rates.

### **Know your numbers**

We live and work in an era of "big data." Lenders are certainly active participants, keeping a keen eye on metrics that help them accurately estimate risk of default.

As you look for a loan, determine how each prospective lender will evaluate your default probability. Lenders tend to use multiple financial ratios to assess a construction company's creditworthiness. When one of these key ratios goes askew, a red flag goes up on their end — and should on yours as well.

For example, lenders will track the cash asset ratio, which measures the amount of cash available to pay current liabilities. If your cash asset ratio starts slipping, you'll likely need to push accounts

receivable to clamp down on slow-paying owners or general contractors or tighten up on spending.

Bear in mind that not every lender may use ratio-based evaluative methods — or use them alone. Some use community-based scoring, by which a selected group of finance professionals rate and review companies based on their payment histories. Others use proprietary commercial-scoring models that use creditor reports to develop credit scores for businesses.

### **Time it right**

A well-timed capital infusion can serve as a tremendous boost to a construction business. And viewing your lender as a partner should help you more confidently and selectively approach what's often a stressful process.

Of course, a lender isn't *literally* your business partner. Strictly speaking, partners are equity stakeholders, whereas a lender could force a construction business to shut down if it can't collect on a loan. Work closely with your CPA to decide whether outside financing is appropriate at this time and, if so, how a reasonable loan should be structured. ■

## **WALK THE TALK: PRIORITIZING COMPANY CORE VALUES**

**Do your employees know your construction company's core values? Are they (and you) applying these values to daily operations and decision making? Are you using the values to build your brand and reputation in the marketplace?**

If you had a hard time answering the above questions, it may be time to revisit the concept of having company core values and prioritizing them on every job.

### **Stand for something**

Core values, or business principles, should be more than a superficial exercise in platitudes. When a construction business establishes a set of values, that company is proclaiming what they stand for and how they do business.

The values should serve as a guide for how to manage employees, projects and customer service, and how to resolve issues. They should be used as a litmus test when evaluating potential projects, clients, partners and job candidates to determine fit. They'll certainly be used by project



owners to determine which contractors live up to their promises.

Employees and job candidates also measure employers by their values. In 2017, *Forbes* magazine reported that company culture is so important to Millennials — who were estimated to make up roughly half the working population by this year — that core values are becoming an important tool for attracting and retaining talent.

So, are you putting core values in action or are you just paying lip service to them? As an example, let's look at "safety," a value adopted by many contractors. A company that prioritizes safety should base every decision, big or small, on that value.

Leadership must be committed to training and procedures that ensure all employees go home uninjured. Employees must know they're responsible for their own safety and the safety of those around them. If a design or work practice is perceived to be unsafe, a contractor committed to safety won't proceed until the issue is resolved. After all, safety must take priority — even over schedule and profit.

### Select a set

So, what are values — literally? Common examples include Teamwork, Fun, Innovation, Integrity, Honesty, Courage, Accountability, Community, Transparency, Quality and Safety.

After you've selected a set of three to seven core values, the next step is to ensure they're

embedded into your construction company's culture. Clearly define how the company interprets each value. Include a sentence describing the value and how you apply that value. For example, "Safety. Provide an environment in which our employees can do work without getting hurt."

Values should serve as a guide for how to manage employees, projects and customer service, and how to resolve issues.

Include each core value as a topic in training programs for new hires and use a "core value checklist" in annual reviews. You might even create a rewards program for employees based on how they exemplify one or more company values. Deciding which values best characterize the company should be a topic of discussion for you and your management team. Sometimes core values need to be refreshed as a company grows and evolves, so revisit them regularly during strategic planning meetings.

### Build credibility and trust

When contractors meet or exceed expectations set by their values, they build credibility and trust on jobsites and in their respective markets. And when they don't live up to their values — well, customers and project partners will notice. Once yours are established, be sure to "walk the talk." ■

# 4 WAYS AI IS IMPACTING THE CONSTRUCTION INDUSTRY

**Thanks in part to the Internet (of Things) and cloud computing, artificial intelligence (AI) has transitioned from science fiction to everyday life. The impact of AI is already felt throughout our daily lives — from automated spam email detection to viewing suggestions on our favorite streaming service to smart speakers that put voice commands into action.**

In very simple terms, AI refers to software that uses “learning” algorithms to analyze data, recognize patterns and produce results accordingly, without much human involvement. Machine learning is a subset of AI, in which machines can modify themselves when exposed to data.

For instance, sensor-equipped vehicles can automatically stop when obstacles are detected. AI-based applications are data “crunchers” that can measure jobsite progress and labor productivity against original plans. They can identify errors and risk factors and send alerts, so contractors can take immediate action.

Although the construction industry is sometimes wary of new technology, AI is becoming more and more prevalent on jobsites. Here are four ways it's impacting our industry:

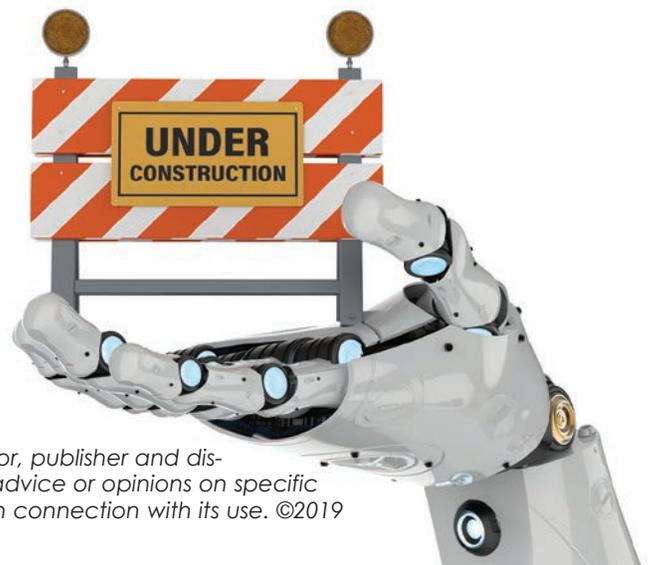
**1. Construction cameras/drones.** Image recognition and classification algorithms mine images to flag safety hazards / unsafe behavior and inspect sites, structures and infrastructure. One engineering and architectural services firm recently began using AI-equipped drones to identify areas of decay on bridge decks without having to manually inspect them.

**2. 3D modeling.** AI algorithms applied to 3D models can mitigate clashes and detect design errors, minimizing costly rework. For example, a building information modeling (BIM) plug-in currently in

beta testing compares building codes against 3D models to find code violations. (The developers, however, are in a legal battle with the International Codes Council about copyright and “fair use” access to codes.)

**3. Sensors.** Collected sensor data is analyzed to identify areas of concern or opportunities for cost savings. Concrete temperature/strength testing software was recently introduced that detects anomalies at various stages of the concrete life cycle (production, delivery, placement, hardening). It compares current sensor conditions to past measurements stored in the sensor company's database to detect subtle variances from what should be the norm. Accurate, real-time assessment and prediction of concrete performance in these stages is nearly impossible for humans.

**4. Self-driving vehicles/robots.** Already in production, self-operating construction machinery (and yes, robots) automate repetitive manual tasks, such as excavation, freeing employees to oversee them and work on other tasks. Newer 5G cellular phone networks enable users to operate mobile devices at faster speeds and stay connected almost anywhere, so remote operation of equipment located thousands of miles away or even underground may now be possible. This should expedite schedules and reduce health hazards and safety concerns. ■





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## Winning with a Well-Managed Equipment Fleet

Equipment management plays an essential role in all construction companies, and a well-managed fleet can contribute to the success of a business. Good equipment management goes beyond just effective procurement; it is also about efficient operations, smart maintenance, and detailed monitoring. Such a comprehensive undertaking will create a safe work environment for your employees and will allow your jobs to proceed unencumbered. Although each company's equipment needs are different, there are a few things that every equipment manager should know.

### Whether You Should Buy or Lease Your Equipment

Ensure your procurement team is working closely with your job schedulers. Some of the things you need to think about are:

- **What will your utilization be?**  
Standard practice dictates that you should purchase equipment that you will use every day, and to lease or rent the rest.
- **Are you able to haul the equipment where it needs to go?**  
If not, renting may be the best option.
- **Do you have the space to store the equipment?**  
Storage costs money, and transferring items from storage to the job site takes time.
- **Do you have cash?**  
If not, can you (and should you) generate more debt?
- **What are the item's maintenance expectations?**  
Include maintenance costs in your calculations to understand true equipment costs.

### How to Care For (and Dispose of) Your Equipment

Routine maintenance will reduce your downtime, decrease emergencies, and improve machine efficiencies – all of which will save you money in the long run. Schedule routine maintenance when your equipment is sitting idle using the metric that makes the most sense for your business – age, usage, miles driven, etc.

Using equipment that is outdated and inefficient can hamper your job progress, so schedule disposals of equipment when you no longer use it, you can expect a good sales price, newer versions would lower fuel costs, or repairs have been increasing in price and frequency.

### How to Use Key Metrics

Know where you stand compared to others in your industry. Some key ratios to consider are:

- **Maintenance Cost as a Percent of Revenue** track to ensure your maintenance costs never get out of hand.
- **Fuel Usage per Run Hours**  
Compare to stats on new equipment to see if you should upgrade.
- **Usage Ratio**  
If your usage ratio is low, you may want to sell your equipment and rely on rentals for future projects.
- **Debt-to-Equity Ratio**  
Compare this ratio to industry standards, so you can know if you have overextended yourself.
- **Average Age of Fleet**  
Aging equipment is more susceptible to breakdowns and emergencies. By keeping track of your fleet's age, you can ensure you are constantly upgrading.
- **Equipment Rates**  
Your equipment rate is the cost of using your equipment per hour, per mile, per day, etc. Get into a routine of reviewing these ratios so that you can adjust your management practices as you go.

### How to Budget and Plan

The planning process should include your entire team, be collaborative, and each department should be on board with the year's budget. Your budget should include items like equipment costs, equipment hours, fuel costs, maintenance costs, emergency stoppages, travel time, procurement delays, permit costs, interest expense, depreciation, and insurance.

A well-managed equipment fleet can be the difference between a successful business and failure. Fleet management is getting easier with the use of technology tools such as reporting telematics, automated scheduling programs, training simulators, GPS tracking, and computerized maintenance management systems. If you have any questions about how to better manage your fleet, contact a member of the LaPorte Construction Industry Group today.