THE POWER OF BEING UNDERSTOOD
CONSTRUCTION AUDITING

IIA Atlanta Government and Not-for-Profit Conference

January 28, 2022
Presenters

David Luker  
*Director*  
- More than 17 years of experience  
- Subject matter expert – facilities and construction  
- Significant experience leading audits of construction manager-at-risk

Matt Blondell  
*Director*  
- More than 10 years of experience  
- Subject matter expert – government and construction  
- Engagement leader of government construction audit programs of more than $1 billion.

Stephanie Tantillo  
*Manager*  
- More than 10 years of experience  
- Leads health care construction contract compliance audit program with contract volume over $1 billion.  
- Certified Construction Auditor

Chris Gums  
*Senior*  
- Over 3 years of experience  
- Service focus includes risk advisory services within the construction industry  
- Leads testing of construction audit services

Devann Marchand  
*Senior*  
- 3 years of experience  
- Specializes in construction cost analysis, labor and labor burden analysis, and project closeout  
- Leads testing of construction audit services
RSM US LLP

84 cities in the United States and five locations in Canada

Founded in 1926

Nearly 13,000 professionals

$2.9B in revenue

Audit

Tax

Consulting

Financial consulting
Management consulting
Risk consulting
Technology consulting
Transaction advisory
Over 550 government clients nationally

Serves 2,500 public sector clients annually

Over 1000 professionals serving the government industry

- Internal audit
- IT audit
- Contract compliance
- Forensic investigations
- Governance, risk and compliance
- Enterprise Risk Management
- Service Organization Control
- Regulatory compliance
- IT Strategy
- Disaster recovery
- Anti-fraud consulting
Agenda

- Planning & Budgeting
- Pre-Construction & Procurement
- Project Management
- Closeout
PLANNING & BUDGETING
Project Organization

- Owner (Board / Management / Committees)
  - Program Manager / Owner’s Rep.
    - Architect / Engineer
    - Construction Manager
    - Specialty (historical, environmental)
      - Subconsultants
      - Subcontractors
Polling Question

What is your involvement with your organization’s construction process?

- Procurement / contracting
- Project management
- None, just curious about the topic
- I’m here for the CPE
Project Planning - Factors to Consider

- Cost & Size
- Complexity & Scope
- Timing & Schedule
- Risk & Responsibility
- Owner Resources
Components of Project Budget

**Hard Costs**
- 70-75% of total project cost
- “Brick and mortar” costs
- Construction
  - Contractor general conditions
  - Construction costs
  - Contractor contingency

**Soft Costs**
- 25-30% of total project cost
- Any costs that are not directly construction-related
- Architects, designers, consultants
- Project management
- Land and real estate costs
- Financing fees, insurance, bonds
- FF&E costs
# Budget Example

<table>
<thead>
<tr>
<th>Project Element</th>
<th>Project A</th>
<th>Project B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>10,880,432 74%</td>
<td>9,250,000 72%</td>
</tr>
<tr>
<td>Total Hard Costs</td>
<td>10,880,432 74%</td>
<td>9,250,000 72%</td>
</tr>
<tr>
<td>Soft Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning, Architects, Permits</td>
<td>963,135 7%</td>
<td>931,000 7%</td>
</tr>
<tr>
<td>FF&amp;E and Interior Design</td>
<td>1,374,202 9%</td>
<td>460,000 4%</td>
</tr>
<tr>
<td>Owner Costs (Construction Manager,</td>
<td>1,143,290 8%</td>
<td>1,088,800 8%</td>
</tr>
<tr>
<td>Consultants, Real Estate, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td>300,215 2%</td>
<td>1,181,000 9%</td>
</tr>
<tr>
<td>Total Soft Costs</td>
<td>3,780,842 26%</td>
<td>3,660,800 28%</td>
</tr>
<tr>
<td><strong>Total Project Costs</strong></td>
<td><strong>$ 14,661,274</strong></td>
<td><strong>$ 12,910,800</strong></td>
</tr>
</tbody>
</table>
PROCUREMENT & PRECONSTRUCTION
## Procurement Methods Snapshot

<table>
<thead>
<tr>
<th>Project Delivery Method</th>
<th>Most Common Type of Solicitation</th>
<th>Vendor Selection Criteria</th>
<th>Key Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-Bid-Build</td>
<td>IFB (Invitation for Bid)</td>
<td>• Based solely on price</td>
<td>• Known scope, quantities, design</td>
</tr>
<tr>
<td>Lump Sum/ Fixed Price or Unit Price</td>
<td></td>
<td>• Contract awarded to lowest bidder</td>
<td>• Separate designer and builder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Longer schedule time</td>
</tr>
<tr>
<td>Construction Manager at Risk (CMAR)</td>
<td>RFP (Request for Proposal)</td>
<td>• Based on price &amp; qualifications</td>
<td>• Large, complex, multi-phase projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contract awarded based on best value</td>
<td>• Separate designer and builder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Moderate schedule time</td>
</tr>
<tr>
<td>Design-Build</td>
<td>RFP (Request for Proposal) or RFQ</td>
<td>• Based heavily or solely on qualifications</td>
<td>• Large, complex, specialized projects</td>
</tr>
<tr>
<td></td>
<td>(Request for Qualifications)</td>
<td>• Contract awarded to most qualified firm</td>
<td>• Same company for design and build</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Schedule efficiency</td>
</tr>
</tbody>
</table>
Vendor Agreements – Key Contract Provisions

Cost of Work
- Fee structure
- Costs to be reimbursed
- Costs NOT to be reimbursed
  - Conflicting contract terms (reimbursable vs. fixed)

Progress Payments
- Format of progress billings
  - Required content to be included
  - Unsupported costs

Change Orders
- Fee structure for prime and subcontractors
- Reimbursable or fixed/lump-sum?
- Schedule impacts
  - Change order executed in conflict with contract terms

Contingency
- Owner or contractor’s use
- Required approvals
  - Not tracked, loss of Owner savings
Vendor Agreements – Key Contract Provisions

Self-Performance
- Prime contractor performs work as a subcontractor
- Disclose related parties
  - Visibility into CM costs
  - Non-competitive pricing

Insurance and Bonds
- Fixed price, cost reimbursable, % of the work
  - Related party insurance provider
  - Visibility into actual cost

Right to Audit
- Recordkeeping requirements
- Which components of the work are auditable?
  - Fixed elements not subject to audit
Polling Question

What is the common construction procurement method used by your organization?

- Invitation for bid (IFB)
- Request for Proposal (RFP)
- Request for Qualifications (RFQ)
- Not sure
Review of the Solicitation

Qualification based solicitation requirements include:

- Vendor experience incorporated into scoring criteria
- Transparency into terms and conditions of planned vendor agreement
- Objective scoring / ranking system (preferred method: numeric, multi-criteria scoring)
- Disclosure of no personal relationships between Owner and bidder (conflict of interest disclosure form)

*Example RFP*
Evaluation Committee Composition

• Selection committee comprised of experienced personnel and members outside of direct project management team

• Recommended committee composition:
  – Individuals from Procurement department
  – Individuals from Facilities/ Construction department (managing the contract)
  – Finance/Accounting
  – 3rd party Engineer/Independent
Scoring and Evaluating - Audit Trail

• Initial evaluation to determine shortlist
• Evaluation of oral/secondary presentations to determine awardee
• Documents to evidence process:
  − Individual committee member scoring sheets
  − Bid tabulation sheets – cumulative
  − Meeting minutes from evaluation process
  − Announcement of shortlist
  − Announcement of award
• Utilization of technology

*Example scoring sheet*
Design Phases and Construction Documents

- Planning and Budgeting
- Design Procurement
- Design Development
- 30% Plans
- 60% Plans
- 100% Plans
- Construction Documents
- Initial GMP Estimate
- Final GMP Estimate
Auditing a GMP Estimate

• Estimate is detailed by scope and individual line items (CSI or comparable)
• Units (months, square feet, lump sum, etc.) are identified
• Subcontractor/ vendor costs are appropriately captured in the estimate
• Contractor soft costs agree to contract
  – General conditions, including equipment and labor rates and labor burden
  – Insurance, bond
  – Contingency
  – Fee

Example CSI scope
## Auditing a GMP Estimate

### GMP Breakdown Example 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Scope</th>
<th>Clarification</th>
<th>Budget</th>
<th>Cost/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Conditions</strong></td>
<td>Includes the cost of our on-site management and other direct costs not attributed to a specific work item.</td>
<td>Scope: Includes the cost of our on-site management and other direct costs not attributed to a specific work item.</td>
<td>This cost reflects a 21 week construction schedule.</td>
<td>$108,625</td>
<td>$20.17</td>
</tr>
<tr>
<td><strong>List out all scopes of work</strong></td>
<td>Describe the scope of work to be performed</td>
<td>Scope: Describe the scope of work to be performed</td>
<td>Provide any qualifications or clarifications to the cost of work</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Design Build Manager Fee</strong></td>
<td>Construction Manager's Fee</td>
<td>Scope: Construction Manager's Fee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Liability &amp; Builder's Risk Insurance</strong></td>
<td>We included the cost of General Liability and Builder's Risk Insurance</td>
<td>Scope: We included the cost of General Liability and Builder's Risk Insurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Performance &amp; Payment Bond</strong></td>
<td>Performance and payment bond is included</td>
<td>Scope: Performance and payment bond is included</td>
<td>Bonding rate is calculated on the cost of the entire Design Build contract amount.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contingency</strong></td>
<td>We include a contingency in the budget to allow for changes that may occur during the design process.</td>
<td>Scope: We include a contingency in the budget to allow for changes that may occur during the design process.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design Build Manager's Fee on Contingency (if used)</strong></td>
<td>We include a contingency in the budget to allow for changes that may occur during the design process.</td>
<td>Scope: We include a contingency in the budget to allow for changes that may occur during the design process.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Permits &amp; Fees</strong></td>
<td>Allowance for municipal/ regulatory permits and fees</td>
<td>Scope: Allowance for municipal/ regulatory permits and fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design and Preconstruction</strong></td>
<td>Design and Pre-construction costs previously contracted</td>
<td>Scope: Design and Pre-construction costs previously contracted</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Estimate Summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Budget</th>
<th>Cost/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Direct Costs</strong></td>
<td>$962,621</td>
<td>$178.73</td>
<td></td>
</tr>
<tr>
<td><strong>Design Build Manager Fee</strong></td>
<td>$44,223</td>
<td>$8.21</td>
<td></td>
</tr>
<tr>
<td><strong>General Liability &amp; Builder's Risk Insurance</strong></td>
<td>$6,257</td>
<td>$1.16</td>
<td></td>
</tr>
<tr>
<td><strong>Performance &amp; Payment Bond</strong></td>
<td>$13,861</td>
<td>$2.57</td>
<td></td>
</tr>
<tr>
<td><strong>Contingency</strong></td>
<td>$49,137</td>
<td>$9.12</td>
<td></td>
</tr>
<tr>
<td><strong>Design Build Manager's Fee on Contingency (if used)</strong></td>
<td>$2,211</td>
<td>$0.41</td>
<td></td>
</tr>
<tr>
<td><strong>Permits &amp; Fees</strong></td>
<td>$50,000</td>
<td>$9.28</td>
<td></td>
</tr>
<tr>
<td><strong>Design and Preconstruction</strong></td>
<td>$109,210</td>
<td>$20.28</td>
<td></td>
</tr>
</tbody>
</table>

### Construction Cost Total

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget</th>
<th>Cost/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction Cost Total</strong></td>
<td>$1,078,310</td>
<td>$200.21</td>
</tr>
</tbody>
</table>

### Total Project Cost

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget</th>
<th>Cost/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Project Cost</strong></td>
<td>$1,237,520</td>
<td>$229.77</td>
</tr>
</tbody>
</table>
# Auditing a GMP estimate

## GMP Breakdown Example 2

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Takeoff Qty</th>
<th>Unit Cost</th>
<th>Amount</th>
<th>Unit Cost</th>
<th>Amount</th>
<th>Unit Cost</th>
<th>Amount</th>
<th>Labor Burden</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>26-32-13.13</td>
<td>Diesel-Engine-Driven Generator Sets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2200</td>
<td>Generator set, diesel, 3 phase 4 wire, 277/480 V, 75 kW, incl battery, charger, muffler, 8 day tank</td>
<td>1 ea</td>
<td>1,282</td>
<td>1,282</td>
<td>37,000</td>
<td>37,000</td>
<td>3,500</td>
<td>3,500</td>
<td>640</td>
<td>1,238</td>
<td>42,968</td>
</tr>
<tr>
<td>2200</td>
<td>Generator remote alarm annunciator</td>
<td>1 ea</td>
<td>250</td>
<td>250</td>
<td>500</td>
<td>500</td>
<td>400</td>
<td>400</td>
<td>88</td>
<td>1,238</td>
<td>1,238</td>
</tr>
<tr>
<td>2200</td>
<td>Generator concrete pad</td>
<td>2 cy</td>
<td>400</td>
<td>800</td>
<td>250</td>
<td>500</td>
<td>100</td>
<td>200</td>
<td>280</td>
<td>890</td>
<td>1,780</td>
</tr>
<tr>
<td>2200</td>
<td>ATS Enclosure concrete pad</td>
<td>1 cy</td>
<td>400</td>
<td>400</td>
<td>250</td>
<td>250</td>
<td>100</td>
<td>100</td>
<td>140</td>
<td>890</td>
<td>890</td>
</tr>
<tr>
<td>26-36-23.10</td>
<td>Automatic Transfer Switch Devices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0700</td>
<td>Automatic transfer switches, enclosed, 3 pole, 480 volt, 400 amp</td>
<td>1 ea</td>
<td>322</td>
<td>322</td>
<td>6,054</td>
<td>6,054</td>
<td>-</td>
<td>-</td>
<td>113</td>
<td>7,089</td>
<td>7,089</td>
</tr>
<tr>
<td>31-23-16.13</td>
<td>Excavating, Trench</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0062</td>
<td>Excavating, trench, equipment pads, common earth, 3/4 C.Y. excavator, 1&quot; to 4' deep</td>
<td>50 bcy</td>
<td>2</td>
<td>103</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>121</td>
<td>36</td>
<td>5</td>
<td>260</td>
</tr>
<tr>
<td>31-23-23.13</td>
<td>Backfill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>Backfill, trench, equipment pads</td>
<td>50 lcy</td>
<td>0</td>
<td>24</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>78</td>
<td>8</td>
<td>2</td>
<td>109</td>
</tr>
<tr>
<td>2000</td>
<td>Backfill compaction, add</td>
<td>50 ecy</td>
<td>7</td>
<td>335</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>183</td>
<td>117</td>
<td>13</td>
<td>635</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subcontractor Subtotal</th>
<th>1 ls</th>
<th>$ 20,242</th>
<th>$ 94,949</th>
<th>$ 6,185</th>
<th>$ 7,085</th>
<th>$ 128,460</th>
<th>$ 148,372</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcontractor Markup</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcontractor Total</td>
<td>1 ls</td>
<td>$ 12,846</td>
<td></td>
<td></td>
<td></td>
<td>$ 141,306</td>
<td></td>
</tr>
<tr>
<td>General Contractor Markup on Subcontractor</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 7,065</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1 ls</td>
<td>$ 148,372</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Auditing a GMP Estimate - Subcontractors

• Compare to designer/engineer’s estimate

• Unbalanced bids
  - Mathematically unbalanced – bid does not reflect actual costs (inflated for profit) or not is reasonable compared to engineer’s estimate
  - Materially unbalanced – reasonable doubt that awarding to the low bidder would result in lowest ultimate cost to the Owner

• Evaluation considerations
  - Bid quantities and units are correct
  - Does not include frontloading or inflated costs (to increase cash flow at beginning of the project)
  - Does not include omission of key project elements or scope
  - Investigate variances to identify risks above
### Auditing a GMP Estimate - Subcontractors

#### Subcontractor Bid Evaluation Example

**Project Name:** Project ABC  
**Estimate $:** $144,254,000  
**Estimate Date:** Date XX, 20XX  
**Contingency:** 7.50%

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
<th>Engineer's Estimate</th>
<th>Contractor 1</th>
<th>Contractor 2</th>
<th>Contractor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MOBILIZATION</td>
<td>$4,685,005</td>
<td>$5,300,000</td>
<td>$5,700,000</td>
<td>$6,300,000</td>
</tr>
<tr>
<td>2</td>
<td>CLEARING AND GRUBBING</td>
<td>$442,300</td>
<td>$1,180,000</td>
<td>$2,437,900</td>
<td>$970,000</td>
</tr>
<tr>
<td>3</td>
<td>UNDERCUT EXCAVATION</td>
<td>$1,681,868</td>
<td>$1,603,000</td>
<td>$2,244,200</td>
<td>$1,493,996</td>
</tr>
<tr>
<td>4</td>
<td>UNCLASSIFIED EXCAVATION</td>
<td>$452,352</td>
<td>$1,391,256</td>
<td>$684,000</td>
<td>$572,280</td>
</tr>
<tr>
<td>5</td>
<td>BORROW EXCAVATION</td>
<td>$9,054,991</td>
<td>$4,099</td>
<td>$4,099</td>
<td>$2,049,500</td>
</tr>
<tr>
<td>6</td>
<td>DRAINAGE DITCH EXCAVATION</td>
<td>$66,478</td>
<td>$12,201</td>
<td>$22,659</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>REMOVAL OF EXISTING ASPHALT PAVEMENT</td>
<td>$1,215,622</td>
<td>$769,567</td>
<td>$980,340</td>
<td>$1,053,866</td>
</tr>
<tr>
<td>8</td>
<td>PROOF ROLLING</td>
<td>$11,086</td>
<td>$8,517</td>
<td>$11,000</td>
<td>$9,075</td>
</tr>
<tr>
<td>9</td>
<td>GEOTEXTILE FOR SOIL STABILIZATION</td>
<td>$18,023</td>
<td>$8,454</td>
<td>$6,968</td>
<td>$8,503</td>
</tr>
<tr>
<td>10</td>
<td>FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES</td>
<td>$398,126</td>
<td>$281,486</td>
<td>$393,040</td>
<td>$323,680</td>
</tr>
</tbody>
</table>

**Subtotal Contingency 7.5%**  
- **Low Bid:** $107,284,060  
- **Engineer's Estimate:** $113,400,402  
- **Total Bid:** $115,264,944

Items with significant differences between Low Bid and Engineer's Estimate  
Items with significant differences among the Contractor Bids  

© 2022 RSM US LLP. All Rights Reserved.
PROJECT MANAGEMENT
High Risk Areas

- Invoices / Pay Applications
  - General Conditions/General Requirements
  - Labor
  - Subcontract Work
- Change Orders and Contingency
  - Entitlement
  - Fee and Insurance Allocations
  - Subcontractor Quotes and Supplier Invoices
Polling Question

Does your organization receive/review pay applications in hard copy or electronic format?

- Paper / hard copy
- Electronic
- Some of each
- Not sure
Auditing a Pay Application

Approvals
• Contractor (notarized)
• Architect / Engineer
• Owner’s Representative
• Internal PM
• Department Director
• Finance / Accounting
• Executive level
Auditing a Pay Application

Supporting Documentation

• Labor reports and timesheets for supervision or labor costs
• Invoices or receipts for general conditions costs (i.e. jobsite trailers, small tools, dumpsters, construction management software, etc.)
• Invoices for owner and rental equipment, or usage reports for equipment with agreed upon usage rates
• Subcontractor payment applications or invoices for work completed by subcontractors
• Lien waivers
• Supporting logs and compliance forms (COs, contingency, M/W/DBE, etc.)
Auditing a Pay Application

- Mathematical accuracy
- Agrees to values from prior PA
- Sequentially numbered
- Proper date range
- Cover sheet agrees to SOV
- Recalculation of fee
- Line item transfers
- Agree to supporting detail documents

Example pay application
Auditing a change order

- Entitlement
- Approvals
- Allowability
- Proper support
- Labor rates and hours
- Labor burden
- Materials cost and units
- Independent estimate
- Schedule impact identified
- Recalculate!

*Example change order*
Auditing a change order

Example of poor support

- Email provided as only support
- No breakdown for “materials” or vendor invoices to validate costs
- Fee was overcharged (7% per contract)
- Owner’s Rep prepared CO calculation for contractor
CLOSEOUT
Exercising the Right to Audit

• CM shall keep all records and supporting documents

26. AUDITING RIGHTS

26.1 Construction Manager shall keep all records and supporting documentation which concern or relate to the Work hereunder for a minimum of three (3) years from the date of termination of this Agreement or the date the Project is completed, whichever is later or such longer period of time as

• Owner and/or Auditor shall have access to job records

26.2 The Owner (and/or other persons specifically designated by the Owner from time to time) shall be afforded the access described in Section 26.1 at any time, upon three (3) calendar days advance notice. Even if a dispute exists between the Owner and Construction Manager, the Owner (and...
Final Accounting from the CM

- Determine what we are auditing against
- What is the target? Final compensation amount?
- Do we have the final PA? Final CO?
- Owner and CM in dispute over final amount?
Polling Question

Does your organization use internal or external audit services to review construction contracts?

- Internal auditors only
- External auditors
- Some of each
- Not sure
Final Accounting from the CM

• Initial audit notification
• Meeting with Contractor
• 1\textsuperscript{st} document request
  - Final job cost detail report
  - Subcontractor files
  - Cancelled checks and lien releases
  - Timesheets, Payroll Register, and Personnel files
  - System memo
  - Additional records
• Set up file share site online
• 2\textsuperscript{nd} document request (sample selections and follow up)
Job Cost Sampling techniques

• General conditions/ general requirements
• Labor
• Subcontractor costs
• Other (i.e. insurance)

Example job cost analysis
Key Takeaways

- **Planning & Budgeting** – *know your hard costs and soft costs*

- **Procurement and Preconstruction** – *understand the contract provisions and evaluate the cost proposal*

- **Project Management** – *know what you are being billed for and require support for costs and changes*

- **Project Closeout** – *enforce the contract language, analyze the contractor’s actual costs*
THANK YOU FOR YOUR TIME AND ATTENTION