Contract Change Clause

The Change Order Process

January 29, 2008

Presented by the
Claims Avoidance & Resolution Committee

Construction Institute
Claims Avoidance and Resolution Committee
Presenters

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Changes are a Natural Part of construction

• Changes may have both cost and schedule impacts.

• Dealing with changes promptly will have the least amount of impact on the budget and schedule.

• Delaying resolution will increase costs, jobsite friction, and delay the completion of the project.
Reasons for Changes

• Differing site conditions.
• Regulatory changes
• Owner/stakeholders change their mind.
  ▪ Scope added/deleted during construction.
• Information missing from the contract documents
• Project Delays
• Adverse Weather
Owner’s Perceptions of Change Orders

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Contract Changes Presentation Goals

• Define the change order process.

• Provide recommended practices for use on your contracts.
Change Process Elements

• Define the Process
• Change Proposal Submittal
  - Scope
  - Timing
  - Pricing the Change Order Request
  - Time and Materials Work
  - Schedule Impacts

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Many of the terms and processes included in this presentation are based on the Engineers Joint Contract Documents Committee Standard (EJCDC) General Conditions.

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- American Society of Civil Engineers
- American Council of Engineering Companies
- National Society of Professional Engineers

Disclaimer: Terms used here may vary depending on the Owner, process, and/or contract used.
Change Order Clauses

• Most construction contracts state “… the Owner has the right to issue changes without invalidating the Contract.”

• EJCDC – Article 10.01 (Work Change Directive or Change Order)

• AIA A201 – Section 7.3.1 (Construction Change Directive)

• FAR Contracts – Section 52.243
Defining the Elements

- **Work Change Directive (WCD)** – A statement to the Contractor from the Owner (design team, Owner’s Rep, CM, etc.) requesting an addition, deletion, or change to the work.

- **Field Directive (FD)** – Written directive from the Owner directing a minor change to the work that will not impact the contract price or time.
  - If the Contractor feels the FD impacts the budget or schedule, it is required to notify the Owner.

- **Change Request (CR)** – Notification from the Contractor to the Owner of a change to the Contract time and/or schedule.
Defining the Elements

• Change Order (CO) – Document that incorporates changes to the scope, price and/or time into the Agreement/Contract.
  - Bilateral Change Order – Change Order whereby both the Owner and Contractor agree to adjustment to the price and time.
  - Unilateral Change Order – Change Order issued by the Owner when the Owner and Contractor cannot come to an agreement on the price and time.
• Claims – A demand or assertion by the Contractor (or Owner) for an adjustment to the contract time or price.
Owner Directed Change Process

The General Conditions of the Contract define the process to follow.
Contractor Change Request Process

- Most Contracts do not spell out a “Contractor Change Request” process.

- If the Contractor wants to submit a change request it needs to follow the “claims” process defined in the contract to request a change.

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**Notification Requirements**

- EJCDC Contract states that the Contractor must notify the Owner within 30 days of notification of the change by way of the Claims clause. (Section 10)

- The AIA document has no requirement for submittal of Change Proposal.

- FAR General Conditions state that the contractor must assert its rights for added costs and/or time within 30 days of notice of change. (Section 53-243-4)
Recommended Practice

• Include in the Contract’s General or Special Conditions or Division 1 a statement like

“The Contractor has **10 days** to provide the Owner with their cost and schedule impacts resulting from this Work Change Directive.”

• If the Contractor is “allowed” to extend the submittal date; don’t let the proposal submittal extend indefinitely.

• Benefits:
  - Receive the information early enough to make a decision on whether to move forward with this change or an alternative.
  - Resolve issue while fresh in everyone’s mind.
  - Reduces ability to claim at the end of construction.

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Sample Change Form

Include a proposal return date

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Work Change Directive Proposal Submittal Requirements

• Pricing Changes
  ▪ Forward pricing changes
  ▪ Time and Material pricing
  ▪ Define the basis for costs
    • Labor rates
    • Equipment
    • Materials
  ▪ Define mark-ups
  ▪ Define mark-up distribution
Forward Pricing Changes

• Agree on the change order price before the Contractor begins the added work.

• Risk shifts from Owner to Contractor
Advantages of Forward Pricing Changes

- **Owner** – Certainty of the cost and schedule impacts before changed work starts.
- **Contractor** – Payment for the changed work when changed work is performed.
Disadvantages of Forward Pricing Changes

• Owner – They may feel they are paying more than the change is worth.

• Contractor – Changed work may cost more and/or take longer to complete than the agreed amount.
Forward Pricing Changes Using Unit Prices (UP)

- Use Contract Unit Rates for changed quantities
- Many UP Contracts allow for re-negotiating Unit Rates when quantities
  - < 75% of bid quantities
  - > 125% of bid quantities
  - Use process for lump sum contracts to negotiate UP rate changes

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Final Thoughts on Forward Pricing Changes

- Lump Sum Proposal supported with cost breakdown.
- Some contracts define how changes should be priced in the changes clause. (AIA Section 7.3.6, NYC Contract Article 26)
- Others default to other clauses such as force account or accounting clauses. (EJCDC directs to Section 11.01, Section 15.4 of the FAR)
**Recommended Practice for Forward Pricing Changes in Your Contract**

- Define how the Contractor should price labor, materials, equipment, construction equipment and tools in the Contract.

  If you cannot include this in the contract, then…

- Agree on how you plan to price labor, materials and equipment at the start of the project, before the first change is issued.
Defining Basis for Costs

- Determine how labor productivity will be defined; using actual, projected, or industry defined production rates.
- Labor wage rates; Based on:
  - Davis Bacon
  - Prevailing Wage Rates
  - Contractor’s actual payroll
- Actual labor costs or blended rates.
Forward Pricing Changes

• Material prices based on:
  ▪ Invoices
  ▪ Quotes
  ▪ Audited costs

• Construction Equipment prices based on:
  ▪ Invoices
  ▪ Quotes
  ▪ Contractor’s accounting records
  ▪ AGC/Blue Book
Change Order Mark-ups

- Some contracts define mark-ups.

- Typical mark-ups:
  - Labor 10% to 30%
  - Materials 10% to 20%
  - Equipment 10% to 20%
  - Subcontractor work 5% to 20%
EJCDC Mark-ups

- EJCDC Contract Mark-ups.
  - Labor 15%
  - Materials & Equipment 15%
  - Construction Equipment 15%
  - Subcontractor work 5%

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AIA Document Addresses Mark-ups

- “...cost plus a reasonable sum for Overhead and Profit.”
NYC Contract Mark-ups

- NYC Contract Mark-ups.
  - Overhead
    - Labor 10%
    - Materials & Equipment 10%
    - Construction Equipment 10%
  - Profit 10%
MTACC (New York City)

- Overhead & Profit ≤ 21%
 “…costs calculated on a basis agreed upon by the Owner and Contractor plus ___% Overhead and ___% profit; or

…

“…if there is a net increase in the Contract Price, the Contractor’s Overhead and profit shall be adjusted accordingly.”

In case of a net decrease in the Contract Price, the Contractor’s Overhead and profit shall not be adjusted unless ten percent (10%) or more of the Project is deleted.
Time & Materials/Force Account

- When Owner and Contractor cannot agree on the costs, Owner issues the change directive to be performed on a time and materials basis.
- Risk is on Owner vs Contractor
- Payment based on actual costs plus agreed on mark-ups.
- Daily T&M sheets are completed and signed by the Contractor and Owner.
- Payment is made after incorporated into the Contract by Change Order.
- The contract should state what support activities and costs will be included in a time and materials change.
Advantages/Disadvantages to T&M

- **Advantages**
  - Owner – Work starts on change when directed; reduces potential for schedule impacts
  - Contractor – Certainty of costs after the work is completed

- **Disadvantages**
  - Owner – Uncertainty of costs when the change work begins
  - Contractor – Loses ability to make more money on efficiencies
**Recommended Practice**

**Change Order Mark-ups**

- Define mark-ups in the Contract.
- Mark-ups should be reasonable and consistent with area practices.
- If you can’t put them in the Contract, then negotiate the rates at the start of the project as a first order of business.

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Recommended Practice

Time & Materials Work

• Issue a Not-to-Exceed amount for the changed work.

• Mark-ups (profit) for Time & Materials should be reduced due to reduced risk.

• If you can’t put them in the Contract, then negotiate the rates at the start of the project.
Recommended Practice

Identify what the mark-ups cover.

- Field office – Identify facilities, office equipment, etc.
- Field staff – Project Manager, Superintendent, Field Engineers, administrative support, etc.
- Home office – Office expenses, officers, legal, accounting, etc.
- Insurance
- Bonds
- Profit/Fee
- State whether OH included in the mark-ups is applied to any contract time extensions

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Recommended Practice
Proposal Submittal Requirements

• Schedule Impacts
  ▪ Include schedule impacts in all changes to avoid schedule impact claims at the end of the project.
  ▪ Require a preliminary Time Impact Analysis (TIA) with any schedule extension request and a TIA 30 days after the event is complete.
  ▪ Negotiate extended overhead and/or acceleration issue NOW
  ▪ Agree on new project end date.

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Cost of Extended Overhead

• Agree to extended overhead amount when you agree to the new contract completion date.

• Costs for extended overhead based on:
  ▪ “Modified” Eichleay
  ▪ Negotiated Amount/Rate
  ▪ Time related overhead

NOTE: Some States have regulations prohibiting “No damages for delay clauses.”
Time Related Overhead (TRO)

- California Department of Transportation (Caltrans) uses TRO on some Unit Price contracts
  - Bid Item either:
    - Lump sum (divided by the number of contract days)
    - Daily Rate
  - Contract states that the rate will be used for any schedule extension up to 180 days beyond original contract completion date.
### Calculating Time-Related-Overhead

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<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Lump Sum Overhead Amount</td>
<td>$1,534,500.00</td>
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<tr>
<td>Contract Days (working days)</td>
<td>620</td>
</tr>
<tr>
<td>Daily Rate</td>
<td>$2,475.00/day</td>
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<tr>
<td>Days Added by Change Order</td>
<td>12 days</td>
</tr>
<tr>
<td>Extended Overhead Amount to be included in Change Order</td>
<td>$29,700.00</td>
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</table>

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Recommended Practice

• Identify how you calculate extended overhead in the contract.

• Define what is included in the extended overhead:
  ▪ Construction support equipment (cranes, forklifts, etc.)
  ▪ Field office – Identify facilities, office equipment, etc.
  ▪ Field staff - Project Manager, Superintendent, Field Engineers, administrative support, etc.
  ▪ Home office – Office expenses, officers, legal, accounting, etc.
Questions?

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**Time Impact Analysis**

**Baseline Schedule: Early Start**

- NTP
- Submit shop dwgs
- Review/Approve shop drawings
- Fab. Granite
- Install Granite
- 120 Day TF

**Baseline Schedule: Late Start**

- 120 Day TF
- Submit shop dwgs
- R/A shop dwgs
- Fab. Granite
- Install Granite

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
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<th>Sep</th>
<th>Oct</th>
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</table>
**Time Impact Analysis**

**Baseline Schedule**
- Submit shop drawings
- Review/Approve shop dwgs
- Fab. Granite
- 120 Day TF

**As-Built Schedule**
- Submit shop dwgs
- 100d Owner delay
- R/A shop dwgs
- Fab. Granite
- Install Granite
- Owner’s Responsibility
- 40d

**Timeline**
- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec