

STATE OF NORTH CAROLINA
COUNTY OF GUILFORD

IN THE GENERAL COURT OF JUSTICE
SUPERIOR COURT DIVISION
99-CVS-9132

BIEMANN AND ROWELL COMPANY,)
)
Plaintiff,)
)
v.)
)
THE DONOHOE COMPANIES, INC.,)
D/B/A DONOHOE CONSTRUCTION)
COMPANY,)
)
Defendant.)

ORDER AND JUDGMENT

{1} On November 15, 1999, this matter came on for trial before the undersigned without a jury based upon the submissions of the parties. The Court, having heard the evidence, makes the Findings of Fact and Conclusions of Law set forth below. Judgment on all claims is entered in favor of Defendant The Donohoe Companies, Inc. ("Donohoe"). Central to the resolution of this case is the determination of the proper procedures to be followed by co-primers under state contracts when claims arise against each other during the course of the project.

Erwin and Bernhardt, P.A., by Fenton T. Erwin, Jr., for Plaintiff Biemann and Rowell Company.

Safran Law Offices, by Perry R. Safran, for Defendant The Donohoe Companies, Inc.

Findings of Fact

{2} Plaintiff, Biemann and Rowell Company ("Biemann and Rowell"), is a corporation duly organized under the laws of the state of North Carolina. Defendant, Donohoe Construction Company ("Donohoe"), is a corporation duly organized under the laws of the State of Delaware which conducts business in North Carolina. This case arises out of the construction of the University of North Carolina Neuropsychiatric Hospital in Chapel Hill, North Carolina ("Neuropsych"). The construction of Neuropsych was a multi-million dollar project. By statute in North Carolina, when the cost of a building project is over \$500,000, the State employs multiple prime contractors. Four separate contractors were employed on the Neuropsych project to perform the heating, ventilating and air conditioning ("HVAC") work, the plumbing and gas fitting work, the electrical wiring and installation work, and the general work relating to the erection of the building.

{3} Biemann and Rowell submitted an aggressive bid to UNC Hospitals ("Owner") in the amount of \$3,515,900 for the HVAC work on the Neuropsych project. On or about July 1, 1992, Biemann and Rowell and Donohoe entered into separate contracts with the Owner to serve as the mechanical contractor and general

contractor, respectively, for the construction of Neuropsych. Wayne J. Griffin Electric, Inc. was the electrical prime contractor and Bell BCI Company was awarded the plumbing contract. The architect on the Neuropsych project was HKS Architects, Inc. ("Architect").

{4} Donohoe, as General Contractor, was to assume the role of Project Expediter. Article 14 of the General Conditions of the contract provided that the Project Expediter had the following responsibilities: (1) schedule the work of all Contractors; (2) maintain a project progress schedule for all Contractors and revise the schedule as needed; (3) give adequate notice to all Contractors of time frames critical to the job progress to insure efficient continuity of all phases of the work; and (4) notify the Architect of any changes in the project schedule.

{5} The Supplementary General Conditions to the project contract removed some of the scheduling responsibilities from the Project Expediter and instead placed them with the Schedule Coordinator. Alternate G-5 in the contract indicated that Donohoe was to employ HICAPS as a CPM Schedule Coordinator. Change order G-8, issued by the Owner and effective October 6, 1993, approved proposed change order 60 and directed that the CPM Schedule Coordinator would be employed directly by UNC and would be changed to The Milestone Group in lieu of HICAPS.

{6} As project expeditor, Donohoe had poorly defined responsibilities. Although Milestone relieved Donohoe of the responsibility for developing the original CPM schedule, Donohoe remained responsible for "maintain[ing] the progress schedule, making monthly adjustments, updates, corrections, etc. that [were] necessary, keeping all Contractors and the [Architect] fully informed." (Pl. Ex. 1, Article 14(j).) Thus, while Milestone assumed the role of coordinator in assimilating information obtained from the co-primes, Donohoe had a more active responsibility for communication on the project between co-primes and for the proposal of any necessary adjustments to the schedule. Donohoe had no power or leverage as expeditor. Under the contract, the leverage remained with the Owner. Donohoe's real impact on the job was the result of its position as general contractor.

{7} According to Article 18, the Architect was charged with the responsibility of interpreting the contract documents. Thus, the Architect had the authority to find Donohoe in violation of the contract. On several occasions, the Architect reminded Donohoe of its obligations as project expeditor. In fact, on at least one occasion the Architect warned Donohoe that it was ignoring its contract responsibilities by failing to make needed adjustments and updates to the schedule.

{8} Milestone, as Schedule Coordinator, was responsible for developing a Critical Path Method progress schedule. The Critical Path Method (CPM) of scheduling construction work utilizes a flow chart showing the sequence of the work to be performed. Milestone developed the CPM schedule based on information provided by the co-primes. The original project CPM schedule was approved by all parties on December 18, 1992, and provided for completion of the project within 1004 days of the Notice to Proceed which was issued on August 17, 1992.

{9} Scheduling on the Neuropsych project was largely a mechanical function. Each prime contractor was

responsible for scheduling its work activities in accordance with the critical path. Milestone received information from the primes on their progress and updated the project schedule accordingly. If a prime contractor was causing the project to fall behind the critical path, Milestone sent the contractor written notification of actual or potential delays.

{10} In addition to preparing the critical path for the project, Milestone was responsible for monitoring work and for updating the schedule every two weeks. Article 57 of the Supplementary Conditions required Milestone to monitor the work on the project through weekly coordination meetings with “appropriate representatives of Contractor(s), the Owner, the Architect and designed [sic] subcontractors.” In addition, weekly meetings with the project foremen were held, providing an opportunity for the prime contractors to discuss the progress of the project and to raise concerns about delays.

{11} The project documents outlined the duties of co-prime contractors. Specifically, the co-prime contractors were required to cooperate and consult with each other during construction. Each contractor was to execute his work so as to cause the least amount of delay to the other contractors. Each contractor was to be responsible for any damage to the other contractors’ work and each contractor was to be financially responsible to the other contractors for undue delay caused by him.

{12} The contract also provided that if any part of the contractor’s work depended upon the work of another contractor, defects which might affect that work should be reported to the Architect in order that prompt inspection might be made and the defects corrected. Commencement of work by a contractor where such condition existed was to constitute acceptance of the other contractor’s work as being satisfactory in all respects, except as to defects which might later develop. The Architect was designated the judge of the quality of work and was responsible for settling all disputes between contractors on the project. A contractor was directly responsible for any damage caused to the work or property of another contractor and, upon notice, was required to promptly settle the claim or otherwise resolve the dispute.

{13} By contract, the parties expressly agreed to submit the question of delay to the judgment of the Architect. Article 15 of the contract allocated to the Architect the authority to determine responsibility for delay among the prime contractors. When one prime’s work depended on another, problems were to be reported to the Architect. The contract provided:

The Architect shall be the judge as to the division of responsibility between the Contractor(s) based on the construction schedule, weekly reports and job records, and shall apportion the amount of liquidated damages to be paid by each of them, according to delay caused by any or all of them.

(Pl. Ex. 1, Article 23(c).)

{14} The Architect had the ability to withhold funds from a co-prime for failing to perform work. In addition, Article 23 of the General Conditions provided that if a contractor was delayed at any time in the progress of his work by any act or negligence of another contractor, “then the contract time may be extended by change order for the time which the Architect and Owner may determine is reasonable.” The contractor responsible for the delay could be charged for the costs associated with any such change order. Biemann and Rowell never requested such a change order.

{15} Donohoe had no contractual power to enforce performance of a co-prime’s contract. Donohoe did not have

the option of withholding funds from a co-prime; giving notice to cure, hiring additional crew and charging costs to the co-prime; or terminating a co-prime's contract in the event that a particular co-prime was causing delay to the project. Donohoe's contractual ability to control a co-prime's work was limited to giving notice to the co-prime and the Architect with respect to delays caused by the co-prime, which Donohoe did on occasion during the course of the project.

{16} During the course of and subsequent to construction, change orders were issued extending the contract completion date. Delays occurred at all phases of the project. Weather contributed to a delay in Phase I of the project; such delay carried over into Phase II. In fact, before Phase III even began, two recovery schedules had been put into place. In Phase III, weather continued to be a problem, a situation which was exacerbated by the failure to temporarily dry-in the building.

{17} Delays in Phase III of the project were attributable to several factors. First, the tight sight and dense construction presented logistical problems and caused contractors to interfere with each other's work. Second, during the course of the project, the owner made revisions to the sixth floor which added to the scope of work for all contractors and extended the completion date of the project by 56 days. As a result, the contractors were frequently forced to complete work out of sequence. No fault is attributable to the co-primers as a result of these factors.

{18} Further delay was created by a structural defect which caused the building to settle. This settling in turn caused the metal studs in the basement to bend. Consequently, Donohoe had to replace the studs. The structural defect was not the fault of Donohoe. During this period, the work had to leave the basement and progress instead from the ground floor level. This modification affected all of the primes' work and further caused the work to progress out of sequence. Nevertheless, Biemann and Rowell signed a proposed change order which did not request extra time or money for the delay. In addition, Biemann and Rowell was given the benefit of a nineteen-day time extension granted to all contractors as a result of this delay.

{19} Donohoe's failure to temporarily "dry-in" the building by way of installing a fifth floor seal resulted in additional delay to the project schedule. "Temporary building seal" appeared as a milestone (a particular point in time) on the project schedule, rather than an activity (work to be performed). However, the evidence before the Court indicates that it was the understanding of the contractors, Architect, and Schedule Coordinator that Donohoe was to install a temporary moisture seal at the fifth floor level, thus allowing work at the lower levels to take place which would not ordinarily take place until a roof was installed on the structure. The nature of this "temporary building seal" was never defined and was not a specific requirement in Donohoe's contract.

{20} Theoretically, this temporary building seal would have facilitated the speed with which the project was to be completed. Normally, work would be restricted until the roof was put on because the lower levels would be exposed to moisture accumulation in inclement weather. The CPM schedule was designed around the elimination of this moisture accumulation. However, there was no understanding among the co-primers, the

Owner, and the Architect detailing what constituted a temporary moisture seal. No witness could testify of any direct knowledge of an agreement among the parties to the contract about what would be done to create a “building seal.” No witness had seen a “building seal” on any other construction project.

{21} The absence of a fifth floor seal prevented Biemann and Rowell from performing certain work in accordance with the deadlines set by the CPM schedule and caused Biemann and Rowell to perform other work out of sequence. Regardless of whether “temporary building seal” was a milestone or an activity, Donohoe failed in some respects to complete its work in accordance with the project schedule (i.e., by failing to install the drywall in accordance with the schedule). No specific demand was ever made on Donohoe to perform a specific act or acts which would have created a “temporary building seal.” No notice was ever given that the failure to install a fifth floor moisture seal would result in a delay loss claim against Donohoe.

{22} The contract provided that when the work fell fifteen days behind schedule, a recovery schedule would be developed at the expense of the contractor causing delay. Although Donohoe was required to develop several recovery schedules throughout the Neuropsych project, Donohoe was never charged by the Owner for costs associated with any such schedule.

{23} There were some delays throughout the project that were attributable to Donohoe; however, the Owner never exercised its right to complete work or annul the contract with Donohoe pursuant to Articles 28 and 29 of the General Conditions. No liquidated damages were assessed against Donohoe by the Owner. Furthermore, on November 15, 1999, a final change order was issued closing Donohoe’s contract with the Owner. This change order revised the scheduled completion date to be May 15, 1996, Donohoe’s completion date. Substantial completion of the project occurred on May 15, 1996, and UNC took beneficial occupancy on that date. Thus, by way of this change order, contractually there were no days late on the project attributable to Donohoe not performing their work in a timely manner.

{24} Biemann and Rowell also contributed to the overall project delay. Meeting minutes and field observation reports list delays in the completion of Biemann and Rowell activities. The majority if not all of these activities were not dependent upon the installation of a temporary seal at the fifth floor level. In addition, Biemann and Rowell experienced cost overruns in months where work was progressing on schedule.

{25} Throughout the project, Biemann and Rowell kept records of total labor hours. If labor time was running over the estimate upon which the bid was based, the project manager was notified. However, during the project Biemann and Rowell did not make any attempt to tie labor overrun to specific factors or causes. Biemann and Rowell had the ability to enter into the daily log book the amount of additional time worked and the number of additional men needed as a result of each delay, but elected not to do so. (Searles Testimony, vol. 3, p. 131-52, lines 19-13.) In addition, Biemann and Rowell did not have an internal process in place to analyze the accuracy of its bid estimate. Throughout the Neuropsych project Biemann and Rowell failed to keep records which would permit or support a direct relationship between specific causes and particular

periods of labor overrun.

{26} Biemann and Rowell never made any written requests to the Owner or to the Architect seeking an extension of time to account for delay attributable to Donohoe, nor did Biemann and Rowell give written notice to the Owner or Architect that Donohoe was delaying Biemann and Rowell's work. On September 20, 1994, following the review of a recovery schedule, Brad Pope, project manager for Biemann and Rowell, wrote a letter to the Architect reserving the right to seek recovery of costs incurred due to delays. However, during the project, no claims for damages or delays were filed against Donohoe by the Owner, the Architect, the other co-primes, or any of Donohoe's subcontractors, nor were any claims for damages or delay made against Biemann and Rowell by any of its subcontractors.

{27} During the project, Biemann and Rowell did not have a policy of sending written notification to co-primes or subcontractors that were causing delay and thus contributing to a labor overrun. However, Biemann and Rowell did have a form notice letter which provided notice to other contractors or subcontractors that they were impacting or delaying Biemann and Rowell's work and reserved the right to seek costs or damages. (Def. Ex. Searles Cross 1.) During the course of the project, Biemann and Rowell sent several of these form letters to Griffin Electric, the electrical prime contractor, advising Griffin they were delaying or interfering with Biemann and Rowell's work and that costs would be incurred to recover lost time. (Searles Testimony, vol. 3, p. 161-70, lines 3-24.) No such letters were sent to Donohoe. Biemann and Rowell never provided Donohoe with written or verbal notice of any undue delay caused by Donohoe which would put Donohoe on notice that it needed to take action to avoid a claim.

{28} Biemann and Rowell never gave notice of economic harm at any progress meetings, coordination meetings, schedule update meetings, or foremen's meetings, nor did Biemann and Rowell ever indicate publicly or privately that they intended to claim damages from Donohoe for delays. Although the weekly foremen's meetings together with the monthly meetings between the contractors, Owner and Architect provided a forum in which responsibility for delays could be allocated, the minutes of these weekly meetings indicate that Donohoe did not receive any notice of potential claims for extra costs while in attendance at these meetings.

{29} Biemann and Rowell's completion date was November 20, 1995. Pursuant to Article 32 of the contract, "[t]he making and acceptance of final payment shall constitute a waiver of all claims by the Contractor. . . ." Thus, final certificate of payment was to be accompanied by a release and waiver of claims against the other co-primes or the subcontractors. In fact, the release signed by Biemann and Rowell on January 13, 1997, contained the following language: "acceptance of final payments warrants that no claims exist against any performers of the work for the above referenced project."

{30} On October 11, 1996, Biemann and Rowell notified Donohoe by letter of its claim for damages resulting from undue delay attributable to Donohoe. At the time of the October 1996 letter, Donohoe had released 78 of

its 80 subcontractors. Throughout the process of closing the contracts with its subcontractors, Donohoe had no knowledge of a potential undue delay claim. Thus, if any undue delay attributed to Donohoe by Biemann and Rowell had been the fault of a subcontractor, Donohoe would have already released that subcontractor.

{31} Upon receiving the notice of Biemann and Rowell's claim for undue delay, Donohoe requested that Biemann and Rowell provide a written claim for financial recovery. Biemann and Rowell consulted with William McGinnis of Bottom Line Construction Services, Inc., a management company that specializes in construction claims. Mr. McGinnis analyzed the project documentation and arrived at a modified total cost claim for damages.

{32} Mr. McGinnis found that Biemann and Rowell had a total labor overrun of 36,184.1 man-hours on the project. Mr. McGinnis arrived at this figure by determining the total man-hours expended in excess of Biemann and Rowell's bid estimate, from which he "backed out" the man-hours added as a result of (1) the change orders and (2) the rework man-hours attributable to Biemann and Rowell.

{33} Mr. McGinnis' analysis resulted in a total labor cost overrun of \$521,775, which he entirely attributed to delay caused by Donohoe. Biemann and Rowell claims \$779,356 in damages, a sum based on Mr. McGinnis' total calculation of damages.[\[fn1\]](#) However, Biemann and Rowell's job revenue exceeded job cost figures by \$26,271. (McInnis Testimony, vol. 4, pages 265-66, lines 19-15.) That is to say, Biemann and Rowell made money on the project.

{34} The total cost claim methodology used by Biemann and Rowell to establish damages does not account for: any underbidding of the project; any inefficiency by Biemann and Rowell in the performance of its work; delays caused by other co-primes, or their subcontractors; delays caused by Biemann and Rowell or its subcontractors; or any design deficiencies or design changes during the course of the project. In addition, Biemann and Rowell failed to account for changes in the schedule resulting from the Owner's changes in the scope of the work, or schedule changes agreed upon at the monthly meetings. Since Biemann and Rowell failed to keep records from which excess labor attributable to undue delay could be determined, Mr. McInnis could not directly correlate any excess cost to a particular delay.

{35} Biemann and Rowell's evidence of damages was not based on an independent investigation. Mr. McGinnis' analysis was premised on the baseline schedule for the project. Mr. McGinnis assumed the schedule given to him by Biemann and Rowell's project manager was the baseline schedule approved by all contractors in December 1992. Mr. McGinnis did not obtain any schedule information from Milestone or Donohoe, nor did he attempt to verify the schedule given to him by Biemann and Rowell. His method of calculation does not take into account changes in the schedule which were not caused by Donohoe, but holds Donohoe responsible for all labor cost overruns because it was the project expeditor.

{36} During the course of the project Biemann and Rowell submitted invoices to Donohoe for the following items: (1) Invoice dated 2/7/96 in the amount of \$1,420.71 for the connections to five sterilizers; (2) Invoice

dated 10/28/94 in the amount of \$2,774.76 for miscellaneous metal “Z” bar provided by Biemann and Rowell; (3) Invoice dated 2/7/96 in the amount of \$458 for 16 gauge steel angles; and (4) Invoice dated 3/20/96 in the amount of \$15,588.03 for repairs to chilled water lines in manhole number one. Donohoe denied payment for the first invoice on the basis that the work was either within the scope of Biemann and Rowell’s work, or, if not, Biemann and Rowell was to seek a reimbursable change order from the Architect, as the item was clearly outside the scope of Donohoe’s work. With respect to the next two invoices, Donohoe agreed to allow Biemann and Rowell to use a tower crane and materials hoist furnished to the project by Donohoe in exchange for not charging for the materials supplied by Biemann and Rowell. Payment of the fourth invoice was denied by Donohoe on the basis that it took precautions during the installation of precast on the west side of the building to prevent damage to the existing grade and, upon conclusion of the work, found no evidence of disturbance of the soil around the line. Biemann and Rowell made no independent analysis of the cause of the damage to the manhole, made no further attempt to collect on any of the four invoices and made no further assertions that amounts were owed on these invoices until April 1999. Donohoe was not responsible for the damage claimed.

Conclusions of Law

{37} Biemann and Rowell seeks damage for Donohoe’s alleged breach of contract, negligence, and non-payment of invoices. Biemann and Rowell’s cause of action is statutory, arising under N.C.G.S. § 143-128, and is based upon the performance of duties under the terms of the contract. Therefore, Biemann and Rowell’s cause of action for negligence is inappropriate and is dismissed. *See Bolton Corp. v. T. A. Loving*, 94 N.C. App. 392, 396-97, 380 S.E. 2d 796, 799-80 (1989) (finding plaintiff had no claim for negligence against defendant general contractor for delay damages but did have a claim against defendant pursuant to N.C.G.S. § 143-128). Biemann and Rowell’s complaint did not contain a cause of action for nonpayment of invoices. Donohoe’s first notice of such a claim occurred after the statute of limitations had expired. Therefore, Biemann and Rowell’s attempt to amend its complaint to assert that claim is untimely and is denied.

{38} In addition, Article 32(c) of the General Conditions provides that “[t]he making and acceptance of final payment shall constitute a waiver of all claims by the Contractor except those claims previously made and remaining unsettled.” Accordingly, Donohoe argues that Biemann and Rowell’s execution of the final lien waiver denying any claims against any providers of the work, ninety days after its first notice to Donohoe of a claim and five months after substantial completion of the project, operates as a waiver and estoppel of Biemann and Rowell’s right to bring this action. This Court declines to decide whether Article 32(c) applies to claims between co-prime contractors and instead focuses its analysis on whether Biemann and Rowell has asserted a valid delay claim against Donohoe.

{39} Section 143-128 of the North Carolina General Statutes provides that each prime contractor shall be liable to the other contractors for the full performance of the duties and obligations under the contract. Pursuant to

N.C.G.S. § 143-128, Donohoe agreed to be liable to Biemann and Rowell for the performance of its duties and obligations due under the contract. Biemann and Rowell argues that Donohoe violated N.C.G.S. § 143-128 and breached the construction contract by (1) failing to fulfill its duties as project expediter and (2) causing undue delay to the project schedule.

A.

{40} An aspect of Biemann and Rowell's claim is the allegation that Donohoe failed to fulfill its duties as project expediter. Specifically, Biemann and Rowell claims that Donohoe failed to (1) properly schedule the work of all contractors; (2) maintain a reasonable project progress schedule for all contractors; (3) give adequate notice to contractors to insure efficient continuity of the work; and (4) plan, develop, coordinate and administer required recovery schedules.

{41} Nowhere is the difficulty of assigning responsibility under the multi-primes structure more apparent than in determining the duties of the project expediter in this case. Donohoe and the Architect exchanged heated correspondence regarding Donohoe's role under the contract. Scheduling was removed from Donohoe's contractual responsibilities and contracted out to the Milestone Group, which reported directly to the Owner's representative. Although the schedule was delayed, it is difficult to find a direct causal link between some duty Donohoe failed to fulfill as expediter and the delay. Certainly no demand was made on Donohoe by Biemann and Rowell to take a particular action which Donohoe failed to do as expediter. Under Article 15, the Architect was the sole judge of the responsibility for delay among contractors. Biemann and Rowell made no request to the Architect to allocate responsibility for delay. In this situation, the Architect could have determined that Donohoe was responsible for liquidated damages for delay; however, it did not do so.

B.

{42} In order to succeed in its delay claim against Donohoe, Biemann and Rowell must show that (1) the delay was unreasonable, (2) the delay was proximately caused by Donohoe's actions, and (3) the delay caused some injury to Biemann and Rowell. *Mega Constr. Co., Inc. v. United States*, 29 Fed. Cl. 396, 424 (1993). This Court finds that Biemann and Rowell failed to meet all three elements of a delay claim. Further, the Court finds that Biemann and Rowell failed to meet its obligation to raise the delay issue in a timely manner.

{43} As originally scheduled, the project completion date was May 12, 1995; however, the date of substantial completion was not until May 15, 1996. Thus, the total delay on the Neuropsych project was 369 days. This delay of over a year was attributable to several factors.

{44} The facts show that Donohoe failed to complete its work according to the contract schedule. Specifically, Donohoe failed to install a temporary fifth floor building seal as called for by the schedule. Donohoe's failure to meet the project schedule with respect to the temporary building seal contributed to the project delays. Further delay was caused by Donohoe's failure to perform its duties as project expediter. Donohoe neglected its coordination responsibilities by failing to notify contractors who were falling behind, failing to play an

active role in coordinating the co-primers' work, and failing to implement recovery schedules.

{45} Although Donohoe failed to perform some of its duties as general contractor and project expediter and did not always complete its work in accordance with the project schedule, Biemann and Rowell failed to present evidence that Donohoe was the sole proximate cause of delay to Biemann and Rowell's work.

{46} Pursuant to the contract, the Architect "interprets the contract which governs the relationship of the parties, and makes decision on all claims of contractors involving 'any matter dealing with the execution of the work.'" *Bolton Corp. v. T.A. Loving Co.*, 94 N.C. App. 392, 402 (1989). "[W]hen a contract assigns the project architect . . . responsibility to make decisions on all claims of contractors . . . the architect's decision on responsibility for delay should control." 94 N.C. App. at 399 (citing J. Sweet, *Legal Aspects of Architecture, Engineering, and the Construction Process* § 33.09 (3rd ed. 1985)). The judgment of a prime's ability to perform its job and to maintain timely progress is delegated to the Architect by contract.

{47} Letters and summaries written by the Architect indicate that Donohoe was failing to complete work according to the project schedule and was failing to fulfill its role as project expediter. While such letters may show that Donohoe contributed to project delay, they are not dispositive on the question of whether Donohoe directly impacted Biemann and Rowell's ability to complete its work in accordance with the schedule. Biemann and Rowell presented no evidence to support the conclusion that the Architect determined that all or a portion of the responsibility for Biemann and Rowell's labor overrun fell on Donohoe. The Architect was never asked to make such determination, either during the project or at trial. No extra costs were allocated to Donohoe by the Architect. This Court finds that the Architect's failure to assign any direct liability for delay to Donohoe served as an implicit determination that Donohoe was not directly responsible to Biemann and Rowell for delays in Biemann and Rowell's performance of its work.

{48} Furthermore, in order to establish a causal link between project delay and cost overrun, a plaintiff must link its allegation of delay to the critical path. The critical path is that part of the construction which, if delayed, impacts the remainder of the construction, or that without which work cannot proceed. *See Wickmire & Smith, The Use of Critical Path Method Techniques In Contract Claims*, 7 Pub. Cont. L.J. 1, 43-45 (1974). Activities on the critical path have no discretionary time, or "float"; thus, if a day is lost to the critical path, it is lost to the schedule, regardless of how many man-hours are worked that day on other activities. Likewise, only construction work on the critical path has an impact upon the time in which the project is completed. If work on the critical path is delayed, then the eventual completion date of the project is delayed. Delay involving work not on the critical path generally has no impact on the eventual completion date of the project.

Mega Constr. Co., 29 Fed. Cl. at 425.

{49} In this case, Biemann and Rowell's central argument with respect to Donohoe's delay is that Donohoe failed to install a temporary building seal, thus impacting the overall progress of the project. While Biemann and Rowell's argument seems logical, the installation of a temporary building seal only appeared on the

critical path in April 1994, long after the project began experiencing delays. Furthermore, Biemann and Rowell failed to sufficiently establish how delays solely attributable to Donohoe impacted the critical path.

Rather than trying to integrate alleged [defendant]-caused delays into a critical path analysis . . . plaintiff simply listed instances of delay allegedly attributable to defendant, in the form of a bar chart, and . . . [relied on] anecdotal testimony about the delays In fact, plaintiff failed to provide the court with any credible coherent analysis of critical path delay, leaving to the court the well-nigh impossible task of identifying, quantifying, and assigning responsibility for critical path delay.

Id. at 426. Therefore, the Court finds no causal link between the project delay and Biemann and Rowell's cost overrun.

{50} The final flaw in Biemann and Rowell's delay claim is its failure to prove damages. Even had this Court found that Biemann and Rowell established the element of causation, Biemann and Rowell did not provide this Court with competent evidence upon which an award of damages could be based. Biemann and Rowell was not able to sufficiently quantify the actual damages incurred on the Neuropsych project resulting from Donohoe's actions. Therefore, Biemann and Rowell relied on a modified total cost method of proving damages. Apart from the fact that Biemann and Rowell failed to satisfy the four criteria necessary to rely on the modified total cost method of proving damages, the cost data presented to the Court indicated a net profit to Biemann and Rowell on the Neuropsych project.

{51} The modified total cost theory is a variation of the total cost method of determining damages in a construction delay claim. Under the total cost method, the contractor seeks the difference between its total costs incurred in performance of the contract and its bid price. This method of quantifying damages is a theory of last resort and is highly disfavored by the courts because it assumes that all of plaintiff's costs were reasonable, that the bid was accurately computed, and that the plaintiff is not responsible for any increases in cost. "[T]his method is used only in cases where no other means of accurately computing damages are available." *Youngdale & Sons Constr. Co., Inc. v. United States*, 27 Fed. Cl. 516, 541 (1993).

{52} There are four criteria for recovery under total cost method: (1) impracticability of proving actual losses directly; (2) reasonableness of bid; (3) reasonableness of actual costs; and (4) lack of responsibility for additional costs. *Id.* Plaintiff must prove these requirements by a preponderance of the evidence. *See Neal & Co., Inc. v. United States*, 36 Fed. Cl. 600, 639-43 (1996). The modified total cost method is the total cost method with adjustments for any deficiencies in the plaintiff's proof in satisfying the four requirements above. The modified cost approach is used where the court finds it necessary to adjust either the contract price or the total cost of performance, or both. The modified total cost approach assumes that the elements of a total cost claim have been established but that adjustments must be made. Biemann and Rowell has failed to establish the elements of a total cost method claim.

{53} First, Biemann and Rowell has not shown the Court that proving direct actual losses was impracticable. To establish the impracticability of proving actual losses directly, a plaintiff must show that the nature of its losses

makes it impracticable to determine the amount of the actual losses with a reasonable degree of certainty. *Mega Constr. Co.*, 27 Fed. Cl. at 541-42. Biemann and Rowell failed to convince the Court that it was unable to assess direct losses attributable to Donohoe. Testimony by Biemann and Rowell employees indicated that Biemann and Rowell's accounting department kept records of labor overrun throughout the Neuropsych project. Such records could have been tied to instances where Donohoe was responsible for delays. In fact, Biemann and Rowell did not produce any accounting records, nor did they offer as witnesses any accounting personnel. Biemann and Rowell could have maintained records of delay costs, but did not do so.

{54} Second, Biemann and Rowell failed to prove that its bid on the Neuropsych project was reasonable. A determination of whether a bid was reasonable is made from the bids of others. The record contains no evidence of other bids submitted for the HVAC work on the Neuropsych project. Accordingly, the Court has no means by which to assess whether Biemann and Rowell's bid was reasonable. Biemann and Rowell's own employees testified that the bid was "aggressive."

{55} Third, Biemann and Rowell failed to adequately allocate responsibility for its extra costs. "It is incumbent upon plaintiff to show the nature and extent of the various delays for which damages are claimed and to connect them to some act of commission or omission on defendant's part." 27 Fed. Cl. at 546 quoting *Wunderlich Contracting Co. v. United States*, 174 Ct. Cl. 180, 200 (1965). Biemann and Rowell's expert allocated responsibility for a narrow set of costs to Biemann and Rowell and attributed the remainder of the cost overrun entirely to Donohoe. Biemann and Rowell made no attempt to isolate the nature and extent of specific delays but rather attributed the entire project delay to Donohoe's failure to provide a temporary seal. In fact, the Court has found above that Biemann and Rowell also contributed to the overall project delay. Where both parties contribute to the delay, neither can recover damages unless there is proof of clear apportionment of the delay and expense attributable to each party. *See Neal & Co.*, 36 Fed. Cl. at 644.

{56} In conclusion, the total cost claim methodology used by Biemann and Rowell fails to establish damages to a reasonable certainty. Biemann and Rowell failed to verify the validity and accuracy of its data used in the calculations of damages. Specifically, Biemann and Rowell failed to account for factors such as: (1) the design, (2) acts of other co-primes and their subcontractors, (3) acts of the Owner, (4) acts of Biemann and Rowell and its subcontractors, (5) omissions and errors in Biemann and Rowell's bid, (6) mathematical computation errors and (7) the use of the Eichleay formula, which is appropriate for suspension of work and but not delay damages. These failures render Biemann and Rowell's calculations and assessment of damages unreliable and speculative.

C.

{57} In addition to the fact that Biemann and Rowell failed to establish the elements of a delay claim, Biemann and Rowell's failure to provide Donohoe notice of a potential claim for extra costs prevents Biemann and Rowell from recovering in this action. Biemann and Rowell's argument on the issue of notice is twofold.

First, Biemann and Rowell argues that notice is not required under the contract. Second, Biemann and Rowell claims that the weekly foremen's meetings and monthly progress meetings with the Architect and the Owner were the proper vehicle through which notice was to be given to co-prime contractors. Biemann and Rowell argues that as a result of attending these meetings, Donohoe was provided notice that Biemann and Rowell was experiencing delays and incurring extra costs which were directly attributable to Donohoe. In addition, Biemann and Rowell relies on the Milestone progress reports, correspondence of Griffin Electric and letters from HKS to Donohoe as further support that Donohoe had constructive notice of Biemann and Rowell's claim.

{58} As an initial matter, pursuant to the contract, the co-primes had a duty to request an extension of time in writing to the Architect and Owner within 20 days following the cause of any delay. Biemann and Rowell failed to comply with this express contractual obligation to provide notice of a delay to the Architect. As the arbiter of disputes between the co-primes, it was necessary for the Architect to be notified when one contractor was causing delay to another. Biemann and Rowell's failure to provide such notice prevented the Architect from resolving any problems caused by delays before they became insurmountable.

{59} Furthermore, Biemann and Rowell failed to provide Donohoe with written notice of its claim. Because Biemann and Rowell did not provide Donohoe with written notice, Donohoe was unaware of any potential liability when it settled with its subcontractors. Donohoe cannot now recover contribution from its subcontractors and would be left solely responsible for any damages awarded to Biemann and Rowell. In addition, by failing to provide written notice in a timely manner, Biemann and Rowell breached its duty to mitigate damages. Had Donohoe been aware of specific damages it was causing to Biemann and Rowell early on, it would have had the opportunity to coordinate with Biemann and Rowell and develop a plan to prevent future damages.

{60} In addition, this Court finds that the weekly and monthly project meetings were not sufficient vehicles for providing notice of a claim for damages to a contractor who was contributing to a co-prime's delay. While these meetings may have served as constructive notice that a contractor's work was being impacted by another co-prime's failure to follow the schedule, they did not provide the opportunity for a contractor to tie specific damages to specific action or inaction of a co-prime. In addition, Biemann and Rowell should not be allowed to rely on the correspondence of third parties to support its argument that Donohoe had notice of Biemann and Rowell's claim that Donohoe was directly impacting Biemann and Rowell's work.

{61} This Court recognizes that there is case law that supports the proposition that failure to provide written notice does not require denial of claims where the defendant had actual knowledge of the facts supporting plaintiff's claims. *See R.J. Au & Son v. N.E. Ohio Reg. Sewer Dist.*, 504 N.E.2d 1209 (Ohio App. 1986). The case law cited by Biemann and Rowell in support of this proposition is not persuasive in this case. The multiple prime contractor setting poses a unique situation which necessitates a strict notice rule. Contractors

on a multiple prime project face many scheduling and coordination challenges. They must be able to work together, keeping conflict at a minimum. The project meetings served to insure cooperation and efficient progression of the work. Accordingly, the project meetings were not the appropriate place to air specific disputes with co-primes and to make specific claims for damages. In fact, the individuals who had the authority to satisfy a claim for damages were not present at most, if not all, of the meetings. Instead, these meetings provided the men who were on the job with the opportunity to get together and discuss coordination of their work, thus insuring the cooperation that is vital in the multi-prime setting.

{62} This Court finds that a contractor who claims a co-prime is liable to it for specific damages must provide that prime with written notice of a claim. Evidence in the record indicates that the prime contractors on the Neuropsych project understood the necessity for written notice. For example, Biemann and Rowell sent invoices to Donohoe seeking payment for damage caused by Donohoe when it used Biemann and Rowell's crane. These invoices served as written notice to Donohoe that Biemann and Rowell was asserting a claim for damages specifically attributable Donohoe's use of the crane. In addition, in June, July and August of 1995, Biemann and Rowell sent letters to Griffin Electric stating that because of Griffin's delay, Biemann and Rowell was unable to complete its work in accordance with the project schedule. (Def. Ex. Searles Cross 1, 2, 3.) In fact, the letters sent to Griffin appear to be variations of a form letter specifically suited for notifying co-primes of delays they are causing to Biemann and Rowell. Furthermore, the record contains evidence that Griffin wrote letters to both Donohoe and Biemann and Rowell notifying them that they were causing delays to Griffin's work and specifying resulting damages. Thus, it is clear that the contractors understood the importance of providing written notice of a claim for damages under the contract.

{63} The notice requirement permits early investigation of the validity of a claim when the evidence is still available and the memories of witnesses have not faded. *See New Pueblo Const., Inc. v. State*, 144 Ariz. 95, 100-01 (1985). Notice allows the contractor opportunity to compile records of its costs and allows for consideration of alternate methods of construction that may cut costs. *Id.* at 101. Biemann and Rowell's failure to provide written notice prejudiced Donohoe's ability to mitigate its damages and ultimately to defend this action. Having failed to satisfy the notice requirement, Biemann and Rowell cannot now come to this Court seeking full recovery from Donohoe for the entire labor cost overrun it incurred on the Neuropsych project.

Conclusion

{64} The Court concludes that Biemann and Rowell's damage calculation is unreliable. By its own documentation, Biemann and Rowell made a \$24,435 profit on this project. (See Pl. Ex. 82 – Jobsite Overhead Cost Analysis.) Biemann and Rowell's own witness testified that the actual costs of materials and subcontractors came in at close to the amount calculated in the bid. Biemann and Rowell used a figure of either \$273,653 or \$335,349 for profit and overhead in calculating its \$3.5 million bid. (Pl. Ex. 3.) Thus, if

Biemann and Rowell had actually experienced a loss of \$779,365 as projected in Plaintiff's Exhibit 80A, the Jobsite Overhead Cost Analysis (Pl. Ex. 82) should have reflected that amount. At most, Biemann and Rowell could only have lost \$310,914 (\$335,349 less \$24,435). Plaintiff's damage calculation is clearly overstated by a large amount. The burden is on the plaintiff to prove its damages by a preponderance of the evidence. See *Rose v. Vulcan Materials Co.*, 282 N.C. 643, 667, 194 S.E.2d 521, 537 (1973); *Southern Box and Lumber Co. v. Home Chair Co.*, 250 N.C. 71, 76, 108 S.E.2d 70, 73 (1959). The finder of fact cannot be left to speculation or guesswork, which is precisely the position in which the Court is left based on plaintiff's evidence. While it seems clear that Biemann and Rowell experienced some excess labor costs due to project delay, the Court cannot determine from the evidence presented the amount of the loss and the amount, if any, attributable to the actions of Donohoe. Biemann and Rowell either failed to maintain or to produce records from which a reliable damage calculation could be made. The use of a total labor overrun analysis for the entire job does not satisfy Biemann and Rowell's burden of proof, particularly in this case where the calculation is irreconcilable with Biemann and Rowell's own records.

{65} At the end of this case, the Court is left with a record which establishes that this job was delayed in completion and that the delay undoubtedly created some additional labor costs for Biemann and Rowell. Donohoe bore some of the responsibility for the delay in completion of the job. Were this an arbitration proceeding, it would be easier for the Court to simply compromise the numbers and award some amount to Biemann and Rowell. In fact, Plaintiff's counsel's closing argument encouraged the Court to award a "reasonable dollar amount" for the cost overrun caused by Donohoe, while conceding that the company record keeping made it difficult to quantify the loss. However, this is not an arbitration proceeding. The multi-prime contracting method which the state of North Carolina elected to use does not permit arbitration between co-primes. Rather, the method imposed upon the co-primes the obligation to address issues which arose on the job at the time the problem originated and not after the job was substantially completed. It required co-primes to put other co-primes on notice that a claim existed and to quantify the claim. If the claim was not resolved between the co-primes, the Architect was charged with resolving the differences and settling the claim. The process which the state chose places a heavy burden on co-primes.[\[fn2\]](#) This burden protects the state for post-completion litigation while using the owner's leverage to keep the job moving.

{66} Co-primes must identify problems when they arise. They must maintain records which substantiate their claims. They must be able to quantify their losses. They must put the parties they seek to hold responsible on notice at the time the claim arises and they must get the owner's representative to resolve those claims at the time or preserve their claims. Otherwise the dynamic of the co-prime system will not work.

{67} While burdensome, the requirements are not impossible. Mechanisms exist to accomplish each of the above tasks. Evidence of such mechanisms exist in the record in this case. Biemann and Rowell maintained records of labor time on the job site which could have been used to quantify excess labor. They had estimates

used to bid the job from which they could have tracked cost overruns. (Pl. Ex. 3.) The CPM schedule kept everyone on notice of scheduling delays. There were weekly foremen's meetings and regular meetings with the Architect where issues could be and were addressed. (Florian Testimony, vol. 5., p. 96-98, lines 15-1.) Other co-primes put Donohoe on notice of a delay claim (Pl. Ex. 30), and Biemann and Rowell put co-primes on notice of claims. (Def. Ex. Searles Cross 1, 2, 3.) The Owner had leverage over Donohoe and threatened to use it. (Pl. Ex. 65.)

{68} In this case, Biemann and Rowell simply failed to maintain records or give timely notice of claims. Biemann and Rowell's after-the-completion attempt to prove its loss by an excess labor analysis (the only available means) fails because the method of analysis as applied in this case does not take into account Biemann and Rowell's own contribution to the delay, its own inefficiencies and its own possible errors in its "aggressive" bidding. Nor does it take into consideration problems which might have been inherent in the tight design of the building or the Owner's changes. Nor does it take into account obvious excess labor costs at a time when the job was actually on schedule. Had the delay issues been raised at the time the project actually fell behind schedule, a claim could have been made with sufficient certainty to support an award now or, even better, the claim could have been resolved at the time by the Owner and the co-primes. The excess labor analysis does not prove Biemann and Rowell's claim with sufficient certainty and leaves the Court to speculate or guess at what the "actual" or "reasonable" amount of loss attributable to Donohoe might be. Accordingly, Biemann and Rowell has failed to carry its required burden of proof to establish a claim.

{69} Finally, Donohoe asserted a counterclaim against Biemann and Rowell for breach of contract and for violation of N.C.G.S. § 143-128. Donohoe's counterclaim is based on allegations that Biemann and Rowell failed to exercise reasonable care in the performance of the contract, failed to properly schedule its own work, failed to properly expedite its work and failed to coordinate its work with the other co-primes. (Def. Counterclaim ¶ 8.) Donohoe claims that pursuant to N.C.G.S. § 143-128 it is entitled to recover damages to compensate for such failures on the part of Biemann and Rowell. While Donohoe did introduce evidence which tended to show that Biemann and Rowell bore some responsibility for project delay, it failed to quantify its actual damages. Accordingly, Donohoe's counterclaim is dismissed.

{70} Therefore, it is hereby ordered, adjudged and decreed that:

1. Judgment on all claims asserted by Biemann and Rowell shall be entered in favor of Defendant Donohoe.
 2. Judgment on the counterclaim asserted by Donohoe shall be entered in favor of Plaintiff Biemann and Rowell.
 3. Donohoe's claim for set off is rendered moot by the judgment entered in Donohoe's favor.
- This the 5th day of June, 2000.

[Footnote 1](#) Mr. McGinnis' total calculation of damages includes labor cost overrun, field overhead, home office overhead, equipment costs, and interest, less certain credits for items Biemann and Rowell billed directly to Donohoe.

[Footnote 2](#) North Carolina is one of only two states which use the multi-prime structure. At least one witness with twenty-five years experience testified that other structures were better and that the multi-prime structure had few benefits.