

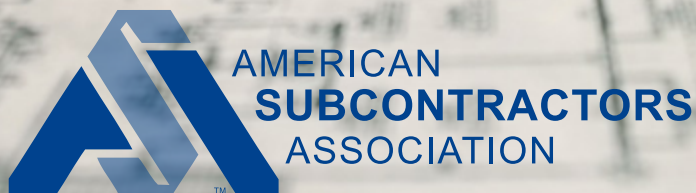
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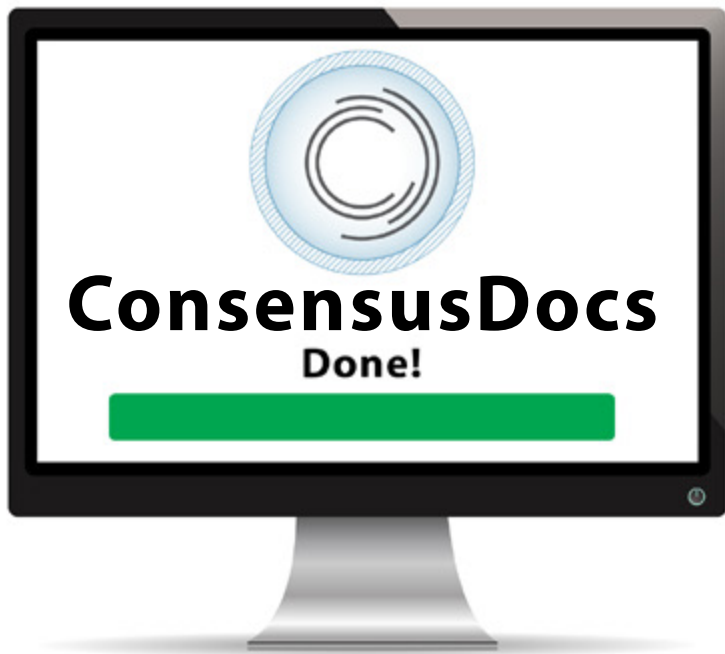
FEBRUARY 2019

Lean Construction

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by Jim Cavaness, MMC Contractors West, Inc.
-  **ConsensusDocs 305 - New Tool to Contract for Lean Projects**
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THE CONTRACTOR'S Compass

EDITORIAL PURPOSE

The Contractor's Compass is the monthly educational journal of the Foundation of the American Subcontractors Association, Inc. (FASA) and part of FASA's Contractors' Knowledge Network. The journal is designed to equip construction subcontractors with the ideas, tools and tactics they need to thrive.

The views expressed by contributors to *The Contractor's Compass* do not necessarily represent the opinions of FASA or the American Subcontractors Association, Inc. (ASA).

EDITORIAL STAFF

Editor-in-Chief, Marc Ramsey

MISSION

FASA was established in 1987 as a 501(c)(3) tax-exempt entity to support research, education and public awareness. Through its Contractors' Knowledge Network, FASA is committed to forging and exploring the critical issues shaping subcontractors and specialty trade contractors in the construction industry. FASA provides subcontractors and specialty trade contractors with the tools, techniques, practices, attitude and confidence they need to thrive and excel in the construction industry.

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Contributing authors are encouraged to submit a brief abstract of their article idea before providing a full-length feature article. Feature articles should be no longer than 1,500 words and comply with The Associated Press style guidelines. Article submissions become the property of ASA and FASA. The editor reserves the right to edit all accepted editorial submissions for length, style, clarity, spelling and punctuation. Send abstracts and submissions for *The Contractor's Compass* to communications@asa-hq.com.

ABOUT ASA

ASA is a nonprofit trade association of union and non-union subcontractors and suppliers. Through a nationwide network of local and state ASA associations, members receive information and education on relevant business issues and work together to protect their rights as an integral part of the construction team. For more information about becoming an ASA member, contact ASA at 1004 Duke St., Alexandria, VA 22314-3588, (703) 684-3450, membership@asa-hq.com, or visit the ASA Web site, www.asaonline.com.

LAYOUT

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ASA PRESIDENT'S LETTER

Dear ASA Members:



This past month, ASA, joined by The Surety & Fidelity Association of America, submitted a “friend-of-the-court” [brief](#) in *Waverly City School District Board of Education v Triad, et al*, urging the Ohio Supreme Court to limit awards greatly in excess of legitimate claims in breach of contract cases involving multiple defendants.

This case involves matters of great public and general interest and profoundly affects ASA, its member companies, and the thousands of subcontractors and material suppliers working on construction projects of all sizes throughout Ohio.

Each year, courts across the country hand down hundreds of decisions on federal and state laws, as well as court-made or “case” law, that apply to subcontractors’ businesses. Some of these decisions are precedent-setting and carry significance for subcontractors across state lines. ASA’s Subcontractors Legal Defense Fund supports ASA’s critical legal activities in precedent-setting cases to protect the interests of all subcontractors. ASA taps the SLDF to fund amicus, or “friend-of-the-court,” briefs in appellate-level cases that could have a significant impact on subcontractor rights.

In the Waverly brief, ASA maintains that the appeals court decision conflicts with well-established law that a plaintiff is entitled to be made whole, but not recover a windfall. By opening the door for litigants to receive massive windfalls with no relation to actual damages, the decision would encourage and prolong costly litigation and impact construction contractors, subcontractors, and bonding companies with potentially devastating results.

This case involves a lawsuit arising out of a \$6 million remediation to three Waverly City, Ohio, schools built in the early 1990s. The Waverly City School District and Ohio Schools Facilities Commission had, on the eve of the running of the statute of limitations, sued all entities involved in any fashion in the underlying construction.

During discovery, the defendants found that rather than allocating damages with reasonable certainty as

to each defendant, the owner instead simply had its experts identify all parties involved in the construction of each item of work that ultimately was replaced in the remediation.

By the eve of trial, the owner had settled with the architect, the roofer’s surety, the roofer’s insurer, the roofing materials supplier, and the construction manager. The total value of the settlement coming to the owner for its \$5.2 million in recoverable remediation costs (plus \$800,000 in agreed upon betterment) was in excess of \$10.5 million, yet the trial court was informed by the owners that they still had \$3.4 million in claims left to litigate notwithstanding this excess recovery. The trial court granted summary judgment in favor of two remaining contractors, holding that the owners had been made whole by previous settlements and failed to properly allocate damages among the defendants with reasonable certainty.

The appeals court reversed, claiming that the owners can recover damages beyond the amount received in settlement from the settling co-defendants and that they are not required to allocate damages among co-defendants. The defendants have appealed the case to the Ohio Supreme Court and ASA has joined them in requesting intervention and a favorable ruling on their behalf.

ASA encouraged the court to accept jurisdiction, reaffirm the well-established contract law principles that have been thrown into disarray by *Waverly* and reverse the Court of Appeals.

R. Russell O’Rourke, Esq., Meyers, Roman, Friedberg & Lewis, Cleveland, Ohio, prepared the brief for ASA. ASA’s [Subcontractors Legal Defense Fund](#) financed the brief.

I encourage you to support ASA’s initiatives in the courts by making a [contribution](#) to the SLDF today.

Best Regards,

Courtney Little, 2018-19 President
American Subcontractors Association



CONTRACTOR COMMUNITY

Reintroduction: Discussion Draft Change Orders Legislation

ASA has partnered with the Construction Industry Procurement Coalition (CIPC) in drafting a discussion draft "change orders" legislation that would amend the government-wide Federal Acquisition Regulation (FAR) to provide prospective construction contractors with the following:

- Information on bid proposals and the administration of construction contracts;
- Improvement on payment protections for subcontractors; and
- It would prohibit the use of reverse auctions for design and construction services.

Ultimately, this discussion draft will include three sections that will be very important to the ASA membership, and they are:

- Equitable adjustments to construction contracts;
- Provide certainty regarding claims under federal construction contracts; and
- Pre-bid transparency of federal construction services.

More specifically, on the Equitable Adjustments to Construction Contracts Section, ASA anticipates the draft language will mirror legislation introduced by Rep. Fitzpatrick (R-PA) in the 115th Congress, which would do the following:

- Require agencies to report during the solicitation process when it is the agency's policy or procedure to bundle change orders for approval and payment at the end of the job, long after the contractor has completed the work.
- Require an agency to pay for 50 percent of the actual (incurred or committed) cost to perform change order work.

As the draft discussion legislation continues to matriculate through the drafting process in anticipation of a formal introduction within the next few weeks, ASA Government Relations Director Michael Oscar will keep members posted. Finally, ASA's collaboration

with the CIPC on this important legislation will be paramount. The CIPC involves:

- American Council of Engineering Companies
- American Institute of Architects
- American Society of Civil Engineers
- American Subcontractors Association
- Associated General Contractors of America
- Construction Management Association of America
- Council on Federal Procurement of Architectural and Engineering Services
- Design-Build Institute of America
- Independent Electrical Contractors
- Management Association for Private Photogrammetric Surveyors
- National Association of Surety Bond Producers
- National Electrical Contractors Association
- National Society of Professional Surveyors
- Sheet Metal and Air Conditioning Contractors National Association
- The Surety & Fidelity Association of America

Gap Between Work Fatality Rates at Small and Large Contractors Widens, CPWR Reports

A new Center for Construction Research and Training [Quarterly Data Report](#) reveals a disturbing trend: the gap between worker fatality rates at small and large contractors has steadily widened during the construction recovery.

Between 2008 and 2016, according to the report, construction establishments with 20 or more employees experienced a 30 percent drop in their fatality rate, while small construction employers (those with fewer than 20 employees) saw their rate of fatal injuries increase by 57 percent.

In 2016, these small construction establishments employed 37 percent of the construction workforce, but

accounted for more than two-thirds (67.2 percent) of fatalities. CPWR provides an online tool designed to help small construction contractors self-assess their safety management programs and identify ways to improve them.

The free and anonymous [Safety Climate Assessment Tool for Small Contractors](#) (S-CAT^{SC}) is available on the CPWR Web site. CPWR is dedicated to reducing occupational injuries, illnesses and fatalities in the construction industry. Through research, training, and service programs, CPWR serves the industry in cooperation with key federal and construction industry partners nationwide.

OSHA Launches Program to Target High Injury and Illness Rates

The U.S. Department of Labor's Occupational Safety and Health Administration is initiating the [Site-Specific Targeting 2016 \(SST-16\) Program](#) using injury and illness information electronically submitted by employers for calendar year calendar year 2016. The program will target high injury rate establishments in both the manufacturing and non-manufacturing sectors for inspection.

Under this program, the agency will perform inspections of employers the agency believes should have provided 300A data, but did not for the CY 2016 injury and illness data collection. For CY 2016, OSHA required employers to electronically submit Form 300A data by Dec. 15, 2017. The CY 2017 deadline was July 1, 2018; however, employers may still provide this information to the database. Going forward, establishments with 250 or more employees that are currently required to keep OSHA injury and illness records, and establishments with 20 to 249 employees that are classified in [specific industries](#) with historically high rates of occupational injuries and illnesses will be required to provide this information each year by March 2.

OSHA's [On-site Consultation Program](#) offers employers with up to 250 workers with free, confidential safety and health advice on complying with OSHA

standards, and establishing and improving safety and health programs. Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance.

For more information, visit [osha.gov](https://www.osha.gov).

OSHA Issues Final Rule on Crane Operator Certification Requirements

The U.S. Department of Labor's Occupational Safety and Health Administration published a final rule that clarifies certification requirements for crane operators and maintains the employer's duty to ensure that crane operators can safely operate the equipment. The final rule will maintain safety and health protections for workers while reducing compliance burdens.

Under the [final rule](#), employers are required to train operators as needed to perform assigned crane activities, evaluate them, and document successful completion of the evaluations. Employers who have evaluated operators prior to Dec. 9, 2018, will not have to conduct those evaluations again, but will only have to document when those evaluations were completed. The rule also requires crane operators to be certified or licensed and receive ongoing training as necessary to operate new equipment. Operators can be certified based on the crane's type and capacity, or type only, which ensures that more accredited testing organizations are eligible to meet OSHA's certification program requirements.

The final rule revises a 2010 requirement that crane operator certification must specify the rated lifting capacity of cranes for which the operator is certified. Compliant certifications that were already issued by type and capacity are still acceptable under this final rule. The final rule, with the exception of the evaluation and documentation requirements, became effective on Dec. 9, 2018. The evaluation and documentation

Committee Chairs in the 116th Congress

As the rollout of the 116th Congress continues, please review the assigned committee chairs below to see if your member of Congress serves as a chair or ranking member to a committee that could impact our priorities at ASA.

U.S. House of Representatives

Committee	Chairman	Ranking Member
Appropriations	Rep. Nita Lowey (D-NY)	Rep. Kay Granger (R-TX)
Budget	Rep. John Yarmuth (D-KY)	Rep. Steve Womack (R-AR)
Education & the Workforce	Rep. Bobby Scott (D-VA)	Rep. Virginia Foxx (R-NC)
Energy & Commerce	Rep. Frank Pallone (D-NJ)	Rep. Greg Walden (R-OR)
Financial Services	Rep. Maxine Waters (D-CA)	Rep. Patrick McHenry (R-NC)
Small Business	Rep. Nydia Velazquez (D-NY)	Rep. Steve Cabot (R-OH)
Transportation & Infrastructure	Rep. Peter DeFazio (D-OR)	Rep. Sam Graves (R-MO)
Ways & Means	Rep. Richard Neal (D-MA)	Rep. Kevin Brady (R-TX)

U.S. Senate

Committee	Chairman	Ranking Member
Appropriations	Sen. Richard Shelby (R-AL)	Sen. Patrick Leahy (D-VT)
Budget	Sen. Mike Enzi (R-WY)	Sen. Bernie Sanders (I-VT)
Commerce, Science & Transportation	Sen. John Thune (R-SD)	Sen. Maria Cantwell (D-WA)
Energy & Natural Resources	Sen. Lisa Murkowski (R-AK)	Sen. Joe Manchin (D-WV)
Environment & Public Works	Sen. John Barrasso (R-WY)	Sen. Tom Carper (D-DE)
Finance	Sen. Chuck Grassley (R-IA)	Sen. Ron Wyden (D-OR)
Health, Education, Labor & Pensions	Sen. Lamar Alexander (R-TN)	Sen. Patty Murray (D-WA)
Small Business & Entrepreneurship	Sen. Marco Rubio (R-FL)	Sen. Jeanne Shaheen (D-NH)

requirements became effective on Feb. 7, 2019.

For more information, visit www.osha.gov.

EEOC Provides Workplace Harassment Prevention Guidance

The U.S. Equal Employment Opportunity Commission's [Promising Practices for Preventing Harassment](#) contains harassment prevention recommendations for employers in four broad categories:

- Leadership and accountability.
- Harassment policies.
- Harassment complaint systems.
- Harassment training.

For each category, the publication

lists actions employers can take. For example:

- Allocating sufficient resources for effective harassment prevention strategies.
- Crafting an unequivocal statement that harassment based on, at a minimum, any legally protected characteristic, is prohibited.
- Conducting regular, interactive, and comprehensive harassment prevention training for all employees.

The document states that while the practices it discusses are not legal requirements under federal employment discrimination laws, they may enhance compliance efforts.



FEATURE

Why Should Subcontractors Care About Implementing Lean?

by Jim Cavaness, MMC Contractors West, Inc.

You have probably been using Lean ideas for years but did not know the process was called Lean. It is hard to build a team or to get a group of people to achieve a common goal without using some Lean principles. It is not that Lean invented these efficiency ideas but more that Lean has gathered them into a process that can be studied and implemented. Not only can these ideas be studied, the ideas themselves become a common language for the team.

When bringing people and companies together to achieve a common goal, most bring their communication skills and processes with them. This can create confusion for the team. This confusion can lead to miscommunication, which can lead to mistakes that affect the bottom line and ultimately the delivery and quality of the project. Wouldn't it be nice if everyone spoke the same language and had an agreed upon process for the achieving the common goal! The Lean process and Lean tools are just such a system.

There are many types of Lean practitioners. There are the ones where they have heard of it and are sitting on the sidelines to see if they ought to get involved. There are those that have been

directed by their boss to become Lean. Sometimes even the boss does not know what he means by that statement. There are those that are accused of practicing "Lean Lite." Then there are the Lean practitioners who believe that you use all the Lean tools, all of the time.

These are all stages of the growth in someone's Lean journey. They represent a willingness to change, to try to do better. Like any new endeavor, it is nice to start at the beginning. However, where is that? The beginning is anywhere you start. Just start somewhere. Pick a Lean tool and start to use it. See where it fits in your operation. See how you can possibly make your operation better or improve the use of the Lean tool.

Lean is not a panacea. It is not something you can buy. It is not a commodity. It is not a pill you can take or a single book you should read. It is a process of learning as individuals and teams of people with common goals, to add value to the end product. It is a lot of hard work. It is thinking outside the box. It is taking chances. It is a way of doing things differently. You have heard it said that the definition of insanity is doing the same old things, the same old

way and expecting a different result. Being a Lean practitioner, working to become "Lean" is like searching for Nirvana. You cannot really get there, but you can get closer!

In the Lean world, everyone is held accountable. That's right. Accountable. It is a staple of the Lean process. Everyone is counting on everyone else to do what he or she said they were going to do, when they said they were going to have it accomplished. It is better to admit a problem in the early stages of a project than it is to wait until it becomes an emergency. This applies to all team participants. All team members hold themselves and each other accountable and look for ways to either get help for themselves or help others meet their goals and deadlines.

So, why should you care to start on your Lean journey? Money. The short answer is money. However, money is only one of the many conditions of satisfaction why subcontractors are in business or should care about implementing Lean. Most subcontractors and specialty trade contractors have already developed a process where they are as efficient at making money as they can be, or so they think. It is a belief of the

general Lean practice population that you can always do better.

There is always room for improvement, which is one of the two pillars of Lean.

Although, money may be one of the many reasons to practice Lean, there are many connected benefits. Employee engagement, employee satisfaction, employee safety and value delivered to the customer.

Efficiency equals money, right? Nevertheless, it is the efficiency of the whole system that is truly important. There is a paradox between the efficiency of the resource and the efficiency of the flow. One department in the system may become incredibly efficient unto itself. However, the department that feeds into very efficient department may experience a backup and not be able to effectively transfer work into that very efficient department. At the same time, the very efficient department may take longer to be so efficient that they slow their feed into the next department. This creates a “log jam” and destroys the flow of the process.

The second pillar of Lean is **respect for people**. Respect is given in many ways and employee satisfaction comes in many forms. Ownership in the process is one way to

show the employee that the company does not just look at them as a number. That they and their families matter. When employees have input as to how a process is supposed to be, they will more often follow it because it was their idea. It is easy to understand. If people and not computers or machines do all this work, how our people think and feel will greatly affect the quality of the work being put in place.

Everybody gets to go home as they left their home to go to work. Safety is of the utmost importance. People have many reasons for being in the construction industry but most of them stay because it affords them a good living. Now, if they get hurt in anyway, it will affect their ability to do so. Therefore, it is imperative that working safely should always be planned and thought about when executing the job. This planning starts before actually doing the work. It is well documented that if accidents happen on a project, its costs will affect the bottom line. It also makes sense that no team members or owners will want to work with a company that has a history of accidents. The accidents they cause sometimes affect others and are not always confined to their own employees.

Customer satisfaction is another reason to practice Lean. The customer most always wants what they want, when they want it and the value they expected to get. If the customer feels like you really want them involved in the process, they will feel they have a better chance of getting what they want. By participating in the process, the owner will also understand why certain things need to happen the way they do. This can help to solidify a relationship for future work. It is hard enough to get new customers. It is easier to keep existing customers.

As owners, general contractors and trade partners continue to evolve toward Lean, it only benefits the whole if everyone shares a common language. It benefits the individuals by giving them a vehicle that at least has the tools to assist them in being successful in their journey. It is really not that difficult. You are already doing it under a different or no name at all.

Jim Cavaness is the service general manager for MMC Contractors West, Inc., Las Vegas, Nevada. He can be reached at (702) 889-6800 or jcavaness@mmccontractors.com.



FEATURE

ConsensusDocs 305—New Tool to Contract for Lean Projects

by Joel W. Darrington on behalf of the ConsensusDocs Coalition

As the awareness and embrace of Lean construction continues to expand in the construction industry, ever-increasing numbers of projects grapple with the question of how to address Lean construction principles and methods in their design and construction contracts. Project owners have taken primarily three approaches on this:

- Seeking the highest level of Lean performance, owners have used Integrated Project Delivery agreements, such as the ConsensusDocs 300, sometimes called integrated forms of agreement.
- When they or their team are not willing or able to use an IPD agreement, other owners have used legal counsel to custom-draft design and construction contracts under more conventional project delivery models such as CM-at-Risk, to address Lean design and construction methodologies.
- Other owners will seek to promote Lean behaviors among the project team independent of what is in the design and construction contracts.

Now, project teams have a new option for contracting for a Lean project when they cannot implement an IPD agreement. In 2018, ConsensusDocs published the ConsensusDocs 305 *Lean Construction Addendum*. For the first time, there is a non-IPD contract document available to the whole industry that provides for a wide spectrum of Lean design and construction practices. With the CD305, an owner can use either an industry standard form front-end contract or its

own standard contract and add to it a *Lean Construction Addendum* that reflects the best thinking in the industry around Lean design and construction.

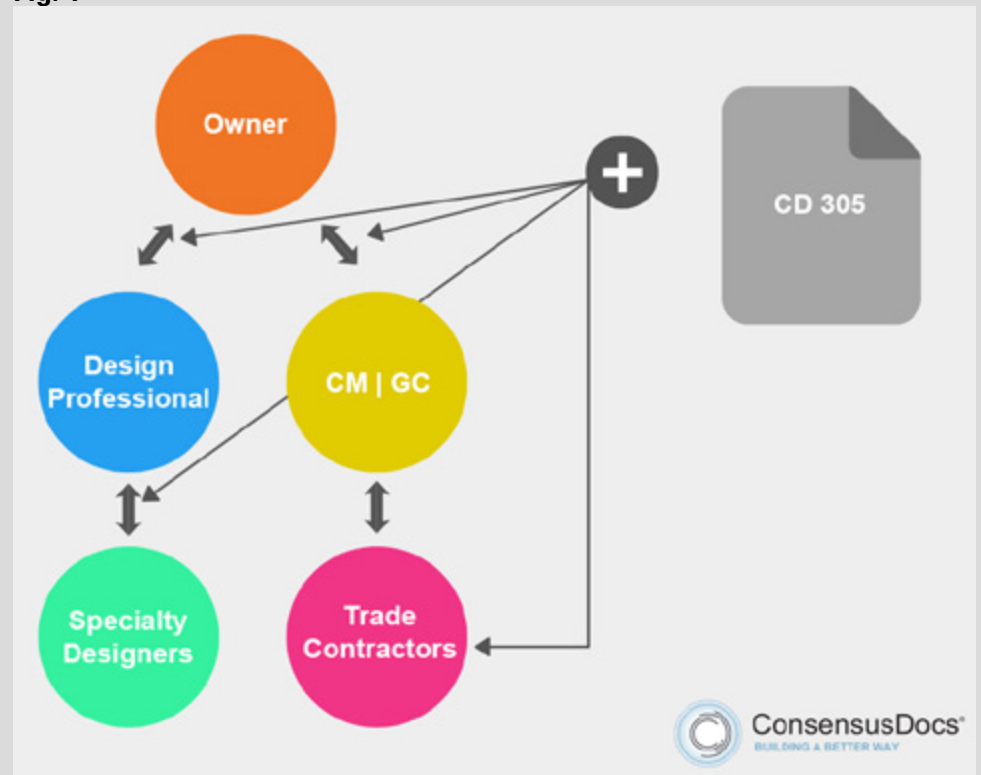
What is the CD305?

Let's be clear right up front. The CD305 is not a complete contract. It has no compensation terms, no schedule, no project scope. Instead, the CD305 is a document you add to a project contract to provide for selected Lean project features.

lower-tier subcontracts or design contracts. The CD305 gets added to each of those contracts as an addendum. Note, however, that the CD305 is not intended for use on design-build projects (a future ConsensusDocs document on Lean construction is under development for design-build projects).

The CD305 does not change the compensation or liability of the parties under the contracts it gets attached. Its exclusive focus is providing clear terms for the parties to agree on how they will incorporate

Fig. 1



In Fig. 1, the bi-directional arrows show the contracts for the project. There are separate contracts between the owner and each of the design professional and general contractor and also separate

Lean design and construction methods into their project.

Using the CD305

Because the CD305 is attached to both the design professional

(architect or engineer) and constructor (general contractor or construction manager) agreements with the owner, it requires a joint negotiation between the owner, design professional and constructor and ideally their key design consultants and trades. Once the CD305 is finalized among the parties, then it gets separately attached and incorporated into each party's contract, binding everyone to the same set of Lean construction provisions. Also, the CD305 provides that it governs over any contrary provisions in the front-end agreement, so that project teams can be assured that their implementation of the Lean methods in the *Addendum* will not trigger a breach of their main contracts.

ConsensusDocs recommends finalizing the CD305 as early in the project as the owner can accommodate. Certain Lean project features are for the conceptualization and design phases, so a team loses the benefit of those features by waiting until later in the project. However, there is still value in implementing Lean only during the construction phase, so if that is your project's situation, you can still use the CD305.

The CD305 was designed to be flexible so that it can be adapted to a variety of project contexts and Lean deployments. It uses a check-the-box approach to allow project teams to select the Lean features that will apply to their project. The CD305 allows teams to selectively address one or more of the following Lean practices during the design and pre-construction phases simply by checking the applicable boxes:

- **Joint Worksite Investigation:** the project team evaluates what site information is needed, comes

up with options for different levels of site investigations, aligns on the appropriate level of investigation and reports the investigation's findings and recommendations.

- **Evaluation of the Owner's Program**
- **Validation Study:** the project team validates whether the owner's program for the project can be designed and constructed within the owner's maximum budget. A conceptual (or schematic) level of design and cost estimating is done to give an early check on whether the owner's business case for the project is viable.
- **Construction Team Cost Modeling**
- **Target Value Design:** Section 6.5 describes an integrated design process featuring Target Value Design. TVD is one of the key Lean design and construction methods for achieving greater project value. It requires intense collaboration of the designers and constructors and a disciplined approach to value determinations and decision-making.
- **Risk Identification and Management Planning:** the project team conducts a risk workshop to identify and evaluate risks, then prepares a risk register to describe key risks and who is responsible for monitoring and leading team efforts at managing that risk. A risk management plan is developed to put in place contingency plans for addressing specific risks.

General Lean Principles & Methods

The CD305 also has standard provisions that apply to any Lean construction project. Article 3 of the CD305 starts by laying out the major objectives of Lean Project Delivery:

- (1) collaborating throughout the project with all members of the design and construction team;
- (2) planning and managing the project as a network of commitments;
- (3) optimizing the project as a whole, rather than optimizing particular pieces; and
- (4) tightly coupling learning with action, which promotes continuous improvement throughout the life of the project.

Article 3 also describes the principle of making reliable commitments and keeping them, which is fundamental to reliable workflow and the process of planning and managing the project as a network of commitments.

The CD305 provides for a collaborative leadership structure by forming a Core Group. Article 4 describes the Core Group's role and operations. Each of the owner, design professional and constructor appoint a Core Group representative empowered to direct and coordinate its company's work. The Core Group together manages the work using Lean methods for the best interest of the project. They are responsible for the project's key decisions, and they make consensus decisions. They are also responsible for regular team performance evaluations to foster continuous improvement.

If the Core Group cannot come to a unanimous decision, the owner may issue directions it believes to be in the best interest of the project, but that will be subject to any further dispute resolution provisions of the contract to which the *Addendum* is attached.

Article 5 of the CD305 requires the project team to use a pull scheduling approach to planning and scheduling the work. The CD305 describes features of the planning system that the team must incorporate, all of which would be satisfied by a full implementation of the Last Planner System® promulgated by the Lean Construction Institute.

Construction Phase Lean Methods

The last article of the *Lean Construction Addendum* provides for construction phase Lean methods.

Section 7.1 provides for a Lean approach to quality. To avoid addressing quality through re-work, it provides for the team to develop and implement a “Built-In Quality Plan” that addresses standardized work, agreed levels of quality, good hand-offs of work between trades, and continuous improvement.

Section 7.1 also provides for the construction team to develop an operations quality plan using the Lean principles of “5S”: sort, set in order, shine, standardize and sustain.

Under Section 7.2, the constructor develops a materials logistics plan that promotes just-in-time delivery of material to the worksite consistent with the current pull-planning work plans.

In Sections 7.3 and 7.4, the CD305 provides for a Lean approach to submittals and requests for

information. The basic idea is that the team member needing information directly contacts the team member who can provide the information, figuring out the resolution together, and then documenting the resolution for the benefit of the entire project team.

Finally, Section 7.5 requires the team to develop a phase plan specific to closing out the project so that everyone is aligned as to what needs to be done to satisfy the project stakeholders without needing a long process of inspections and re-inspections for reaching substantial completion.

Conclusion

ConsensusDocs has provided a great resource to the construction industry with its recent publication of the CD305 *Lean Construction Addendum*. For the many projects that are not able or ready to utilize an IPD agreement, now there is an industry standard form that can be added to a project’s design and construction contracts to provide for a wide range of Lean design and construction practices without triggering violation of the front-end contract’s provisions. For helpful resources visit https://www.consensusdocs.org/lean_webinar and <https://bit.ly/2Rbv2sp>.

Joel W. Darrington is the contracting counsel at DPR Construction and a member of the Lean Construction Institute. He has published and presented widely on Integrated Project Delivery, Lean construction and contract incentives for improved project outcomes. © ConsensusDocs Reprinted with permission by ConsensusDocs. <http://www.consensusdocs.org>

MATRIX STRATEGIES

Assessment Categories	# Points/10
1) Size (\$, S.F., Profit Potential)	<input type="text"/>
2) Complexity (Competitors)/Risk	<input type="text"/>
3) Resources (Supervision, Estimating, Timing)	<input type="text"/>
4) Experience Level/Building Type	<input type="text"/>
5) Strength of Relationship- Client/Prospect	<input type="text"/>
6) Location	<input type="text"/>
7) Chance of Getting Project (# of competitors)	<input type="text"/>
8) Delivery Method	<input type="text"/>
9) Repeat Work Potential	<input type="text"/>
10) We want this job!	<input type="text"/>
Total Points/100	<input type="text"/>



FEATURE

Lean Construction: A Primer for Subcontractors

by Jim Cavaness, MMC Contractors West, Inc.

There are so many different variables and conditions of satisfaction that must be considered by all involved in trying to bring a project to successful fruition. As a specialty contractor, we have a unique perspective on the use of Lean construction processes. This perspective is simply that—a personal and professional perspective. It may not work for everyone and every situation. Lean is constant improvement!

In its simplest form, the Lean construction process is meant to improve how owners, architects, engineers, general contractors, and specialty contractors work together to achieve a successful project with the least amount of waste. While a simple idea in nature, there are many obstacles to overcome when it comes to practicing Lean construction. However, when we focus on working together and building the right team, we've found that's the best approach to accomplish goals.

In the traditional way that a project is conceived and brought to completion, there are many areas of apparent wasted time, effort and resources. So let's review a hypothetical traditional project from a specialty contractor's point of view, and see individuals and teams would benefit from a project being completed with a process that allows for an on time, under budget, and gives the owner what it originally envisioned. For discussion purposes, various steps have been left out of this review.

The Current Landscape

There are many routes that a project can take, yet, there is a general direction that is followed at the inception of a project.

- The Idea. The owner has something in mind and is ready to make the investment to make it happen.

There's a general idea of budget and timeline and a Performa that makes economic sense. In order to make this idea into a reality, an architect can become involved as one of the first step in the construction process.

- The Drawings. Given the input and budget from the owner, the architect begins designing using the specifications available. The goal at this stage is to provide excellent customer service and deliver an exceptional final product. Once the team has created plans that are at some stage of completion, or complete, they are then sent out to be priced by general contractors.
- The Bids. Usually, general contractors will work closely with specialty contractors to outline bids for a project. Once bids have been obtained, they are turned in and all contractors anxiously await to hear if they've been awarded the business.

In a perfect world, the next phase includes the owner carefully evaluating all project bids and choosing the right team for the job based on merit, past performance, reputation, and detailed pricing. However, it's not uncommon for owners to have sticker shock at this point and request design changes from the architect to help them get to a more digestible number. This step back slows the momentum of a project and also means everyone involved has expended energy on something that will not come to fruition.

A Team Approach

A successful Lean project usually starts with a Target Value Design and Conditions of Satisfaction discussion between the owner and the team members it would like to include in the initial informational planning. This

helps to eliminate the wasted time in effort of designing and planning a project that doesn't fit the Performa.

The usual next step is to utilize the Last Planner® System to look at schedule, identify tasks and milestones that need to be implemented into the project for a timely delivery.

A guiding principle of Lean construction is maintaining the flow of a project. When we stop moving forward, we start accumulating waste. Complementing this, Lean construction is also based on the idea of "pulling" a project rather than "pushing" it. Ideally, the owner receives exactly what it has asked for and the construction team has offered solutions that everyone is comfortable with. But we do not live in a perfect world.

Common language and improved communication is one step toward finding the sweet spot in satisfying the needs of everyone involved. When we use unifying language and Lean processes, we're able to work together more efficiently. Not only that, but we avoid veering off track and slowing the project.

Creating a cohesive team is the very root at what makes a successful project. Relationships are built on trust and communication and when those two principles are in place, the team functions like a well-oiled machine.

For example, general contractors rely on specialty subcontractors to execute a big portion of the work on a project. It takes a lot of time to continually educate specialty subcontractors on the processes and language they use to ensure they are following their guiding principles. The more specialty subcontractors

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From its inception, the SLDF has been involved in many landmark decisions, starting with its first case in 1997, Wm. R. Clarke Corporation v. Safeco Ins., which prohibited pay-if-paid clauses in California.

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Lean Construction Primer

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understand the process, the better their performance will be. Having a solid team of specialty subcontractors gives the general contractor a significant competitive edge. When the general contractor can spend less time focused on re-educating the specialty subcontractors, more time is dedicated to the project, thus helping ensure it stays on track.

From the specialty subcontractor perspective, this is their opportunity to be of service in the project, and in doing so, make themselves invaluable to the owner and general contractor. Being part of a good team helps the team become more profitable, which subsequently results in more people wanting them on their team.

Learning the Language

The Lean Construction Institute has put together an exhaustive and comprehensive process that teams can use to develop a common language and process. This language and process can be used within their own company or organization to eliminate waste from their own

processes. This process can be taught from the top down, bottom to the top, or can start in the middle of the owners' team and work both ways until every team member is on board.

Let's take a brief look at a few of the Lean terminologies and processes:

Target Value Design—In any purchase or investment, it is extremely beneficial to design the project to fit within the available funds or Performa.

Conditions of Satisfaction—What actual and detailed results are to be achieved? The owner obviously gets to sit in the driver's seat for the project. But it is important to remember that all parties involved have their own conditions of satisfaction that they want to achieve for their participation.

The Last Planner® System—Brings stability to the project by giving attention to the flow while reducing the variation in the hand-off of work between the specialty subcontractors in a continuously improving work situation.

The language can be utilized throughout all touchpoints on a project—business development, estimating, engineering, fabrication, project management, and field operations. The Lean process keeps companies competitive in the market place and should be engrained in the culture of a company.

It is important to remember that Lean in itself is built on two pillars of thought. Continuous Improvement and Respect for People. The best processes in the world are of no use if there are no people to perform them. Lean offers the opportunity for the team members to bring their ideas and consequently their ownership to a project increasing the satisfaction of all involved.

Jim Cavaness is the service general manager for MMC Contractors West, Inc., Las Vegas, Nevada. He can be reached at (702) 889-6800 or jcavaness@mmcontractors.com. This article originally appeared in the August 2018 edition of The Contractor's Compass.

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FEATURE

10 BD Strategies for Impact

by Larry Silver, Contractor Marketing Inc.

In construction, the business development function is a key to ongoing success and growth. I want to impart 10 key strategies that you can consider and apply moving forward in 2019.

There are two aspects to BD that are preeminent. The first is to build relationships and the second is to chase opportunities that fit your firm. We will count down the strategies David Letterman-style.

Strategies to Build Relationships

10. Build relationships that are intentional. Our industry tends not to be very strategic or to plan out our moves on the chessboard. We fly by the seats of our pants, often using pure business instinct. But this forethought and planning will separate you from other players in the marketplace. Since you have limited time and money to invest, think through who your firm wants to associate with and why. Work this plan consistently with goals and timeframes.

9. Build relationships with ideal clients. Many in our industry take a shotgun approach to relationships—the more the merrier and the broader the better. However, I advocate a focused rifle approach to develop relationships with those you have identified as ideal clients. Ideal clients are those that fit a predetermined profile you are seeking with attributes that include culture and relational fit between firms, financial strength, repeat business potential, sensible risk, resources allocation, etc. Build a simple matrix on what your firm values and score each client accordingly. This will assist you to discern who and what your ideal client looks like. Before you chase any

opportunity, score it on a matrix to determine whether the client behind the opportunity is ideal. If it's not, don't pursue it.

8. Build relationships that encourage strong referrals. Do you desire to hard-sell yourself, proving your company every step of the way? Most of us don't. The more excellent way is to have others speak well of you and make an introduction for you to a potential client. If a business associate has a positive experience with you and can get you in front of a prospect that needs your services, this is a better and more probable way to close business. Years ago, I read a business book titled "Red Hot Introductions." The book was all about securing and gaining access to potential clients through your existing relationships in such a way that the referral is not cold or even warm, but hot. Hot because the prospect is considering a current need for your services, and your client is doing the heavy lifting as far as selling your services and reputation for you. This saves so much time and money to be positioned like this in your current business relationships.

7. Build relationships in a consistent, ongoing manner over time. It is human nature to rely on what we have established in the past. In construction, we call this the "Good Ole Boy Club." Yep. We've known each other since 1942, since before the war ended. You get the picture. My question is, "haven't you met anyone since the war?" Even very good business developers and firms tend to settle for where they've been and there is a resistance to trying new things and meeting new people. Encourage a company-wide

culture to invest in new initiatives, try new groups, and experiment in new avenues that are untested. Take a risk. After all, we are in construction, the second riskiest business on the planet. Set a goal that each manager, each executive will reach out to certain key targets both inside and outside our industry. Track these new relationships and communicate periodically with them at various levels.

6. Build Relationships that are stronger through marketing—by using technology and available media. A recent example in my own business is partnering with a technology/software firm that focuses on construction regionally. The firm decided to begin a new podcast to get out its message and to bring experts into this vehicle to add to its existing credibility. The firm asked me to be its first interviewee (see <https://builtcast.com/>). So apply this to your construction business. You can use a Web site, a podcast, a blog, or Facebook, LinkedIn, etc., to strengthen your current position of expertise in your target markets. This raises the bar in your current relationships' perception of your value in the marketplace. I know that most construction firms only dabble with marketing, but I challenge you to learn this business function more fully in 2019. Much of the investment is the time and energy to further your image and brand as an individual and as a firm.

Strategies to Chase Opportunities

5. Chase opportunities in your strong suit. There are no two firms that are exactly alike in construction. Like a fingerprint, each company

has its own history, founders, management, human resources, and approach to performing projects. Each firm uses its own delivery methods, will cover a certain geography, and will bring its expertise and resources to bear in a unique way. The size, shape, make-up and type of construction firms vary as the stars in the sky. The key is to employ the best strategy today to grow your firm according to your ongoing vision for tomorrow. Know your business and know your resources so you can move forward using your strong suit as you pursue new work. If your strong suit is self-performance of \$1 million to \$2 million concrete projects, or general contracting government work, focus on that. Every contractor has limited time and money with which to invest in projects. Therefore, invest according to your strong suit as you chase new work.

4. Chase opportunities in your sweet spot as a company. It's wise to not only chase projects that fit your strong suit, but also where your competitors are weak. We call this the Sweet Spot. For example, say that you are bonded with an aggregate of \$50 million for the year and you know you are competing against a smaller firm who does not have equal bonding capacity. They may have trouble selling their ability to meet the qualifications while you are strong in comparison. A few areas like this, and you may find yourself with limited or no competition on certain jobs. You are simply strong where another firm is weak. This is a primary way to distinguish your firm in your space as a leader and as a pace setter. Think through the areas where you are strong, and your primary competitors are weak, and highlight those areas in your proposals and presentations.

You can also use a ghosting strategy where you need not mention any competitor by name, but simply put fear in your prospect to use anyone who has less standing than your firm does in an area of accomplishment.

3. Chase opportunities with the best team in place. As an owner surveys your proposal and considers the project award, he or she is not only looking at your credentials, but that of your whole project team. Therefore, for each project you consider, discern who the best team you can put forth for that work. Who can raise the bar regarding the architecture, the engineering, the subcontracting, and the material suppliers? Can you put forth a team that includes consultants, problem-solvers, allies, and friends of the proposed owner? This may make all the difference. If the owner is comfortable with an incumbent team, it is your task to unseat that incumbent by raising the bar of the value-added, value-engineered, price-reduced, schedule-accelerated, quality-boosted project. Do not get in the habit of cranking out estimates and proposals just to keep with demand. Shift toward fewer, more suited proposals that you believe have your team's name on the award.

2. Chase opportunities that lead to more opportunities. Another consideration is whether the work you will perform may lead to more work from this same owner or a related owner with similar needs? It is not wrong to do a one-time project, but if you have the luxury of choosing which projects to chase, seek the ones with repeat potential over the one-time service. You have a hungry overhead machine to feed and choosing to work with a repeat client

can keep the cash flowing during otherwise lean times. Similarly, by focusing on a certain type of project, you are showcasing this type of work as your firm's preferred choice. It may seem subliminal, but the market takes notice and decides the type of contractor you are by observation and experience. Consider that before you take on a project just to keep your forces busy and the payroll met.

1. Chase opportunities that fit your strategic plan. This annual document may be the best set of guard rails you have to make wise decisions concerning the work you pursue. Does the potential project meet the requirements of your strategic plan? If you say you are focusing on school work and hospitality in 2019, and some stray opportunity arises, look at your current plan. If you want to dabble at design-build but are primarily a hard-bid contractor, why seek a Construction Management project? It does not make sense according to your predetermined plan. In many instances in business as in life, less is better, and the more a business focuses, the more they grow and have impact.

Please consider and apply these 10 strategies to build relationships in your business and to chase profitable opportunities for growth. You will be glad you did.

Larry Silver is president of Contractor Marketing Inc., a consulting/recruiting firm in the AEC Industry. Silver performs strategic planning, marketing/business development audits and training. Silver can be reached at (937) 776-7170 or larry@contractormarketing.com.



Cyber-Attack and Cost of Remediation

by Joseph J. Bosick, Pietragallo Gordon Alfano Bosick & Alfano, LLP

In this day and age, it is almost impossible to find an industry or company that is immune to cybersecurity threats. Recent headlines provides an abundance of evidence of how sophisticated and widespread today's cyber-attacks have become. According to the Identity Theft Resource Center, in 2017 there were over 930 data breaches that led to more than 19 million records exposed, and there are no signs that attacks are slowing down.

In fact, earlier this year, federal agencies have issued guidance statements pertaining to cyber risks and insurance. The Securities and Exchange Commission in February issued a statement and guidance on public company cyber security disclosures. Release No. 10459 (Feb. 21, 2018). In addition the FDIC and the Comptroller of the Currency in April issued statements encouraging, but not requiring, financial institutions to maintain cyber insurance to offset financial losses from a variety of exposures that may not be covered by general liability insurance. FDIC FIL-16-18 (April 10, 2018); OCC Bulletin 2018-8 (April 11, 2018).

As the attacks are becoming more sophisticated, employee training and awareness have become a focus for organizations. Phishing attacks are more common than ever before. Employees can be tricked into giving out critical business information resulting in malicious actors gaining access to

bank accounts and other sensitive company information. Ransomware can quickly spread through a company's network and render critical files unrecoverable. In one case, a hospital in Buffalo, N.Y., paid \$10 million to recover their systems and services following such an attack. And even then, data and records that were encrypted by the attack were permanently lost.

As much as vigilance on the job is encouraged to prevent physical harm and workplace accidents, similar vigilance should be exercised when utilizing technology to prevent potentially catastrophic financial harm to employees and employers.

Query: If despite your best efforts your company becomes the subject of a cyber-attack, how will you pay for the cost of remediation? A Cyber Policy of Insurance is one answer.

Below we will highlight some of the types of losses that span both the non-physical and physical world that may be addressed by various cyber coverage offerings by AIG.

- Reimbursement of ransom payments incurred in terminating a covered cyber event;
- Costs to restore electronic data from duplicates or, if not possible, costs to research, gather, and assemble electronic data;
- Third party claims arising out of, or alleging financial loss as a result of a failure of the insured's network security or a failure to protect confidential information,

including PCI-DSS (Payment Card Industry Data Security Standard) assessments for the failure to protect payment card data;

- Investigation and defense of regulatory actions arising out of a failure of the company's network security or a failure to protect confidential information, including coverage for such fines and penalties if allowable by law;
- Costs of forensic investigation, notifications, public relations, and other services to assist in managing and mitigating a cyber incident; legal consultations and identity monitoring costs for victims of a breach;
- Business income loss resulting from physical damage to property due to a covered cyber event, as well as loss of net profit and extra expense as a result of material interruption to the company's network caused by a security breach;
- Third-party claims alleging bodily injury or third party property damage caused by a security failure or privacy event; and
- Third-party claims alleging bodily injury and third party property damage caused by a breach of a computer system that is part of an insured's product.

Joseph J. Bosick serves as chair of the Construction Practice Consortium in the Pittsburgh, Pa., office of Pietragallo Gordon Alfano Bosick & Alfano, LLP. Bosick can be reached at (412) 263-1828 or JJB@Pietragallo.com.

ASA/FASA Calendar

March 19 Webinar

12 p.m. Eastern Time / 9 a.m. Pacific Time

Lean Construction — What Subcontractors Need to Know

This free, 90-minute webinar will examine the Lean Production Method at its core. Presenter Jim Cavaness, MMC Contractors West, Inc., will discuss its basic ideas, concepts and nomenclature. Some might find that they are doing many facets of Lean and didn't even know it. Cavaness will explain that Lean is more of a journey and a process than a final destination. Participants will walk away with some helpful tips on starting their Lean journey. Cavaness has been in the mechanical/construction industry since 1982 and has worked in the residential, multi-family, commercial and industrial markets. He has owned his own mechanical service company and worked as a manufacturer's representative, construction general contractor, mechanical contracting companies and lead sales and marketing, operations and service. Cavaness is the service general manager of MMC Contractors in Las Vegas, Nev. He has been involved with the Lean Construction Institute since 2010.

[Register online.](#)

April 2019

9 – Webinar: [“Avoiding Predatory OCIPs, CCIPs and Builders Risk Insurance Flow-Downs”](#)

presented by Jonathan Mitz, Ennis Electric

May 2019

14 – Webinar: [Corporate and Individual Tax Planning Under the New Tax Law](#),

presented by Thomas B. Bailey, CPA, CVA, Councilor, Buchanan & Mitchell, P.C.

June 2019

11 – Webinar: [“A Small Business’ Guide to Human Resources”](#)

presented by Jamie Hasty, SESCO Management Consultants

July 2019

9 – Webinar: [“Emerging Technologies—Smart Tools, UAVs and Others—and How They Relate to the Internet of Things”](#)

presented by Maxim Consulting Group

August 2019

13 – Webinar: [“Trade Shortage”](#)

presented by Michael Brewer, The Brewer Companies

Coming Up in the March 2019 Issue of ASA's



Theme:

What's the Matter with Wrap-Ups?

- What's the Matter with Wrap-Ups?
- Avoiding Predatory OCIPs, CCIPs and Builders Risk Insurance Flow-Downs
- Consolidated Insurance Programs: Using ASA Tools to Address Costs and Hidden Risks
- ASA Subcontract Documents Suite
- Legally Speaking

**Look for your
issue in March.**

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JUNE 5TH, 11:08 A.M.

A STAGGERING STATISTIC INSPIRES A LIFESAVING RULE

IN AN INSTANT,
CALVIN BERGER SAW THE
VALUE OF IN-CAB BEHAVIOR
TRAINING FROM CNA

When a recent safety webinar revealed that 280,000 drivers are involved in serious accidents every year, Calvin Berger of Calberg Contracting took CNA's recommendation to heart and posted placards restricting cell phone use in each of his company's vehicles. Now Calberg Contracting is filing fewer claims, and Calvin's enjoying a handsome bonus for worker safety and performance.

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