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- If all eligibility requirements are met, each participant will be emailed their CPE certificate within 15 business days of webinar
Presenters

Shauna Woody-Coussens
Managing Director, Forensic & Valuation Services
swoodycoussens@bkd.com

Adam Rouse
Managing Consultant, Enterprise Risk Services
acrouse@bkd.com

AGENDA

• What is a construction audit?
• Who benefits from construction audit?
• Contract types & risks
• Common areas of abuse & cost recovery
LEARNING OBJECTIVES

• Discuss the importance of auditing capital construction projects & understand what can go wrong
• Identify where contractors hide extra profit
• Discuss billing & change order issues

What Is a Construction Audit?  
Who Benefits From a Construction Audit?
Who Benefits From a Construction Audit?

- Owner
- The Public
- Rate Payers
- Customers
- Shareholders
- Construction Contractor

A construction audit is
- Designed to be cost prevention tool
- Assists with contractor & owner disputes
- Designed to level playing field

A construction audit is not
- Basic accounts payable review
- Legal review
- Cost recovery review
- Safety review
- Checklist audit/review
Why Audit?

- Ensure the owner receives deliverables
- Protect against irregularities
- Ensure project was built within specifications
- Guard against potential billing schemes or change order abuse

True objective of hiring an independent third-party construction audit firm is to protect the owner’s best interests

Objective is not to damage the relationship between the owner & contractor
Role of the Construction Auditor

- Sit at table as an advocate for the owner
- Review bids from subs & verify no duplicative scopes of work
- Independently track project progress & budget
- Review insurance (subguard, OCIP, CCIP, bonds)
- Review contractor & subcontractor qualifications

Phase 1: Contract Review

- Make sure all essential terms & conditions are in contract to protect owner
- Contracts are typically written in the contractors’ favor, not the owner
- Identify any contradictory language
- AIA contract templates are written by architects
- IDEALLY GET INVOLVED BEFORE CONTRACT IS SIGNED

Phase 2: Pay Application Review

- Reviewing the project in close to real time
- Review monthly pay applications (labor, equipment, rental, overheads, etc.)
- Review any & all change orders
- Independently track the projects progress & budget

Phase 3: Closeout Review

- Performed at the end of a project
- The idea is to recheck all figures before retention is paid out
- Review the project checklists, obtain all lien waivers, post-project checklist/punch list
Nuts & Bolts of Construction Audits

- Think of construction audit services as part of the construction job itself such as project management, architect, engineering, etc.

CONSTRUCTION PROJECT MANAGEMENT TEAM

Owner  Owner's Representative  Architect

Construction Manager  Construction Auditor
• Role
  • Properly plan project
  • Select a construction manager or general contractor (or both)
  • Manage finances
  • Monitor & approve change orders

• Preconstruction
  • Review pricing structure
  • Review contract terms & conditions
  • Add strong audit clause
• During construction
  • Review monthly pay applications for contract compliance
  • Review change orders (including scope)
• Post-construction
  • Review lien waivers
  • Review punch list
  • Review allowances
  • Independently calculate any shared savings
Contracts

• American Institute of Architects (AIA) wrote a commonly used contract template
  • Pitfall - these contracts were written by architects
    • The owner is not well represented in these contracts
  • AIA contracts can be used, however, they should only be **used as a starting point**
  • Right to audit clause (commonly omitted in lump sum & fixed-price contracts)
CONTRACT TYPES

• Time & material
• Guaranteed max price (GMP)
• Unit price
• Lump sum (fixed price)
• Cost plus fixed fee

Not all contracts are created equal. There are advantages & disadvantages to each method.

Time & Material – Auditing

• Contractor can make more money by substituting materials
• Contractor could overbill
• Costs could be inflated
Guaranteed Maximum Price (GMP)

Advantage
- Owner can benefit from cost savings
- Protects owner from large dollar increases

Disadvantage
- Contractor often thinks the GMP amount is their budget
- Contractors sometimes inflate prices on a GMP contract
- Burdens owner with more project management

Unit Price

Advantage
- Works well on clearly defined tasks (no unknowns)
- Quicker execution if prices agreed in advance

Disadvantage
- Doesn't work well for larger projects. Works better for smaller task items, e.g., laying sod, installing light fixtures, etc.
Lump Sum (Fixed Price)

**Advantage**
- Aware of project cost for cash flow & budgeting purposes
- Less administrative burden
- Budget typically doesn’t increase

**Disadvantage**
- If costs increase, contractors can cut corners to save money, thus sacrificing quality

Keep in mind contractors build in extra profits when developing a lump sum to account for any contingencies. If none arise, the owner could have paid more for the work under this contract method.

Cost Plus

**Advantage**
- Helps execute projects quicker while the design is still being finalized
- Can add a cost-savings clause to split savings

**Disadvantage**
- Requires a bit more work from the owner to analyze invoices for accuracy
- Despite having a shared-savings clause, the owner is giving the contractor extra money
Common Areas of Abuse & Cost Recovery

CONTRACTOR PROFIT RATES

• According to Construction Financial Management Association (www.cfma.org), the average pretax net profit is 1.4% to 2.4% for general contractors & is 2.2% to 3.5% for subcontractors
ALLOWANCES

Allowances are customary; however, they need to be reconciled at the end of project

Purpose: put in contract for items that cannot be specifically identified, e.g., kitchen appliances in an office building

INSURANCE

Bonds | CCIP | OCIP | Builder’s Risk | Subguard | Others

- Policies can include rebates to contractor
- Sometimes insurance costs are included in overhead rates & are directly charged
MATERIALS

- Contractor often receives rebates or discounts for prompt payment
- Obtain engineer’s worksheet showing how estimate quantity was determined
- Review invoices & material tickets
- Know how you are being charged (know the specific unit type)

Example: Contractor billed in cubic yards

| Bank Cubic Yards (BCY) | vs | Loose Cubic Yards (LCY or TCY) | vs | Compacted Cubic Yards (CCY) |

GENERAL CONDITIONS

- Allowable vs unallowable: verify costs hitting general conditions are okay per contract
- Usually included in GC: job site trailer & utilities > winter conditions > small tools charge > project manager & principal labor charges > administrative & overhead costs > layout yard & construction material storage > accounting & project reporting
- Usually NOT included: insurance > general foremen & supervisory costs > pickup trucks & transportation > construction material purchasing & transportation > computer & office equipment
EQUIPMENT RENTAL

• Compare rental rates to a published guide, verify with contractor what is included in rental rates (some rates include warehouse staff, operator, fuel, oil, maintenance, etc.), verify equipment charged is appropriate based on project schedule
• Analyze hourly, daily, weekly, and monthly rental rates – most cost effective solution should be utilized
• Determine if equipment includes operator, fuel, oil, gas, maintenance

LABOR BURDENS

• Labor rates not updated annually
• Labor rates not in contracts
• Unemployment tax charged after max reached
• Components of labor burdens being directly charged in invoices
• Moving labor from one job to another that has available budget or more favorable terms
• Charging for holidays, PTO, overtime

Example
If an employee works overtime (1.5x), labor burdens would increase 1.5x. The contractor is not paying more health insurance or payroll taxes for that employee, yet would charge you extra.
BILLING SCHEMES

- Any scheme in which a person causes his or her employer to issue an irregular payment for goods or services
  - Inflated or false pay applications
  - Billings for work not performed
  - Change order abuse
  - Billing equipment or personnel at rates that are higher than agreed upon rate tables
  - Payments to fictitious subcontractors, suppliers & employees
  - Billing for costs not associated with the project

INFLATED PAY APPS

- Pay apps need to be monitored & scrutinized closely for
  - Atypical pay app form
  - Erroneous totals or line items
  - Roll-forward errors
  - Missing or disorganized billing backup
  - Inflated rates on invoices in excess of actual costs incurred or false invoices
  - Missing subcontractor lien waivers
CHANGE ORDERS

• Often change orders increase the project budget
• Contractors do not frequently account for deductions, only additions
• Supporting documentation is often not provided or is very vague

Look for lump sum change orders, higher costs (premium charges), scope overlap, excessive profit, using contingency money, self-performed work
CHANGE ORDER ABUSE

Unauthorized change orders

- Work performed & invoiced without owner’s prior approval
- Potential causes
  - Miscommunication
  - Schedule delays
  - Budget excesses
  - Rework
  - Warranty work
  - Inferior work quality
  - Poor project management

CHANGE ORDER ABUSE

Unnecessary change orders

- Approved change orders that provide no value to the project
- Potential causes
  - Existing scope
  - Unnecessary scope change or expansion
  - Transient contractors who don't understand scope of work
CHANGE ORDER ABUSE

Overpriced change orders

• Approved change orders that are overpriced for the listed scope of work
• Potential causes
  • Inflated labor rates
  • Inflated hours
  • Excessive profit margins
  • Charging “fees on fees”

CHANGE ORDER ABUSE

• Keep a close eye on the following
  • Appropriate justification for the change order
  • Numerous, unusual or unexplained change orders for a specific sub approved by the same employee
  • Pattern of low bid award followed by change orders that increase the price or scope of the contract or extend the contract period
  • Vague contract specifications followed by change orders
  • Incomplete or “preliminary” specs subject to change based on later engineering studies, etc.
CONTROLS FOR BILLING FRAUD & CHANGE ORDER ABUSE

• Scrutinize line items & quantities on pay applications
• Maintain an organized billing filing system
• Maintain & monitor accurate schedules of value & percentage of completion schedules
• Segregate the duty of billing from that of processing payments
• Perform matching analytics on vendor & employee attributes

CONTROLS FOR BILLING FRAUD & CHANGE ORDER ABUSE

• Examine change orders that
  • Add new items
  • Increase scope, quantity or price of existing contract
  • Extend the contract
  • Fall just under review limits
  • Are poorly drafted, questionable, undocumented or overly frequent
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For more information, please contact:
Shauna Woody-Coussens | swoodycoussens@bkd.com
Adam Rouse | acrouse@bkd.com