Introduction

In today’s contracting environment, it is important to understand your risks when embarking on capital projects. Depending on the contracting method, risks may fall on the Owner, Vendor or both.

We’ll discuss risks in general with the different types of contracting methods and then focus on how to identify, audit and control / mitigate risks in varying types of contracts.

At Protiviti, our contract cost recovery projects have consistently resulted in cost recoveries of 2 - 4% of the audited contract value.
Service Contract Types

There are multiple contracting methods used in business today.

- Fixed Price, Lump or Stipulated Sum Contracts
- Cost Reimbursable Plus Fee (Fixed or Percentage) Contracts
- Time & Material Type Contracts

Each type of contract has risks with some risks applicable to all types of contracts.

- We'll discuss those risks and what you should be focusing on as an auditor and risk manager
Contracting Methodology
Minimizing contract risk with contracting methodologies

<table>
<thead>
<tr>
<th>Type of Contract</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Type</td>
<td>Cost Reimbursement and Fixed Fees</td>
</tr>
<tr>
<td>Fixed Price or Lump Sum</td>
<td>Fixed Maximum Price</td>
</tr>
<tr>
<td>Unit Price</td>
<td>Specified Amount for Work Performed</td>
</tr>
<tr>
<td>Time &amp; Materials</td>
<td>Direct Labor and Material Costs</td>
</tr>
</tbody>
</table>

![Likelihood vs. Significance Diagram](image)
Fixed Price, Lump or Stipulated Sum Contracts

With these type of contracts, most of the risks have been accepted by the Vendor. Here are some risk areas the Owner needs to be concerned with:

- **Percentage of Completion**
  - Aggressive invoicing for work not completed at the time of billing
- **Quality of Work**
  - Poor workmanship to meet contractual deadlines
- **Change Orders**
  - Once the contract is signed the owner is “tied” to the contractor
    - Very difficult to break the contract without a financial impact to the owner
Auditing Fixed Price, Lump or Stipulated Sum Contracts

**Percentage of Completion (POC)**

- Difficult to audit unless done in real time (physical progress)
- Review the process to ensure POC is not inflated
- Most common issues regarding aggressive billing:
  - Indirect costs associated with the project:
    - General Conditions
    - Insurance
    - Bonding
    - Overhead & Profit (Fee)
  - Aggressive change order invoicing

**Quality**

- Difficult to audit unless you have the technical skills and knowledge to verify the quality of completed work
- Review the process to ensure inspections occur and specifications are met per the set of plans
  - Verify city or other authority inspection cards for completeness and corrective action work required
Auditing Fixed Price, Lump or Stipulated Sum Contracts (continued)

Change Orders

• Most likely area to audit for potential cost recovery
• Select a sample or audit the entire population
• Determine if change was for out of scope work (Vendor driven, Owner driven)
  – Corrective work
  – Emergency services
    o Natural disaster
    o Sub-contractor mistake
• Audit the underlying support
  – Time cards
  – Equipment rental
  – Sub-contractor invoices
  – Review the previously mentioned indirect costs
Cost Reimbursable Plus Fee Contracts

With these type of contracts, some of the risks have been accepted by the Owner and some by the Vendor if a cap or target price has been determined.

- Guaranteed Maximum Price (GMP)
- Fixed Fee (FF)

Here are some risk areas the Owner needs to be concerned with:

- Fee
  - Percentage of the direct cost of construction
  - Maximum fee agreed upon to perform / manage the project
- General Conditions
  - Based on the percentage of direct costs of work
  - Based on the time needed to complete the project
- Self-performed work
  - Labor and burden
  - Equipment
- Sub-contractors / vendors
  - Performance of work
  - Payment from General Contractor
Auditing Cost Reimbursable Plus Fee Contracts

Audit for potential cost recovery

Select a sample of payment applications or audit the entire population

Fee
- Determine if the fee was calculated per the contract
  - Normal Work
  - Change Order Work

General Conditions
- Audit the underlying support
  - Labor (including burden)
  - Materials
  - Equipment (owned and rented)
  - Expenses
Auditing Cost Reimbursable Plus Fee Contracts (cont.)

Self-performed work

- Audit the underlying support
  - Labor (including burden)
  - Materials
  - Equipment
  - Expenses

Sub-contractors / vendors

- Determine if they billed more than contracted
- Validate if the sub-contractor has been paid
  - Lien Releases
    - Conditional
    - Unconditional

Risks involving Change Orders and Quality may also be present if a cap or target price have been negotiated.
Time & Material Contracts

With these type of contracts, most of the risks have been accepted by the Owner:

- Emergency services
- Environmental services
- Undefined scope of work
- Time is of the essence

Here are some risk areas the Owner needs to be concerned with:

- Labor
- Materials
- Equipment
- Expenses
- Allowances
- Rework/Warranty
- Insurance/Bonds
Auditing Time & Material Contracts

Audit for potential cost recovery

Select a sample of payment applications or audit the entire population

Labor
- Determine if labor hours and rates billed per contract
  - Higher rates (ST, OT) / levels
  - Excessive / Inflated hours
  - Billing ghost / Terminated employees
  - Inflated labor burden

Materials
- Determine if materials billed appropriately
  - Wrong project
  - Duplicate invoices
  - Excess materials
Auditing Time & Material Contracts (Contd.)

**Equipment**

- Determine if equipment hours and rates billed per contract
  - Idle equipment
  - Higher / Missing rates
  - Rent vs. Buy

**Expenses**

- Determine if expenses are reasonable
  - Travel
  - Meals
  - Entertainment
  - Discounts
Auditing Time & Material Contracts (Contd.)

Allowances

- Determine if allowance billed along with expense
  - Relocation
  - Office supplies
  - Data processing
  - Mobile phones
  - Safety program
  - Vehicles

Rework / Warranty

- Determine if work was previously performed and billed again
- Emergency services required because of sub-contractor mistake or negligence
  - Flood or mold work
  - Improper moisture plan
    - Windows left open after finish work was completed
Auditing Time & Material Type Contracts (Contd.)

**Insurance / Bonds**

- Determine the following:
  - Insurance / bond costs incurred were less than billed
    - Verify and validate bonding rate percentage
    - Request copies of cleared checks
  - Insurance/bonds billed but not obtained
    - Request copy of notarized bond
    - Call the surety company to verify bond
    - Upon completion, request a copy of the bond release
  - Insurance / bonds refunds / rebates were not credited back to the project at close out
Other Risk Areas to Consider in Today’s Economy

**Vendor Working Capital/Cash Flow**

- Inflated percentage of completion (prime, sub)
- Aggressive completed work calculations (commitments, accruals, change orders, etc.)
- Delayed payments to sub vendors (potential for liens, walk offs, financial stability)

**Vendor Accounting and Back Office Support**

- Not core competency
- Lots of projects / paper / manual activities
- Bad Accounting

**Material and Equipment Security**

- Theft of material and equipment
- Disposition of excess material and scraps
Other Risk Areas to Consider in Today’s Economy

Bonding

• Payment
  – Ensures liens will not be filed on the property encumbering the title

• Performance
  – Ensures the contractor will complete the project or the surety company will ensure the project is completed

• Cost to Bond
  – Typically a percentage of the direct cost for the work to be completed
    o Range between .08% and 1.75%

• Auditable Item

• Minimizes Project Risk


Source: BizMiner (2009) Failure rates are based on the number of firms in business at the start of the time series that were still in business at the end of the two-year period. Firms are independent companies. Establishments are firms plus branch operations. Small businesses are single site firms with fewer than 25 employees, and all small businesses are also firms. Branches are subsidiary facilities of firms.
Contractor Quality Awards
Contractor Quality Awards
Contractor Quality Awards
Contractor Quality Awards – Our Winner
**Example**

**Document Request Letter**

To Whom It May Concern:

Owner is currently reviewing its construction costs associated with the XXXXXXXX construction project and in connection therewith would like to conduct a review of all associated project cost and documentation. The scope of this review will include the original project contract, all change orders, and all applicable project costs from project inception through <Date>. The objective of this review is to confirm that contractual agreements and conditions are being adhered to as they relate to these transactions.

We have attached a list of documentation and data that we would like delivered to our corporate offices by <Date>.

In order to ensure an efficient review, we propose scheduling a conference call with you the week of <Date> to review the attached document request and discuss the upcoming review process. We will contact you to schedule this call. Depending upon the outcome of our initial review of the requested documentation, we may require additional review steps and documentation including the possibility of sending our reviewers to your facilities.

If we determine this to be necessary, we will work with you to identify a time frame that works for both parties.

Thank you in advance for your support during the review of our change orders and all construction-related charges. We look forward to working with you.

Sincerely,
**Example**

**Document Request Letter**

**Enclosure:** Documentation & Data Request List

Please provide all available documentation per the following requested items list. Also, please specifically identify any documents that are not available or do not exist.

**Requested Items:**

• All contractual documents to include:
  • Original Contract
  • Letters of Understanding
  • Change Orders
  • Schedule
  • Schedule Change / Variation Notices

• All invoices to date to include:
  • Statement of Values (SOV) verification and approval

• All lien releases to include:
  • Preliminary Notices
  • Conditional Lien Releases
  • Unconditional Lien releases (Progress and Final)
  • Sub-Contractor and Material Supplier Lien Releases

• All current Insurance Certification forms from:
  • General Contractor
  • Sub-Contractors
  • Rental Equipment Vendors

• Copy of the current Payment and Performance Bond with proof of payment

*Note: Based upon the initial review of this data, we may require copies/images of original documents to be provided.*
**Example**

**G702 Payment Application**

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**CONTRACTOR'S APPLICATION FOR PAYMENT**

<table>
<thead>
<tr>
<th>CHANGE ORDER SUMMARY</th>
<th>ADDITIONS</th>
<th>DEDUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANGE ORDERS APPROVED IN PREVIOUS MONTHS BY OWNER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPROVED THIS MONTH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
<td>DATE APPROVED</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET CHANGE BY CHANGE ORDERS</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

THE UNDERSIGNED CONTRACTOR CERTIFIES THAT TO THE BEST OF THE CONTRACTOR'S KNOWLEDGE, INFORMATION AND BELIEF THE WORK COVERED BY THIS APPLICATION FOR PAYMENT HAS BEEN COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THAT ALL AMOUNTS HAVE BEEN PAID BY THE CONTRACTOR FOR WORK WHICH PREVIOUS CERTIFICATES FOR PAYMENT WERE ISSUED AND PAYMENTS RECEIVED FROM THE OWNER, AND THAT CURRENT PAYMENT SHOWN

APPLICATION IS MADE FOR PAYMENT, AS SHOWN BELOW, IN CONNECTION WITH THE CONTRACT. CONTINUATION SHEET, AIA DOCUMENT G 703, IS ATTACHED.

1. ORIGINAL CONTRACT SUM ........................................... $40,305,512
2. Net Change by Change Orders ..................................... $-
3. CONTRACT SUM TO DATE ........................................... $40,305,512
   (Line 1 + 2)
4. TOTAL COMPLETED AND STORED TO DATE ......................... $24,790,621
   (Column G on G703)
5. RETAINAGE ........................................................ $1,058,661
   (Total in Column I of G703)
6. TOTAL EARNED LESS RETAINAGE ................................ $23,731,960
   (Line 4 less Line 5 Total)
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT ................. $20,185,389
   (Line 6 from prior Certificate)
8. CURRENT PAYMENT DUE ............................................. $3,546,571
9. BALANCE TO FINISH, PLUS RETAINAGE ....................... $16,573,552
   (Line 3 less Line 6)

STATE OF: Arizona  COUNTY OF: Maricopa
# Example

## G703 Payment Application

<table>
<thead>
<tr>
<th>AIA ACCT</th>
<th>DESCRIPTION OF WORK</th>
<th>ORIGINAL BUDGET</th>
<th>CHANGES TO DATE</th>
<th>SCHEDULE OF VALUE</th>
<th>WORK COMPLETED</th>
<th>STORED MATERIALS</th>
<th>TOTAL COMPLETED &amp; STORED TO DATE</th>
<th>BALANCE TO FINISH</th>
<th>CURRENT RETAINAGE</th>
<th>CUMULATIVE RETAINAGE</th>
<th>Net Due</th>
</tr>
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<tbody>
<tr>
<td>3505</td>
<td>FF&amp;E BUILDING SYSTEMS</td>
<td>54,455</td>
<td>54,455</td>
<td>-</td>
<td>-</td>
<td>0%</td>
<td>54,455</td>
<td>100%</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>3506</td>
<td>FF&amp;E CURTAIN &amp; DRAPES</td>
<td>110,671</td>
<td>(75,826)</td>
<td>34,842</td>
<td>-</td>
<td>0%</td>
<td>34,842</td>
<td>100%</td>
<td>-</td>
<td>-</td>
<td>100%</td>
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<tr>
<td>CNT 044</td>
<td>Progressive Commercial Interiors</td>
<td>75,826</td>
<td>75,826</td>
<td>-</td>
<td>27,431</td>
<td>27,431</td>
<td>36%</td>
<td>48,398</td>
<td>84%</td>
<td>2,743</td>
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<tr>
<td>400</td>
<td>GENERAL CONDITIONS</td>
<td>2,790,676</td>
<td>(2,798,371)</td>
<td>2,307</td>
<td>-</td>
<td>0%</td>
<td>2,307</td>
<td>100%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CNT 000</td>
<td>General Conditions</td>
<td>2,790,676</td>
<td>(2,798,371)</td>
<td>2,307</td>
<td>-</td>
<td>0%</td>
<td>2,307</td>
<td>100%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CNT 002</td>
<td>Direct General Conditions</td>
<td>284,886</td>
<td>(292,040)</td>
<td>(27,174)</td>
<td>-</td>
<td>0%</td>
<td>(27,174)</td>
<td>100%</td>
<td>-</td>
<td>-</td>
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<tr>
<td>CNT 003</td>
<td>General Liability Insurance</td>
<td>409,175</td>
<td>(294,584)</td>
<td>409,175</td>
<td>-</td>
<td>0%</td>
<td>409,175</td>
<td>100%</td>
<td>0%</td>
<td>3,762</td>
<td>14,740</td>
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<tr>
<td>CNT 004</td>
<td>Gross Receipts Tax</td>
<td>2,343,649</td>
<td>(1,474,483)</td>
<td>869,166</td>
<td>-</td>
<td>0%</td>
<td>869,166</td>
<td>100%</td>
<td>-</td>
<td>211,827</td>
<td>318,333</td>
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<tr>
<td>CNT 005</td>
<td>Contractors Contingency</td>
<td>1,322,810</td>
<td>1,322,810</td>
<td>-</td>
<td>0%</td>
<td>1,322,810</td>
<td>100%</td>
<td>-</td>
<td>119,427</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL - GENERAL CONDITIONS**: 7,151,178 - 7,151,178 3,884,137 333,153 - 4,217,280 59% 2,913,888 41% 14,920 211,827 318,333

**Contractor's Fee**: 1,300,528 - 1,300,528 718,038 100,922 10,490 62% 512,198 39% - 119,427

**TOTAL - BASE CONTRACT**: 46,305,512 - 46,305,512 21,259,188 3,220,982 310,651 62% 15,514,891 39% (14,938) 1,058,661 3,548,571
## G703 Payment Application

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Scheduled Value</th>
<th>Work Completed</th>
<th>Materials Presently Stored (Not in D or E)</th>
<th>Total Completed and Stored to Date (D+E+F)</th>
<th>% (G/C)</th>
<th>Balance to Finish (C-G)</th>
<th>Retainage (If Variable Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 498,325.00</td>
<td>$ 38,698.12</td>
<td>$ 35,960.01</td>
<td>$ 74,658.13</td>
<td>14.98%</td>
<td>$ 423,666.87</td>
<td>$ 7,465.81</td>
</tr>
<tr>
<td>General Conditions</td>
<td>$ 151,212.00</td>
<td>$ 99,690.00</td>
<td>$ 5,643.00</td>
<td>$ 105,333.00</td>
<td>69.66%</td>
<td>$ 45,879.00</td>
<td>$ 10,533.30</td>
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<tr>
<td>Site Work</td>
<td>$ 35,000.00</td>
<td>$ 13,840.00</td>
<td>$ 13,840.00</td>
<td>$ 27,120.00</td>
<td>97.20%</td>
<td>$ 6,764.69</td>
<td>$ 1,384.00</td>
</tr>
<tr>
<td>Landscape</td>
<td>$ 250,961.00</td>
<td>$ 81,876.20</td>
<td>$ 23,300.72</td>
<td>$ 105,176.92</td>
<td>41.91%</td>
<td>$ 145,784.08</td>
<td>$ 10,517.69</td>
</tr>
<tr>
<td>Concrete</td>
<td>$ 238,623.00</td>
<td>$ 125,372.60</td>
<td>$ 106,575.71</td>
<td>$ 231,948.31</td>
<td>97.20%</td>
<td>$ 6,674.69</td>
<td>$ 23,194.23</td>
</tr>
<tr>
<td>Masonry</td>
<td>$ 416,500.00</td>
<td>$ 15,030.93</td>
<td>$ 369,000.00</td>
<td>$ 384,030.93</td>
<td>92.20%</td>
<td>$ 32,469.07</td>
<td>$ 38,403.09</td>
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<tr>
<td>Metals Steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpentry, Rough</td>
<td>$ 19,200.00</td>
<td>-</td>
<td></td>
<td>$ 404.34</td>
<td>2.11%</td>
<td>$ 18,795.66</td>
<td>$ 40.43</td>
</tr>
<tr>
<td>Carpentry, Finish</td>
<td>$ 28,600.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 28,600.00</td>
<td>-</td>
</tr>
<tr>
<td>Millwork &amp; Casework</td>
<td>$ 50,580.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 50,580.00</td>
<td>-</td>
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<tr>
<td>Insulation / Fireproofing</td>
<td>$ 34,303.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 34,303.00</td>
<td>-</td>
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<tr>
<td>Roofing &amp; Accessories</td>
<td>$ 67,126.00</td>
<td>$ 655.00</td>
<td></td>
<td>$ 655.00</td>
<td>0.98%</td>
<td>$ 66,471.00</td>
<td>$ 65.50</td>
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<tr>
<td>Foam Roof</td>
<td>$ 72,168.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 72,168.00</td>
<td>-</td>
</tr>
<tr>
<td>Doors and Frames</td>
<td>$ 62,904.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 62,904.00</td>
<td>-</td>
</tr>
<tr>
<td>Glass and Glazing</td>
<td>$ 279,979.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 279,979.00</td>
<td>-</td>
</tr>
<tr>
<td>Drywall / Metal Framing</td>
<td>$ 226,889.00</td>
<td>$ 60,900.00</td>
<td></td>
<td>$ 60,900.00</td>
<td>26.84%</td>
<td>$ 165,989.00</td>
<td>$ 6,090.00</td>
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<tr>
<td>Acoustic Ceiling</td>
<td>$ 345,268.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 345,268.00</td>
<td>-</td>
</tr>
<tr>
<td>Ceramic Tile &amp; Marble</td>
<td>$ 29,777.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 29,777.00</td>
<td>-</td>
</tr>
<tr>
<td>Carpet &amp; VCT Flooring</td>
<td>$ 67,200.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 67,200.00</td>
<td>-</td>
</tr>
<tr>
<td>Painting &amp; Wallcovering</td>
<td>$ 40,280.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 40,280.00</td>
<td>-</td>
</tr>
<tr>
<td>Specialties</td>
<td>$ 93,279.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 93,279.00</td>
<td>-</td>
</tr>
<tr>
<td>Furnishings</td>
<td>$ 45,161.00</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.00%</td>
<td>$ 45,161.00</td>
<td>-</td>
</tr>
<tr>
<td>Elevators</td>
<td>$ 53,500.00</td>
<td>$ 10,300.00</td>
<td></td>
<td>$ 10,300.00</td>
<td>19.25%</td>
<td>$ 43,200.00</td>
<td>$ 1,030.00</td>
</tr>
<tr>
<td>HVAC</td>
<td>$ 707,500.00</td>
<td>$ 25,000.00</td>
<td></td>
<td>$ 25,000.00</td>
<td>3.53%</td>
<td>$ 682,500.00</td>
<td>$ 2,500.00</td>
</tr>
<tr>
<td>Plumbing</td>
<td>$ 108,638.00</td>
<td>$ 39,132.40</td>
<td></td>
<td>$ 39,132.40</td>
<td>36.02%</td>
<td>$ 69,505.60</td>
<td>$ 3,913.24</td>
</tr>
<tr>
<td>Fire Protection</td>
<td>$ 43,500.00</td>
<td>$ 1,015.00</td>
<td></td>
<td>$ 1,015.00</td>
<td>2.33%</td>
<td>$ 42,485.00</td>
<td>$ 101.50</td>
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<td>Electrical</td>
<td>$ 472,435.00</td>
<td>$ 42,375.00</td>
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<td>$ 42,375.00</td>
<td>8.97%</td>
<td>$ 430,060.00</td>
<td>$ 4,237.50</td>
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<tr>
<td>Builders Contingency</td>
<td>$ 250,000.00</td>
<td>$ 1,763.23</td>
<td></td>
<td>$ 34,334.67</td>
<td>14.44%</td>
<td>$ 219,920.10</td>
<td>$ 3,609.79</td>
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<tr>
<td>C/D #1 Termination of Subfeeder/Slurry</td>
<td>$ 1,996.01</td>
<td>$ 1,996.01</td>
<td></td>
<td>$ 1,996.01</td>
<td>100.00%</td>
<td>-</td>
<td>$ 199.60</td>
</tr>
<tr>
<td>Subtotals</td>
<td>$ 4,690,904.01</td>
<td>$ 373,135.42</td>
<td>$ 759,727.52</td>
<td>$ -</td>
<td>-</td>
<td>$ 3,558,041.07</td>
<td>$ 113,286.29</td>
</tr>
<tr>
<td>Insurance</td>
<td>$ 47,357.97</td>
<td>$ 3,755.49</td>
<td></td>
<td>$ 7,681.46</td>
<td>11.43%</td>
<td>$ 43,613.79</td>
<td>$ 1,143.70</td>
</tr>
<tr>
<td>Profit</td>
<td>$ 331,538.62</td>
<td>$ 26,291.01</td>
<td></td>
<td>$ 53,775.56</td>
<td>14.15%</td>
<td>$ 251,747.05</td>
<td>$ 8,006.66</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>$ 291,398.76</td>
<td>$ 23,107.92</td>
<td></td>
<td>$ 47,264.88</td>
<td>14.15%</td>
<td>$ 221,225.96</td>
<td>$ 7,037.28</td>
</tr>
<tr>
<td>Final Totals</td>
<td>$ 5,361,199.36</td>
<td>$ 426,289.84</td>
<td>$ 868,489.42</td>
<td>$ -</td>
<td>-</td>
<td>$ 4,066,660.10</td>
<td>$ 129,473.93</td>
</tr>
</tbody>
</table>
## Example

### Self Performed Work for General Contractor Payment Application

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>GC Work Performed</th>
<th>Non-GC Work Performed</th>
<th>Total</th>
<th>Fee Earned</th>
<th>Allowable Fee - 12.5% - on GC Work</th>
<th>Overbilled Fee (Fee Earned less Allowable Fee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Requirements</td>
<td>$12,111,511.00</td>
<td>$1,259,270.00</td>
<td>$13,370,781.00</td>
<td>$1,225,764.00</td>
<td>$1,513,938.88</td>
<td>($288,174.88)</td>
</tr>
<tr>
<td>Site work</td>
<td>$1,955,607.00</td>
<td>$776,823.00</td>
<td>$2,732,430.00</td>
<td>$286,905.00</td>
<td>$244,450.88</td>
<td>$42,454.13</td>
</tr>
<tr>
<td>Structure A</td>
<td>$653,465.00</td>
<td>$832,069.00</td>
<td>$1,485,534.00</td>
<td>$155,981.00</td>
<td>$81,683.13</td>
<td>$74,297.88</td>
</tr>
<tr>
<td>Structure B</td>
<td>$1,020,960.00</td>
<td>$3,081,843.00</td>
<td>$4,102,803.00</td>
<td>$430,794.00</td>
<td>$127,620.00</td>
<td>$303,174.00</td>
</tr>
<tr>
<td>Structure C</td>
<td>$10,244,698.00</td>
<td>$15,774,050.00</td>
<td>$26,018,748.00</td>
<td>$2,758,218.00</td>
<td>$1,280,587.25</td>
<td>$1,477,630.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$25,986,241.00</td>
<td>$21,724,055.00</td>
<td>$47,710,296.00</td>
<td>$4,857,662.00</td>
<td>$3,248,280.13</td>
<td>$1,609,381.88</td>
</tr>
</tbody>
</table>
### Example

**Front Loading Indirect Charges**

<table>
<thead>
<tr>
<th>Builder Payment Application #1</th>
<th>Schedule of Values</th>
<th>Approved Change Orders</th>
<th>Revised Schedule of Values</th>
<th>Total Completed to Date</th>
<th>% Completed to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dated: February, 20XX</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal - Direct Project Costs</td>
<td>7,083,590.00</td>
<td>-</td>
<td>7,083,590.00</td>
<td>119,838.80</td>
<td>1.7%</td>
</tr>
<tr>
<td>Onsite Supervision</td>
<td>181,440.00</td>
<td>-</td>
<td>181,440.00</td>
<td>22,680.00</td>
<td>12.5%</td>
</tr>
<tr>
<td>Contractor’s Liability Insurance</td>
<td>45,440.00</td>
<td>-</td>
<td>45,440.00</td>
<td>45,440.00</td>
<td>100.0%</td>
</tr>
<tr>
<td>Payment &amp; Performance Bond</td>
<td>82,599.00</td>
<td>-</td>
<td>82,599.00</td>
<td>18,575.00</td>
<td>22.5%</td>
</tr>
<tr>
<td>Contractor's Contingency</td>
<td>125,000.00</td>
<td>-</td>
<td>125,000.00</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Overhead and Profit (Fee)</td>
<td>319,029.00</td>
<td>-</td>
<td>319,029.00</td>
<td>8,749.62</td>
<td>2.7%</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>422,812.00</td>
<td>-</td>
<td>422,812.00</td>
<td>11,250.97</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Subtotal - Indirect Cost</strong></td>
<td>1,176,320.00</td>
<td>-</td>
<td>1,176,320.00</td>
<td>106,695.59</td>
<td>9.1%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>8,259,910.00</strong></td>
<td>-</td>
<td><strong>8,259,910.00</strong></td>
<td><strong>226,534.39</strong></td>
<td><strong>2.7%</strong></td>
</tr>
</tbody>
</table>
## Example

### Front Loading Indirect Charges

<table>
<thead>
<tr>
<th>Builder Payment Application #2</th>
<th>Schedule of Values</th>
<th>Approved Change Orders</th>
<th>Revised Schedule of Values</th>
<th>Total Completed to Date</th>
<th>% Completed to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dated: March, 20XX</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal - Direct Project Costs</td>
<td>7,083,590.00</td>
<td>-</td>
<td>7,083,590.00</td>
<td>1,566,176.20</td>
<td>22.1%</td>
</tr>
<tr>
<td>Onsite Supervision</td>
<td>181,440.00</td>
<td>-</td>
<td>181,440.00</td>
<td>45,360.00</td>
<td>25.0%</td>
</tr>
<tr>
<td>Contractor's Liability Insurance</td>
<td>45,440.00</td>
<td>-</td>
<td>45,440.00</td>
<td>45,440.00</td>
<td>100.0%</td>
</tr>
<tr>
<td>Payment &amp; Performance Bond</td>
<td>82,599.00</td>
<td>-</td>
<td>82,599.00</td>
<td>37,150.00</td>
<td>45.0%</td>
</tr>
<tr>
<td>Contractor's Contingency</td>
<td>125,000.00</td>
<td>-</td>
<td>125,000.00</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Overhead and Profit (Fee)</td>
<td>319,029.00</td>
<td>-</td>
<td>319,029.00</td>
<td>81,011.10</td>
<td>25.4%</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>422,812.00</td>
<td>-</td>
<td>422,812.00</td>
<td>95,768.78</td>
<td>22.7%</td>
</tr>
<tr>
<td>Subtotal - Indirect Cost</td>
<td>1,176,320.00</td>
<td>-</td>
<td>1,176,320.00</td>
<td>304,729.88</td>
<td>25.9%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>8,259,910.00</strong></td>
<td>-</td>
<td><strong>8,259,910.00</strong></td>
<td><strong>1,870,906.08</strong></td>
<td><strong>22.7%</strong></td>
</tr>
</tbody>
</table>
# Example

## Front Loading Indirect Charges

<table>
<thead>
<tr>
<th>Builder Payment Application #3</th>
<th>Dated: April, 20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Schedule of Values</td>
</tr>
<tr>
<td>Subtotal - Direct Project Costs</td>
<td>7,145,930.00</td>
</tr>
<tr>
<td>Onsite Supervision</td>
<td>181,440.00</td>
</tr>
<tr>
<td>Contractor's Liability Insurance</td>
<td>45,440.00</td>
</tr>
<tr>
<td>Payment &amp; Performance Bond</td>
<td>82,599.00</td>
</tr>
<tr>
<td>Contractor's Contingency</td>
<td>62,660.00</td>
</tr>
<tr>
<td>Overhead and Profit (Fee)</td>
<td>319,029.00</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>422,812.00</td>
</tr>
<tr>
<td>Subtotal - Indirect Cost</td>
<td>1,113,980.00</td>
</tr>
<tr>
<td>Grand Total</td>
<td>8,259,910.00</td>
</tr>
</tbody>
</table>
# Example

## Insurance Charges

Per the AIA Document A102-2007 contract language stated in ARTICLE 7 “COSTS TO BE REIMBURSED” Paragraph 7.6 “MISCELLANEOUS COSTS:”

7.6.1 “Premiums for that portion of insurance and bonds required by the Contract Documents that can be directly attributed to this Contract. Self-insurance for either full or partial amounts of the coverages required by the Contract Documents, with the Owner’s prior approval.”

<table>
<thead>
<tr>
<th>Coverage Part</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial General Liability</td>
<td>$46,787.00</td>
</tr>
<tr>
<td>Commercial Auto Coverage</td>
<td>$2,049.00</td>
</tr>
<tr>
<td>Commercial Inland Marine Coverage</td>
<td>$1,534.00</td>
</tr>
<tr>
<td>Commercial Umbrella Coverage</td>
<td>$12,741.00</td>
</tr>
<tr>
<td>Terrorism Insurance Coverage</td>
<td>$197.00</td>
</tr>
<tr>
<td><strong>Policy Annual Premium</strong></td>
<td><strong>$63,308.00</strong></td>
</tr>
</tbody>
</table>

- Insurance Declaration Page Premium: $63,308.00
- Stated Yearly Revenue: $17,000,000.00
- Percentage Charge for Insurance: 0.37%

<table>
<thead>
<tr>
<th>Coverage Part</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial General Liability</td>
<td>$46,787.00</td>
</tr>
<tr>
<td>Commercial Auto Coverage</td>
<td>$2,049.00</td>
</tr>
<tr>
<td>Commercial Inland Marine Coverage</td>
<td>$1,534.00</td>
</tr>
<tr>
<td>Commercial Umbrella Coverage</td>
<td>$12,741.00</td>
</tr>
<tr>
<td>Terrorism Insurance Coverage</td>
<td>$197.00</td>
</tr>
<tr>
<td><strong>Policy Annual Premium</strong></td>
<td><strong>$63,308.00</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Building A (Final Pay App)</th>
<th>Building B (Current Contract Terms)</th>
<th>Total</th>
<th>Over Payment / Potential Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Cost</td>
<td>$8,392,607.93</td>
<td>$4,690,904.01</td>
<td>$13,083,511.94</td>
<td></td>
</tr>
<tr>
<td>Insurance Cost</td>
<td>$82,771.17</td>
<td>$47,357.97</td>
<td>$130,129.14</td>
<td></td>
</tr>
<tr>
<td>Revised Insurance Cost (.37%)</td>
<td>$31,052.65</td>
<td>$17,356.34</td>
<td>$48,408.99</td>
<td><strong>$81,720.15</strong></td>
</tr>
</tbody>
</table>
## Example
### Insurance Charges (continued)

<table>
<thead>
<tr>
<th></th>
<th>Builder A</th>
<th>Builder B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Liability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each Occurrence</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>General Aggregate</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td><strong>Automotive Liability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined Single Limit</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td><strong>Excess / Umbrella Liability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each Occurrence</td>
<td>$5,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Aggregate</td>
<td>$5,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td><strong>Workers Compensation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each Accident</td>
<td>$500,000</td>
<td>Not Indicated</td>
</tr>
<tr>
<td>(Statutory Limits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>% Fee Charged per Contract</strong></td>
<td>.64% of Direct Costs</td>
<td>1% of Direct Costs</td>
</tr>
</tbody>
</table>
### Example

**Bond Detail from Payment Applications**

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Pay App Period</th>
<th>Bond Amount</th>
<th>Contract / Sub Contract Value</th>
<th>Bond % of Contract</th>
<th>Total % of Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>July</td>
<td>$11,995.00</td>
<td>$13,556,511.33</td>
<td>0.09%</td>
<td>0.32%</td>
</tr>
<tr>
<td>X</td>
<td>July</td>
<td>$2,498.00</td>
<td>$13,556,511.33</td>
<td>0.02%</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>July</td>
<td>$4,678.00</td>
<td>$13,556,511.33</td>
<td>0.03%</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>July</td>
<td>$5,839.00</td>
<td>$13,556,511.33</td>
<td>0.04%</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>July</td>
<td>$4,033.00</td>
<td>$13,556,511.33</td>
<td>0.03%</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>July</td>
<td>$13,817.00</td>
<td>$13,556,511.33</td>
<td>0.10%</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>July</td>
<td>$10,656.00</td>
<td>$995,210.44</td>
<td>1.08%</td>
<td>1.08%</td>
</tr>
<tr>
<td>C</td>
<td>July</td>
<td>$6,252.00</td>
<td>$840,970.57</td>
<td>0.75%</td>
<td>1.23%</td>
</tr>
<tr>
<td>M</td>
<td>July</td>
<td>$4,003.00</td>
<td>$840,970.57</td>
<td>0.48%</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>July</td>
<td>$3,051.00</td>
<td>$227,893.28</td>
<td>1.36%</td>
<td>1.36%</td>
</tr>
<tr>
<td>J</td>
<td>July</td>
<td>$2,718.39</td>
<td>$171,603.37</td>
<td>1.61%</td>
<td>1.61%</td>
</tr>
<tr>
<td>L</td>
<td>July</td>
<td>$14,589.00</td>
<td>$1,306,176.00</td>
<td>1.13%</td>
<td>1.13%</td>
</tr>
<tr>
<td>L</td>
<td>July</td>
<td>$510.00</td>
<td>$1,306,176.00</td>
<td>0.04%</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>July</td>
<td>$960.00</td>
<td>$1,533,458.03</td>
<td>0.06%</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>July</td>
<td>$1,879.00</td>
<td>$1,533,458.03</td>
<td>0.12%</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>July</td>
<td>$5,763.00</td>
<td>$1,533,458.03</td>
<td>0.38%</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>July</td>
<td>$8,353.00</td>
<td>$1,533,458.03</td>
<td>0.55%</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>July</td>
<td>$612.00</td>
<td>$1,533,458.03</td>
<td>0.04%</td>
<td></td>
</tr>
</tbody>
</table>

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Contract Review Method
Advance Fund Requests

Request for Services
The RFS defines the scope and estimated hours needed to perform the scope per job classification.

Note:
- The scope is provided by Owner
- The estimated hours are provided by Contractor
- The Job Classifications are defined by the Contractor

Advance Funds Request
The AFR is provided to the Owner and sent to the A/P department for payment.

Note:
- The Labor Costs are not defined per job classification on the AFR
- In some cases the Fixed fee costs have been billed in excess to direct costs

Invoice Paid
The Invoice is paid by the Owner A/P department with approval from the field.

Note:
- Purchase Orders were created based on the information and cost defined on the initial RFS's
- Approval of the invoice is based upon the review of the RFS and AFR

Statement of Cost Received
The SOC is provided by Contractor as a rearview looking “true up” of costs and hours for the previous AFR

Note:
- The costs are categorized under job categories, but sometimes there is no supporting documentation included with the SOC for example time cards
- Therefore, verification of the actual hours worked can not be confirmed
Contract Compliance & Cost Recovery

**Phased Approach**

A phased approach to contract compliance audits allows the opportunity to move forward with multiple stopping points along the way.

- **Phase I**
  - Initially, Protiviti will perform a risk assessment of all in-scope service and construction related contracts in order to develop a work plan. As we delve into your contract portfolio, we will begin to assess in more detail certain factors that may be indicative of possible cost recovery and vendor effectiveness opportunities.

- **Phase II**
  - Once we have identified and prioritized contracts based upon their perceived recovery potential, we will proceed with the systematic review of those contracts. This phase involves generating and sending audit notices and detailed document / data requests with the goal of getting needed billing and payroll documentation / data electronically.

- **Phase III**
  - Next we will perform an analysis of the received documentation and data, and work with the Client to make a “Go-No Go” decision on whether to conduct onsite contractor / vendor audit or move to another contract. If we decide to conduct an onsite contractor / vendor audit, we will analyze an initial selection of invoices and work with the Client to make our second “Go-No Go” decision on whether to continue and finalize testing or move to another contract. If we decide to continue and finalize testing, we will review the results with the Client and the contractor / vendor (if required) to confirm our findings.

- **Phase IV**
  - Finally, we will generate a draft report and recovery letter for the Client to review and place on Client letterhead to begin the recovery efforts. An important activity in this phase is the root cause analysis performed by the team to determine why overpayments occurred. This analysis will help pinpoint where process and control issues occurred so improvements can be made to mitigate future overcharges.
Wrap Up

• Brainstorming
• Fixed Price or Lump Sum Type Contracts
  – Risk Areas
  – Audits
• Cost Reimbursable Plus Fee Type Contracts
  – Risk Areas
  – Audits
• Time & Material Type Contracts
  – Risk Areas
  – Audits
• Other Risk Areas to Consider in Today’s Economy
• Auditing High Risk Contracts
  – Review Steps and Exception Examples
• Closing Comments/Thoughts
Contact Information

Randall Coxworth
Associate Director,
Capital Projects & Contracts Practice

Phone: 213-327-1324 (Office)
619-400-7579 (Mobile)
randall.coxworth@protiviti.com

Powerful Insights. Proven Delivery.™
Powerful Insights.
Proven Delivery.™
Auditing High Risk Contracts

Typical Contract Requirements:
I. Costs to be Reimbursed
   • Markups
   • Labor
   • Materials
   • Subcontracts
   • Rentals
   • Miscellaneous
   • Emergencies
II. Costs Not to be Reimbursed
III. Retainage
IV. Electronic Job Cost Data

Review Steps:
1. Obtain and review contract and associated changes to the contract (i.e., amendments, change orders), including exhibits,
2. Highlight key contract requirements related to reimbursable costs, non-reimbursable costs, etc.,
3. Develop checklist with contract section reference as a tool to review payment applications / job cost data,
4. Utilize checklist to complete and document review a representative sample of invoices / payment applications (20-25% of population) or, if job cost data is electronically available, each suspect transaction from data analysis,
5. If electronically available, obtain Contractor job cost data from project inception to completion and analyze for potential findings and discrepancies,
6. Review analysis of Contractor job cost data with Company management to confirm areas of focus,
7. Obtain invoices / payment applications and supporting cost detail from Company and/or Contractor (in advance of fieldwork),
8. Test cost detail against contract terms and conditions (utilizing contract checklist, sample invoices / payment applications or suspect transactions from data analysis), and
9. Follow-up with Company and/or Contractor regarding partial and/or missing cost detail as well as items needing clarification.
Contract Checklist

Typical Contract Checklist Requirements:

I. Costs to be Reimbursed
   - Markups
   - Labor
   - Materials
   - Subcontracts
   - Rentals
   - Miscellaneous
   - Emergencies

II. Costs Not to be Reimbursed

III. Retainage

IV. Electronic Job Cost Data

Construction Project Title
Contract Checklist
(Based on standard AIA contract)

COMPENSATION AND PAYMENTS FOR PRECONSTRUCTION PHASE SERVICES

4.1.1 - Construction Manager will be paid up to the amount of $_________

COMPENSATION FOR CONSTRUCTION PHASE SERVICES

5.1.1 - Normal markup for the Construction Manager (Sub-Contractor/Direct Materials) — ____%
5.1.1 - Normal markup for the Construction Manager (Construction Manager Supplied Services) — ____%
5.3.4 - Payment and Performance Bonds shall be the actual cost of the bonds without additional markup
5.3.4 - Markup for changes requested by the Owner (Sub-contractor/Direct Materials) — ____%
5.3.4 - Markup for changes requested by the Owner (Construction Manager Supplied Services) — ____%
5.3.4 - Sub-contractors and Sub-sub-contractors are allowed a Maximum of ____% times the cost of work

COST OF WORK FOR CONSTRUCTION PHASE

COSTS TO BE REIMBURSED

Labor Costs:

6.1.2.1 - Wages of construction workers directly employed by the Construction Manager to perform the construction of the Works at the site or office, with the Owner’s approval, at off-site workshops
6.1.2.2 - Wages or salaries of the Construction Manager's supervisory and administrative personnel for the time actually spent in relation to this project billed at the specific rate shown below whether stationed at the site or at the Construction Manager's principal office or offices

Construction Manager’s Project Management and Preconstruction Personnel:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Weekly Billing Rate</th>
<th>Hourly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>w/burden</td>
<td>w/burden</td>
</tr>
<tr>
<td>Project Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sr. Project Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sr. Project Superintendent</td>
<td></td>
<td></td>
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<tr>
<td>Project Manager</td>
<td></td>
<td></td>
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<tr>
<td>Project Estimator</td>
<td></td>
<td></td>
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<tr>
<td>Quality Control Superintendent</td>
<td></td>
<td></td>
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<tr>
<td>Project Superintendent</td>
<td></td>
<td></td>
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<tr>
<td>Sr. Project Engineer</td>
<td></td>
<td></td>
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<tr>
<td>Project Engineer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Foreman</td>
<td></td>
<td></td>
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<tr>
<td>Project Scheduler</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Safety</td>
<td></td>
<td></td>
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<tr>
<td>Project Clerk</td>
<td></td>
<td></td>
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<tr>
<td>Project Accountant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate Safety</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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I. Costs to be Reimbursed - Markups

Typical Contract Requirements:
1. Markup for normal work performed by the contractor
2. Markup for changes requested by the Owner

Review Steps:
1. Review markup on normal work performed.
2. Review markup on changes requested by Owner.

Exception examples:
1. Contractor charges a markup for the normal work above the contracted markup percentage.
2. Contractor charges a markup for the changes above the contracted markup percentage.
3. Contractor charges the markup for changes on the normal work.
I. Costs to be Reimbursed - Labor

Typical Contract Requirements:
1. Wages of construction workers directly employed by the Contractor to perform the Works at the site or office, with the Owner’s approval, at off-site workshops.
2. Wages or salaries of the Contractor’s supervisory and administrative personnel when stationed at the site with the Owner’s approval or when engaged, at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work.

Review Steps:
1. Review wages of construction workers by calculating their approved rate by their hours worked at the site or office. Ensure proper level (i.e., apprentice vs. carpenter) as well as straight time and over time rates. Determine if hours are excessive (i.e., 70, 80, 90+ hours/week).
2. Review wages or salaries of the Contractor’s supervisory and administrative personnel by validating their salary or calculating their approved rate by their hours worked at the site. Ensure proper level (i.e., assistant project manager vs. project manager).

Exception examples:
1. Contractor bills for wages of construction workers and/or Contractor’s supervisory and administrative personnel in excess of their calculated wages (approved rates x hours worked) or payroll level.
2. Contractor bills for salaries of supervisory and administrative personnel in excess of their approved salaries or payroll level.
3. Contractor calculates an hourly wage for salaried supervisory and administrative personnel and bills them in excess of 40 hours.
I. Costs to be Reimbursed – Labor (cont.)

Typical Contract Requirements:
3. Costs paid or incurred by the Contractor for taxes, insurance, contributions, assessment and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holidays, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work.

Review Steps:
3. Review costs paid or incurred by the Contractor for taxes, insurance, contributions, assessment, benefits, etc. Typically, these costs are calculated as a labor burden percentage, not a direct cost. Labor burden can be applied as an overall percentage or vary by employee.

Exception examples:
3. Contractor bills costs for taxes, insurance, contributions, assessment, benefits, etc. in excess to what they incurred or paid for their employees (i.e., costs do not support the labor burden percentage).
4. Contractor bills for taxes in excess of taxable earnings (i.e., Social Security, Medicare, etc).
5. Contractor bills vacation, holiday, bonuses, training, allowances, etc. as job costs that are also billed in labor burden.
I. Costs to be Reimbursed – Materials

**Typical Contract Requirements:**
1. Costs of materials and equipment incorporated in the completed construction including transporting, storage, and unused excess materials

**Review Steps:**
1. Review costs of materials and equipment by reviewing associated invoices.
2. Inquire about the disposition of unused excess materials. Ensure they become the Owner’s property at the completion of the work or, at the Owner’s option, were sold by the Contractor. Ensure any amounts realized from such sales were credited to the Owner as a deduction from the Cost of Work.

**Exception examples:**
1. Contractor bills for materials, which include costs for expedited transportation and/or unnecessary/excessive storage.
2. Contractor does not allow unused excess materials to become the Owner’s property at the completion of the Work.
3. Contractor does not credit amounts realized from sales of unused excess materials to the Owner as a deduction from the Cost of Work.
## I. Costs to be Reimbursed – Subcontracts

### Typical Contract Requirements:
1. Payments made by the Contractor to Subcontractors in accordance with the requirements of the subcontracts properly entered into under Agreement

### Review Steps:
1. Review subcontracts to determine scope of work and associated amount.
2. Determine if the subcontractor is billing for unapproved or pending change orders by reviewing their schedule of values amount to their subcontracted amount, which would only include approved change orders or released contingency.
3. Verify costs by calculating amount by percentage of completion (if fixed fee subcontract). Determine if percent complete agrees with cost incurred and/or physical progress.

### Exception examples:
1. Contractor bills Subcontractor costs in excess of subcontracted amount due to unapproved / pending change orders, excessive markup by the Contractor and/or poor estimate/execution by Subcontractor.
2. Contractor bills for costs in excess of costs incurred and/or physical progress (e.g., Contractor claims 60% complete but physical progress shows 50% complete and costs incurred shows 45% complete).
I. Costs to be Reimbursed – Rentals

Typical Contract Requirements:
1. Rental charges for temporary facilities, machinery, equipment, hand tools not customarily owned by construction workers.

Review Steps:
1. Review rental charges by calculating the approved rental rate (day, week, month) by the duration of use.
2. Determine if the rental rates exceed 75 to 80% of cost of equipment, if purchased. Review the total rental charge by calculating the approved rental rate by the overall duration of use.

Exception examples:
1. Contractor bills rental rates (day, week, month) in excess of their approved rental rates (typically noted in the exhibits) or above market rates (i.e., AED Green Book).
2. Contractor did not notify Owner for permission to purchase equipment when rental rates exceeded 75 to 80% of cost of equipment if purchased.
3. Contractor did not notify Owner and charged the Owner more than the cost of equipment.
4. Contractor purchases equipment and does not return to the Owner at completion of the project.
## I. Costs to be Reimbursed – Miscellaneous

### Typical Contract Requirements:
1. Insurance and bond premiums
2. Sales, use or similar taxes
3. Fees and assessments for the building permit or other permits, licenses and inspections
4. Fees of laboratories for tests
5. Royalties and license fees
6. Payments made in accordance with legal judgments

### Review Steps:
1. Review allocation of insurance and bond premiums. Determine if insurance coverage is sufficient and current.
2. Review sales, use or similar taxes. Determine if taxes are being incurred for exempt entities.
3. Review fees and assessments for building permits or other permits, licenses and inspections. Determine if valid permits and licenses exist and inspections took place.
4. Review fees of laboratories for tests. Determine if lab tests took place.
5. Review royalties and license fees. Determine if valid agreements and licenses exist.
6. Review payments made in accordance with legal judgments. Determine if payments were made with Owner’s consent.

### Exception examples:
1. Contractor bills for an excessive allocation of insurance and bond premiums, insufficient and/or expired coverage.
2. Contractor bills for sales, use or similar taxes incurred for exempt Owners (i.e., not-for-profit hospitals).
3. Contractor bills for fees incurred on invalid permits and/or licenses and inspections that never took place.
4. Contractor bills for fees incurred for laboratory tests that never took place.
5. Contractor bills for fees incurred for invalid royalty agreements and licenses.
6. Contractor bills for payments incurred from legal judgments without Owner’s consent.
<table>
<thead>
<tr>
<th><strong>Typical Contract Requirements:</strong></th>
<th><strong>Review Steps:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Data processing costs</td>
<td>7. Review data processing costs. Determine if costs are related to the Work.</td>
</tr>
<tr>
<td>8. Deposits lost</td>
<td>8. Review deposits lost. Determine if deposits were lost for causes other than the Contractor’s negligence or failure to fulfill a specific responsibility to the Owner.</td>
</tr>
<tr>
<td>9. Legal, mediation and arbitration costs</td>
<td>9. Review legal, mediation and arbitration costs. Determine if costs, including attorney’s fees, were for matters other than those arising from disputes between the Owner and Contractor.</td>
</tr>
<tr>
<td>10. Expenses incurred for relocation and temporary living allowances</td>
<td>10. Review expenses incurred for relocation and temporary living allowances. Determine if expenses were incurred in accordance with the Contractor’s standard personnel policy for relocation and temporary living allowances of personnel required for the Work. Also, determine if they were approved by the Owner.</td>
</tr>
</tbody>
</table>

**Exception examples:**

7. Contractor bills for data processing costs incurred from non-Work related matters.

8. Contractor bills for lost deposits incurred for causes related to Contractor’s negligence or failure to fulfill a specific responsibility to the Owner.

9. Contractor bills for legal, mediation and arbitration costs, including attorney’s fees, arising from disputes between the Owner and Contractor.

10. Contractor bills for expenses for relocation and temporary living allowances not in accordance with the Contractor’s standard personnel policy and/or approved by the Owner. Relocation and temporary living expenses exceed allowance and/or billed in addition to allowance.
## I. Costs to be Reimbursed – Miscellaneous (cont.)

### Typical Contract Requirements:

1. Costs of filing and home office copies, printing, telephone charges, postage and shipping
2. Bonding charges on Subcontractors
3. General liability insurance

### Review Steps:

1. Review costs of filing and home office copies, printing, telephone charges, postage and shipping. Determine if costs are related to the Work and/or if an allowance has been established.
2. Review bonding charges on Subcontractors. Determine if bonding charges on Subcontractors are based on actual costs from surety or set percentage on Subcontractors not bonded but guaranteed by the Contractor.
3. Review general liability insurance charges. Determine if the charge is based on actual costs or a set percentage of the contract amount (including approved change orders).

### Exception examples:

1. Contractor bills for costs of filing and home office copies, printing, telephone charges, postage and shipping incurred for non-Work related matters and/or the costs were billed in addition to the allowance.
2. Contractor bills for bonding charges in excess of actual costs from the surety or greater than the percentage set on Subcontractors not bonded but guaranteed by the Contractor.
3. Contractor bills for general liability insurance greater than actual costs from the insurer or greater than the percentage set on the contract amount.
## I. Costs to be Reimbursed – Miscellaneous (cont.)

<table>
<thead>
<tr>
<th>Typical Contract Requirements:</th>
<th>Review Steps:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Preconstruction costs</td>
<td>14. Review costs for preconstruction activity. Determine if costs are covered by an allowance and/or related to the Work.</td>
</tr>
<tr>
<td>15. Allowances for office supplies, data processing, mobile phones, safety, vehicles, etc.</td>
<td>15. Review allowances for office supplies, data processing, mobile phones, safety, vehicles, etc. Determine if costs are related to the Work.</td>
</tr>
<tr>
<td>16. Miscellaneous costs for meals and entertainment, travel, clothing, etc.</td>
<td>16. Review costs for meals and entertainment, travel, clothing, etc. Determine if costs are related to the Work.</td>
</tr>
<tr>
<td>17. Discounts from vendors and subcontractors</td>
<td>17. Review costs for discounts from vendors and subcontractors.</td>
</tr>
</tbody>
</table>

### Exception examples:

14. Contractor bills for preconstruction costs not related to the Work and/or costs in excess of the allowance.

15. Contractor bills for costs (office supplies, data processing, mobile phones, safety, vehicles, etc.) in excess of or in addition to the allowance.

16. Contractor bills for excessive costs for meals and entertainment (alcohol, food, outings, golfing, hunting trips, fishing trips, etc.), travel (flights for training, recruiting, other projects, fuel and mileage charges, leases, etc.), and clothing (custom shirts, jackets, vests, hats, boots, etc.).

17. Contractor bills for vendor and/or subcontractor costs where the discount (volume, early payment) has not been passed through to the Owner.
I. Costs to be Reimbursed – Emergencies

Typical Contract Requirements:
1. Costs due to emergencies
2. Costs of repairing or correcting damaged or nonconforming Work

Review Steps:
1. Review costs due to emergencies incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property. Validate emergencies by corroborating timing and necessary actions.
2. Review costs of repairing or correcting damaged or nonconforming Work executed by the Contractor, Subcontractors or suppliers. Validate repairs or corrections were not the fault of the Contractor, Subcontractors or suppliers.

Exception examples:
1. Contractor bills for costs due to emergencies that are unnecessary and/or excessive.
2. Contractor bills for costs of repairing or correcting damaged or nonconforming Work was due in part or whole to the Contractor, Subcontractors or suppliers.
II. Costs Not to be Reimbursed

<table>
<thead>
<tr>
<th>Typical Contract Requirements:</th>
<th>Review Steps:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Salaries and other compensation of Contractor personnel stationed at the Contractor’s principal office or other offices other than the site office</td>
<td>1. Review salaries and other compensation of Contractor personnel stationed at the Contractor’s principal office or other offices other than the site office.</td>
</tr>
<tr>
<td>2. Expenses of the Contractor’s principal office and other offices other than the site office</td>
<td>2. Review expenses of the Contractor’s principal office and other offices other than the site office.</td>
</tr>
<tr>
<td>3. Contractor’s capital expenses</td>
<td>3. Review Contractor’s capital expenses. Determine if expense includes interest on the Contractor’s capital employed for the Work.</td>
</tr>
</tbody>
</table>

Exception examples:

1. Contractor bills for salaries and other compensation of Contractor personnel stationed at the Contractor’s principal office or other offices other than the site office.
2. Contractor bills for expenses of the Contractor’s principal office and other offices other than the site office.
3. Contractor bills for Contractor’s capital expenses, including interest on the Contractor’s capital employed for the Work.
### II. Costs Not to be Reimbursed (cont.)

#### Typical Contract Requirements:

4. Costs due to negligence or failure to fulfill a specific responsibility of the Contractor, Subcontractors and suppliers.

5. Costs that would cause the GMP to be exceeded.

#### Review Steps:

4. Review costs due to negligence or failure to fulfill a specific responsibility of the Contractor, Subcontractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.

5. Review costs, other than costs included in Change Orders approved by the Owner, that would cause the Guaranteed Maximum Price (GMP) to be exceeded.

#### Exception examples:

4. Contractor bills for costs due to negligence or failure to fulfill a specific responsibility of the Contractor, Subcontractors and suppliers or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.

5. Contractor bills for costs that would cause the GMP to be exceeded.
### III. Retainage

<table>
<thead>
<tr>
<th>Typical Contract Requirements:</th>
<th>Review Steps:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Retainage</td>
<td>1. Review invoices and/or job cost summaries to determine if retainage (typically 5 to 10% of the costs) have been subtracted from the total.</td>
</tr>
</tbody>
</table>

**Exception examples:**

1. Contractor’s invoices and/or job cost summaries do not have retainage subtracted (typically 5 to 10%).
### IV. Electronic Job Cost Data

#### Typical Electronic Job Cost Data Requirements:
- Invoice Number
- Invoice Date
- Invoice Amount
- Employee Name
- Employee Number
- Job Classification Code
- Job Classification Description
- Project Name/Number
- Location
- Date Worked
- Work Week Ending Date
- Regular Hours Worked
- OT Hours Worked
- Double Hours Worked
- Wage Rate
- Bill Rate
- Extended Amount
- Reimbursables – Travel Expenses
- Miscellaneous Charges

#### Run Queries for Suspect Transactions Expenses:
- Null or blank description fields
- Accruals
- Projections/Projected costs
- Markups
- Chargebacks
- Adjustments
- Intercompany transfers
- Bonuses
- Incentives
- Permits
- Certifications/licenses
- Repairs
- Safety equipment/gear
- Mileage
- Fuel
- Surcharges
- Credits
- Discounts
- Team building events
- Outings
- Gifts or gift cards
- Insurance (employee health, workers comp, auto liability, general liability, umbrella, pollution coverage, etc.)
- Training
- Cell phone/Smart phone/walkie-talkie
- Meals (snacks, breakfast, lunch, dinner, drinks, food)
- Travel (air, hotel, car, per diem, parking, tolls)
- Relocation/Moving
- Recruiting
- Entertainment
- Materials
- Tools
- Equipment
- Car/Truck/Vehicle
IV. Electronic Job Cost Data (cont.)

Run Queries for Suspect Transactions

Labor:
- Level
- Exempt/Non-exempt
- Taxes (SS, FUTA, SUTA)
- Vacation
- Holidays
- Weekends
- Overtime
- Double Time
- On/Off Duty Time

Labor Burden:
- Tax accrual/percentage
- Insurance accrual/percentage
- Medical/Dental accrual/percentage
- Pension/401K accrual/percentage
- Vacation accrual/percentage
- Holiday accrual/percentage
- Training accrual/percentage
- Vehicle accrual/percentage
- Phone accrual/percentage
- Other accruals

Look for double charges between the labor burden and expenses (i.e., vehicle expenses are charged in addition to vehicle accrual)