# Construction Claims - How to Handle Them

## If you work in construction, you should know these pointers that can help limit claims

**By John L. Bahr, PE**
**and Daniel B. Dunbar, PE**
**R.V. Buric Construction Consultants, Inc.**
**Wilmington, North Carolina**

In the good old days, a handshake formed the contract between owner and contractor and projects managed to get built to the satisfaction of all parties. How many of us today would venture into an agreement without "something in writing?" Construction in 1987 takes place in a very competitive environment requiring large commitments of money time and talent. Sophisticated owners are increasingly cost and schedule conscious. Design professionals must provide a quality product while being aware of the possibility of future liability (if something goes wrong) that is hugely disproportionate to their original fee. Contractors are pressed by the demands of building with complex designs under tight schedules and budget constraints. Through all this, the construction industry is thriving in North Carolina and the nation. Knowledge of some of the pitfalls will allow owners, engineers, and contractors to continue to prosper.

### Understand Your Contract

First and foremost, the contract is the only common link among project team members. The elements of a contract are:

1) Offer
2) Acceptance
3) Consideration (i.e. cost for performance).

The contract outlines the promises of the parties by defining scope of work, quantity, quality, method, time and responsibility. The law recognizes that the parties have a duty to perform the promises defined in the contract. The law also provides for relief when a breach to the promises is made.

During the course of construction it will often be necessary to make an interpretation of the promises and intentions included in the contract. Herein lies the potential problem: one party's intent is not always shared by the other party.

### Why do Disputes Arise?

Construction projects involve large numbers of *people* with varying degrees of responsibility and experience (i.e. owner, architect, engineer, contractor, subcontractor, fabricator), all having a different frame of reference. They are all thrown together with the common goal of getting the job built.

*Misunderstandings* will inevitably arise, often due to a vague contract or lack of timely communication. Schedule requirements concerning access, delivery of equipment and material as well as construction methods must be known to all participating parties.

*Changes* to the contract or schedule often become necessary for varying reasons. They may be initiated by the owner or the contractor but are common in one respect: they are unknown to both parties at the signing of the contract. An example is the situation of differing site conditions which could result in scheduling changes, delays, suspensions or accelerations.

A *breakdown in communication* will usually lead to a dispute involving scores of people, stacks of documents, and attorneys. Resolution is achieved through negotiation, arbitration and, as a last resort, litigation.

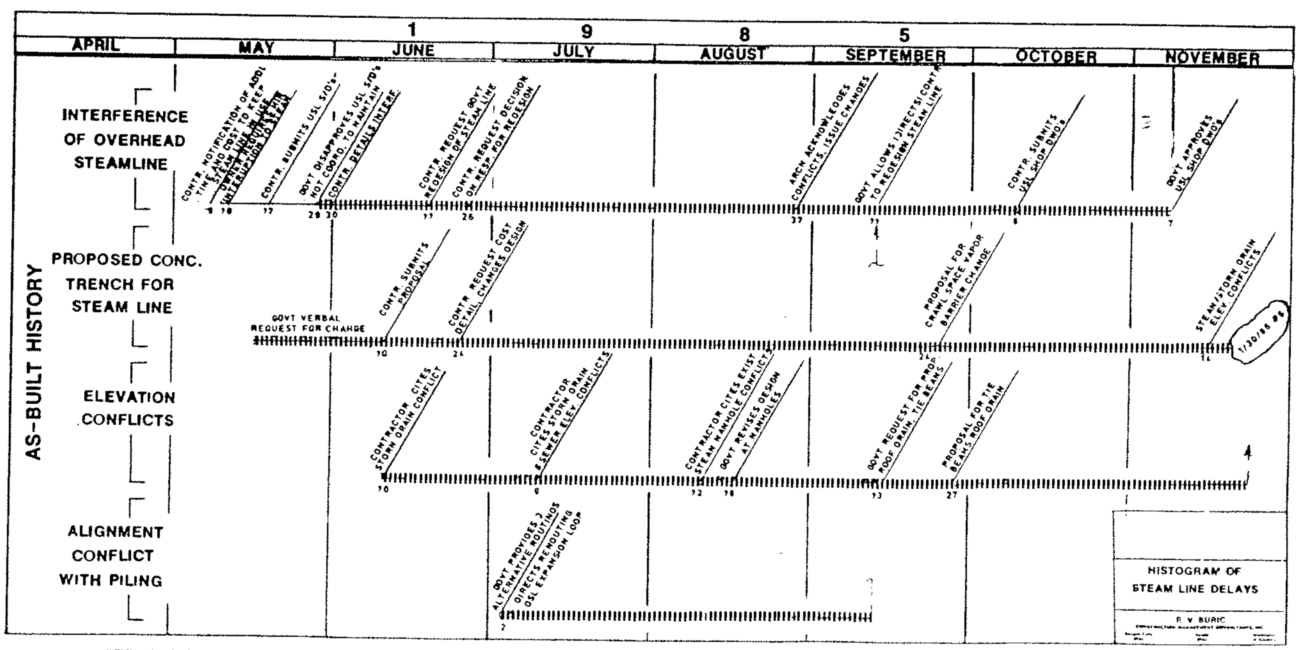
### How A Claim Is Developed

For those of us working on projects, we know, if nothing else, that it means a great deal of paperwork! How does one sort through the myriad of documents and conflicting statements to determine the cause of the problem and its effect on the overall project? How is an agreement on an equitable settlement reached?

One method that has proven to be extremely effective in analyzing claims utilizes the Critical Path Method (CPM) of scheduling and is presented herein.

### Gather the Data

Information about the job comes in many forms, including daily diaries, letters, memos, notes, meeting minutes, schedules, transmittals and shop drawings. The data must be collected and put into a usable form. The documents are carefully reviewed and




- STEAM LINE CONFLICTS & APPROVAL DELAYS

***The time-scaled Histogram shows a chronology of events. It enables the reader to identify activities as they occur on the project, by problem area, and forms the basis for the As-Built Schedule.***

each pertinent piece of information is categorized, coded and logged by date, subject, parties, etc. On larger projects, generating a computer database in which to store this data is most suitable for this task. Separate issue files suffice for smaller projects.

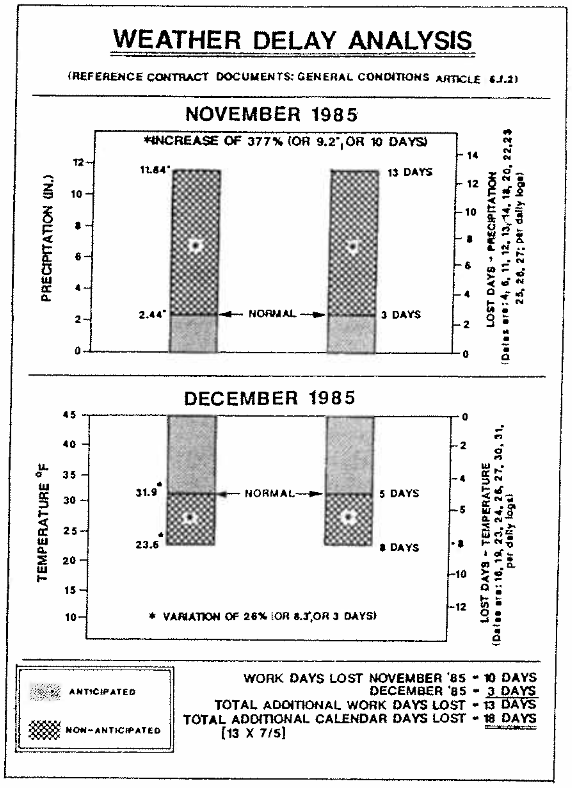
**Analyze the Data**

Once the information has been reviewed and categorized, the facts can be assembled by issue. All documents pertaining to a specific issue are collected and shown on a time-scaled line or "histogram." The histogram can be broken into time periods (activities) for which responsibility can be assigned. For example, installing a building component can be broken down into: develop submittal and submit for approval, review and approve, fabricate and deliver, install, test, and final acceptance.

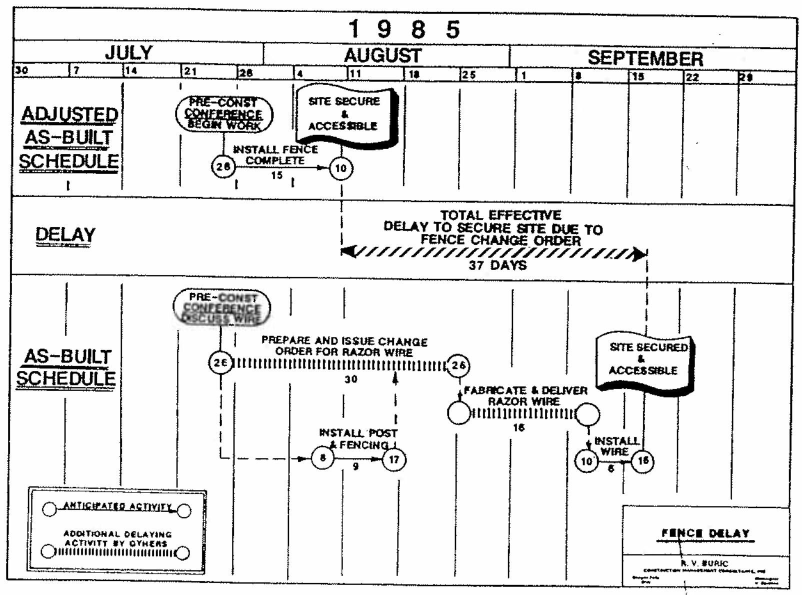
Incorporating the activities on the histograms with the work activities of the project as they actually occurred will provide an accurate As-Built Schedule. This schedule includes those activities anticipated as well as those activities which were added to the project. The As-Built Schedule, drawn in Critical Path Method format, must isolate and identify the activities which are considered to be extra and which impacted time or project cost. Highlighting these activities in red is most effective for the presentation.

Redrawing the schedule *omitting* the "extra" (red) activities results in a "what-if-I-hadn't-been-delayed" schedule which is referred to as the Adjusted As-Built Schedule. Comparison of the Adjusted As-Built and As-Built schedule will provide the net effective delay

***This analysis is used to recoup excessive weather days. Precipitation in November was 377% above normal, resulting in 13 lost work days (10 days greater than could have been anticipated as normal). Likewise, in December the temperature averaged 8.3 degrees below normal, resulting in 8 lost work days (or 3 days greater than normal). Therefore, 13 work days (or 18 calendar days) were lost due to abnormal weather.***




***The As-built Schedule shows a preconstruction conference occurring on July 26, at which time the owner required a change in fence razor wire. New razor wire was not delivered until September 10. Actual installation time was 9 days for post and fencing and 6 days for wire. The Adjusted As-Built Schedule shows what would have happened if the fence wire change had not been made. The completion fence would have been installed as a single activity in 15 days from July 26 to August 10. Therefore, the total effective delay was 37 days.***



to the project or particular milestone which is being analyzed. The Adjusted As-Built Schedule utilizes *actual* project production rates to substantiate activity durations. This tool forms the basis for the entitlement portion of the claim.

### Costing the Data

The key to receiving just compensation for a claim is to be able to show how a problem, caused by others and not within your control, effectively delayed or impacted your planned and anticipated work. You must be able to document your actual costs. A graphical presentation, along with accurate record-keeping, is essential. Types of damages which can arise in construction include: loss of productivity on labor and equipment, idle or standby time, labor and material escalation, added field overhead costs, extended home office and G&A costs, losses to subcontractors, actual or liquidated damages, financing and interest costs, storage costs, lost profits, etc. A direct correlation to the CPM analysis is essential when costing a claim.

### Presentation

When possible, a "face-to-face" is the best initial presentation of the claim. This will encourage acceptance of the ideas and methodology incorporated in the claim. Graphics are strongly encouraged for this phase as they simplify a complex analysis. Preparation, team work and a good strategy are essential for the negotiations which will follow.

### Conclusions

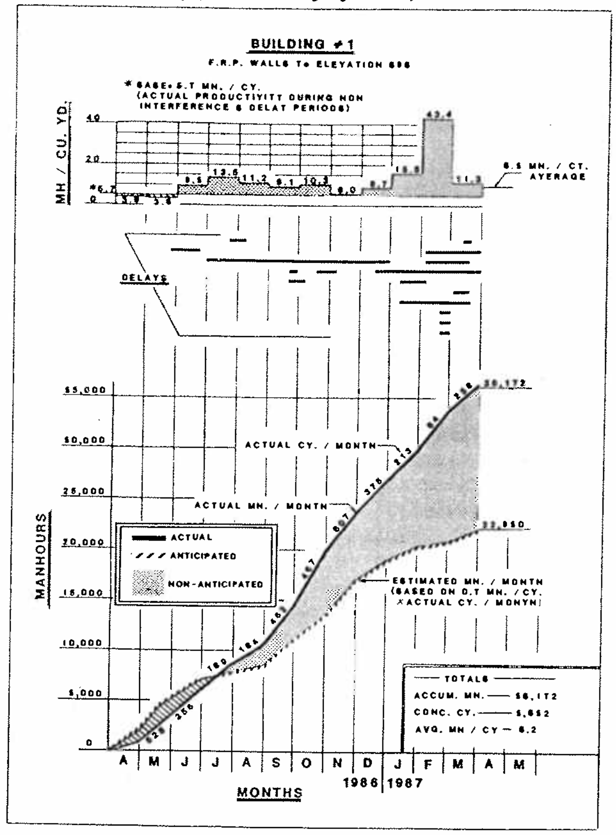
Although construction claims are complex, costly and dreaded by all, they are an inevitable part of the construction industry today. Be conscious that claims can occur and prepare for them early; they can usually be handled at the project level. Successful claims management and preparation requires experience and technical expertise combining construction management, contract law, CPM scheduling, cost engineering, and a good dose of common sense. ■


**About the Authors:**

**John L. Bahr, PE,** is area manager and **Daniel B. Dunbar, PE,** is an associate with R.V. Buric Construction Consultants Inc. in Wilmington, NC. The Buric organization provides construction management services to owners, engineers, architects, contractors and attorneys.


***This is a Loss of Productivity Analysis. An actual baseline production of 5.7 manhours per cubic yard of concrete, realized during non-interference periods throughout the project, established the anticipated production rate. Delays caused productivity to decrease, resulting in a final average of 9.2 manhours per cubic yard of concrete. Actual manhours expended were therefore 36,172 versus the 22,438 value which was anticipated based on "non-interfered" production.***

***The Loss of Productivity Cost Analysis compares actual average unit cost versus adjusted unit cost during distinct periods of production. For example, Period One (learning period) actual unit costs of $20,805 are naturally higher than Period Two full production unit costs of $11,038. The anticipated learning period and associated adjusted unit cost were determined from analysing data from a similar production product which did not experience interference. The difference between actual and adjusted cost yields a loss of productivity of $809,844.***




## LARGE SEGMENTS - LOSS OF PRODUCTIVITY ANALYSIS