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ONE RIVERWAY SUITE 2350 HOUSTON TEXAS 77056

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INTERFACE
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AN OUNCE OF PREVENTION

CREATIVE SOLUTIONS FOR CHANGE

ORDERS TO AVOID COSTLY LITIGATION

BY CHRISTOPHER J. SULLIVAN

Change is a normal part of the construction process. Frequently, contractors submit change orders and owners readily pay for the changes they desire. Just as frequently, though, contractors submit change orders and owners are not willing to pay. With the use of creative alternatives, change does not have to be a disruptive and expensive part of the construction process.

CASE STUDY

For example, assume a contractor has provided timely notice of change to an owner and has submitted a well-documented change order outlining the change that occurred and its resulting impact on the cost and schedule. Further, all parties agree that a change has taken place, that the contractor is contractually entitled to additional compensation and/or a schedule extension, that the owner wishes to proceed with the change, and that the owner and contractor agree on the amount of additional compensation due the contractor for the change. What happens when the owner does not have the money to pay for the change, is unwilling to use contingency funds, or is unwilling to request that upper management increase funding to pay for the change?

The old school of thought is that the contractor would not start to implement the change until the owner approves and signs the change order or contract amendment formalizing the change into the contractual scope of work. This often

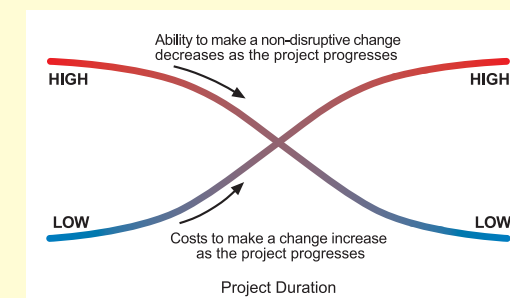
leads to delays, which only further disrupts the project and increases its costs.

Construction practitioners agree that a change made early in the project is less costly and less disruptive to the project schedule than a change made later. (See Figure 1.)

CREATIVE SOLUTIONS REQUIRED

Today's competitive pressures and ever-shrinking profit margins in the construction industry require new ways of thinking and creative plans for working together. The savvy contractor is more flexible in helping the owner find ways to fund change orders. Likewise, the satisfied owner is more likely to give repeat business to the contractor in response to the contractor's spirit of cooperation for the good of the project. Contractors and owners can work together to implement change orders creatively without cash changing hands.

Figure 1.





AN OUNCE OF PREVENTION

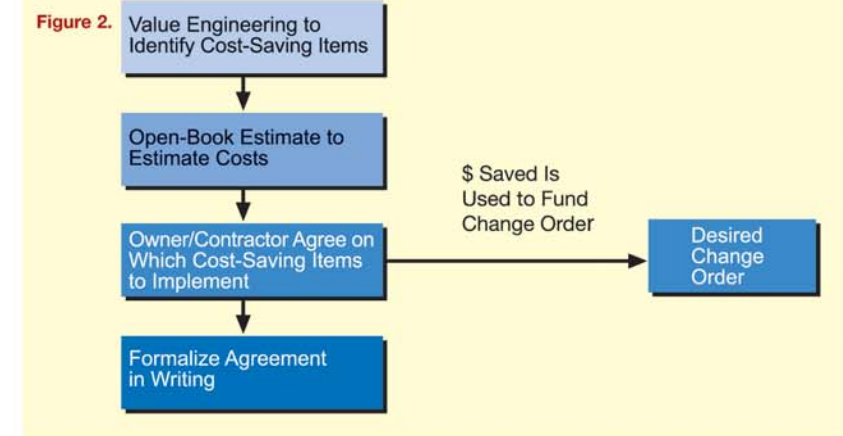
Creative solutions require trust and open communication between the contractor and the owner. The owner must recognize the contractor's right to make a profit on the changed work while the contractor must not take advantage of the owner's desire to make reasonable changes during construction.

The process of developing creative strategies to deal with change without incurring unnecessary delays and additional costs is similar to value engineering, whereby the parties scrutinize the design and look for items that can be deleted or modified to save money. (See Figure 2.) The money the contractor saves in this process can be used to fund the change order. All proposed cost-saving measures can be compared against project requirements, such as the minimum acceptable product quality, plant safety and operability, and life cycle costs. The contractor then estimates the cost savings with each item, and the owner and contractor agree which items will be deleted or modified to fund the desired change order.

EXAMPLES OF CREATIVE SOLUTIONS

Consider the examples of how a contractor and an owner can work together to fund change orders without increasing costs.

- The owner can furnish utilities to the contractor instead of the contractor renting diesel generators during construction.
- The contractor can use spare floor space in the owner's warehouses instead of the contractor building and operating his own warehouse.
- The parties agree to a scope reduction in one area (e.g., deleting spare pumps that are in intermittent or in noncritical services).
- The parties agree to a scope change (e.g., designating spare pumps as "warehouse" spares, thus obviating the need to install foundations, pipe and electric cables for the spare pump. This works best for noncritical pumps that can be changed out quickly if necessary).
- The parties relax a project specification (e.g., fabricating a vessel out of fiberglass-reinforced plastic instead of carbon steel).



- The parties agree to provide one 100 percent machine instead of two 50 percent machines.
- The parties agree to delete control valve bypasses in non-critical services, thus saving piping and valves.

OPEN BOOK COST ESTIMATES

The next major hurdle is assessing the cost savings. The contractor must be willing to reveal pricing information so the owner is satisfied that the parties are discussing a fair price for the cost-savings idea. The contractor must be willing to share vendor invoice data and subcontractor unit rate information to substantiate the cost savings to be applied to the desired owner change.

FORMALIZE THE AGREEMENT

The last step formalizes the change in writing. The parties must verify and agree to all scope changes/modifications in writing to avoid confusion and misunderstandings. The preferred method is by contract amendment, although any written document signed by authorized representatives of each party will suffice, such as "notes of meeting."

Creative solutions to change orders may not work in all situations. For example, projects with numerous or late changes may not be able to realize all of the benefits discussed above due to a finite amount of scope reductions/modifications a project can realize without impacting the facility's performance.

Many ways of funding change orders exist without incurring additional project costs. Only the imaginations of the parties involved limit the possibilities. Most important, creative alternatives to unresolved change orders can eliminate delays, promote open communication and facilitate project success while avoiding costly dispute resolution forums such as arbitration and litigation.

Sullivan is a senior consultant with Interface Consulting International, Inc., Houston. He specializes in preparing engineering- and construction-related claims, and providing litigation support, expert testimony and consulting expertise. For more information, he can be reached via email, cjsullivan@interface-consulting.com.