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**ECAO**  
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Volume 46 • Number 1 • Winter 2008

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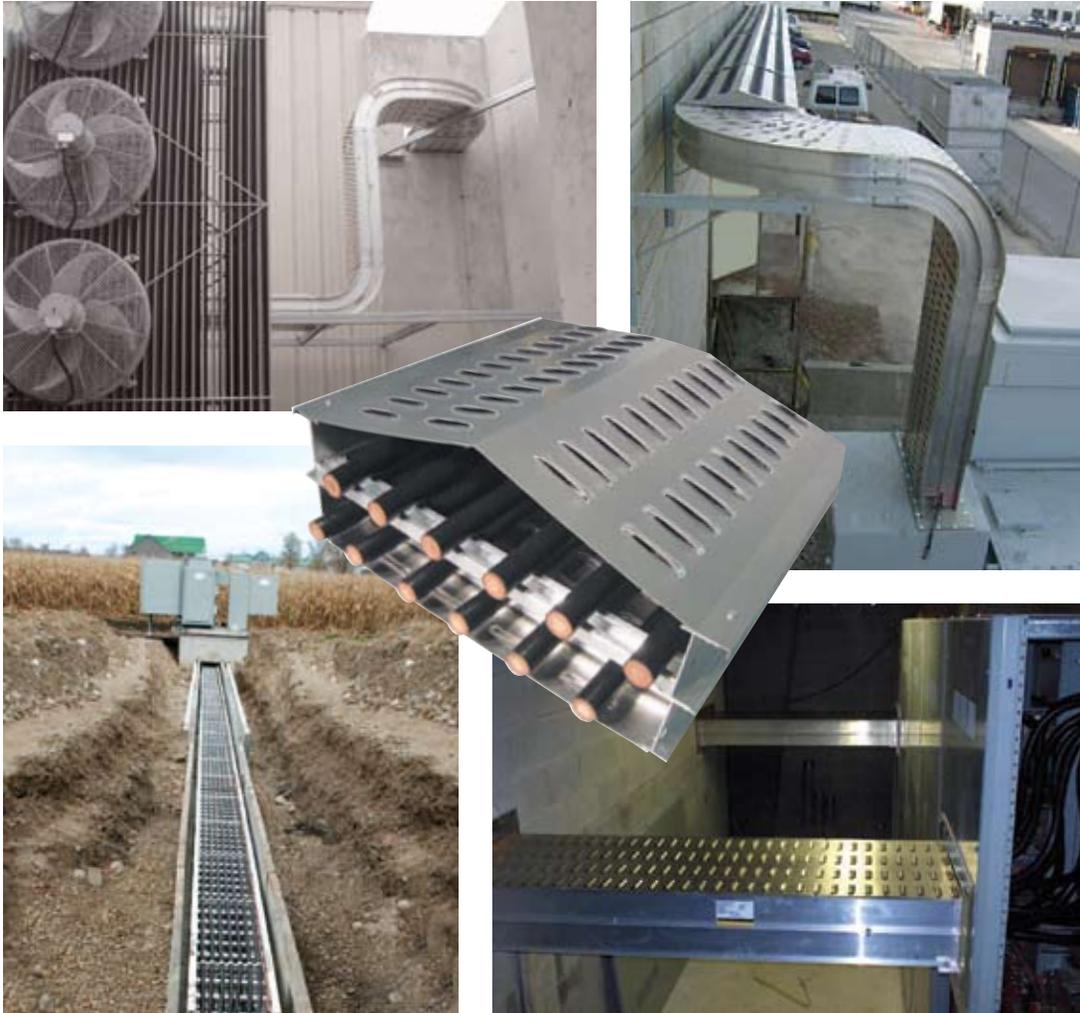
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**On The Cover:** JAC Pre-Apprentice bending ½" thin wall conduit

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## President's Remarks



Fred Black

# Payment Security

Electrical Contractors are typical of the business sector that drives the Ontario economy. We are mostly small to medium sized enterprises, usually family owned and operated, employing 15 to 20 workers. We are professional businessmen who work for profit and do so by carefully balancing the risks and rewards that come from entering into and fulfilling contracts with a wide variety and class of clients. Getting paid can sometimes be a difficult proposition, but there are remedies. Unfortunately, the remedies are coming under stress.

As a matter of public policy, subcontractors have been protected against default by their clients through the Ontario *Construction Lien Act (CLA)*. Through the mechanisms in the CLA contractors have been able to place liens on the end users' property where the electrical work was performed, but not paid for, and receive payment from the owner out of holdback funds in exchange for removing the lien. This can be a time consuming process but it really helps to focus people's attention on the problem at hand. Most often just a notice of your intention to lien is sufficient to resume the flow of funds or at least commence negotiations to resolve disputes and ultimately payment for the work performed.

The Ontario Court of Appeal has upheld a lower court decision denying lien rights for the installation of an assembly line in an automotive plant (the Kennedy case). This decision throws the issue of payment security for industrial work into question for ECAO members, most of whom perform this type of work. The fact that the parties in Kennedy acted as if the CLA applied, including a 10 per cent holdback, did not enter into the Courts' decisions.

Surprisingly, a survey that ECAO conducted after the original court decision was publicized by us showed that virtually all ECAO respondents continued to perform industrial electrical work as if the CLA applied. Following the Court of Appeal decision on Kennedy I submit we have to take different approaches. Otherwise the "holdback" may become an irretrievable discount from the price of your job.

In this issue, Charles Wiebe of Glaholt LLP has written an article on the Kennedy appeal decision, *Predicting Lienability*, to help you assess the applicability of lien protection in particular industrial circumstances. (See also *Kennedy Electric Ltd. v. Rumble Automation Inc.* in the Spring 2005 issue of the Ontario Electrical Contractor on our website at [www.ecao.org](http://www.ecao.org).)

The ECAO Board of Directors is backing an appeal to the Supreme Court of Canada. The motion for leave to appeal has been submitted as I write this message, but the decision is months away.

The parallel track is to seek amendment to the CLA to clarify that industrial installations are improvements under the CLA and subject to lien action. This second course is widely supported by the industry and is being spearheaded by the Council of Ontario Construction Associations (COCA) and ECAO.

Another issue affecting subcontractors' payment security is Contractor Default Insurance (CDI) which is being offered as a cheaper alternative to subtrade bonding, but minus the subtrade payment protection. The Surety Association of Canada has provided an article on CDI and what ECAO members should know about this option and its pitfalls for subcontractors.

As you can see, the issue of getting paid is already at the top of the ECAO agenda. You are not alone in seeking to manage the risks and rewards of being an entrepreneur. Your association, both locally and provincially, is available to provide assistance in these matters or at least to steer you in the right direction. Take advantage of it and learn from the experience of your fellow association members. Let's reverse the trend. Let's make 2008 the year of getting paid.

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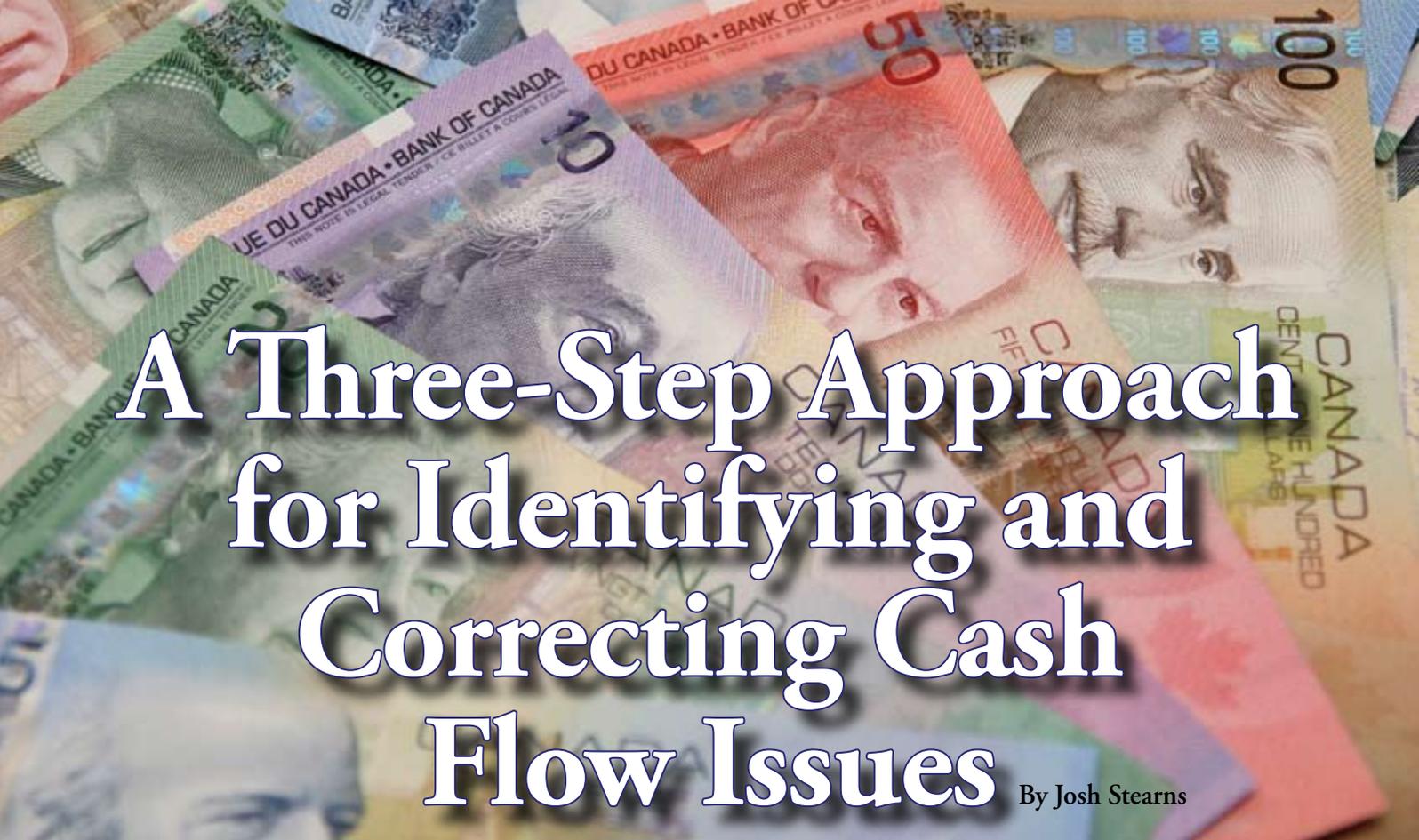
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# A Three-Step Approach for Identifying and Correcting Cash Flow Issues

By Josh Stearns

**M**any contractors struggle with cash flow, juggling payments due with revenue received – and often coming up short. Over time, poor cash flow can jeopardize the financial health of your company. But there are things you can do to secure positive cash flow now and in the future. This article presents a three-step approach for identifying and correcting cash flow issues.

## *Step 1: Identifying Problems*

Although cash flow problems can be attributed to many factors, admitting you have a problem is the first step to recovery.

Once you admit to having cash flow problems, you need to identify where those problems are coming from. Your construction software reports can help. Here are five reports that can be used to identify cash flow issues before it's too late to recover.

### **1. Analyze Cash Flow by Job.**

The sobering reality is that many construction companies are one bad job away from bankruptcy. As each job progresses, it's important to monitor how much cash is going out and how much cash is coming in. Negative cash flow should be a red flag that there is a problem with a job.

### **2. Monitor Over/Under Billings.**

Monitoring over/under billings is the key to maintaining a positive cash flow on your jobs. Over/under billings amounts can be obtained by calculating how much should have been billed based on the work you have completed and then comparing it to how much was actually billed. Over billings need to be recognized as a liability (don't buy a boat with your over billings!). Under billings can indicate a future cash flow crisis.

### **3. Factor in Committed Cost.**

To ensure that a job stays on or under budget, you need to factor in committed cost. Many job cost reports fail to factor in the commitments made. Subcontracts and purchase orders (POs) need to be put into the picture along with hard cost. Even if you haven't been invoiced for POs or subcontracts, these commitments need to be looked at as future cost on the job. Running a committed cost report will show you the whole picture and identify problems with your estimate early on. A committed cost report will also show you just how much cash you're going to need in the future.

### **4. Measure Profit Fade.**

The profit calculated when bidding a job can fluctuate dramatically as the project progresses. Change orders might increase profit while a poor estimate might decrease it.

Profit fade needs to be measured on each job to identify problems early enough to make profit-saving corrections. To measure profit fade you need to look at increases in both cost and profit. Ideally, if you see a big increase in cost you should also see a contract increase due to change orders. If the value of your contract does not increase incrementally with cost, you need to identify why. If the original estimate was bad or you've performed extra work that hasn't been billed as a change order, you may be headed for a negative cash flow situation.

### 5. Monitor Backlog.

Your backlog can help you estimate what your cash flow situation might be in the future. Monitoring estimates-to-complete for earnings, cost and profit will put a dollar amount on your backlog. This information will help project growth and also warn you of slow times with potential negative cash flow situations. If your backlog is shrinking, you want to make sure that you bid enough new work for the future.

As you look at the information obtained by these reports (individually and as a whole), you will begin to get an idea of how your jobs are progressing, whether or not you're on budget and how healthy your cash flow is. You can have a job that comes in under budget, for example, that still jeopardizes the financial status of your company by having negative cash flow throughout the job.

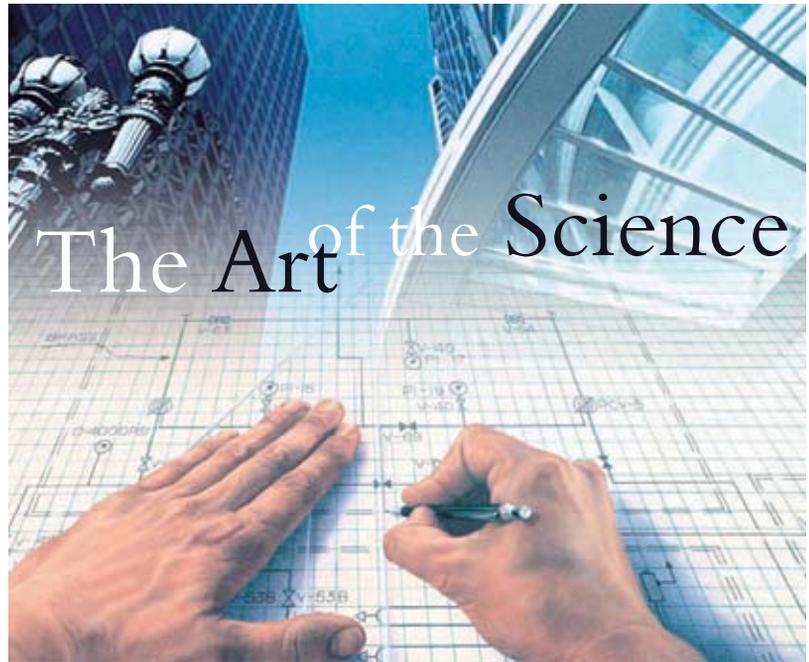
Many contractors use credit lines to circumvent cash flow problems – and ultimately spend their profit paying interest. While using a line of credit is necessary in some cases, the more profitable decision is to use your construction software reports to identify problems before you get into a negative cash flow situation. With the right tools and real-time information, you can make informed decisions to secure positive cash flow.

### Step 2: Taking Action

Once cash flow problems are identified, the next step is to take corrective action. Taking action to secure positive cash flow requires direct communication, detailed billing and proper documentation of changes to a job's original scope. As you read through each action segment, make a note of how you can improve your processes to support positive cash flow.

### Communication with Your Staff

Communicating to your sales and estimating departments that getting paid on time is very important and can often stop cash flow problems before they even start. Setting this expectation up front allows these individuals to focus on securing work with general contractors (GC's) and owners that have a reputation for paying on time.



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In the field, communicating job progress vs. budget spent lets project managers and superintendents know if their projects are on target or if their crews need to work faster to stay on budget. By making sure that your jobs are progressing at the same rate as your budget expenditures, you can be confident that progress billings will continue to cover overhead expenses.

### **Communicating with GC's and Owners**

Before you start a job, find out what payment terms the GC or owner is accustomed to. Ask questions like: When should we submit our billing? When should we expect payment? What is the worst case scenario for payment terms? What is the best case scenario? What do we need to provide each time we submit a billing? How would you like change orders handled?

In addition, discuss issues such as proof of insurance, certified payroll and lien releases and ask what issues have come up in the past that have delayed payment to vendors. Straightforward communication about payment terms and potential problems will ensure that your invoice doesn't get overlooked due to a technicality.

### **Communicating with Subcontractors and Material Suppliers**

After establishing payment requirements with a project's GC or owner, you should communicate this information to the job's subcontractors and material suppliers. Help these parties understand the payment terms for the job – and that you will pay them once you get paid. Explain the best and worst case scenario and touch base regularly until payment is made. By letting your subcontractors and material suppliers know what to expect around payment terms, you can often avoid having to pay them before you get paid.

### **Billings**

The way you bill your scheduled values can really help to eliminate cash flow issues; most notably, by billing for preliminary items up front. For example, invoice for insurance expenses and temporary storage mobilization at the start of the job. To ensure that your initial costs are covered, you might even consider putting a higher profit margin on these billing items to cover any unexpected costs associated with job startup.

### **Collecting**

When payment delays do occur, collect aggressively. Remind the GC or owner of the project's original payment terms and that you expect them to live up to their end of the agreement. Having a collection fall-back to the initially-established terms can dramatically increase your chances of getting paid without further delay.

### **Putting Priority on Change Orders**

Establishing standardized processes for managing change orders is the best way to help your staff secure proper approvals and avoid getting burned by unapproved or undocumented changes. Make it a priority to get the appropriate paperwork and documentation signed by the GC or owner so the approved change order can get on the next billing.

For optimal change order management, tracking documentation such as e-mail correspondence, faxes and other paperwork in a single, electronic system is ideal. Having a project data repository with change order correspondence will keep everyone on the same page and establish a proven paper trail if litigation is necessary.

As you begin to take action through direct communication, detailed billing and documenting change orders, you should begin to see a dramatic improvement in your cash flow.

## ***Step 3: Maintaining a Standard of Excellence***

Once cash flow problems have been identified and you've taken corrective action to get back on track, the third step is to maintain a standard of cash flow excellence.

When it comes to cash flow, maintaining a standard of excellence is easy. All you need to do is follow a formula that I call filling the GAP. This formula has three simple steps that, when followed, produce great results. By filling the GAP, you can ensure that your company maintains positive cash flow.

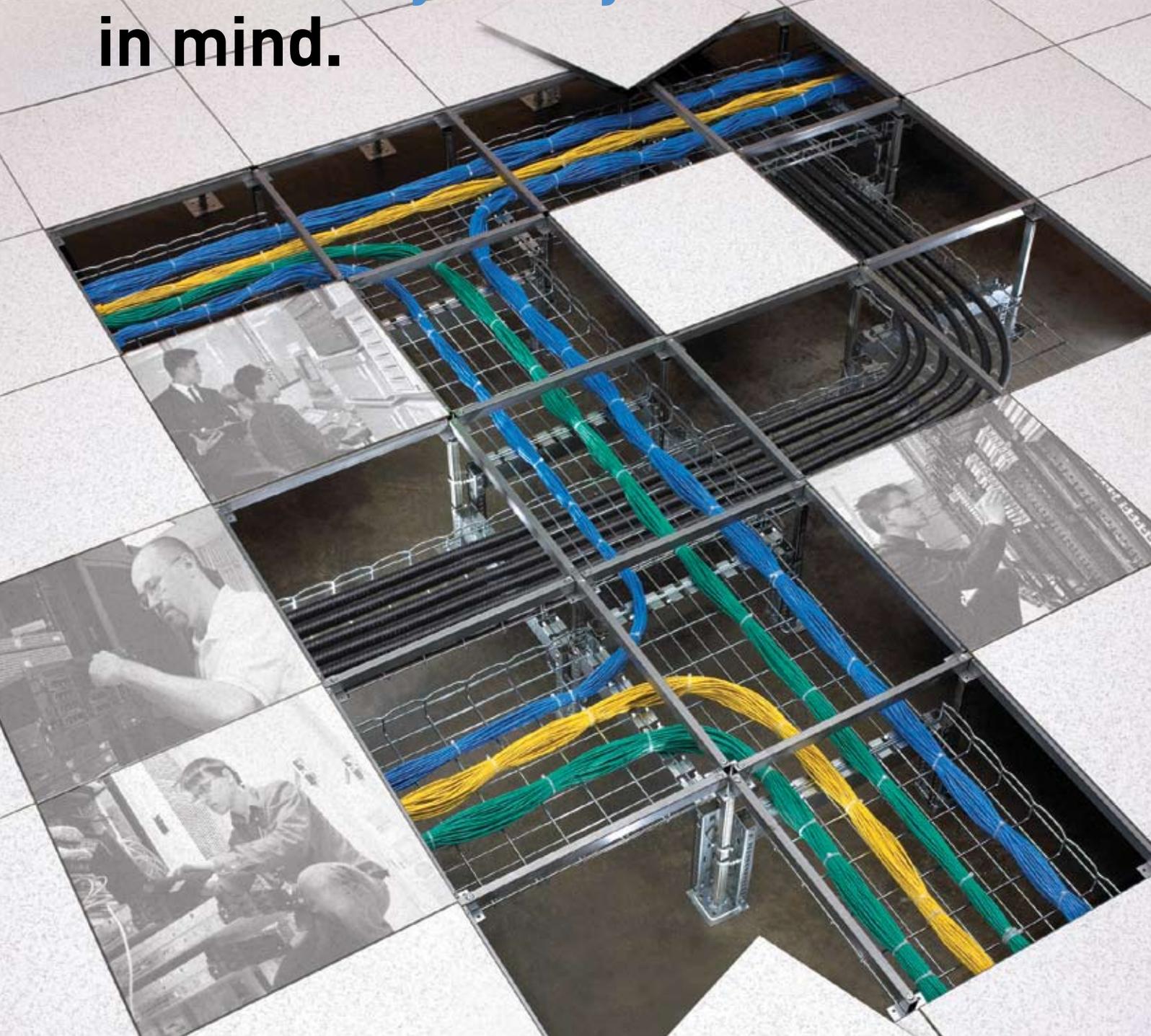
### **1. G = Goal Establishment**

The first – and most important – step toward filling the GAP is to establish cash flow goals for each project and write them down. Statistics show that people who write down their goals have more than an 80 per cent higher achievement rate than people who don't. Writing down your goals will not only make them clear in your mind, but will also give you a gauge to measure results by. Write down your main cash flow goal for each project and establish milestones that must be reached in order to achieve the goal.

### **2. A = Assign Responsibility to Individuals**

The second step toward filling the GAP is making sure that everyone involved in the project understands their individual responsibilities toward the cash flow goal. Establish who is in charge of maintaining and meeting the milestones for specific tasks, such as billings, job progress, paying vendors, handling change orders and so forth, and make sure that everyone agrees that the division of work is fair and achievable. Write down each person's responsibility toward the overall goal to solidify accountability. By assigning responsibility to individuals – and making them fully aware of what is expected of them – you

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will dramatically increase your chances of maintaining positive cash flow excellence.

### 3. P = Progress Tracking

The third step toward filling the GAP is to hold weekly job meetings to track the progress of your goals and milestones. Revisit each goal to see if you're on target. If individuals are not meeting their responsibilities, ask them why. Was the original goal unrealistic or did something unexpected happen? If the goal is not being met because of unexpected or unrealistic situations, revise the goal and devise a method to overcome the obstacle. Weekly meetings that track individual and team performance demonstrate to your staff that you will hold them accountable for their commitments. They also allow your staff to take an active and ongoing role toward maintaining a standard of cash flow excellence.

#### Securing Positive Cash Flow:

##### Tying it All Together

As this three-step approach demonstrates, securing positive cash flow is a dynamic process that requires ongoing effort by the entire project team.

The process begins by using your construction management software to identify and monitor potential cash flow problems. Next, you must take action to secure positive cash flow by focusing on direct communication, detailed billing and proper documentation of changes to a job's original scope. And finally, to maintain a standard of cash flow excellence, you need to fill the GAP by establishing goals, assigning responsibility and tracking your progress.

By taking steps to secure positive cash flow now, you will experience the benefits of a secure and stable construction company far into the future.

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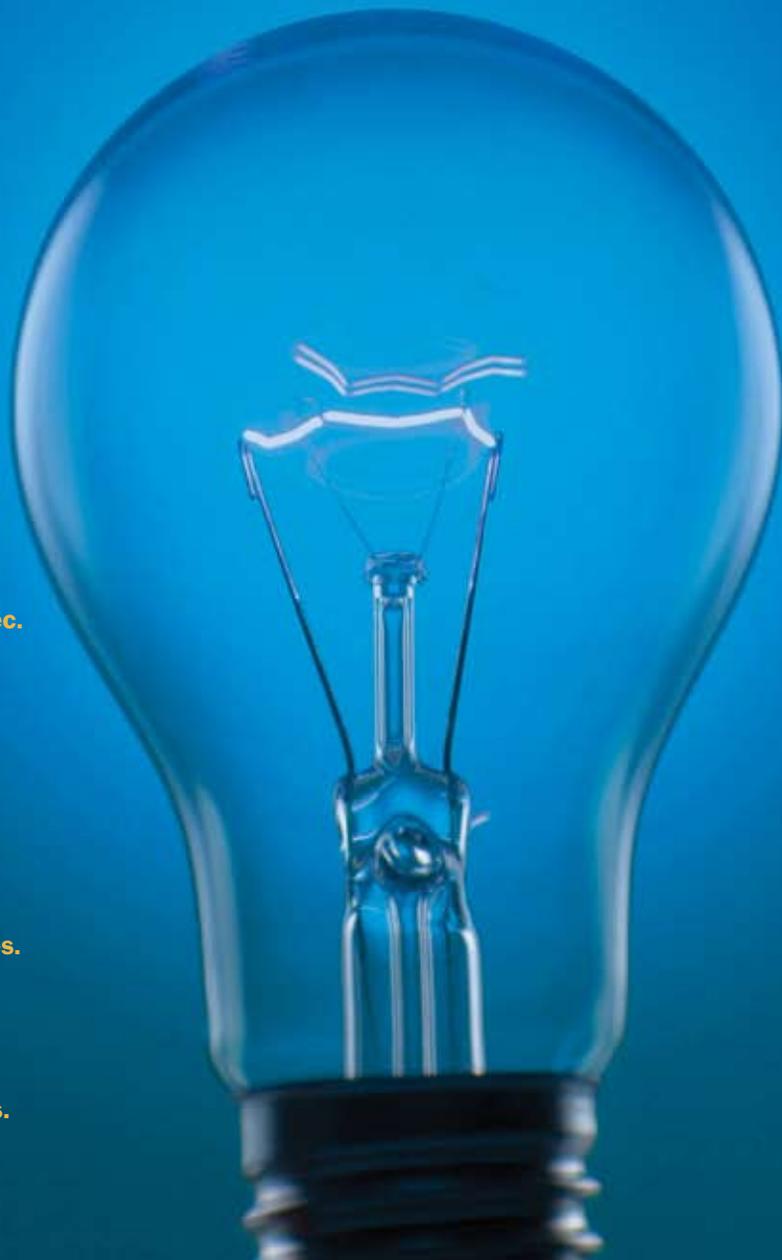
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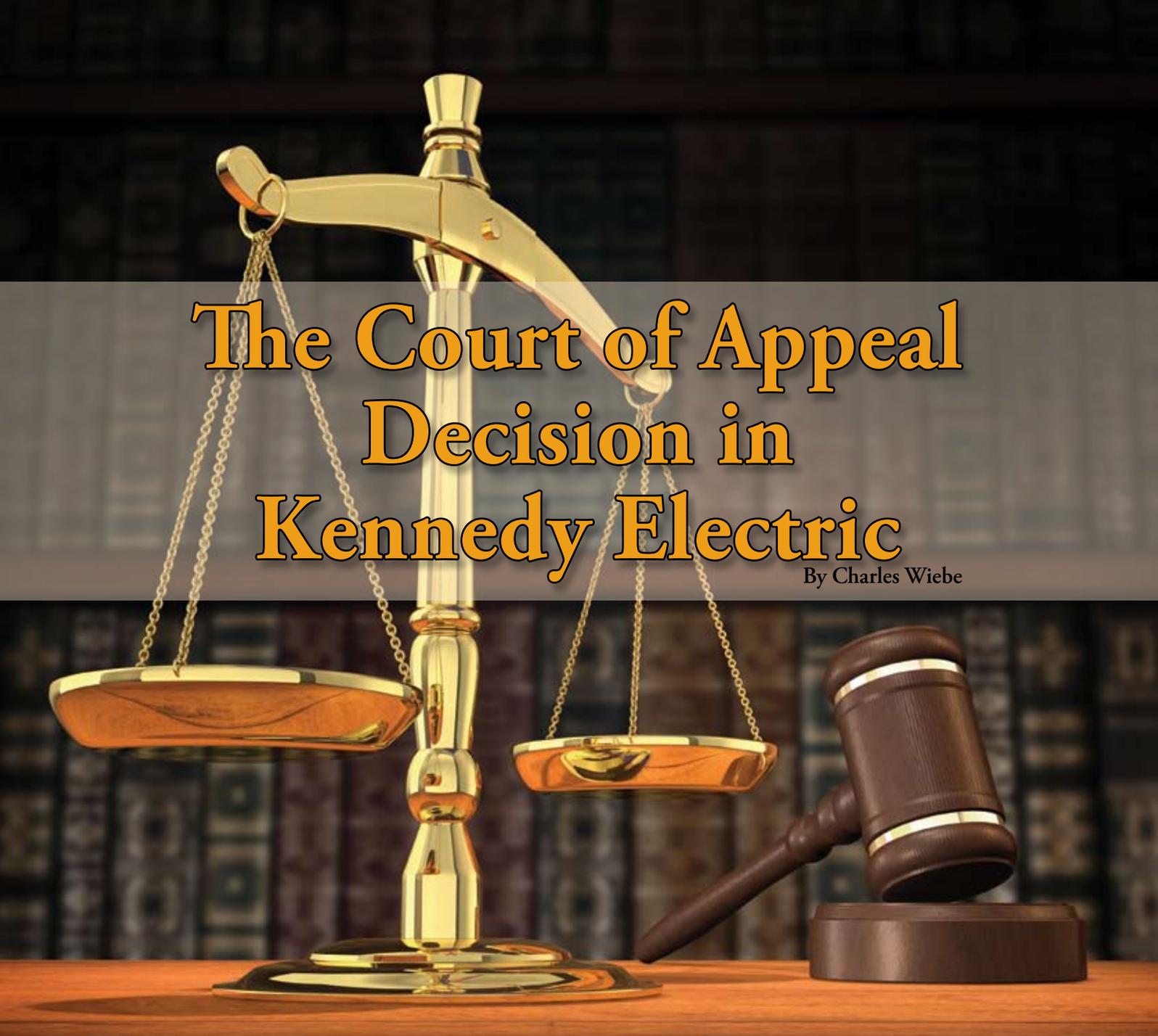
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# The Court of Appeal Decision in Kennedy Electric

By Charles Wiebe

It is safe to say that the mechanical and electrical trade associations have been waiting with bated breath for the Court of Appeal decision in *Kennedy Electric Limited v. Dana Canada Corporation*, hoping for a restatement of the legal principles that determine whether their work constitutes a “supply of services to an improvement” under the *Construction Lien Act*. The decision was released on September 27, 2007 and, while it contained some analysis of the principles (perhaps in *obiter*), the decision stressed more the factual basis of the exercise. Therefore, the decision may have disappointed some.

The facts of the case are familiar. Dana had a contract with Ford to build frames for a line of pickup trucks.

Dana owned a property in St. Mary’s, Ontario and arranged under one contract to build a building addition there for the assembly line that would be used to build the truck frames. Dana entered into a separate contract with Rumble Automation to have Rumble design, build and install the assembly line. Rumble designed, built and tested the assembly line at its sites in Oakville and Mississauga, and then disassembled and transported the line in pieces to Dana’s building in St. Mary’s. Part of Rumble’s work was subcontracted to Kennedy Electric. Kennedy’s responsibility was to disassemble the line, transport it to St. Mary’s and install it in Dana’s building.

The assembly line was massive and complex. There were 100 mezzanine platforms and 165 robots. The line was

attached to the floor with some 2,000 to 3,000 mechanical and chemical bolts ranging from one-quarter inch to three-eighths of an inch wide and from six to eight inches in length. The line covered about 100,000 square feet and weighed about 500,000 tons. It took Kennedy 2 ½ months with 165 trucks to disassemble, transport and reassemble the line. Kennedy was not paid and registered a lien against Dana's property. By the time of the Court of Appeal hearing Rumble was bankrupt.

The trial judge made several findings of fact. He found that Kennedy was not involved in the connection of the line to any building services. He found that the line could be readily disconnected from the building without damaging the building. Finally, he found that Dana had previously moved some of its assembly lines from one plant to another. The Court concluded that the line was "portable" and that its installation was neither an integrated construction project within the building nor was it a freestanding improvement on its own.

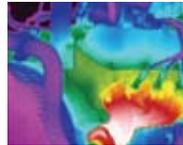
Kennedy appealed to the Divisional Court where the majority agreed with the trial judge, dismissing the appeal. The majority adopted a "functionality test" whereas Justice Chapnik in dissent adopted a "reasonable person" test. O'Driscoll J., speaking for the majority, referenced a line of Ontario cases that indicated that the issue turned on whether the work in question was associated with the functioning of the building itself as opposed to the functioning of the business within the building.

Justice Chapnik dissented. She criticized the reasons below for giving undue weight to the "alleged portability" of the assembly line. In her view the issue was more one of whether a reasonable person would consider whether the premises had been improved by the installation of the assembly line. In that context, according to Justice Chapnik, other factors had to be considered: the intentions of the parties, the purpose of the building (i.e. whether it was designed to house the assembly line), the intended permanence of the assembly line, the cost of the assembly line as opposed to the building, and the proximity in time between the building construction project and the assembly construction project. When these factors were considered, according to Justice Chapnik, the assembly line installation could be viewed by a reasonable person as being integrated with the building project and therefore an "improvement."

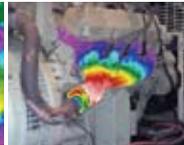
Kennedy appealed to the Court of Appeal urging the Court to adopt the broader analysis of Justice Chapnik, which focused on the intentions of the parties. In particular, Kennedy argued that the Court should adopt the following factors: whether the installation was an

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## Predicting Lienability

“integral part” of the building’s systems or components regardless of its portability; whether the installation was done with “some idea of permanency;” whether the installation was intended to remain in place so long as it could be used for its intended purpose or was economically viable; whether the installation could be removed as a unit or in parts; whether disassembling the installation was difficult; and whether the building was especially designed for the item in question.

The Court of Appeal found it unnecessary to express any clear rule or principle in the circumstances of the case. The Court of Appeal gave deference to the trial judge’s finding of “portability” as a finding of fact. As there was evidence to support that finding of fact, the Court said that an appellate court should not interfere with it. The Court then concluded that it was open for the trial judge to conclude that

the installation of the assembly line was not lienable in light of his finding of portability. The Court went on to state that the issue of what constituted an “improvement” was primarily a finding of fact for determination of the trial judge and that different judges could reach different conclusions on this issue as a result.

In what appears to be *obiter*, the Court did make the following statement:

In most cases, the installation or repair of machinery used in a business operated in a building, particularly where the machinery is portable, will not give rise to lien rights under the CLA. **On the other hand, where machinery is installed in a building for the use of a business and is completely and permanently integrated into the building, a lien claim will arise.** (emphasis added).

While perhaps not strictly an authoritative pronouncement, this statement appears to signal the thinking of the Court concerning equipment installation cases and is therefore worth exploring. Arguably the Court has in this statement signaled that the legal principle that should guide a court in its fact-finding exercise is the following: the machinery has to be “completely and permanently integrated into the building” to be an improvement.

There appear to be two concepts in this statement. The first is the concept of “integration.” The Court did not define this term, but it was explored by another court in a decision that was quoted at some length by both the Divisional Court and the Court of Appeal, namely the decision of County Court Judge Boyle in the 1995 British Columbia case of *Spears Sales & Services Ltd. v. Westpine Fisheries Ltd.* Here the issue was whether the installation of a pumping system into a fish pack-

ing plant gave rise to lien rights. The part of his decision that was quoted by the Ontario Divisional Court and Court of Appeal is the following:

Did the pumps become part of the realty? They may have so been intended as between lessor and this lessee but that is not determinative.

Based in considerable part upon the affidavit filed on behalf of Westpine; my original focus was upon the use of the building and the function of the business in the building. That function has been primarily fish packing. The pumping system is an integral part of that function.

But the question must be answered by looking not to the parties. The question is: are the pumps an integral part of the function of the building? The question does not concern the function of the business it houses (although buildings and improvements may function in specific ways to suit a business). The question, because of its statutory basis, must be answered in strict terms.

In this light this pumping station is not an improvement. Judgment accordingly. (emphasis added).

This quotation suggests a strict, objective functional test for whether a machine was “integrated” into the building. Judge Boyle expressly stated that, being a statutory remedy, the interpretation had to be “in strict terms.” He went on to state that the test had to be an objective one, namely not one necessarily determined by the intentions of the parties. Finally, he stated that the test concerning the lienability of the machinery installation was a functional one, namely whether the machinery became “an integral part of the function of the building.”

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We suggest that this is the thinking of the Court of Appeal as well when it used the word “integrated.” The Court quoted the strict interpretation requirement from the 1960 case of *Ace Lumber Ltd. v. Clarkson Co. Ltd.* The Court did not accept Kennedy’s submission that the test outlined by Justice Chapnik (which focused more on the intentions of the parties) was essential to the definition of “improvement.” Finally, the Court dismissed the submission from Kennedy subcontractor, Cassidy, that the building addition had no value or use other than to serve the assembly line. The Court viewed the building addition as having an independent set of functions that had their own value. It is only a natural conclusion from this that the question of lienability turns on whether and the extent to which the machine in question serves this independent building function.

The second concept in the Court’s above-noted statement is this one: “completely and permanently integrated” (emphasis added). The Court here appears to be stating that a machine that is otherwise serving the building function needs to pass another test in order to be considered to be a part of the improvement. This additional hurdle appears to tie in to the concept of “portability” that the Court expressly endorsed as a factor in determining lienability. The Court stated at one point that

an installation that “is moveable (i.e. portable) and not an integral part of the building” will not give rise to lien rights.

What is significant about the decision on the issue of “portability” is that the Court appears to have focused on the findings of fact of the trial judge concerning whether the assembly line could be moved at all without damaging the structure and whether other assembly lines had been moved in the past in other situations. The other facts that Kennedy focused on in its argument (namely the cost and inconvenience of moving the line and the intentions of the parties) did not, in the Court’s view, create a reviewable error by the trial judge. This suggests that the Court views the issue of portability as a strictly objective test of whether the machine can be and has been moved and used elsewhere without damaging the building.

What we are left with then concerning the Court’s *obiter* statement is a concept of lienability that may effect some movement in the law of lienability. Arguably the concept of “integration” is consistent with the line of Ontario cases stemming from *Hubert v. Shinder* which requires that a lienable machine must primarily serve a building function. Such building functions would appear to be those that pertain to every building – structure, heating, air flow, lighting, plumb-

ing, etc. What may be a departure is the concept of the machine being “completely and permanently” integrated into the building. A machine that is otherwise integrated into a building and its functions may still not be lienable if it can be removed and used elsewhere without damaging the building. One wonders for instance whether the 1988 Ontario case of *Stacey Heating & Plumbing Supplies Ltd. v. Tamasi* would now be decided differently. That case held that the installation of air conditioning machines was lienable.

In short then, the Court of Appeal in the *Kennedy Electric* decision has arguably provided some guidance to the definition of “improvement” under the *Construction Lien Act*, even though the guidance may be oblique. The Court has clearly held that the exercise of determining lienability is a fact driven process in which portability and integration are key factors. The Court also appears to have affirmed a strict objective functional test of lienability. In this regard, the decision is arguably in line with the bulk of the case authority. What may be an added dimension though, namely the idea of “complete and permanent” integration, will have to be worked out by the courts in future cases.

*Charles Wiebe is a partner with Glaholt LLP and can be reached at [cgtw@glaholt.com](mailto:cgtw@glaholt.com).*

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# Valuable Training Tool

By Bill McKnight, Director, Toronto Joint Apprenticeship Council



*JAC Pre-Apprentices fishing wire during the hands on portion of Material Tool Identification*



*JAC Pre-Apprentices using power threader on rigid conduit*

When the term 'pre-apprenticeship' entered our lexicon over a decade ago it was first met with a great deal of skepticism. Is it an excuse to fill classroom seats? Is it just a cheap source of labour? Or, can it truly assist in providing us with highly skilled journeymen?

For us in the electrical trade in Toronto, when properly utilized, pre-apprenticeship has become an excellent tool at evaluating and preparing young people to succeed in becoming highly skilled electricians. The key to our success was ensuring the pre-apprenticeship program was designed to meet the needs of employers and the individual pre-apprentices, our future journeymen electricians.

The ECAO/IBEW Electrical Industry Pre-Apprenticeship agreement with the Ministry of Training, Colleges and Universities was implemented in Toronto on May 1, 2003.

The Greater Toronto Electrical Contractors Association and IBEW Local 353 established terms and conditions for pre-apprentices in Toronto, as follows:

- All new apprentices shall access the apprenticeship program as a pre-apprentice for a maximum period of 1800 hours, and upon successful completion of the pre-apprenticeship, will proceed into a fully indentured apprenticeship.
- The pre-apprentice shall carry out all the duties similar to an indentured apprentice to permit proper evaluation of his/her suitability to proceed into an indentured apprenticeship.
- The rate for the pre-apprentice shall be 35 per cent of the base rate plus 10 per cent vacation, 3 per cent of base rate and vacation pay for RRSP, health and welfare, education and training, union dues, and ECA fund.
- Pre-apprentices will receive 64 hours of pre-employment training (safety and orientation, and material and tool identification) prior to dispatch.

The Toronto JAC pre-apprenticeship program has been in effect for the past 4 ½ years. This has allowed time to evaluate the progress of the program. First and foremost the 1800 hour probationary period has given an opportunity to the employer, to the JAC and to the individual pre-apprentice to ensure that the pre-apprentice is suited for the electrical industry. To accomplish a proper evaluation the JAC visits the pre-apprentice three times

during their pre-apprenticeship – at the beginning, the middle and nearing the end of their 1800 hour probationary period. The site visits include the JAC counsellor, the pre-apprentice and his/her journeyman or foreman. The first is designed to determine if the pre-apprentice has the necessary soft skills (i.e. punctuality, safety consciousness, work ethic, interpersonal skills) to be deemed employable. Further visits are used to evaluate such things as mechanical aptitude, overall knowledge of the trade and suitability for the apprenticeship program. These visits are vital for evaluation purposes, and also allow the opportunity to converse with journeymen and employers regarding the program.

At the outset of the program, many thought that the introduction of the pre-apprenticeship was an avenue to generate inexpensive labour. This mind-set has shifted over the years. After being part of the process within the industry many have come to understand and appreciate the value of the pre-apprenticeship program. The contractors, foremen and journeymen each play a vital role in determining if the pre-apprentice is suited for our industry or not. Many believe that the 1800 hour period allows them the necessary time to choose and evaluate the proper individuals. Feedback from the contractor's side has varied from the contractor appreciating the site visits to discovering that they are now much more involved in tracking their young prospects' progress regarding such things as education upgrading within the allotted time frame.

The JAC has had pre-apprentices out working that have dropped out of the program at various points during

their 1800 hour period. These pre-apprentices knew they just weren't 'cut out' for the job. Essentially, the program has allowed individuals to make an educated decision early on in their career path. The benefit results in avoiding an unnecessary financial or human resource commitment sustained by the industry. The JAC has had, and will continue to have cases of pre-apprentices thanking the organization for helping them, or even indirectly pointing them to pursue other avenues after having been counseled by the staff. Other pre-apprentices have commented that the valuable feedback from the site evaluations have only strengthened their desire of becoming a licensed electrician.

Before any pre-apprentices are dispatched they are required to attend the JAC's two week Safety and Orientation course. This two week process involves a week of safety training, including equipping each individual with their required WHMIS and fall protection training, along with training regarding the *Occupational Health and Safety Act*. They are also trained in accordance with the Level 1 of the Accident Prevention Educational Program (APEP) for Electrical Construction and Maintenance Workers. The pre-apprentices are also introduced and orientated to the JAC and its place in the industry during the first day of class. Their timeline and the expectations being placed upon them are also reviewed. Also, during the first day of class a two hour presentation regarding financial management and well-being is delivered by industry professionals. This awareness is essential to the pre-apprentices and can prepare them for the sometimes confusing world of money management.

The second week of training is focused towards Material Tool Identification (MTI). This process involves much participation from the pre-apprentices as they are given projects to finish at home and also hands-on assignments which are conducted during class. They are evaluated on their mechanical ability, comprehension, overall work ethic and suitability for the trade during this time. If at this point, it is evident that an individual does not meet the requirements to be able to be dispatched, the JAC holds a responsibility to the IBEW and to the contractor's association to halt the pre-apprentice's progress to allow all parties involved the opportunity to assess and determine further action regarding the individual.

Many of our applicants come directly from high school and they have not had the opportunity to experience working with tools or to familiarize themselves with a 'construction' environment as many of the educational cut-backs have eliminated the technical programs. The pre-apprenticeship period grants them time to acquaint themselves with the work environment around them. The time also allows them to become accustomed to the tools and material used in our industry resulting in the necessary mechanical aptitude to become a competent team member on site. This time also allows the individual to become comfortable with his/her fellow workers and to form bonds with other apprentices and journeymen. Some pre-apprentices work at various job sites. This can result in experiencing the wide range of the types of jobs the industry offers. Many indentured apprentices who have graduated into their apprenticeship through the pre-apprenticeship have

stated that the time they spent at the JAC during the two week Safety and Orientation and the time they spent on site was beneficial to their continued success throughout their apprenticeship. The time that they spent learning about the tools and varied techniques have given them a 'leg up' once they were dispatched out to a job site.

Pre-apprentices have also stressed that their pre-apprenticeship 1800 hour period went by quickly and that they gained a clear understanding of what lay ahead of them for the next 40 years. For instance, some apprentices freely admit that they were oblivious to the hazards of having to work outside during our sometimes dreary four seasons. Having had the opportunity to see



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first hand their work environment, they felt they were making a more informed decision to continue into their apprenticeship. This is simply an example of some of the positive feedback the JAC has received from our apprentices.

Many of the applicants come to the JAC to apply with missing educational requirements. If they are successful applicants the pre-apprenticeship period offers the candidates the opportunity to obtain the missing requirement(s) such as math, English and physics. These requirements are necessary to begin an indentured apprenticeship. Therefore the pre-apprentice is gaining invaluable experience which the electrical work place provides, while obtaining their missing credit(s). The JAC

offers credited courses through the York Region Board of Education, who have tailored their programs towards the electrical industry. The JAC works closely with the pre-apprentice to ensure that these requirements are met during their 1800 hour period.

The JAC counsellor is a great benefit to the pre-apprentice. The pre-apprentice is placed with a specific counsellor throughout their apprenticeship. This allows time to form a bond with the counsellor. The counsellor/pre-apprentice communication covers a wide variety of topics such as financial, family life, time management, or schooling issues, and can also deal with emotional, mental health, drug or alcohol issues. Addiction and mental health issues are a

concern in every industry. The JAC has created avenues to aid individuals possibly dealing with these issues. The relationship can be used as a sounding board by the pre-apprentice when an issue is hindering their progress. The counsellor's role is to assess and direct individuals to the proper treatments.

Since the JAC pre-apprenticeship program has been up and running for more than four years it is reasonable to say that it has been put through its paces. The original mind-set surrounding the program has matured into such that the program is now being looked upon as an excellent, if not vital, opportunity to recruit the best trained and qualified individuals available into the apprenticeship program. The most basic function of the pre-apprenticeship is to act as a tool to provide the IBEW and the various contractors with quality workers while functioning as a buffer for those who, for one reason or another, are not suitable for the trade. JAC records indicate that the JAC has experienced a decline in the dropout rate from 30 per cent down to four per cent. This is due directly to a more focused beginning which the pre-apprenticeship program offers the candidates. Through the efforts of all the key players in our industry, the pre-apprenticeship program has not only allowed those who have passed through it to pursue a lifelong career with a more clear determination, but it has also paved the way for many more first-rate individuals to come through the doors. This results in a cycle which will only strengthen our industry and program for years to come.



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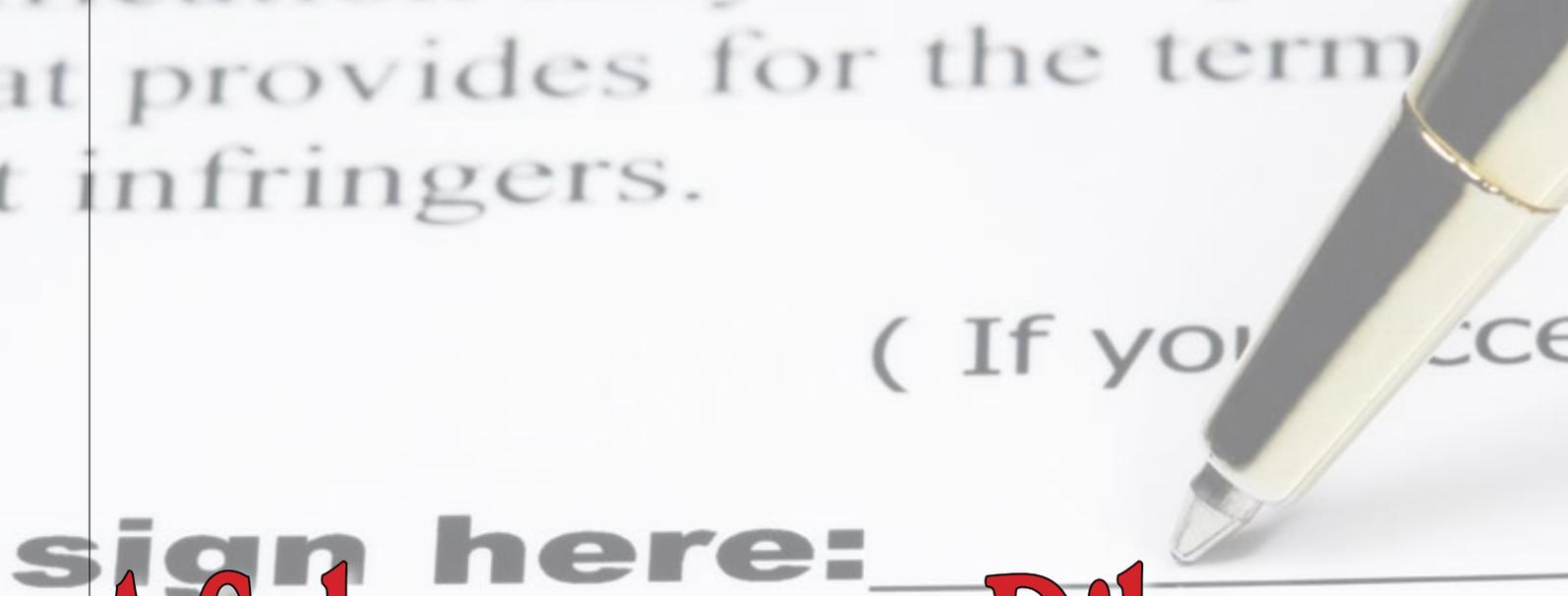
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# A Subcontractors Dilemma

By Steven D. Ness, Surety Association of Canada

The first contractor default insurance policy was rolled out in late 1996 in the United States. The product was marketed to large general contractors who were seeking an alternative to the surety approach that would give them more control over the completion process upon the default of a subcontractor.

Since its inception, the product has had some success in penetrating the U.S. construction market and as of 2005; more than 90 policies were in force. Sellers claim that 25 of the top 100 North American general contractors have now purchased the product. The vast majority of policies are issued by one carrier which has virtually cornered the market and the policies in force almost exclusively cover large general contractors with more than \$100 million in subcontracted values. Indeed this was the market for which the product was designed.

In Canada, while contractor default insurance (CDI) has been less successful, largely due to the smaller size of our marketplace, it has still made inroads and has been purchased and utilized by the country's two largest general contractors.

The sellers of contractor default insurance are quick to point out the advantages that the product provides to general contractors. They strongly emphasize the greater measure of control that CDI affords generals over the construction process and suggest that by taking this approach, the general is now in a much stronger position when it comes to "managing" the performance of its subtrades.

From the perspective of the subcontractor being so managed, this control in the hands of a general can be a double-edged sword at best and can lead to serious problems; particularly should disputes arise with respect to the execution of the work. A default insurance policy allows its "insured" (the general contractor) to be the judge and jury in the issue of subtrade default. Thus, in the event of a protracted dispute, the trade contractor is at the mercy of the general and may find their contract unilaterally terminated with no leverage or recourse available beyond litigation.

Consider the same scenario with the subcontractor's performance guaranteed by a performance bond in lieu of a default insurance policy. When a bonded subtrade is declared in default, the bonding company acts as an objective third party to assess merits of the claim. It investigates the circumstances to ascertain that a default actually exists before acting under its performance bond. This objectivity protects a subcontractor from frivolous and precipitous actions.

A more critical consideration, at least from the subcontractor's point of view is payment assurance. A default insurance arrangement by itself provides no protection to subs or suppliers should the general contractor be unable or unwilling to extend payment for work done. Payment protection is available to the trades only if a labour and material payment bond is provided by the general contractor to the owner. The situation has become more complicated recently as a number of large contractors who carry default insurance have

attempted to get around the payment bond requirement by approaching the owner with a cost saving proposal that involves adding the owner as an insured under its policy.

Under the proposed arrangement, the general contractor would not be required to post a performance or payment bond for their contract, but only a “gap” bond, which would respond only to a default of their project management/administration responsibilities. It’s usually suggested to the owner that they are now protected by a combination of the insurance policy and gap bond while saving the premium for a full performance and payment bond. In fact an arrangement such as this can be problematic both for the owner and subcontractors. We suggest that the owner would not be fully protected should the general default on its contract. What’s more, any savings are realized on the backs of the subs as no labour and material payment bond would be in place to protect them in the event that the general defaults on its payment obligations

There are other reasons for subcontractors to be wary of default insurance arrangements. One of the condi-

tions of the policy requires the general to prequalify subcontractors before entering into a contract. As part of this prequalification process, subs are often asked to provide confidential information including their financial statements to the general contractor for review. Many subs are understandably reluctant to providing such sensitive information to a party with whom they may be involved in sensitive negotiations. Under the surety bond scenario, the trade contractor provides this information to the bonding company in the same manner as they would a bank with confidentiality being assured.

Establishing a relationship with a professional surety company can provide a contractor with a powerful competitive edge over less qualified competition. Yes, your surety will insist on being kept up to date with a steady flow of timely information sometimes to the point of being maddening. Such minor frustrations are well worth the effort as your bonding company is truly a business partner who can provide invaluable assistance in protecting your interests. Performance and payment bonds work for subcontractors.

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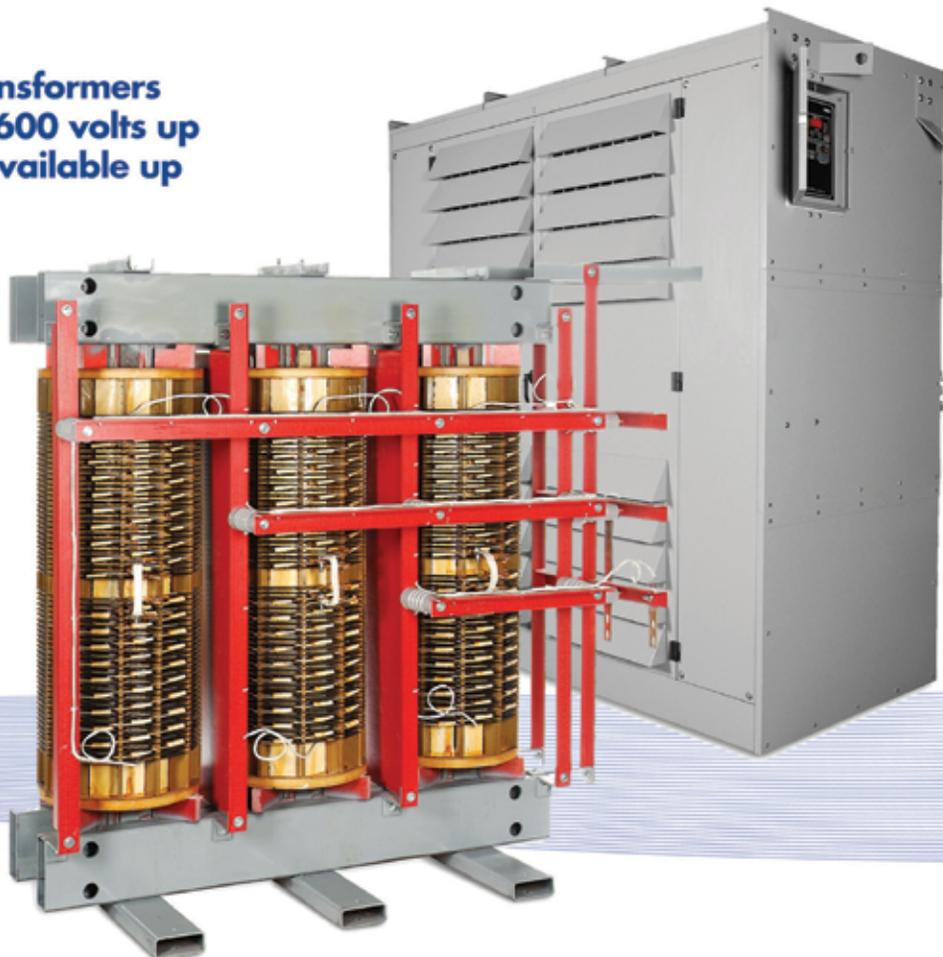
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# “Selling Smart”



By Stanley Tepner, MBA, CA, CFP, TEP

It often seems like the only investment advice ever offered is “BUY.” Buy this stock! Buy that mutual fund! Buy this GIC! So when is it appropriate to sell an investment? After all, you only truly realize your profit (or loss) when you actually sell something.

There are many reasons why you might sense a “buy bias” in the investment industry. The reasons are both financial and psychological. For one thing, the concept of buying something often provides individuals with a stimulating sense of optimism and hope (it’s too bad these hopes aren’t always fulfilled). This rosy feeling is rarely matched when you’re thinking about selling something.

There also doesn’t seem to be nearly the same amount of institutional or psychological inertia for the selling side of a transaction. Nonetheless, making the right selling decision can really help your portfolio’s bottom line. Especially when it involves individual common stocks. In his book, *It’s When You Sell That Counts*, Probes Publishing Co., Chicago, author Donald L. Cassidy lists several important cues you should look for to determine if you should sell a holding. He categorizes these cues into three distinct areas: (1) company related reasons to sell; (2) market-action reasons; and (3) investor-related reasons.

#### **The company-related reasons to sell he cites are:**

- Sell if the company news can’t get any better
- Sell when broker’s advice goes from ‘buy’ to ‘hold’
- Sell if the company’s fundamentals are getting sick
- Sell on the rebound in the aftermath of material, unexpected or discrete bad news
- Sell in certain cases when expected news is delayed.

#### **Cassidy’s market-related reasons to sell include:**

- Sell when the stock reaches its target
- Sell on an unsustainable upward price spike on big volume
- Sell when a portfolio shows all gains
- Sell if the stock is lazy money and likely to stay that way
- Sell using above-market limit orders, letting the market come to the investor

- Sell with a stop-loss order, but never remove or lower it.

### Investor-related reasons to sell are:

- Sell if the stock would not be bought again today
- Sell after gloating or counting the chips
- Sell rather than hope against hope for a “maybe” bail out
- Sell and step aside on a personal losing streak.

If you sell your stock holdings in a disciplined manner by paying attention to these signals, there’s a good chance you will manage to avoid the unpleasant results of watching your stock portfolio’s market value tumble.

### The Four Roadblocks to Profitable Selling

Cassidy highlights four “roadblocks” to profitable stock selling, all of which are grounded in certain psychological pre-dispositions about investment transactions.

1. He calls the first roadblock “commission phobia.” Some people will not sell their stocks just to avoid paying a commission on the transaction. People most often suffer commission phobia when their investment has gone down, or has done a little in a positive direction so that the commission would wipe out any gain. Rarely is this phobia exhibited when a stock enjoys a huge gain. Cassidy thinks of commission phobia as a smoke screen that masks the investor’s pain at admitting to a mistake that caused the loss. However, unless a company goes bankrupt, conducts a share buy-back program or is taken over for cash, there are few ways to unload a position without paying a commission. They are basically unavoidable. Cassidy suggests structuring an arrangement between investor and financial advisor that allows for discounted commissions when stocks perform poorly. Mostly, he advises that investors ignore commissions and sell when the time is right, because the reluctance to pay a commission in order to leave a losing position is a self-defeating game.
2. Cassidy’s second roadblock is “tax phobia.” Unless an investor has offsetting capital losses (carried forward from previous years or realized in the same year), most gains on stock trades will be taxable. No one likes paying taxes, but Cassidy states that it is illogical to balk at selling a stock for a gain just because the transaction triggers a tax liability. Tax phobia is another smoke screen, just like commission phobia. Taxes are, for the most part, unavoidable. The goal of every investment transaction should be maximum profit, so taxes ought to be happily paid when they are the result of

successful investments. Once again an investor should sell because the time is right. Don’t postpone a sell to postpone a tax bill. You may end up without one!

3. Roadblock number three is called “specialist phobia.” Some investors are afraid of using stop-loss orders (orders to sell a stock which are placed below the market price; they are used to limit a stock’s downside) because they fear these orders will tip the market makers (also known as “specialists” or “registered traders,” their role is to maintain reasonable liquidity in securities markets by making firm bids or offers to specific securities) or their intentions and so become self-defeating. Cassidy advises that individual investors needn’t be overly concerned with specialist phobia, because the market place is so much bigger than any one private participant. He cautions that if an investor’s ego lets him or her imagine that their personal 500 or 1000 shares will turn the tide against the stock’s advance, the investor is too heavily involved in their own success or failure.
4. Cassidy calls the fourth roadblock “holding on with a death grip.” Some investors hold on to their positions far too long, especially when the stock price is below their original cost. Many people are “married” to their cost price, and this can be a very expensive relationship. Doggedly holding on to a losing position, refusing to accept the reality of the situation, your capital remains dormant, depreciates, or at best is less successfully employed than other available opportunities allow. Rather than remaining married to an unhappy stock, consider a speedy divorce and new nuptials with stocks that could offer a happier honeymoon. It is difficult to unload a losing position; selling has a finality that closes the door on the potential for recovery of the stock price.

In today’s “buy-focal” world, Cassidy’s book is a rare gem. His philosophy is akin the famous investor Warren Buffett, who said, “to invest successfully over a lifetime does not require a stratospheric I.Q., unusual business insights or inside information. What’s needed is a sound intellectual framework for making decisions, and the ability to keep emotions from corroding that framework.”

*Stanley M. Tepner, MBA, CA, CFP, TEP, is first vice president and investment advisor with The Tepner Team at CIBC Wood Gundy in Toronto. He can be reached by telephone at (416) 229-5566 or 1-(800) 488-8688 or by e-mail at stan.tepner@cibc.ca. The views of Stanley Tepner do not necessarily reflect those of CIBC World Markets Inc. CIBC Wood Gundy is a division of CIBC World Markets Inc., a subsidiary of Canadian Imperial Bank of Commerce and Member CIPF.*



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# New Products

## Next Generation Infrared Cameras

FLIR Systems, Inc. has announced the launch of its new middle market T-series infrared cameras.

The new T-series delivers razor-sharp thermal images, thanks to 76,800 pixels and FLIR's exclusive Advanced Signal Processing (ASP), delivering four times the resolution of a 160 x 120 infrared camera. The new T-series also boasts a simultaneous 1.3 mega pixel visual camera, exceptional one-hand control ergonomics, an eight-hour full workday battery life, and isothermic thermal fusion. One-touch automatic or manual focus, 8x continuous zoom, high thermal sensitivity, five temperature spots, sophisticated Delta T functionality, user-directed audible/visible alarming, voice and touch screen controls provide end users with the ultimate in sophistication, ease of use and affordability.

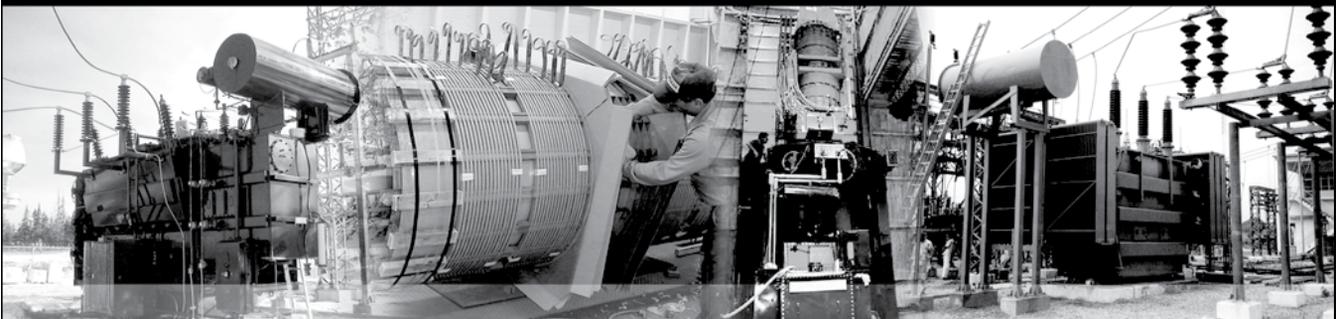
Numerous "close-to-the-customer" features will resonate with end users across industries, such as the built-in and exclusive Ambient Temperature Control system that automatically adjusts for extreme work zones, whether

working on a hot or cold day, or standing in front of a blast furnace or inside a walk-in freezer. Rugged yet lightweight, at under 2 lbs, the tilt-able optic block also helps to reduce back and arm strain. With eight hours of battery use, a car-truck charger and interchangeable standard, wide-angle and telephoto lenses, end users now have access to a level of technology, convenience and ease of use unprecedented at this price point. A new B-series line will be introduced with even more features – like built in insulation and moisture alarms – for home inspectors, energy auditors, roofing, HVAC and other building professionals.

To prepare for new product introductions, FLIR has scheduled close to 200 free seminars to demo new products and educate potential customers as to which IR camera would best suit their needs. For dates and locations, visit [www.infraredseminars.com](http://www.infraredseminars.com) or call toll free 1-800-254-0633 or to schedule an expert demo at your facility, call 1-800-613-0507, ext. 24.

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# TYSON CHILDERLEY AND JOSH WELLSTOOD AWARDED ECAO SCHOLARSHIPS



Josh Wellstood



Tyson Childerley

In recognition of the importance of education and the need to have post secondary graduates enter the construction industry, the Electrical Contractors Association of Ontario established a Scholarship Program in 2004 for children or wards of salaried employees of association member companies.

Due to the increased number of applicants, ECAO has awarded two winners for 2007 – Tyson Childerley, son of Dennis Childerley, Childerley Electric in Hamilton and Josh Wellstood, son of Greg Wellstood, Acon Industrial in Cambridge.

Tyson will put his scholarship towards obtaining a Business Administration degree at Lakehead University in Thunder Bay and intends to join the family business. In his letter to ECAO he states his goal is “to be the third generation of Childerleys to run the family business...to lead it into the future.”

Josh will use his scholarship towards his studies in Electrical Engineering and Management at McMaster University in Hamilton. In his submission, he states “I believe that the construction industry plays an important role in the world today...providing a bursary is not only investing in me, but also assisting the electrical industry.”

Congratulations Tyson and Josh!

## HAVING ELECTRICAL WORK DONE?

All electrical contracting businesses now require a provincial licence from the Electrical Contractor Registration Agency of the Electrical Safety Authority to operate in Ontario. Before you hire an electrician or electrical contractor, check to see that they have an Electrical Contractor's Licence. It's not just a precaution. It's the law.



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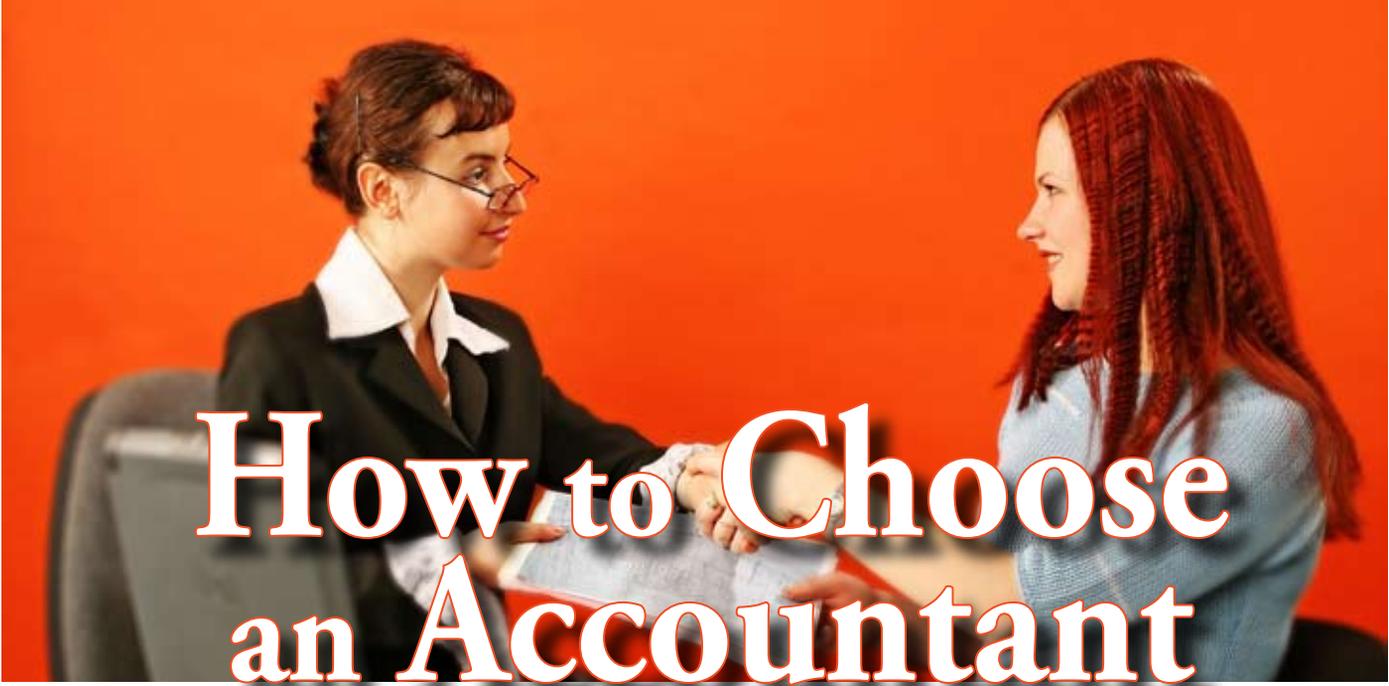
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# How to Choose an Accountant

When Sylvia lost her job as head of personnel at a major Canadian company, she panicked. But, after assessing her financial resources and business expertise, she realized she now had the ideal opportunity to launch her own business. Unfortunately, after being an employee for more than 20 years, Sylvia found she didn't know the first thing about how to get started.

"CAs can help," says Robert Gore, CA, who heads up a small accounting firm in Toronto. "Although most people expect their CAs to provide accounting, auditing and tax services, they don't realize that we can also offer sound advice on virtually everything involved in running a business."

When it comes to launching a business, CAs can advise of the most suitable business structure; where and how to obtain financing; what type of employees you might need and how to set up appropriate compensation plans; how to set up an accounting system, how to insure yourself and your company; and how to structure any necessary partnership or shareholder agreements.

After start-up, more help is available. Gore says, for example, that many firms offer advice on a wide range of topics, including information technology, buying and selling a business, strategic planning, business valuations, human resources, fraud and security issues, expanding internationally, risk management, productivity improvement, insolvency and bankruptcy, and much more.

That includes tax. Tax isn't just doing year-end tax returns, says Gore. Virtually every transaction you make has tax implications. Think about estate planning, buying or selling a business, making or liquidating investments, arranging your retirement, providing for disabled family members, setting the price of goods and services, paying your staff and even yourself. "There is

always tax to consider – and ways to plan how to save some of it," notes Gore.

But how do you go about finding the right CA for your needs? Brian Leader, FCA, Vice-president of Learning at the Institute of Chartered Accountants of Ontario, suggests you begin by asking friends, colleagues and business acquaintances for a referral.

Keeping the type and size of your business in mind, identify a few CAs that seem appropriate, then arrange an initial consultation. Here, you basically interview the candidates by outlining your needs and finding out how the CAs can meet them.

"The key, ultimately, is the chemistry between you and the CA," says Leader. "If you're going to open your heart and your business to someone, you had better be able to openly communicate with and trust him or her."

Leader warns that finding the right accountant is complicated by the amount of choice in the marketplace. Not only are there chartered accountants, but also certified management accountants (CMAs) and certified general accountants (CGAs). Each group has different educational, training and qualification requirements. There are also people who call themselves accountants but belong to no official accounting body and have no special training.

Only CAs, however, are currently licensed to practice public accounting in Ontario, which includes doing audits and related work. Moreover, Leader stresses, the CAs' education is the most rigorous, requiring not only a university degree but also successfully completing the provincial Professional Program, including the School of Accountancy, a 30-month practical training program and the three-day competency-referenced national Uniform Evaluation known as the UFE.

As a result, today's chartered accountants are far removed from the old stereotype of "number crunchers." They are full service professional business advisors. "CAs have seen virtually every type of business situation you can imagine," says Leader. "With that knowledge, plus what they learn about your own business and personal affairs, a chartered accountant can put you on the road to success."

**Interviewing a CA**

When interviewing a Chartered Accountant to determine who will best meet your needs, be sure to ask the following 10 key questions.

1. Why should I pick your firm over any other?
2. Does your firm focus on any particular industry or geographic region?
3. How many offices and partners do you have? That is, are you local, regional or national?
4. What experience have you had in my industry? How many clients like me do you serve currently and can I call a few for references?

5. Do you have a public accounting licence?
6. How do you bill for your services – as the job progresses or once it's completed? Do you need a retainer? What is the fee range for jobs such as mine?
7. Who will work on my assignment? If other staff members will be assigned, how experienced will they be?
8. What specific services do you offer? Do you have access to other specialists if I have special needs outside your area of expertise?
9. Do you leverage the latest technology to ensure that work is done efficiently and at the lowest cost?
10. Will you be there whenever I need you?

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## 024: EPILEPSY AND SEIZURES

### Who can have seizures

People with seizure disorders including, but not limited to, epilepsy.

- A person who has a fever not related to a seizure disorder
- People with certain diseases, such as diabetes
- People who are using pharmaceuticals, correctly or otherwise
- People with no history of seizures

### Types of seizures

A seizure is a condition where a person's nervous system is overwhelmed.

The grand mal seizure that most people associate with epilepsy is the most dramatic, but not the only kind of, seizure.

At the other end of the seizure spectrum is near comatose loss of consciousness.

Seizures occur in varying degrees between these extremes, but are generally characterized as grand mal, petite mal or psychomotor seizures.

### General seizure response

Call for help immediately and activate the Emergency Medical System. Remain with the victim until help arrives or until your foreman assigns someone to take your place. If you are the first on the scene, you are in charge until your foreman or emergency response personnel say otherwise.

Look for any blood, vomit, dentures or other foreign bodies in the mouth of the victim. Do not attempt to remove them as long as the patient is breathing.

If the victim isn't moving, ensure the victim's airway is not obstructed. An easy test is to ask the victim a question. If the victim answers, the airway is open. If you don't get an answer, place your ear over the victim's mouth or nose and listen for exhalation.

If you are trained in CPR, you may need to administer it.

Make someone available to go with the victim if the victim goes to the hospital. You may need to provide separate transportation from the emergency vehicle. Someone will need to help with the victim's personal effects, admissions paperwork, and notification of

family or others. That person may be the foreman or someone appointed by the foreman.

### Removing objects from the mouth

Generally, by reaching in to pull an object out of the mouth, you are more likely to shove an object farther down the airway than to remove it. Medical personnel have suction equipment for removing such objects.

You can try the Heimlich maneuver if the victim cannot breathe with the object in place.

Clear secretions with a tissue and try to keep the victim in a side-lying position to prevent choking.

The tongue is the most common airway obstruction. If the victim is lying on his/her back, use a chin-lift or gentle jaw thrust maneuver to raise the tongue. Do not hyperextend the neck.

### If the victim is unresponsive

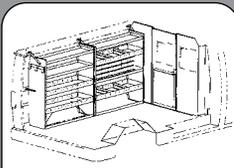
- Do not move the victim – the fall may have broken bones or done other damage
- Do not give the victim water until the victim is fully conscious.

### If the victim is thrashing about

- Move hard objects, such as furniture, away from the victim to prevent further injury.
- Place pillows, cushions, or other soft objects around the victim.
- Do not attempt to restrain the victim. Don't even touch the victim if he or she is moving and still having the seizure.
- Do not yell at the victim to calm down. Seizure victims have no control over their seizure and any excited action on your part will simply draw an unneeded crowd.
- Stay as calm as you can and reassure the victim and others around.

*This Toolbox Talks article is reprinted with permission from 100 Safety Training Toolbox Talks for Electrical Construction Work, 2003, National Electrical Contractors Association (US). The complete set of 100 Toolbox Talks is available in Canada through the Canadian Electrical Contractors Association (CECA). Visit the CECA website at [www.ceca.org](http://www.ceca.org) to place your order or call 1-800-387-3226.*

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