

GOVERNMENT OF THE DISTRICT OF COLUMBIA
CONTRACT APPEALS BOARD

APPEAL OF:

A.A. BEIRO CONSTRUCTION CO., and)	
FIDELITY AND DEPOSIT COMPANY)	
OF MARYLAND)	CAB No. D-0822
)	
Under Contract No. 0342-AA-02-1-2-CC)	

For the Appellants A.A. Beiro Construction Co. and Fidelity and Deposit Company of Maryland: Robert G. Watt, Esq., Richard G. Mann, Esq., Keith C. Phillips, Esq., Watt, Tieder & Hoffar. For the District of Columbia: Mark D. Back, Esq., Assistant Corporation Counsel.

Opinion by Administrative Judge Jonathan D. Zischkau, with Chief Administrative Judge Lorilyn E. Simkins and Administrative Judge Matthew S. Watson, concurring.

OPINION

CourtLink Filing ID 470475

Appellants A.A. Beiro Construction Company and Fidelity and Deposit Company of Maryland seek termination for convenience costs arising from the District's converted termination for default of Appellant Beiro's contract to construct a prevocational/vocational school building. We find Appellants and their subcontractors entitled to unpaid costs of performance of \$1,682,337, settlement costs of \$131,004, and interest on those amounts pursuant to former section 806 of D.C. Law 6-85 (formerly D.C. Code § 1-1188.6, recodified at § 2-308.06).

FINDINGS

This case arises out of a 1984 contract for the construction of the former Prevocational Vocational/Education Facility for the Handicapped at First Street, N.W. The District issued its notice to proceed for the project on July 9, 1984, and work was to be complete by June 9, 1986, a 700-day performance period. There is no dispute that there were significant design defects and dimensional errors in the District's plans and specifications which had been prepared for the District under a separate contract by an architect-engineering firm. In February 1985, an elevated concrete slab evidenced deflection and cracking. Certain concrete columns also contained cracking. The District issued a stop work order on all construction in February 1986, alleging that Beiro had not complied with concrete strength requirements. (DEX 227). Beiro took the position that "the deflection and ultimate cracking of the beams and slabs clearly is a design problem, not a material installation problem." On April 23, 1986, the District converted the stop work into a suspension of work, noting that the architect took the position that the design was adequate and that the problems were caused by faulty construction, and that an independent consultant blamed the problems on both construction and design deficiencies. (DEX 228). The suspension notice stated that the District would have to "re-evaluate the entire situation," that "in view of the scope of the problems and the complexity of the liability issues involved, we estimate that a complete evaluation will take about six

months,” and that Beiro should mitigate costs for the duration of the suspension (*Id.*).

In February 1987, Beiro and DPW began discussing resumption of work on the project and negotiating costs of outstanding Beiro proposed change orders (“PCOs”), which numbered well over 100 at the time. For reasons including a change in the District’s need for such an educational facility as well as the economic infeasibility of taking corrective action in order to complete construction, the District decided to end the project without completing construction and eventually demolished the incomplete structure. (AEX 133; AEX 429, at 9). The District terminated Beiro’s contract for default on July 31, 1987, alleging defective concrete placement, and filed a separate claim against the architect. The District and the architect ultimately settled that claim. *See Fry & Welch Associates*, CAB No. D-821, July 31, 1997, 44 D.C. Reg. 6859, 6860-61; Board Order, CAB No. D-821, dated February 27, 1998. Appellants filed an administrative appeal with the then-Director of the Department of Administrative Services who denied Beiro’s appeal on June 15, 1989. Beiro then appealed the default termination to the Board on July 14, 1989. In a March 30, 1992 decision, the Board defaulted the District on the issue of the propriety of the District’s termination action as a sanction for failing to proceed to hearing. After converting the default to a convenience termination, the Board conducted a hearing on Beiro’s termination costs in April 1992 and thereafter issued a decision awarding Appellants their termination costs. In a June 27, 1996 decision, the District of Columbia Court of Appeals reversed the Board’s order holding the District in default and remanded the case to the Board for a hearing on the merits.

Following remand to the Board, the District determined that it no longer wished to defend the propriety of the default termination, and on May 1, 1997, it issued a notice to Beiro converting the default termination to one for the convenience of the District. The Board directed the parties after remand to begin negotiating a convenience termination settlement and supplemental auditing as necessary.¹ Appellants advised that the owner of Beiro had disposed of the trailer containing most of the bankrupt company’s original records at some point during the pendency of the court appeal, probably in 1995.² Ultimately, the parties were unsuccessful in negotiating a termination settlement. In 1998, the Board held a hearing on quantum to supplement the hearing that had been held in 1992.

¹ The District moved to remand the quantum determination to the contracting officer but the Board decided to retain jurisdiction while encouraging the District to make such a determination. In its posthearing brief, the District again challenges the Board’s jurisdiction but we reject its arguments for the reasons expressed in our prior decisions on these matters. (E.g., Board Order, dated May 5, 1997; Board Order, dated September 5, 1997).

² Based on the loss of these records, the District argues that it did not have meaningful access to Beiro’s financial records. We find that the District had ample opportunity to review, audit, and discover Beiro’s financial records from the time of termination through the February 1992 discovery cutoff for the original hearing in 1992. The District chose to wait to the end of the discovery period to review and copy Beiro records. At no time did the Board prohibit the District from exercising its audit rights. Thus, the request for a blanket sanction against Appellants must be rejected. As described in our determinations on each element of Appellants’ termination costs, *infra*, the Board has carefully reviewed the entire record and has sustained costs only where adequate support exists.

Appellants' Termination Claims

Appellants initially engaged Ernst & Young in 1990 to prepare their termination settlement proposal. (Tr. 28-29). Ernst & Young analyzed Beiro's accounting records and prepared a report in 1991-1992 setting forth the termination for convenience costs for the Prevocational Facility project. (Tr. 28-30; AEX 236). Just prior to the 1992 quantum hearing, Ernst & Young issued an update of the original cost report. (AEX 362). In May 1998, prior to the supplemental 1998 quantum hearing, Ernst & Young issued a new report that updated and adjusted the earlier cost report. (Tr. 32-33; AEX 458). Ernst & Young used Beiro's October 8, 1987 detailed job cost report as the starting point for the cost analysis because it was the latest available detailed job cost report. (Tr. 310; AEX 236, at 3). Vendor and subcontractor payments were copied from Beiro's detailed job cost report into Ernst & Young databases to facilitate the analysis and presentation of the information. (Tr. 51-52; AEX 236, at 20-45, 49-53). Using invoices, check carbons, ledgers, transaction reports, and other supporting documents, Ernst & Young confirmed the vast majority of the vendor and subcontractor costs reported in Beiro's detailed job cost report and found no basis for questioning the accuracy of Beiro's cost report. (Tr. 310-312, 50-54, 56, 59-63, 498). Beiro's cost accounting system was instituted with the assistance of a certified public accounting firm. (Tr. 211). During the contract period, Arthur Young and then Ernst & Whinney served as outside accountants for Beiro. (Tr. 201). Based on the documentary record and the testimony, we find that Beiro's cost accounting system properly tracked and recorded job costs and expenditures. (Tr. 176-81).

A. Unpaid Costs of Performance

As adjusted through the supplemental quantum hearing and briefing, Appellants seek \$7,323,439 in termination costs as follows:

Labor	\$ 790,285
Labor Burden	\$ 238,020
Materials & Rental Equipment	\$1,014,767
Subcontractors	\$4,082,213
Subtotal	\$6,125,285
Subcontractor Claims	\$1,488,560
Subtotal Direct Costs	\$7,613,845
Overhead (10.62%)	\$ 808,590
Extended Overhead	\$ 377,760
Subtotal	\$8,800,195
Profit (10%)	\$ 880,020
Owned Equipment	\$ 558,561
Subtotal	\$10,238,776
Less: Payments to Date	(\$5,280,934)

Claimed Unpaid Costs of Performance	\$4,957,842
<u>Plus:</u>	
Settlement Costs	\$ 131,004
Interest	<u>\$2,234,593</u>
Total Revised Termination Claim	\$7,323,439

1. Labor Costs

Ernst & Young compiled a database of direct labor costs from Beiro's weekly job time reports and payroll data sheets. (Tr. 40-41). This database, the "Labor Supplement" to Ernst & Young's 1992 termination claim report (AEX 236) lists for the entire job every Beiro worker who charged labor to the job, by week, wage rate, and total wages paid. (Tr. 41, 305-06). Using this data, Ernst & Young determined that Beiro's direct labor costs on the project were \$790,285. (AEX 458, at 14; AEX 236, at 4-5, 17, Labor Supplement; AEX 449; AEX 208).

Ernst & Young determined that Beiro incurred \$238,020 for labor burden, comprising indirect labor costs for FICA, FUTA, SUTA, workmen's compensation insurance, and a cost item called "Union Burden" for additional fringe benefits required by the Davis Bacon Act, 40 U.S.C. § 276a. The labor burden costs were determined by calculating the ratio of direct labor costs to labor burden from Beiro's October 8, 1987 job cost report, which yielded a burden rate of 30.12 percent, and multiplying that rate by the supported labor costs of \$790,285. (Tr. 42-43). Ernst & Young believe that the labor burden rate of 30.12 percent was reasonable. (Tr. 43; Tr. 1410).

The District claims that Ernst & Young did not use generally accepted accounting standards to verify labor costs and labor burden. The District also points to a discrepancy of approximately \$80,000 between Beiro's direct labor costs as reported on its job time reports, amounting to \$790,285, and its direct labor costs identified on the job cost report, dated October 8, 1987, amounting to \$870,497. Beiro explains that an amount of \$60,400 of "Union Burden" was included in the job cost report's labor account but was not included in the payroll records supporting the \$790,285 in labor costs. (Tr. 42-43, 217; AEX 458, at 14; AEX 464; AEX 408). Beiro states that the remaining differences are attributable to minor additional labor costs and end of the year accounting adjustments related to the taxes and workmen's compensation accounts. (AEX 408; AEX 458).

We find adequate support in the record for direct labor costs of \$790,285, the labor burden rate of 30.12, and labor burden costs of \$238,020.

2. Materials, Equipment Rental & Direct General Costs

Appellants originally claimed costs of \$1,062,332 for materials, equipment rental, and direct

general costs. (AEX 236, at 4, 6-7, 19). In its revised report, it excluded an amount of \$41,642 for an F&D bond premium, yielding claimed costs of \$1,020,690. (AEX 458, at 6, 16). During the hearing, Appellants withdrew an additional \$5,922.50 paid to Sadur & Pelland, thus reducing its claim for materials, equipment rental, and direct general costs to \$1,014,767. (Tr. 13-14). The cost amounts were obtained directly from Beiro's detailed job cost report, dated October 8, 1987, and from F&D's bond payment records (arising from F&D's takeover of the job). (Tr. 44-45). To support the materials, equipment rental, and direct general costs, Ernst & Young also used the "Prevocational" invoices and check carbons, the "General" invoices and check carbons, and the F&D Approval Sheets. (Tr. 44; AEX 465). A summary job cost report dated January 13, 1988, shows total costs of \$1,086,103. (AEX 408; Tr. 54-55). Although the original detailed job cost report no longer exists, Ernst & Young prepared a database which is found in Schedule 3 of Ernst & Young's original cost report (AEX 236, at 20-45) replicating the data from the Beiro detailed job cost report. The database captures the detail of the cost report to the invoice level and contains over 1,150 invoices identified by cost type, cost code, date of invoice, vender name, invoice amount, and description. After preparing the database, Ernst & Young reviewed actual invoices totaling \$824,741 against the invoice information in the database, determined whether the type of costs were appropriate for the job, and examined check carbons to verify that Beiro paid the amounts. (AEX 236, at 6, 19; Tr. 48-55, 308-311). Ernst & Young did not discover any invoice amounts that were improperly coded to the Prevocational Facility job. (Tr. 50-51, 311). Based on its testing procedures, Ernst & Young believes that the \$1,014,767 amount accurately reflects the actual costs for materials, equipment rental, and direct general costs. (Tr. 50-54).

The District argues first that there is a discrepancy of approximately \$100,000 between the material and rental equipment costs developed from the October 8, 1987 detailed job cost report (\$1,020,541.55) and the costs reported on the January 16, 1988 job cost report, which, according to the District, identifies only \$853,699.15 in material and equipment rental costs and \$45,067.62 for small tools and equipment. However, the District has neglected to consider the 1988 job cost report amounts for other direct general costs under cost codes 151-152 and 155-161 which total an additional \$165,145.10. (AEX 408; Tr. 54-55).

The District also argues that Ernst and Young did not properly verify that the listed amounts were actually paid to vendors because Beiro had a practice of holding checks after they were signed and after an invoice was marked "paid." The record shows that although Beiro sometimes held a written check for a subcontractor or supplier until Beiro received funds from the project owner, it happened infrequently on the Prevocational job. The practice was ended by Beiro's outside accounting firm, Ernst & Whinney, in approximately October 1986, F&D advanced Beiro money to pay subcontractors and suppliers, and by November 30, 1986, there were no withheld checks relating to the Prevocational job. (Tr. 219-223, 249-250, 839-843, 847; AEX 418). The District has not identified any instance in the record where Beiro's cost records indicate that a payment was made to a subcontractor or supplier but the subcontractor or supplier was in fact never paid.

Next the District argues that certain costs for tools and rental equipment are duplicated in Appellants' owned equipment cost schedule. (District Br. 103). One piece of rental equipment at issue is a Kohler generator listed in Schedule 3 at a cost of \$1,157.56 and a payment date of October

31, 1984. On Schedule 5 of Ernst & Young's original cost report (AEX 236, at 54, 60), equipment item G49 described as a "Generator – Lowcycle" is listed with an arrival date of August 1984. Beiro's equipment listing by location report (AEX 447, at 401445) shows that this generator was purchased on August 28, 1984. Based on a comparison of the record documentation, we find it unlikely that the entries in Schedule 3 and Schedule 5 refer to the same piece of equipment. The District also claims that a "transit, tripod" acquired from Thorpe-SMI at a cost of \$1,768 (Schedule 3, at 41) duplicates the transit listed at equipment item T286 in Appellants' owned equipment listing (Schedule 5, at 64). We have removed item T286 from Appellants' owned equipment Schedule 5. The District appears to challenge three entries totaling \$5,230 in Schedule 3 (at 32) for equipment rental from Lago Limit, a Beiro-related equipment company, for the months of February, April, and July 1985. We are unable to find corresponding entries in Schedule 5 for owned equipment and the District does not point us to any. We see no basis for excluding the \$5,230 in Schedule 3. Finally, we do not find support in the record for the District's assertion that Ernst & Young did not adequately determine whether Beiro's material and rental equipment costs were reasonable and appropriate. The example of the telephone charges raised by the District is not persuasive.

The District also claims that costs in Schedule 3 for material, equipment rental, and direct general costs include costs for equipment repair parts, equipment repair services, and maintenance services which are duplicated in Beiro's general and administrative expenses summarized in Schedule 7. The District notes that in a Beiro financial statement called "Summary of Other Contracts Costs" for 1984 and 1985, there is a category of indirect costs for "Repairs, maintenance and operations of automotive and construction equipment, including indirect labor." Because we have removed those costs from the G&A costs in Schedule 7 (*see infra*), the Schedule 3 costs for repair and maintenance will not be duplicated in Schedule 7.

In sum, we find adequate support in the record for material, equipment rental, and direct general costs totaling \$1,014,767.

3. Subcontractor Costs

Appellants originally claimed subcontractor costs of \$3,925,685, consisting of \$3,314,972 paid by Beiro and \$610,713 paid by F&D. (AEX 236, at 4, 7, 48). In its revised report, Ernst & Young included an additional amount of \$170,000, representing a payment by F&D to R.R.A. in settlement of a subcontractor claim, yielding total subcontractor costs of \$4,095,685. (AEX 458, at 4, 6, 18). During the hearing, Appellants withdrew claims in the amount of \$13,472, thereby reducing subcontractor costs to \$4,082,213. (Tr. 811-812). The cost amounts were obtained from Beiro's October 1987 detailed job cost report, the supporting subcontractor invoices, cancelled checks, and F&D claim and payment records. (Tr. 58-64, 311-312, 849-854). The database captures the detail of the cost report to the invoice level and contains data for approximately 205 invoices identified by cost type, cost code, date of invoice, vender name, invoice amount, and description. Ernst & Young found invoices and check carbons for all but approximately \$5,700 detailed in Beiro's cost report as subcontractor costs. (Tr. 58-59). A number of Beiro's subcontractors submitted backup for their post-termination certified claims that independently admitted payments of \$2,316,628. (Tr. 790-805; AEX 450; AEX 470; AEX 471). The payments admitted by these

subcontractors matched the amounts recorded in the cost database and claimed by Appellants to have been paid as subcontract payments. (AEX 470; AEX 471). We find that this corroboration between payments admitted by subcontractors and payments identified in the Ernst & Young database lends significant credibility to Ernst & Young's cost databases and the underlying Beiro cost records. (Cf. Tr. 1385). The record separately supports F&D's payments to subcontractors. (Tr. 849-854; AEX 450).

The District argues that \$15,216 in payments to American Steel, G.M. Ketcham, Hope's Architectural, and Montgomery Elevator were part of Beiro's payment requisitions 18 and 19, and because the District never paid those requisitions, Beiro must not have actually paid these amounts. We are not persuaded by the District's argument. American Steel and G.M. Ketcham filed no claims against Beiro, Hope's Architectural confirmed all Beiro payments, and Montgomery Elevator made a claim for only \$434. (AEX 408, at 52; AEX 450; AEX 471). The subcontractor confirmations of payment lead us to find that Ernst & Young's database schedules derived from the October 1987 detailed job cost report accurately reflect actual costs incurred by Beiro. Accordingly, we find that it is more likely than not that these challenged payments were indeed made.

The District also argues that of 29 invoices from Maurice Electrical Supply Company, only 7 were stamped "paid" and only 15 were marked with the initials of the Beiro project manager. (AEX 443). The District further claims that 3 amounts on the database listing are not supported by invoices. Having reviewed the invoices in AEX 443 and those attached to the original requisitions submitted by Beiro to the District, as well as the cost schedule, and the testimony, we find that the record adequately supports Beiro direct payments to Maurice Electrical amounting to \$187,469.

The District also challenges the support for payments made by Beiro to LeBow and to Hallmark Iron Works. We find that the payments are adequately supported by the record. (AEX 442; Beiro's original payment requisitions; AEX 236, at 50; AEX 440; AEX 450; AEX 471).

Finally, the District argues that F&D's payments to subcontractors BPI, Beautyguard, Able Equipment, Colorado Security Agency, and RRA, in settlement of claims, was done without the approval of the contracting officer as required by contract. We find that the District has not shown that the payments were in excess of a reasonable amount for the subcontracted services provided to Beiro on the project. (Tr. 849-54; AEX 236, at 35; AEX 450). The District suffered no prejudice from these settlements.

We find that the record adequately supports subcontractor costs paid by Beiro of \$4,082,213.

4. Subcontractor Claims

Appellants seek subcontractor claims totaling \$1,488,560. (AEX 458, at 35; AEX 450; Tr. 141). The subcontractors variously claim unpaid progress payments, unpaid change order work, withheld retention, and indirect costs as part of their termination for convenience claims. (Tr. 760-61; AEX 450; DEX 270). As described in more detail below, we find entitlement for these subcontractor claims in the total amount of \$168,954, plus interest as described in Section C. *infra*.

A.G. Mauro Company

Appellants presented a proof of claim form and a Beiro audit sheet in support of a \$3,700 claim by A.G. Mauro Company apparently for unpaid invoices for furnishing builders' hardware. (Tr. 763; AEX 450 (A.G. Mauro tab)). Because the record documentation is inadequate to support the claim, we deny the claim.

Beautyguard Exterior Systems, Inc.

Beautyguard filed a claim for \$32,025 (excluding interest), for furnishing and installing exterior metal siding as part of its subcontract with Beiro. (Tr. 264-286). F&D paid Beautyguard \$5,000 pursuant to a pass-through agreement, leaving the unpaid claim amount at \$27,025. (Tr. 277-78; AEX 458, at 35; AEX 450 (Beautyguard tab)). The \$32,025 claim was composed of \$14,979 for unpaid contract work, \$1,581 for extra engineering work, and \$15,465 for extended overhead costs. (Tr. 269-78; AEX 450). Based on our review of the testimony from Mr. Speiden, president of Beautyguard, we find entitlement to the \$14,979 for unpaid contract work and \$250 for extra redesign and engineering work, a total of \$15,229. Beautyguard did not demonstrate that the District was responsible for critical path delays to its performance. Moreover, the schedule information did not clearly identify Beautyguard's planned performance period and we are not convinced that any alleged delays prevented Beautyguard from taking on other work. Therefore, we deny Beautyguard's claim for extended overhead costs. Because F&D previously paid Beautyguard \$5,000 on its claim, we sustain the claim in the amount \$10,229 plus interest on that amount as indicated in Section C. *infra*.

Beta Construction Company

Beta Construction submitted a termination for convenience claim in the amount of \$9,061 for its basement waterproofing work on the project. (Tr. 764; AEX 450 (Beta Construction tab)). The claim amount consists of \$699 for unpaid labor and materials and \$8,362 for home office overhead. The overhead claim is unsupported. We sustain Beta Construction's claim in the amount of \$699 plus interest on that amount as indicated in Section C. *infra*.

BPI Mechanical, Inc.

BPI performed all the mechanical work for Beiro and obtained a court judgment against Appellants for its termination for convenience claim in the amount of \$644,793. (Tr. 765-66; AEX 450 (BPI Mechanical tab)). During an appeal of that judgment, the Appellants and BPI settled their dispute, with F&D paying \$540,000 directly to BPI under a pass-through agreement by which the parties agreed to submit the entire claim to the District. (Tr. 849-50; AEX 450). The F&D payment reduced the unpaid claim amount to \$104,793. (AEX 458, at 35). Having reviewed the record, including the documentation submitted by BPI and its subcontractors, we are unable to find adequate support entitling BPI to recover any amounts beyond the \$540,000 previously paid.

Fairfax Glass Company, Inc.

Fairfax Glass submitted a claim of \$6,940 for supplying insulating glass for the project on February 17, 1986. We sustain the claimed cost of materials in the amount of \$5,164 plus interest on that amount as described in Section C. *infra*, but find the remaining claimed amounts for labor, overhead, and legal fees to be unsupported. (Tr. 766; AEX 450 (Fairfax Glass tab)).

Fib-Con Corporation

Fib-Con submitted a claim of \$108 for drafting submittals for custom fiberglass planters. We sustain the claim plus interest on that amount as indicated in Section C. *infra*. (Tr. 766-67; AEX 450 (Fib-Con tab)).

Flowers School Equipment Company, Inc.

Flowers School Equipment submitted a claim by its gymnasium equipment supplier, Aalco Manufacturing Company, in the amount of \$735 for Aalco's shop drawings and freight expenses. We sustain the claim plus interest on that amount as indicated in Section C. *infra*. (Tr. 767-68; AEX 450 (Flowers School Equip. tab)).

Louis J. Grasmick Lumber Company, Inc.

Grasmick Lumber submitted a claim in the amount of \$41,455, before interest, for half inch and five-eighth inch plywood furnished to the project. (Tr. 768; AEX 450 (Grasmick Lumber tab)). The statement of claim seeks \$40,694 for the plywood, hauling and labor charges of \$761, and interest amounts. However, Mr. Grant Grasmick's statement of claim indicates that the plywood was shipped to the jobsite on February 24 and 26, 1986, and March 6, 1986, thus several days before and after the District's February 28, 1986 stop work order. The statement of claim also indicates that Grasmick removed all of the plywood from the jobsite at the request of Beiro. Indeed, \$450 of the \$761 is for "Hauling charge for removing and returning material from Washington to Baltimore." (AEX 450 (Grasmick tab, at 2)). Accordingly, we deny the material portion of the claim amounting to \$40,694, but sustain the hauling and labor charges of \$761 plus interest on that amount as indicated in Section C. *infra*.

Greensteel Division, Adience Company, L.P.

Greensteel submitted a termination for convenience claim pertaining to its school equipment contract in the amount of \$6,927. (AEX 450 (Greensteel tab)). It does not appear that Greensteel furnished any equipment to the job. Although part of the claim appears to be for shop drawing preparation, the record does not adequately support what those costs amounted to and how they were calculated. Because the remaining claimed costs are not adequately supported, we deny the entire claim. (Tr. 768-69; AEX 450).

Greenwald Industrial Products Company, Inc.

Greenwald submitted a termination for convenience claim for its bathroom partition contract, in the total amount of \$8,449, composed of \$5,633 for “engineering and administrative expenses” of Greenwald’s sub-supplier, Penco Products, Greenwald’s own administrative costs of \$2,516, and \$300 for claim preparation. (Tr. 769-70; AEX 450 (Greenwald Industrial tab)). We deny the claim because the amounts are not adequately supported.

Hallmark Iron Works, Inc.

Hallmark Iron was the miscellaneous metals subcontractor for the project which included furnishing and installing iron frames, pipe rails, steel stairways. (Tr. 549, 770). Hallmark submitted a termination for convenience claim in the amount of \$174,913. (Tr. 550; AEX 450 (Hallmark Iron Works tab)). Hallmark’s own claimed costs consist of \$90,492 for materials, shop labor of \$22,159, tools and supplies of \$2,715, supervision costs of \$665, delivery costs of \$752, field labor costs of \$38,960, and shop drawings of \$4,304. Hallmark also seeks \$36,976 for wire mesh supplied by the G-S Company, and subcontracted field labor of \$21,100, composed of \$8,100 for Wright Erection and \$13,000 for Metro Steel & Stone. (AEX 450). Mr. Ralph Barnes, Hallmark’s senior project manager, testified in support of Hallmark’s claim and explained the supporting documentation. (Tr. 552-69).

We were able to locate in the record a number of invoices of Hallmark for the period from October 1984 through June 1985. In addition, the subcontractor costs database in Schedule 4 of Beiro’s original claim submission (AEX 236) shows that Hallmark received subcontract payments through September 30, 1985. Based on our review of the Hallmark invoices found in AEX 440, Schedule 4 subcontract costs data of payments to Hallmark, and Hallmark’s certified claim, we find that the invoices and the Schedule 4 payments provide a more reliable record of Hallmark’s costs than the statement of costs listed in Hallmark’s certified claim. Several of the Hallmark invoices can be tied into the subcontractor costs for Hallmark found in Schedule 4 of Appellants’ original claim submission and may be compared to the costs claimed by Hallmark in its March 1988 certified claim. (AEX 236, at 50). For example, Schedule 4 shows a payment by Beiro on January 28, 1985, in the amount of \$12,754, and described as “Req. 4 – Prevocational.” That can be tied to Hallmark Requisition No. 4211-03-12 (1984), dated December 20, 1984, in the net amount of \$12,754. Although the requisition has typed matter indicating that the period of the requisition is from November 20 to December 20, 1984, the supporting invoices are dated October 20, November 20, and December 20, 1984. (AEX 440, at Bates 602571-602568). The October 20, 1984 invoice bills for fabricated Items 8E/D, 9E/D, and 10E/D in the total amount of \$372. In contrast, Hallmark’s certified claim asserts that its materials only cost for Items 8E, 9E, 10D, and 10E amount to \$1,778. (AEX 450 (Hallmark tab, at 7-8)). In addition, Hallmark seeks in its certified claim a portion of its claimed \$22,159 in shop labor for fabrication of these items as well as erection costs of \$1,400 for Items 8E and 9E. (Id. at 3, 5). We find it more likely than not that Hallmark’s invoice billed for all associated costs, including material, shop labor, and field labor.

Hallmark’s January 20, 1985 invoice bills for Items 30E/D, 10D, 27E/D, and 27D, in the amount of \$3,704, which reduces to \$3,333 after deducting a 10 percent retention. That amount ties

to the \$3,333 payment found in Schedule 4. In contrast, the certified claim identifies an amount of \$987 for Item 30D and \$10,096 for Item 30E. In sum, it is impossible from the meager information in the certified claim to adopt the cost figures set out on the material worksheet. The large amounts in the certified claim for shop labor and field labor are similarly without adequate documentation to support them. As stated above, we believe it is more likely than not that Hallmark's invoices which were paid by Beiro included all associated job costs, including material, shop labor, and field labor. Because the record shows that Hallmark received its last payment from Beiro on approximately September 30, 1985, and there is no indication that Hallmark had failed to invoice Beiro or receive payment from Beiro for any of its work performed prior to that date, we find that Hallmark received appropriate compensation for its performance through approximately August 1985.

We find Hallmark's certified claim for \$21,100 for its subcontracted field labor by Wright Erection and Metro Steel & Stone to be included in the subcontract costs that Beiro previously paid to Hallmark. The dates for those subcontracted erection items suggest performance prior to August 1985. Hallmark did not include invoices or payment records showing that such work was not included in the payments Beiro made to Hallmark during 1985. Therefore, it must bear responsibility for any failure in the evidence.

Some of Hallmark's material items appear to have been manufactured and perhaps installed at the job site after August 1985. These amounts would not have been included in the payments made by Beiro to Hallmark. Having reviewed Hallmark's material worksheet for material items which have building material dates after August 1985, we find Hallmark entitled to recover costs amounting to \$22,755. Because Hallmark did not introduce evidence of any allocable shop or field labor on these items, we are unable to award such costs. Adding 10 percent overhead and 10 percent profit, we find Hallmark entitled to recover \$27,534. Thus, Hallmark's claims for shop labor, tools and supplies, supervision, delivery, field labor, and shop drawings are denied for lack of adequate support.

The final issue to be dealt with on Hallmark's certified claim is the claim component labeled "supplier material" submitted on behalf of the G-S Company, consisting of \$26,144 for materials, \$1,960 for labor, and \$8,872 for delay costs. (AEX 450 (Hallmark tab)). We deny G-S Company's material cost portion because the stainless steel mesh was never delivered to the site. The mesh was not simply scrap, and thus had some value. (Tr. 558-59). In addition, G-S may have been able to use the wire mesh on another job or return it to the manufacturer without sustaining any loss. Because G-S does not indicate the disposition of the mesh, we are unable to find entitlement. G-S claims 56 labor hours for drafting/engineering time and field measuring time. Because there is no indication as to what efforts were accomplished, we are unable to find entitlement to labor costs. We deny the delay costs of \$8,872 because G-S has not shown either a critical path delay in its performance caused by the District or that any such delay prevented it from taking on other work during the delay period. In sum, G-S Company's claim is denied.

Accordingly, Hallmark's claim is supported in the amount of \$27,534, plus interest on that amount as indicated in Section C. *infra*.

Herndon Lumber & Millwork

Herndon Lumber & Millwork was the millwork subcontractor responsible for fabricating millwork, cabinets and countertops. (Tr. 770-71). Herndon Lumber submitted a termination for convenience claim for shop drawings, estimates and administrative costs in the amount of \$3,220. (AEX 450 (Herndon Lumber tab)). We find adequate support in the record for the claimed costs for shop drawings in the amount of \$902, plus interest on that amount as indicated in Section C. *infra*.

Hope's Architectural Products, Inc.

Hope's Architectural Products, Inc., was a subcontractor for steel window frames and submitted a claim in the amount of \$11,300, before interest, for unpaid retention (\$3,499), and extra work under PCO 185 (\$5,297), PCO 197 (\$1,795), PCO 26 (\$479), and PCO 151 (\$230). (Tr. 771; AEX 450 (Hope's Architectural Products tab)). We sustain the claim for unpaid retention in the amount of \$3,499. The claim for acceleration identified as PCO 185 is denied for lack of adequate support. We deny the claim based on PCO 197 (insulated porcelain panels) because neither Hope nor Beiro has shown that the need for custom design and fabrication of the insulated panels was the result of a post-award change to the specifications and drawings. We sustain the \$479 claimed by Hope for PCO 26 which the District does not dispute. (DEX 231). Finally, we sustain the \$230 claimed by Hope for extra work involved in trimming sash to fit a revised masonry. Accordingly, Hope is entitled to \$4,208 plus interest as indicated in Section C. *infra*.

Industrial Machinery Equipment Corporation

Industrial Machinery submitted a claim for freight, return freight, and restocking of an emergency generator in the amount of \$4,695. (Tr. 771-73; AEX 450 (Industrial Machinery tab)). We find that the 25 percent restocking charge is excessive under the circumstances and we reduce that portion of the claim from \$4,000 to \$1,600 reflecting a 10 percent charge. Thus, we sustain the total claim in the amount of \$2,290 plus interest as indicated in Section C. *infra*.

J.A. Nearing Company, Inc.

J.A. Nearing Company was the greenhouse subcontractor. (Tr. 773). It submitted a revised termination for convenience claim in the amount of \$6,859 for shop drawings and packing list labor (\$1,594), 1,400 square feet of 1/4 inch clear wire glass (\$3,850), and storage costs (\$792). (AEX 450 (J.A. Nearing tab)). We sustain the labor amount of \$1,594 but deny the material cost because J.A. Nearing made no showing that it was unable to recover its costs for the material by resale or return to the supplier. Similarly, we deny the storage costs because the claim that material was stored for 34 months is unsupported by the record. Thus, J.A. Nearing is entitled to \$1,594 plus interest as indicated in Section C. *infra*.

John H. Hampshire, Inc.

The spray-applied fireproofing subcontractor, John H. Hampshire, Inc., submitted a claim in

the amount of \$14,583 for the balance due on its work and minor changes. (Tr. 774; AEX 450 (John Hampshire tab)). The documentation submitted by Hampshire is inadequate to demonstrate that it completed its base contract work as well as change order work. Accordingly, we deny its claim.

Long Fence Company, Inc.

Long Fence submitted a certified termination for convenience claim in the amount of \$733 for work performed on its exterior play equipment subcontract. (Tr. 774-75; AEX 450 (Long Fence tab)). Long Fence's documentation adequately supports \$120 for shop drawing labor, plus interest as indicated in Section C. *infra*.

Lynn Fabricators, Inc.

Lynn Fabricators was the structural steel subcontractor. Lynn submitted a cost proposal on December 8, 1987, asserting claimed costs of \$316,992, consisting of steel price escalation (\$8,725), extra material costs arising from changes (\$19,612), extra costs by Lynn's detailer arising from changes (\$48,500), extra costs incurred by Lynn's joist and deck supplier due to changes (\$16,296), extra erector costs incurred by the erector due to changes (\$52,016), Lynn's extended overhead due to delays (\$103,168), settlement costs (\$23,250), unpaid contract balance (\$16,607), and overhead and profit (\$28,818). Although we do not doubt that Lynn and its supplier and subcontractors incurred some additional costs as a result of one or more of the changes outlined in the 15-page narrative of Lynn's claim summary document, there is simply insufficient evidence in the record to support the magnitude of the claimed costs. The claim summary in AEX 450 lacks all of its referenced exhibits. Lynn supplied no costs records other than the one-page letter of December 8, 1987, listing the categories of costs, and a one-page "Cost Analysis Summary" dated January 27, 1986, which like the December 8, 1987 letter, provides only a top-level summary of costs. The only supporting testimony, short and superficial, was offered by Beiro's Mr. Murray. (Tr. 775-76). Accordingly, we deny the claim of Lynn Fabricators.

Mid-Atlantic Steel Contractors, Inc.

Mid-Atlantic Steel was the rebar subcontractor. (Tr. 779). It submitted a termination for convenience claim in the amount of \$25,285, consisting of claims for overhead and profit on direct labor as well as labor inefficiency (\$9,126) and extended overhead (\$8,141). (AEX 450 (Mid-Atlantic tab)). We sustain Mid-Atlantic's claim for overhead and profit on its supported burdened labor costs of \$32,303, in the amounts of \$3,230 (10 percent overhead) and \$3,553 (10 percent profit). Mid-Atlantic's labor inefficiency claim has merit and we find that it is entitled to compensation of an additional \$2,563 based on the difference between the planned rate of 1.05 tons of rebar installed per man-day and its actual average rate of 0.9 tons per man-day. In calculating the inefficiency amount (189 hours), we used the labor hour totals and costs set forth in Mid-Atlantic's final labor statement. We deny Mid-Atlantic's extended overhead claim for lack of adequate support. Accordingly, Mid-Atlantic is entitled to recover \$9,346 plus interest as indicated in Section C. *infra*.

Montgomery Elevator Company

Montgomery Elevator submitted a claim in the amount of \$434 for its unpaid contract balance. (Tr. 779; AEX 450 Montgomery Elevator tab)). Based on our review of the invoices and payments made to Montgomery Elevator, we sustain the claim for \$434 plus interest as indicated in Section C. *infra*. (AEX 236, at 51).

Overhead Door Company of North Washington

Overhead Door submitted a termination for convenience claim in the amount of \$1,995 for shop drawings and administrative costs. (Tr. 779-80; AEX 450 (Overhead Door tab)). The shop drawing costs are supported by an invoice but the administrative costs are not adequately supported by the record. Accordingly, we find Overhead Door entitled to \$91 plus interest as indicated in Section C. *infra*.

R. Bratti Associates, Inc.

R. Bratti Associates was the masonry subcontractor. Its subcontract with Beiro was in the amount of \$696,000. Change orders increased the price by \$66,536 for a adjusted contract price of \$762,536. The record contains a July 17, 1986 requisition of R. Bratti valuing its completed work in the amount of \$598,361, or approximately 78 percent completion. That requisition shows Beiro payments of \$518,751, with an amount due of \$79,610 plus an additional \$3,620 for six items of extra work billed on a time and materials basis. (AEX 450 (R. Bratti tab)). The value of performance, change order amounts, and time and materials costs are supported by documentation submitted by R. Bratti. In a March 9, 1988 certified claim, R. Bratti sought total performance costs of \$606,830, \$51,691 for office overhead and administrative costs, and 15 percent profit of \$98,778, for a total of \$757,299. After deducting payments received from Beiro of \$518,751, R. Bratti arrived at a balance due of \$238,548. Mr. Ronald Bratti testified at the hearing in support of the claim. (Tr. 520-547). The masonry work was substantially impacted by the changes to the structural drawings, which were not coordinated by the District with the architectural drawings controlling the exterior masonry. (Tr. 522-23). R. Bratti Associates submitted a certified termination for convenience claim in the amount of \$238,548. (Tr. 535; AEX 450 (R. Bratti tab); Tr. 78). Having reviewed the record, we find that the July 17, 1986 requisition is a more reliable statement of R. Bratti's costs of performance than the March 9, 1988 claim. The March 1988 claim is supported only by a one-page recap cost sheet which lacks the kind of supporting labor, material, and overhead cost documentation we would expect for a claim of this size. Moreover, we believe that July 1986 requisition costs incorporated applicable overhead and profit. Accordingly, R. Bratti Associates is entitled to \$83,230 plus interest as indicated in Section C. *infra*.

Ratrie, Robbins & Schweizer. Inc.

Ratrie, Robbins & Schweizer ("RRS") was Beiro's paving subcontractor. (Tr. 782). On

October 22, 1987, RRS submitted a termination for convenience claim in the amount of \$7,204. RRS states that it originally was to commence performance in Fall 1985 but its start date was ultimately rescheduled to Fall 1986/Spring 1987. RRS did not actually perform any paving work on the project because RRS' revised start date was well after the February 28, 1986 contract suspension date. On November 10, 1987, RRS supplemented its claim, stating that it was unable to absorb the \$7,204 of overhead costs arising from the extensive delays to its beginning work. (AEX 450 (RRS tab)). We are not persuaded by the meager record that RRS was unable to replace this anticipated job with other work. Nor has RRS provided adequate evidence of any direct costs of its preliminary efforts such as for material submittals and field work preparation. Accordingly, we find that RRS has not shown that it is entitled to recover for either direct or indirect costs.

Southeastern Floor Company, Inc.

Southeastern Floor submitted a termination for convenience claim in the amount of \$1,080 for the costs of purchasing and storing special order flooring. (Tr. 782; AEX 450 (Southeastern Floor tab)). However, Southeastern Floor did not submit any invoice or receipt evidencing its payment for the flooring. We deny the claim for lack of adequate support.

Stevens Tile & Marble Company, Inc.

Stevens Tile & Marble was the ceramic tile subcontractor. (Tr. 783). It submitted a claim in the amount of \$2,751, before interest, for the unpaid costs of purchased materials delivered to the project. (AEX 450 (Stevens Tile tab)). The claim is adequately supported by invoice documentation. Stevens Tile is entitled to \$2,751 plus interest as indicated in Section C. *infra*.

Superior Electric Company, Inc.

Superior Electric performed work on the Prevocational Facility, which included installing the initial power hookup, placing conduit for concrete slabs, and placing conduit in masonry and drywall until the District suspended work in February 1986. (Tr. 784-85). The permanent wiring, electrical fixtures, panels, and an emergency generator had not been installed by the time of the work suspension. (Tr. 785-88). Superior Electric was a small company for which the Prevocational Facility may have been its sole job at the time. (Tr. 788). On November 9, 1987, it submitted a certified claim totaling \$443,301 for administrative and overhead costs, "opportunity costs lost due to restriction on bonding", and taxes. (AEX 450 (Superior Electric tab)). We find that none of the claimed costs are supported and none are recoverable. Beiro's Mr. Murray testified that Superior Electric also was owed money for unpaid progress payments, unpaid retention, and unpaid changes. (Tr. 1476-81). However, Superior Electric made no claim for such amounts and there are no supporting requisitions or invoices. Accordingly, we deny Superior Electric's claim and Beiro's claim on behalf of Superior Electric.

Triangle Sign & Service

Triangle Sign & Service fabricated, customized aluminum and plexiglass letters for the

exterior of the Prevocational Facility. (Tr. 788-89; AEX 450 (Triangle tab)). It submitted a claim for unpaid invoices in the amount of \$17,978. (AEX 450; AEX 458, at 35). We find the claim to be adequately supported by invoices and cost records. Accordingly, we sustain the claim in the amount of \$17,978 plus interest as indicated in Section C. *infra*.

Wilcox Caulking Corporation

Wilcox Caulking was the exterior joint sealant subcontractor. (Tr. 789). It submitted a certified claim for work performed and contract administration costs in the amount of \$7,500, consisting of \$5,000 for labor and materials and \$2,500 for “administrative and estimating costs and expenses.” (AEX 450 (Wilcox Caulking tab)). Payroll records submitted by Wilcox only support labor costs of \$780 for the payroll periods December 19 - 25, 1985, and December 26, 1985 - January 1, 1986. There is no support for its material costs or its administrative and estimating costs. Accordingly, we find Wilcox entitled to recover \$780 plus interest as indicated in Section C. *infra*.

5. Owned Equipment

Ernst & Young prepared a schedule of costs incurred by Beiro for using its own equipment on the project. (AEX 458, Schedule 5). Schedule 5 is divided into two categories of owned equipment costs: pre-suspension equipment costs, covering the period from May 1984 through April 1986 (approximately two months beyond the February 1986 stop work order), amounting to \$386,465, and post-suspension equipment costs of \$175,074, for a claim total of \$561,539. (AEX 458, Schedule 5; Tr. 73, 76).

To determine owned equipment costs, Ernst & Young used Beiro’s equipment listing by location reports (AEX 447) and the project’s daily job reports (AEX 208). (Tr. 65, 312; AEX 458, at 7). The equipment list location reports were used to determine what equipment was on the project site. (Tr. 65-67, 69, 499-501; AEX 447; AEX 458, at 7). The daily job reports then were consulted to ascertain whether the heavy equipment was active or idle each day. (Tr. 67, 502-03; AEX 458, at 7). Ernst & Young determined that the heavy equipment was active 12.26 percent of the total job time. (Tr. 71-72). Because the smaller equipment was not listed on the daily job reports, Ernst & Young estimated its active time using the 12.26 percent usage factor for the heavy equipment. (Tr. 71-73).

Ernst & Young used the relevant equipment rates whenever possible from the Associated Equipment Distributors (“AED”) rental cost guide, which the District agrees is the proper rental cost guide. (Tr. 65-66, 69-70; Tr. 754-55). Other equipment rate guides were used only to obtain rates for equipment not identified in the AED guide. (Tr. 69-70). For calculating the cost for the equipment, Ernst & Young multiplied the full AED rate by the number of days each piece of equipment was actively used and multiplied 50 percent of the AED rate by the number of days that each piece of equipment was idle. (Tr. 65-66, 73; AEX 458, at 7). For the post-suspension period, all equipment was deemed idle. (Tr. 74-76).

The District’s auditor admitted that he had no disagreement with the method used to

calculate the owned equipment costs. (Tr. 1415). His concerns focused on whether the equipment was actually at the job site and whether the equipment was necessary for the project. (Tr. 1415-16).

Although the auditor had access to the underlying documentation for the equipment costs (Schedule 5, the Beiro equipment reports, and the daily project reports) he apparently did not substantively analyze them or interview DPW personnel concerning what equipment was appropriate for the project. (Tr. 1415-20).

We have reviewed the documentation and the testimony and find the pre-suspension owned heavy equipment costs to be supported with two exceptions. In our earlier discussion concerning material and rental costs we found that equipment item T286 ("Transit") was erroneously included on Schedule 5 and thus the amount of \$1,232 should be removed. (AEX 236, Schedule 5, at 58). In their posthearing brief, Appellants also agree that the dates of service of the CAT 955L Loader (item L2 of Schedule 5, at 58) should be reduced by 28 idle days representing a \$2,978 reduction in cost because the equipment did not arrive at the site until September 21, 1984. (Appellants' Reply, at 12-13; AEX 208, at 507758, 507782, 507835, 502214). These deductions total \$4,210, which reduces the pre-suspension heavy owned equipment costs to \$261,916. We have carefully reviewed the District's arguments concerning heavy equipment on Schedule 5 listed as never being in active use. However, a review of the daily project reports show that the equipment, such as tampers and rollers, were often in use. Moreover, we find that some of this equipment (such as compressors and heaters) would not likely be mentioned on the daily reports since they operate in the "background." Ernst & Young properly took a conservative approach in treating these items as always idle even though they were undoubtedly in active use during at least some periods of the work.

For the pre-suspension smaller equipment, we cannot agree with the method for computing the owned equipment costs. Applying daily rates over extended periods of time on the job produced what we consider to be excessive costs that in many cases far exceeded the purchase price of the tools. Of the \$120,339 sought by Appellants, we find \$40,000 to be a reasonable owned equipment cost which is approximately 5 percent of Beiro's direct labor cost. Thus, Appellants' pre-suspension equipment costs equal \$301,916, consisting of \$261,916 for heavy equipment and \$40,000 for the smaller equipment.

For the post-suspension costs, covering the period May 1986 through August 1987, we generally find the costs to be unallowable. Although Beiro reasonably might have maintained some of the equipment on the job site after the stop work in February 1986, by the time the stop work was converted to a suspension on April 23, 1986, a reasonable contractor would have removed construction equipment from the job site for use on other jobs as needed. The fact that Beiro left so much construction equipment on the site for so long indicates, we believe, that there simply was no other Beiro job requiring the equipment, especially since Beiro had lost its bonding capacity and was winding down. (Tr. 75). The District should not be expected to reimburse Beiro for storing unneeded equipment at the job site. One exception to our disallowance is the cost associated with maintaining Beiro's office trailers (\$10,996), storage trailers (\$23,758), and some limited pieces of equipment for loading and moving operations (\$2,000) until the default termination. It was reasonable for Beiro to maintain these items at the site for conducting post-suspension project meetings and negotiations and in support of securing the site. Accordingly, we allow \$36,754 for

such costs but disallow the remainder of the post-suspension costs in the amount of \$138,320.

In sum, we find Appellants are entitled to \$338,670 in owned equipment costs.

6. Unabsorbed General and Administrative Costs

Appellants claim \$377,760 for unabsorbed overhead costs during the 518-day District-imposed suspension of work from February 28, 1986 to July 31, 1987. (AEX 458, at 37). Appellants argue that they are entitled to unabsorbed overhead costs for this period because the District-imposed suspension of work resulted in a suspension of Beiro's bonding capacity. (Tr. 833-34; Tr. 665). According to Appellants, F&D, as surety, was particularly concerned about the Prevocational Facility contract as evidenced by the segregation of information about the Prevocational Facility contract from the information about all Beiro's other contracts in the financial and contract information sheets prepared for F&D in 1986 and 1987. (Tr. 836-37; AEX 415, 418; DEX 221). During this period, the District also was withholding over 2 million dollars in payments due Beiro on the Benning Terrace and Air Rights Tunnel projects. (Tr. 886-91; Tr. 1493-95; DEX 225, at 935, 939-40).

In 1981, Beiro had approximately \$20 million in assets, \$35 million in contract earnings, gross profit from contracts of \$5 million, and net income of \$1.72 million. In 1982, Beiro had approximately \$15 million in assets, \$21 million in contract earnings, gross profit from contracts of \$2.28 million, and a net loss of \$543,000. In 1983, Beiro had approximately \$11 million in assets, \$10 million in contract earnings, gross profit from contracts of \$1 million, and net income of \$862,000. Beiro had losses from its investments in oil producing equipment and real estate of \$1.3 million and \$1.6 million for 1982 and 1983 respectively. (AEX 402). In 1984, Beiro had approximately \$16 million in assets, \$31 million in contract earnings, gross profit from contracts of \$2.4 million, and a net loss of \$155,000. (AEX 403-404). In 1985, Beiro had approximately \$12 million in assets, \$44.7 million in contract earnings, gross profit from contracts of \$777,000, and a net loss of \$4.6 million. (AEX 404). Working capital increased by \$1.3 million in 1981, was unchanged in 1982, increased by \$1.6 million in 1983, decreased by \$430,000 in 1984, and decreased by \$5 million in 1985.

Up until 1984, Beiro had a bonding capacity of approximately \$100 million. (Tr. 833-34; AEX 401-402). In 1984, or perhaps in early 1985, Beiro's bonding capacity dropped to \$20 million. (Tr. 833-34). F&D's counsel testified that F&D suspended Beiro's bonding capacity entirely in "late '85 or early '86." (Tr. 833-34). We find it more likely than not that F&D suspended Beiro's bonding capacity in 1985. F&D noticed a significant increase in Beiro claims on a wide array of its bonded projects. (Tr. 830-31). In early 1985, F&D hired a construction consultant, an accounting firm, and a law firm to investigate Beiro's contract performance and financial and legal situation. The investigation revealed that Beiro's financial position had eroded substantially in the space of approximately a year and a half to two years. (Tr. 831-32). F&D's counsel testified that the reasons for the eroded financial position were slow pay by owners on construction projects, Beiro's prosecuting many claims (with the attendant costs) but not getting paid on claims or change orders, and a loss of working capital on account business losses including significant loans made to a

struggling affiliated company, Beiro Concrete. (Tr. 832; AEX 402-404). A review of financial statements covering 1984 and 1985 shows that Beiro's working capital reserves were being depleted even before 1985 through significant losses not only on contracts but also on real estate and oil investments, a large dividend, and interest expenses. (AEX 403). Thus, the weakening financial position of Beiro left it unable to absorb the severe revenue declines in 1985. In a February 21, 1986 draft financial statement for 1985, a note reads:

The Company has been informed by their Surety of their decision not to provide performance bonds on future construction contracts. Their decision was based on the financial condition of the Company as evaluated by the Surety. The inability to post performance bonds has therefore restrained the Company from bidding on future construction contracts with bonding requirements.

(AEX 404, Note 1 to Financial Statements). By the time the District stopped paying Beiro's requisitions beginning with Requisition No. 18 submitted by Beiro on January 31, 1986 (AEX 60), and rejected by District letter of March 10, 1986 (AEX 71, 72, 87), and issued the stop work order on February 28, 1986, Beiro had already lost its bonding capacity. Thus, the District's suspension of work on the Prevocational job was not the proximate cause of Beiro's inability to obtain other bonded work during the delay period but rather a further impediment to financial recovery. On these facts, we do not find the District liable for Beiro's unabsorbed overhead during the suspension period.

7. Overhead Mark-Up

Ernst & Young determined Beiro's overhead mark-up to be 10.62 percent on direct costs of \$7,613,845. (Tr. 80-81; AEX 458, at 37). As we stated in our discussion of Beiro's claim for material, equipment rental, and direct general costs *supra*, we exclude from Beiro's G&A rate the category of indirect costs labeled on the financial statements as "Repairs, maintenance and operations of automotive and contracting equipment, including indirect labor" so as to avoid any potential duplication of costs. Appellant's overhead mark-up was a composite of its overhead rates for 1984-1987. The problem with Ernst & Young's calculations is that the 1987 rate is nearly 50 percent and does not represent a proper component for the calculations since most of the direct costs were incurred in 1984 and 1985. By 1987, Beiro had essentially ceased its construction business. We find a G&A rate of 10 percent to be a reasonable rate. Accordingly, Appellants are entitled to overhead costs in the amount of \$629,424 on direct costs totaling \$6,294,239.

8. Profit

Ernst & Young included a ten percent profit factor. (Tr. 6; AEX 458, at 4; Tr. 1426). We agree that a 10 percent profit factor is reasonable. The District has made no showing that there would have been a loss on the contract. The fact that certain change orders and subcontractor costs have not been sustained by us for lack of adequate quantum documentation does not change on profit on this project. Applying a 10 percent rate to the \$6,923,663 sum of Beiro's direct costs of \$6,294,239 and overhead costs of \$629,424, yields profit of \$692,366.

Total Unpaid Costs of Performance

We find total unpaid costs of performance of \$2,673,765 which is the difference between total costs of performance of \$7,954,699 and District payments to Beiro of \$5,280,934. We summarize the calculations as follows:

Labor	\$ 790,285
Labor Burden	\$ 238,020
Materials & Rental Equipment	\$1,014,767
Subcontractors	<u>\$4,082,213</u>
Subtotal	\$6,125,285
Subcontractor Claims	<u>\$ 168,954</u>
Subtotal Direct Costs	\$6,294,239
Overhead mark-up (10%)	\$ 629,424
Extended Overhead	<u>\$ 0</u>
Subtotal	\$6,923,663
Profit (10%)	\$ 692,366
Owned Equipment	<u>\$ 338,670</u>
Subtotal	\$ 7,954,699
Less: Payments to Date	<u>(\$5,280,934)</u>
Unpaid Costs of Performance	\$2,673,765

B. Settlement and Claim Preparation Costs

Ernst & Young initially calculated Appellants' settlement and claim preparation costs at \$115,721. (AEX 236, at 74; AEX 458, at 39). This calculation inadvertently omitted an invoice from Ernst & Young for claim preparation in the amount of \$15,283 submitted after the settlement proposal was finalized. (Tr. 86-87; AEX 431 (invoice dated November 27, 1991)). Appellants seek settlement and claim preparation costs of \$131,004, consisting of \$72,798 paid by F&D to Ernst & Young to prepare the settlement proposal (Tr. 84-88; Tr. 855), \$6,506 paid by F&D to the law firm of Watt, Tieder, Killian & Hoffar in connection with the preparation of the settlement proposal, \$47,595 paid in connection with the defense and settlement of the post-termination claim of BPI Mechanical (Tr. 82-83; Tr. 855-57, 859-60; AEX 434), and \$4,105 paid by F&D to the law firm of Whiteford, Taylor & Preston in connection with the defense and settlement of claims by Able Equipment and another subcontractor (Tr. 857-60; AEX 458, at 39; AEX 450 (Able Equipment tab)). The District does not challenge the reasonableness of the fees. We sustain Appellants' claim for claim preparation costs amounting to \$131,004.

C. Interest

Appellants seek two types of interest: interest on funds advanced by F&D to Beiro in support of the Prevocational project at the rate set by their loan agreement, and interest on unpaid change orders from the date of the PCO proposal or settlement with the District. (AEX 458, at 41-47). Alternatively, Appellants seek statutory interest, pursuant to former section 806 of D.C. Law 6-85 (formerly D.C. Code § 1-1188.6, amended and recodified as § 2-308.06), at a rate of 4 percent on performance-related costs measured from the date that Appellants submitted their claim to the Director of the Department of Administrative Services on August 28, 1987. For nonperformance-related costs, such as claim preparation costs, Appellants seek interest from the date of their being incurred.

We believe the statutory rate provided by the Procurement Practices Act governs here. Accordingly, Appellants are entitled to interest on their unpaid performance costs (limited to the adjusted contract price cap) at 4 percent per annum from August 28, 1987, the date that the Director received Appellants' claim challenging the default termination action, until paid by the District. *MCI Constructors, Inc.*, CAB No. D-924, June 4, 1996, 44 D.C. Reg. 6444, 6471-72; *Kora & Williams*, CAB No. D-839, Sept. 30, 1996, 44 D.C. Reg. 6511, 6545. Appellants are entitled to interest on the settlement expenses at 4 percent per annum from December 23, 1991, the date of the last payment for such expenses.

D. Adjusted Contract Price/Contract Cap Calculation

The original contract price for the Prevocational School project was \$8,098,000.00. (AEX 4). During the course of the project, the District issued 34 Basic Change Directives ("BCDs") directing changes to work under Article 3 of the contract. (Tr. 456). The District also issued 13 Field Work Authorizations ("FWAs") directing more minor changes to the work. In addition, Beiro was also directed to perform extra work through verbal direction from District representatives, correspondence from the District and/or its architect/engineer, or District responses to Beiro Notice and Request forms. (Tr. 456). When verbal direction was given by District representatives, Beiro would follow-up with a Notice and Request form confirming the direction. (Tr. 394-95). Throughout the course of the project, Beiro submitted 120 Proposed Change Orders ("PCOs") to the District requesting equitable adjustments to the contract for extra work and delays. (AEX 238-357).

In the Spring of 1987, when the District was contemplating re-start of the suspended project, negotiations concerning Beiro's PCOs were conducted between Beiro and District representatives. (Tr. 401-02, 458, 477; Tr. 5-8). Although only two formal change orders were executed, 48 PCOs were settled by the parties. (Tr. 9-45). Mr. Kandikere Krishnamurthy, the District's expert witness who reviewed the Beiro PCOs and testified by videotape, acknowledged entitlement for the PCOs settled by the District representatives and quantum for the majority of the settled PCOs. (DEX 231). Mr. Krishnamurthy recognized entitlement for 76 of the 120 Beiro PCOs. (DEX 231). Certain PCO work was partially completed at the time of work suspension. Beiro has estimated the percentage of work completed and applied the percentage in its contract cap calculation. (AEX 237; Tr. 458-59; Tr. 47-49). The District did not rebut that evidence. According to Appellants, the PCO costs incurred only by Beiro, including mark-ups on those costs, are \$2,099,544.33. Appellants also claim profit and bond markups on the subcontractor PCO costs of \$70,380.93. Appellants presented

subcontractor termination for convenience claims totaling \$1,488,560.00 (we have previously determined entitlement amounting to \$168,954). Appellants' calculated adjusted contract cap is as follows:

Subcontractor T for C Claims:	\$ 1,488,560.00
Plus: Beiro Overhead (10.62%):	\$ <u>158,085.07</u>
Subtotal:	\$ 1,646,645.07
Plus: Beiro Profit (10%):	\$ <u>164,664.51</u>
Subtotal:	\$ 1,811,309.58
Beiro PCO Costs:	\$ 2,099,544.33
Beiro Markup on Subcontractor PCO Costs:	\$ 70,380.93
Less: Deductive Change Order No. 1:	\$ <u>(13,295.00)</u>
Net Increase in Contract Cap:	\$ 3,967,939.84
Original Contract Value:	\$ <u>8,098,000.00</u>
Adjusted Contract Cap:	\$12,065,939.84

Of Appellants' claim for \$2,099,544 in PCO costs, we find support for PCO costs totaling \$1,346,472, which includes the PCOs settled by the parties. The following is a discussion of each PCO and our findings on entitlement and quantum.

PCO 2

The District's architect added reinforcing steel and concrete during its review of Beiro's Transmittal No. 2 "Rebar Foundation" shop drawings. Beiro submitted its PCO 2 in the amount of \$1,483 for the additional work. After removing a 14.25 percent mark-up for FICA-FUTA (on top of a labor burden rate of 27.41 percent), we sustain the claim in the amount of \$1,427. (AEX 238, AEX 456 (Murray Tr. 56-57)).

PCO 3

The District issued BCD No. 1 on August 7, 1984, making changes to the door schedule for the project. Beiro submitted PCO 3, requesting compensation for this and other door revisions in the amount of \$14,435. As a result of the late changes to the doors, Beiro was forced to engage a different hollow metal door supplier, at an additional cost of \$8,246. The new supplier's products also required additional field assembly and additional changes were required in the field to modify door frames. (AEX 239; AEX 456 (Murray Tr. 60-62)). We find quantum to be \$12,747.

PCO 5

The District's architect made changes to the rebar layout for the first floor slab during the

shop drawing phase. Beiro submitted its PCO 5 in the amount of \$1,716 for the additional work. The record does not support quantum. (AEX 240; AEX 456 (Murray Tr. 62-63)).

PCO 6B

The District issued BCD 2 on or about August 3, 1984, making a number of dimensional changes to the architectural drawings. Beiro submitted its PCO 6B in the amount of \$1,833 for the extra work. Beiro and the District settled the PCO for the full amount, which we sustain. (AEX 241; AEX 457 (McConnell Tr. 10-11); AEX 456 (Murray Tr. 63-65, 476-78)).

PCO 7

As a result of the District's delay in establishing the layout/control points for the building from July 9, 1984 until October 5, 1984, Beiro incurred additional direct costs for layout and submitted PCO 7 in the amount of \$17,229.00. We sustain the claim in the amount of \$8,566. (AEX 236, at 20; AEX 242, 245; Tr. 364-65).

PCO 8

Appellants withdrew PCO 8, in the amount of \$32,149.00.

PCO 9

The District issued BCD No. 7 on or about November 2, 1984, making revisions to the water meter vault for the Project. Beiro submitted a change order proposal in the amount of \$1,728.00 for the extra work. This change was subsequently settled with District representatives for \$1,547. (AEX 244; AEX 456 (Murray Tr. 11, 72-74)). We sustain the claim for that amount.

PCO 10A and 10B (Beiro pre-suspension delay claims)

Beginning before the July 9, 1984 Notice to Proceed, Beiro had identified dimensional discrepancies between the structural and architectural drawings. (Tr. 363-66, 370; AEX 10, 19, 33). Design and dimensional problems caused by the District's architect delayed major portions of the work. (Tr. 368-70). The District issued numerous changes to the structural steel design to correct the design errors. (E.g., AEX 241 (BCD No. 2); AEX 245 (BCD No. 4); AEX 246 (BCD No. 5); AEX 75 (indicating that 69 percent of the structural steel members on the Project were changed)). While Beiro waited inordinate lengths of time for the District to issue design resolutions, Beiro reasonably slowed down its work on non-critical path activities so as to avoid a shutdown of work on the site. (Tr. 379-80; 381-82; AEX 33). Beiro performed an analysis of the project delays and determined that, as of the end of 1985, the project had been delayed 346 calendar days due to the structural steel deficiencies. Mr. McConnell explained the delay analysis, using the baseline CPM of November 1984 and the December 25, 1985 update, the last update in the record. (DEX 205, 206; Tr. 383-85). Beiro submitted its PCOs for the pre-suspension delays under PCO 10A and 10B. (Tr. 385). In PCO 10A, Beiro attributed the first 90 days of delay to the architectural drawing changes

and the late provision of control points for the project, which prevented Beiro from performing the initial critical layout and excavation/foundation work. (Tr. 363-65, 368-70, 385-86). Beiro attributed the remaining 256 days of delay to the structural steel delays in PCO 10B. (Tr. 385-86; AEX 246). With regard to the late provision of control points and architectural drawing changes, the District agrees that CPM activity 895-900 (concrete column footings for sections 8 and 10) was delayed by 56 days. (DEX 239, at 4). The District's argument that Beiro made up the time on future concrete pours is not persuasive. Based on our review of the schedules, updates, delay correspondence, and testimony, we find that the late provision of control points for the project critically delayed the project approximately 60 days. Based on our review of the record, we find that Beiro was delayed approximately 210 days on account of the substantial structural steel redesign of the project. Although the District's expert proposed a total of 140 days of pre-suspension delay (DEX 239, at 13), we believe the record supports at least 210 days of total critical path delay. Beiro contends, and we agree, that the delays relating to the control points ran concurrently with the delays caused by the redesign of the structural steel. (Tr. 386). In addition, we find that Beiro was not responsible for critical path delays to the project. In particular, the District's position that Beiro was responsible for the concrete cracking and deflections, is unsupported by the record. We credit Appellants' concrete experts who testified that Beiro followed the contract and industry standards for concrete placement at the Prevocational project. We find that the concrete problems were caused by the structural steel design deficiencies for which the District and its contracted architect are responsible.

PCO 10A

PCO 10A was submitted by Beiro on March 12, 1987 in the amount of \$637,367.00. (AEX 245). The claimed costs were:

Direct costs of BCD No. 4:	\$ 22,103.00
Subcontractor impact & extension costs:	\$ 65,320.00
Winter concrete impact costs:	\$ 53,774.00
Extended performance (90 days):	<u>\$496,170.00</u>
Total:	\$637,367.00

We sustain the direct costs of \$22,103, consisting of additional Beiro engineering (\$1,264), subcontractor costs (Mid-Atlantic Steel (\$4,095), CECO (\$14,520) and A&L Painters (\$18.00)), and Beiro mark-up. (AEX 245, at 401702; Tr. 461-62).

Beiro claims the following subcontractor impact and extension costs: CECO (\$41,789), Mid-Atlantic Steel (\$17,267), and Beiro mark-up. (AEX 245, at 401300). Appellants agree that the CECO costs should be removed because they are included in other PCOs. (AEX 245, at 401306). In the subcontractor claim section *supra*, we partially sustained Mid-Atlantic Steel's impact claim in the amount of \$2,563. With Beiro mark-ups, this portion is sustained in the amount of \$2,833.

As a result of early project delays, Beiro was forced to perform a substantial amount of concrete work in the January-February 1985. (Tr. 462). These costs include additional charges for

concrete additives, inefficiencies, and winter protection/heating of concrete. (AEX 24, at 401316-324; Tr. 462). We sustain labor costs of \$17,424, equipment costs of \$1,266, and heating costs of \$12,830. The total of these costs with Beiro's mark-up is \$33,445.

In their posthearing brief, Appellants revised their claim for extended performance costs from \$496,170 (based on a 90-day extension at a daily rate of \$5,513) to \$177,842 (90 days at a daily rate of \$1,976), removing certain subcontractor claim amounts. As detailed below, we find a composite daily rate of \$1,900 supported by the record, consisting of daily rates of \$1,168 for project office expenses, \$18 for material escalation, and \$714 for home office G&A expenses.

Project office expenses included Beiro's field office labor (supervisory, layout, mobilization, cleanup, pump and bail footings, Government trailer support, safety, and security costs), field office general expenses (engineering and tests, utilities, small tools, fencing, safety, signs and photos, site security, insurance, and CPM consultant), and field office equipment and construction equipment. Beiro pooled these costs and added appropriate mark-ups, yielding total project office expenses of \$815,463 from Notice to Proceed (July 9, 1984) through cessation of work on March 7, 1986. (AEX 245, at 401355; Tr. 462-64, 467-68). We have revised Appellants' calculation of project office expenses recovered on other PCOs from \$112,140 to \$106,561, which is then deducted from the total project office expense of \$815,463, to yield \$708,902. Dividing this total by the performance period of 607 calendar days yields a daily project office expense of \$1,168. (AEX 245, at 401355; Appellants' Posthearing Brief, Appendix B; Tr. 467-68).

Beiro computed its costs for material and wage escalation as a result of the delays in the amount of \$36,044.00. (AEX 245, at 401351). Based on the status of Project completion at the time of termination, Appellants concede that the escalation for topsoil (\$600), sod (\$109), seeding (\$235) and wood paneling labor (\$1,000), were likely not incurred. We also remove plywood paneling (\$3,500), drywall materials (\$10,000) and drywall labor (\$5,000). Adjusting this component, with appropriate markups, yields a revised amount of \$10,899, which yields a daily rate of \$18.

As the final element of its extended performance costs, Beiro included home office G&A expenses calculated using the Eichleay formula yielding a daily G&A rate of \$605. (AEX 245, at 401326; Tr. 466-67). Appellants have replaced that G&A rate with the \$729 daily rate calculated by Ernst & Young. (AEX 458, at 37). Ernst & Young calculated its rate using a "performance period" of July 1984 through July 1987. We believe that the suspension period from approximately March 1986 through termination in July 1987 does not provide reasonable G&A allocations with Beiro total direct costs because during that period the business was winding down and the record does not contain the 1986 and 1987 financial records for us to review and evaluate G&A costs. We will confine the performance period to the pre-suspension period and use the financial information provided for 1984 and 1985 to provide a more accurate measure of home office overhead. Thus, prorating for the period of July 1984 through December 1985, we find total Beiro direct costs of \$58,333,162. (AEX 403-404). After deducting unallowable or unsupported G&A costs (the "Repairs, maintenance and operations" under "Indirect costs", travel and entertainment, contributions, and \$350,000 from the excessive 1984 "Management fees"), and prorating for the July 1984 through December 1985 period, we find total Beiro allowable G&A costs of \$4,018,182

(\$1,017,999 for 1984, \$3,000,183 for 1985). Beiro's direct costs on the Prevocational project are \$6,294,239. Multiplying total prorated G&A of \$4,435,306 by the ratio of Prevocational project costs to total Beiro direct costs yields \$433,568 in G&A allocable to the contract, and divided by the performance period of 607 days provides a daily rate of \$714. With the adjustments discussed above, the extended performance costs per day is \$1,900. Accordingly, extended performance costs for the 60-day delay period total \$114,000.

We sustain PCO 10A costs in the amount of \$172,381 (consisting of \$22,103, \$2,833, \$33,445, plus \$114,000).

PCO 10B

We previously found that the substantial changes to the structural steel caused 150 days of critical path delay. Using the daily rate of \$1,900 calculated in connection with PCO 10A, we find home office costs of \$285,000. Lynn Fabricators' cost proposal in the amount of \$301,209 for the structural steel changes and delays, included by Beiro in its PCO 10B, was previously denied as a subcontractor claim for lack of support in the record. We sustain Beiro's additional engineering costs of \$1,015. (AEX 246; Tr. 464). PCO 10B costs therefore total \$286,015.

PCO 10C

The District issued BCD No. 8 on November 20, 1984, making a number of changes to the structural steel for the project. Beiro's PCO 10C includes only those direct costs for additional fireproofing work in the amount of \$505.00. This claim was settled with District representatives for \$306, which we sustain. (AEX 231, 247; Tr. 80-81, 12).

PCO 10E

In response to Beiro's Notice and Request No. 26 (AEX 200), the District issued a sketch (SK-9), relating to concrete beam #1. Beiro submitted PCO 10E in the amount of \$1,003 for the extra work associated with the change. There appears to be duplication of costs in this claim and PCO 35. We deny the claim for lack of adequate support in the record.

PCO 10G

In response to Beiro's Notice and Request 212 (AEX 209), the District directed removal and replacement of a masonry wall at the north side of the gymnasium. Beiro submitted a change order proposal in the amount of \$1,354. We are not persuaded that the work was a compensable change to the contract because Beiro or its subcontractors appear to have initially misread the applicable drawings. (AEX 249; AEX 456 (Murray Tr. 83-84)). Accordingly, we deny the claim.

PCO 10I

Due to changes to the structural steel, Beiro was forced to pour the concrete loading dock out

of sequence. Beiro had to protect the concrete by means of plywood. Beiro submitted its PCO 10I in the amount of \$1,747.00 for the plywood protection. We sustain the claim in the amount of \$1,747. (AEX 456 (Murray Tr. 84-85)).

PCO 13

The District issued BCD No. 3 on August 3, 1984, directing major revisions to the site water mains and storm drains. The District also issued BCD No. 16 on April 1, 1985, which, among other things, changed the site sewer lines. BCD No. 22, dated June 22, 1985, also made changes to the storm and sanitary lines. Beiro included each of the site utility changes into its PCO 13 in the amount of \$268,704. District representatives settled this PCO with Beiro for \$211,360. (AEX 251, at 402149; AEX 456 (Murray Tr. 85-87); AEX 454 (McConnell Tr. 480-82); AEX 457 (McConnell Tr. 13)). Beiro estimated that 50 percent of this work was completed before termination, for a PCO value of \$105,680.00. (AEX 454 (McConnell Tr. 482); AEX 456 (Murray Tr. 86); AEX 237). The District agrees with entitlement and quantum. (DEX 231). Accordingly, we sustain the claim in the amount of \$105,680.

PCO 14

Due to the unsuitability of the soil at the elevations prescribed by the District for the building footings, Beiro was forced to over-excavate the footings and provide additional fill. Beiro submitted PCO 14 to the District in the amount of \$257,636. Except for an amount of \$5,979, we find the claim adequately supported by the record and therefore sustain it in a total amount of \$251,657. (AEX 251A; AEX 456 (Murray Tr. 87-88); AEX 454 (McConnell Tr. 483-86)).

PCO 15

As documented in Beiro's Notice and Requests Nos. 3 and 10 dated August 23, 1984, the District directed Beiro to install a wall in the gymnasium area with a curved radius as opposed to an angle. (AEX 252). Beiro submitted its PCO 15 in the amount of \$452. We sustain the claim in the amount of \$414. (AEX 456 (Murray Tr. 88-89)).

PCO 16

The contract permitted Beiro to use existing site material as backfill. (AEX 3, ¶ 2.01). The District rejected the backfill material and required Beiro to haul away the existing material and purchase and haul new backfill to the site. Beiro submitted its PCO 16 in the amount of \$33,629.00. The record adequately supports costs of \$25,600, which is the amount we sustain. (AEX 253; Tr. 732-36; AEX 456 (Murray Tr. 89-90)).

PCO 17

On September 26, 1984, the District's Acting Chief, Bureau of Building Construction

Services, issued a clarification letter to Beiro which made 16 changes to various structural and architectural drawings. Beiro submitted its PCO 17 in the amount of \$1,251 for the additional column forming and rebar work. We sustain the claim in the amount of \$1,230. (AEX 254; AEX 256 (Murray Tr. 91-92)).

PCO 18

The District's architect issued a sketch making changes to the details for windows 18 and 19 of the building. Beiro submitted its PCO 18 in the amount of \$946, which was settled with District representatives for \$780. We sustain the claim in that amount. (DEX 231; AEX 255).

PCO 19

The District, by letter and sketch dated October 15, 1994, provided Beiro with changed work relating to the tie-in of the 4" planter drains. Beiro submitted its PCO 19 in the amount of \$15,350.00 for the extra work. We find the claimed costs excessive. The record supports costs of \$4,000, which we sustain. (AEX 256; AEX 256 (Murray Tr. 93-94)).

PCO 21

In response to Beiro's Notice and Request No. 31, dated October 5, 1984, the District's architect issued a sketch revising certain dimensions on Stair 5. Beiro submitted its PCO 21 in the amount of \$5,777.00 for the additional excavation, framework, fill and layout of the stair. We believe that some of the costs cover the original contract work and have not been properly credited in Beiro's cost proposal. We allow \$764 in burdened labor, \$600 in materials, \$140 for equipment, and subcontractor costs of \$227, and with mark-ups, for a total of \$1,984. (AEX 257; AEX 256 (Murray Tr. 95)).

PCO 23

The District issued BCD No. 13 on March 7, 1985, directing, among other work, changes to the first floor slab cantilever and reinforcing. Beiro submitted its PCO 23 in the amount of \$710 for this work. (AEX 258). This change was settled with District representatives for \$688. (AEX 256 (Murray Tr. 96-98); AEX 257 (McConnell Tr. 14)). The District agrees with entitlement and quantum. (DEX 231). We sustain the claim in the amount of \$688.

PCO 25

In response to Beiro's Notice and Request No. 25, the architect issued a sketch moving a rain leader trap from below a footing to the side of the footing. Beiro submitted its PCO 25 in the amount of \$1,642 consisting of a BPI proposal of \$1,492 for the changed work along with Beiro mark-ups making a total claim of \$1,642. We are not persuaded that the work as changed increased the cost of performance. We deny the claim. (AEX 259; AEX 256 (Murray Tr. 98-99)).

PCO 26

The District issued BCD No. 8 on November 26, 1984, modifying the roof framing in the lobby area, among other things. Beiro submitted its PCO 26 in the amount of \$1,203 for this work. (AEX 260). This PCO was settled with District representatives for \$1,194. (AEX 256 (Murray Tr. 99-101)). The District does not dispute entitlement or quantum. (DEX 231). We sustain PCO 26 for the agreed amount.

PCO 27

By letter dated November 8, 1984, the District, among other things, changed the location of freezer condensers from the electrical room to the roof as a result of the electrical room having insufficient space to meet the clearance requirements of the National Electrical Code. (AEX 261). Beiro submitted its PCO 27 for the changed work in the amount of \$18,305. Beiro estimates that 50 percent of this extra work (\$9,152.50) was performed prior to termination. (AEX 256 (Murray Tr. 102)). Based on our review of the record, we find support for Beiro costs of \$2,682 and Bratti Associates costs of \$286, for a total amount sustained of \$2,968. We are not persuaded by the record that the other subcontractor costs totaling \$13,422 were actually incurred and paid.

PCO 28

The District refused to permit Beiro to use on-site material for backfill of interior pipe excavations which were under the building's ground slab. Paragraph 3.04B of the specifications indicates the use of type M-1 backfill material for interior areas where "fills are required to provide proper levels for slabs or gravel fill under slabs on ground." The District argues that because the pipe trenches are interior spaces under the ground slab, Paragraph 3.04 requires M-1 material. Beiro claims that M-1 fill is only required to provide proper levels for slabs, not pipe excavations. We believe the District's interpretation is the more reasonable. Accordingly, we deny Beiro's PCO 28 claim for \$66,083. (AEX 262).

PCO 30

The District issued FWA 2 on November 1, 1984, directing revisions to light fixtures which would not have fit properly as originally designed. Beiro submitted its PCO 30 in the amount of \$3,323.00 for the light fixtures revisions and associated changes in the reinforcing steel. We are not persuaded from the record that the costs were actually incurred, with the exception of the claim for \$116 by Mid-Atlantic Steel. (AEX 263). With mark-up, we sustain the claim in the amount of \$128.

PCO 32

In response to Beiro's Notice and Request No. 34, the District issued a sketch clarifying certain details of the electrical room wall/foundation and adding a galvanized steel plate. Beiro submitted its PCO 32 in the amount of \$417 for the additional work. (AEX 264; AEX 256 (Murray

Tr. 105-06)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim of \$417.

PCO 34

The District requested that Beiro change the grating in the kitchen area from cast iron to aluminum. Beiro submitted its PCO 34 for the change in the amount of \$266. The change request was settled with District representatives and the record contains Change Order No. 2, dated September 23, 1985, in the amount of \$263, although it appears that the contract price was never adjusted to reflect the change. (AEX 265, at 413990). The District does not dispute entitlement. (DEX 231). Beiro estimates 75 percent, or \$197, of the work was completed prior to termination. (AEX 237). We sustain the claim for that amount.

PCO 35

The District issued BCD No. 10 on December 21, 1984, directing the installation of additional reinforcing steel in the automotive shop. Beiro submitted its PCO 35 in the amount of \$1,084 for the extra work. The change was settled with District representatives for the full amount of \$1,084. (AEX 266, at 4040071). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim for the agreed amount.

PCO 35A

The District issued BCD No. 12 on February 26, 1985, directing the relocation and addition of drains in the automotive shop. Beiro submitted its PCO 35A in the amount of \$2,440 for the extra work. The change was settled with District representatives for \$2,274. (AEX 267, at 404135). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim for the agreed amount of \$2,274.

PCO 37

The District directed Beiro by letter dated November 5, 1984, to provide additional flashing at the masonry walls. (AEX 268, at 404253). Beiro submitted its PCO 37 in the amount of \$560 for this extra work. We sustain the claim in the amount of \$406. (AEX 256 (Murray Tr. 111-12)).

PCO 41

The District issued BCD No. 8 on November 20, 1984, directing certain structural changes to the building. Beiro submitted its PCO 41 in the amount of \$2,134 for the revisions. This portion of BCD No. 8 was settled with District representatives for \$1,523. (AEX 256 (Murray Tr. 112-14)). The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim for the agreed amount.

PCO 42

The District issued BCD No. 30 on October 23, 1985, directing the relocation of a masonry wall. Beiro submitted its PCO 42 in the amount of \$879 for the work. The change was settled with District representatives for \$799. (AEX 457 (McConnell Tr. 22); AEX 270, at 404346; AEX 456 (Murray Tr. 114-15)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim for the agreed amount of \$799.

PCO 43

The District issued BCD No. 9 on November 20, 1984, making significant changes to the keying for the building. Beiro submitted its PCO 43 in the amount of \$1,484.00 for the change. The change was settled with District representatives and Change Order No. 2 was issued in the amount of \$1,468, which we sustain. (AEX 271, at 413940; DEX 231).

PCO 44

The District issued BCD No. 10 on December 21, 1984, directing the installation of three additional light fixtures in a storage room. Beiro submitted its PCO 44 in the amount of \$593. (AEX 456 (Murray Tr. 117)). This change was settled with District representatives for \$593. (AEX 272, at 404383; AEX 457 (McConnell Tr. 23)). Beiro estimates that 75 percent, or \$445, of the work was completed prior to termination. (AEX 237; AEX 456 (Murray Tr. 118)). The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$445.

PCO 45

The District issued FWA No. 6 on March 6, 1985, making changes to the mop basin strainers. Beiro submitted its PCO 45 in the amount of \$1,104 for this extra work. The change was settled with District representatives for \$821. (AEX 273, at 404415; AEX 457 (McConnell Tr. 23); AEX 456 (Murray Tr. 118-19)). The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$821.

PCO 48

The District issued BCD No. 48 on December 21, 1984, directing the addition of reinforcing steel in the first floor slab, Area No. 1. Beiro submitted its PCO 48 in the amount of \$2,284 for the extra work. The change was settled with District representatives for the full amount of \$2,284. (AEX 274, at 404456). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$2,284.

PCO 50A

The District issued BCD No. 12 on February 26, 1985, directing changes to thirteen catch basins and the addition of gas traps. Beiro submitted its PCO 50A in the amount of \$5,315 for the extra work. The change was settled with District representatives for the full amount of \$5,315.

(AEX 275, at 404613). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$5,315.

PCO 50B

The District issued BCD No. 15 on April 1, 1985, raising the tops of catch basins by adding two courses of concrete masonry units. Beiro submitted its PCO 50B in the amount of \$6,253 for the extra work. This change was settled with the District for \$5,440. (AEX 276, at 404629). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$5,440.

PCO 51

In response to Beiro Notice and Request No. 56, the District provided a sketch indicating brass cleanouts as opposed to cast iron indicated in the contract documents. Beiro submitted its PCO 51 in the amount of \$1,630 for the changed work. (AEX 456 (Murray Tr. 123)). Beiro estimates that 90 percent of this work was completed prior to termination. (*Id.*; AEX 237). The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$1,270.

PCO 54

By sketch dated December 27, 1984, the District added a 12" x 12" concrete post for the support of stair No. 3. Beiro submitted its PCO 54, as revised, in the amount of \$1,646. (AEX 277; AEX 456 (Murray Tr. 127)). The District recognizes entitlement for this PCO. (DEX 231). Prorating a portion of Ceco's materials to this work, we sustain the claim in the amount of \$1,246.

PCO 55 A&B

The District issued BCD No. 10 on December 21, 1984, directing changes to the electrical, mechanical, and architectural details to accommodate above-ceiling space constraints. Beiro submitted its PCO 55 A&B in the amount of \$6,324 for the changes. The changes were settled with District representatives for \$3,122. (AEX 278, at 404807, 404800; AEX 457 (McConnell Tr. 25-26); AEX 456 (Murray Tr. 124-26)). Beiro estimates that 50 percent of this work was completed prior to termination. (AEX 456 (Murray Tr. 125); AEX 237). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,561.

PCO 56

In response to Beiro's Notice and Request No. 52 regarding conflicts between ductwork and lighting on the ground floor, the District directed the installation of beam pockets (sleeves) to alleviate the conflict. Beiro submitted its PCO 56 in the amount of \$309 for the additional work. Entitlement and quantum are established by the record. (AEX 280; AEX 456 (Murray Tr. 126)). We sustain the claim in the amount of \$309.

PCO 63

The District issued BCD No. 12 on February 26, 1985, directing the installation of an additional concrete column to support the first floor slab above the main entrance area. Beiro submitted its PCO 63 in the amount of \$6,378 for the extra work. The change was settled with District representatives for \$6,250. (AEX 281, at 405149; AEX 454 (McConnell Tr. 489-91); AEX 457 (McConnell Tr. 26-27); AEX 456 (Murray Tr. 127-28)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$6,250.

PCO 63A

In a series of meetings with District representatives in December 1984 and January 1985, revisions were made in the reinforcing steel design of certain areas of the first floor slab. Beiro confirmed the results of the meetings by Notice and Request No. 65. (AEX 282, at 405269-70). Beiro submitted its PCO 63A in the amount of \$369 for the additional work. We sustain the claim in the amount of \$369. (AEX 282; AEX 456 (Murray Tr. 128-29)).

PCO 64

In response to Beiro's Notice and Request No. 66, the District directed revisions to the stub-ups for the electrical receptacles in the Driver's Education room. Beiro submitted its PCO 64 in the amount of \$2,773 for the additional work. The District recognizes entitlement for this PCO but not the quantum. (DEX 231). We sustain the claim in the amount of \$1,000. (AEX 283; AEX 456 (Murray Tr. 129-130)).

PCO 65

In response to Beiro's Notice and Request No. 67, which noted a conflict with the roof elevation at Stair No. 3, the District directed that the roof elevation be raised and a pocket for a joist be installed. (AEX 284, at. 405313, 405305). Beiro submitted its PCO 65 in the amount of \$1,883 for the extra work. The District recognizes entitlement for this PCO. (DEX 231). Except for the allowance item for Bratti Associates, the record supports Beiro's quantum. (AEX 284; AEX 456 (Murray Tr. 130-31)). We sustain the claim in the amount of \$1,245.

PCO 68

The District issued FWA No. 4 on February 26, 1985, correcting the omission from the contract documents of trench drains at the loading dock and north entrance. By FWA No. 7, dated April 19, 1985, the District added another drain at the service platform. Beiro submitted its PCO 68 in the amount of \$2,227 for the additional work. Beiro estimates that 50 percent of this work was completed prior to termination. (AEX 237; AEX 456 (Murray Tr. 131-32)). The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$900.

PCO 70

The District issued BCD No. 13 on March 7, 1985, directing Beiro to install and revise various ductwork chases. Beiro submitted its PCO 70 in the amount of \$3,825 for the extra work. The change was settled with District representatives for \$3,175. (AEX 286, at 405420; AEX 457 (McConnell Tr. 27); AEX 456 (Murray Tr. 133)). The District recognizes entitlement and the majority of the quantum for this PCO. (DEX 231). We sustain the claim in the amount of \$3,175.

PCO 72

By letter dated January 16, 1985, the District provided Beiro with Sketch No. 16, adding reinforcing steel to the 8" x 21" concrete beam at the first floor mall area. Beiro submitted its PCO 72 in the revised amount of \$278 for the additional work. The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$278. (AEX 287).

PCO 73

By FWA No. 5 dated January 10, 1985, the District directed Beiro to change the construction sign on the Project site. Beiro submitted its PCO 73 in the amount of \$126. The change was apparently settled with the District and Change Order No. 1 issued with a price adjustment in the amount of \$117. (AEX 288, at 413919; AEX 457 (McConnell Tr. 27-28)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the adjustment in the amount of \$117.

PCO 75

The District's architect made a number of changes to the reinforcing steel shop drawing (Beiro Transmittal 132) for the first floor. Beiro submitted its PCO 75 in the amount of \$9,925 for the modified and additional work. We sustain the claim in the amount of \$8,374. (AEX 289; AEX 456 (Murray Tr. 136)).

PCO 76A

The District issued BCD No. 17 on April 24, 1985, directing the addition of an upturned concrete beam as support for the under-designed south spandrel beam. Beiro submitted its PCO 76A in the amount of \$46,570 for the additional work. The change was settled with District representatives for \$33,500.00. (AEX 290, at 405839, 405840; AEX 454 (McConnell Tr. 491-92, 496); AEX 457 (McConnell Tr. 28); AEX 456 (Murray Tr. 137-38)). The District recognizes entitlement for this PCO, although it states that BPI Mechanical had not installed the Finn Tube radiators. (DEX 231). We sustain the claim in the amount of \$30,000.

PCO 76B

The District issued BCD No. 26 on August 29, 1985, directing architectural changes to the underside of the south spandrel beam resulting from the addition of the upturned beam. (See PCO 76A). Beiro submitted its PCO 76B in amount of \$11,577 for the additional work. The change was

settled with District representatives for \$12,580. (AEX 291, at 406064; AEX 455 (Murray Tr. 738-40); AEX 457 (McConnell Tr. 28-29); AEX 456 (Murray Tr. 139-40)). The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$12,580.

PCO 77

The District provided Beiro verbal direction, subsequently confirmed by Beiro's Notice and Request No. 78, dated January 28, 1985, concerning revisions to the concrete at Stair No. 1. (AEX 292, at 406106). Beiro submitted its PCO 77 in the amount of \$980 for the revised work. We sustain the claim in the amount of \$908. (AEX 292; AEX 456 (Murray Tr. 140-41)).

PCO 78

The District provided Beiro with verbal direction to modify doors 112 and 113 to avoid conflicts with the concrete structure. Beiro confirmed this direction by Notice and Request No. 81B on February 5, 1985. (AEX 293, at 406129). Beiro submitted its PCO 78 in the amount of \$848 for the changed work. Beiro estimates that 50 percent of the work was completed prior to termination. (AEX 293; AEX 456 (Murray Tr. 141-42)). We sustain the claim in the amount of \$393.

PCO 79

By verbal directive, later confirmed by Beiro's Notice and Request No. 81B, the District modified the head at door No. 68. (AEX 294, at 406156-57). Beiro submitted its PCO 79 in the amount of \$304 for the changed work. We sustain the claim in the amount of \$279. (AEX 294; AEX 456 (Murray Tr. 142-43)).

PCO 83

The District issued BCD No. 28 on September 24, 1985, directing changes to the mechanical and electrical layout throughout the ground floor of the building. Beiro submitted its PCO 83 in the amount of \$16,499 for the changed work. The change was settled with District representations for \$16,222. (AEX 295, at 406219, 406217; AEX 457 (McConnell Tr. 30-31); AEX 456 (Murray Tr. 143-44)). Beiro estimates that 85 percent, or \$13,789, of the work was completed prior to termination. (AEX 456 (Murray Tr. 144); AEX 237). The District does not dispute entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$13,789.

PCO 83A

Appellants have withdrawn this PCO, in the amount of \$324.

PCO 84A

The District issued BCD No. 17 on April 24, 1985, directing that Beiro provide additional posts and footings below the concrete ramp. Beiro submitted its PCO 84A in the amount of \$41,956 for the additional work. This change was settled with District representatives for \$35,783. (AEX 297, at 406399-406400, 406398; AEX 457 (McConnell Tr. 31-32); AEX 456 (Murray Tr. 145-46)). Beiro estimates that 90 percent of this work was completed prior to termination. The District recognizes entitlement for this PCO. (DEX 231). We sustain the claim in the amount of \$30,920.

PCO 84B

The District issued BCD No. 20 on June 5, 1985, directing Beiro to install additional reinforcing steel in the concrete ramp. Beiro submitted its PCO 84B in the amount of \$4,018 for the extra work. This change was settled with District representatives for \$673. (AEX 298, at 406716-406717). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$673.

PCO 84C

The District gave Beiro verbal direction, later confirmed by Beiro's Notice and Request No. 90, to modify the masonry at Door No. 77. (AEX 299, at 406742). Beiro submitted its PCO 84C for the extra work in the amount of \$376. (AEX 299). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$376.

PCO 85

The District issued BCD No. 31 on October 23, 1985, directing that Beiro modify a wall opening and provide a plywood pipe chase. Beiro submitted its PCO 85 in the amount of \$3,858 for the additional work. The District does not dispute entitlement. (DEX 231). We sustain the claim in the amount of \$3,297. (AEX 300).

PCO 89

The District issued BCD No. 17 on April 24, 1985, directing that Beiro install additional reinforcing steel in the concrete curbs over the cambered steel beam in the gymnasium. Beiro submitted its PCO 89 in the amount of \$14,044 for the extra work. The change was settled with District representatives for \$13,137. (AEX 301, at 406861, 406862-63; AEX 457 (McConnell Tr. 32); AEX 456 (Murray Tr. 150-51)). Beiro estimates 93 percent of this work was completed prior to termination. (AEX 456 (Murray Tr. 150)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$12,217.

PCO 90

As a result of the concerns regarding deflections of the elevated concrete slab, Beiro expended labor and equipment costs to measure the deflections and modify building elements. Beiro submitted its PCO 90 on March 20, 1987, in the amount of \$19,216. (AEX 302; AEX 456 (Murray

Tr. 151-52)). Beiro estimates that two-thirds of this work was completed prior to termination. (AEX 456 (Murray Tr. 151-52); AEX 237). We sustain the claim in the amount of \$11,740.

PCO 92

In response to Beiro's Notice and Request No. 104, the District provided information concerning electrical and mechanical hookups to greenhouse equipment which were not depicted on the contract drawings. Beiro submitted its PCO 92 in the revised amount of \$1,097. We are not persuaded from the record presented that the extra work was actually performed. (AEX 303). We deny the claim.

PCO 93

The District issued BCD No. 25 on July 31, 1985, directing changes in utility and telephone service to the building. Beiro submitted its PCO 93 in the amount of \$63,895 for the extra work. The change was settled with District representatives for \$49,235. (AEX 304, at 408091-92). Beiro estimates 25 percent of the work was performed prior to termination. (AEX 456 (Murray Tr. 154); AEX 237). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$11,894. (AEX 304, at 408051).

PCO 95

The District verbally directed Beiro to install a solid concrete masonry unit wall under the kitchen area beam. Beiro confirmed the directive by Notice and Request No. 130 on June 3, 1985. (AEX 305, at 408246). Beiro submitted its PCO 95 in the amount of \$1,061 for the additional work. The District does not dispute entitlement. (DEX 231; AEX 305; AEX 456 (Murray Tr. 155)). We sustain the claim in the amount of \$1,043.

PCO 96

The District issued BCD No. 16 on April 1, 1985, directing that Beiro provide an additional riser to the top landing on Stair No. 2. Beiro submitted its PCO 96 in the amount of \$294 for the additional work. This change was settled with District representatives for the full amount. (AEX 306; AEX 457 (McConnell Tr. 33)). We sustain the claim in the amount of \$294.

PCO 99

The District issued BCD No. 14 on March 19, 1985, directing that Beiro relocate roof drain piping as depicted on Change Order drawings 24 and 25. Beiro submitted its PCO 99 in the amount of \$1,427 for the changed work. The change was settled with District representatives for \$1,384. (AEX 307, at 408331; AEX 457 (McConnell Tr. 34); AEX 456 (Murray Tr. 157-58)). District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,384.

PCO 102

The District issued BCD No. 17 on April 24, 1985, directing changes to light fixtures due to interference with ductwork in the graphics area of the building. Beiro submitted its PCO 102 in the amount of \$404 for the changes. These changes were settled with District representatives for \$251. (AEX 308, at 408424, 408427; AEX 457 (McConnell Tr. 34-35)). Beiro estimates that 75 percent of this work was completed prior to termination. (AEX 456 (Murray Tr. 159); AEX 237). The District does not dispute entitlement. (DEX 231). We sustain the claim in the amount of \$188.

PCO 103A

The District issued BCD No. 20 on June 5, 1985, directing the placement of additional reinforcing steel and modifications to the beams for the greenhouse slab. Beiro submitted its PCO 103A in the amount of \$25,997 for the additional work. The change was settled with District representatives for \$23,500. (AEX 309, at 408581). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$23,500.

PCO 103B

In response to Beiro's Notice and Request No. 154, the District added steel plates to the greenhouse slab. (AEX 310, at 408696). Beiro submitted its PCO 103B in the amount of \$2,799 for the extra work. The change was settled with District representatives for \$2,200. (AEX 457 (McConnell Tr. 36); AEX 310, at 408557, 408684). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$2,200.

PCO 104

The District issued BCD No. 18 on May 7, 1985, directing modification of the masonry work at the south side exterior doors. Beiro submitted its PCO 104 in the amount of \$1,965 for the additional work required. The change was settled with District representatives for the full amount. (AEX 311, at 408705, 408703-04). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,965.

PCO 107A

The District issued BCD No. 21 on June 13, 1985, directing changes to the electrical emergency system. Beiro submitted its PCO 107A in the amount of \$17,588 for the additional work. This change was settled with District representatives for \$12,990 (AEX 457 (McConnell Tr. 37); AEX 237). Beiro estimates that 30 percent of the work was completed before termination. (AEX 456 (Murray Tr. 164); AEX 237). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$3,897.

PCO 107B

The District issued BCD No. 28 on September 24, 1985, directing changes to the water service room. Beiro submitted its PCO 107B in the amount of \$7,580 for the extra work. The change was settled with District representatives for \$7,071. (AEX 457 (McConnell Tr. 38); AEX 313, at 408852). Beiro estimates that 25 percent of the PCO 107B work was performed prior to termination. (AEX 456 (Murray Tr. 165); AEX 237). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,768.

PCO 115

At the progress review meeting on May 16, 1985, District representatives directed Beiro to provide an angle brick hanger at Stair No. 2. Beiro submitted its PCO 115 in the revised amount of \$299 for the extra work. (AEX 314; AEX 456 (Murray Tr. 166)). We sustain the claim in the amount of \$178.

PCO 116

At the progress review meeting on May 16, 1985, District representatives directed Beiro to re-route certain water piping above the ceilings. Beiro submitted its PCO 116 in the amount of \$1,055 for the changed work. (AEX 315; AEX 456 (Murray Tr. 166-67)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,055.

PCO 118B

The District issued BCD No. 30 on October 23, 1985, directing the relocation of a storm drain line. Beiro submitted its PCO 118B in the amount of \$1,319 for the changed work. The change was settled with District representatives for \$1,606. (AEX 457 (McConnell Tr. 38-39); AEX 316, at 409225). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,606.

PCO 121

As confirmed in Beiro's Notice and Request No. 128, the District directed that the Beiro close certain wall openings over kitchen equipment. (AEX 317, at 409369). Beiro submitted its PCO 121 in the amount of \$781 for the extra work. We sustain the claim in the amount of \$781. (AEX 317; AEX 456 (Murray Tr. 168-69); DEX 231).

PCO 122

In response to Beiro's Notice and Request No. 133, the District directed Beiro to relocate Door No. 140 to avoid conflicts with structural beams. (AEX 318, at 409392). Beiro submitted its PCO 122 in the amount of \$636. The record establishes entitlement and quantum. (AEX 318; AEX 456 (Murray Tr. 169-70)). Beiro estimates that 50 percent of this work was completed prior to termination. (*Id.*, Tr. 170). We sustain the claim in the amount of \$193.

PCO 125

The District issued BCD No. 33 on October 23, 1985, directing Beiro to provide gas piping and connections for the dryers as shown on change order drawings. Beiro submitted its PCO 125 in the amount of \$2,004 for the extra work. The change was settled with District representatives for \$1,991. (AEX 319, at 409504; AEX 457 (McConnell Tr. 39)). The District does not dispute entitlement. (DEX 231). We sustain the claim in the amount of \$1,881.

PCO 126

As a result of the substantial delays to the structural steel for the project, Beiro incurred additional costs for storing and double-handling of material and equipment. Beiro submitted its PCO 126 on February 28, 1986, in the amount of \$16,537 for these extra costs. Entitlement and quantum are established by the record. (AEX 320; AEX 456 (Murray Tr. 171-72)). The District does not dispute entitlement. (DEX 231). We sustain the claim in the amount of \$16,537.

PCO 127

As confirmed by Beiro's Notice and Request No. 157, the District verbally ordered Beiro to cut off hanging brackets which conflicted with the masonry construction. (AEX 321, at 409600). Beiro submitted its PCO 127 in the amount of \$305 for this extra work. We sustain the claim in the amount of \$305. (AEX 321; AEX 456 (Murray Tr. 172-73)).

PCO 130

In accordance with verbal direction from District representatives, as confirmed by Beiro's Notice and Request Nos. 160 and 174, Beiro left the shoring for the greenhouse deck in place for an extended period of time and investigated the District's allegation of cracking in the greenhouse slab. (AEX 322, at 409677, 409672). Beiro submitted its PCO 130 in the amount of \$1,842 for the extra work. We sustain the claim in the amount of \$934. (AEX 322).

PCO 132

The District issued BCD No. 23 on July 26, 1985, directing Beiro to install temporary shoring for the elevated slab. BCD No. 23 contained the following note: "An independent structural analysis is underway to determine the cause of the cracking and recommended countermeasures. If the determination indicates that the cracks are due to construction deficiency or a liability on the part of the contractor, cost of the foregoing work and any delay resulting therefrom will be considered your (Beiro's) responsibility." Appellants seek \$116,618 for PCO 132. We are unable to sustain the claim for lack of adequate support in the record. (AEX 323; AEX 454 (McConnell Tr. 496-97); AEX 456 (Murray Tr. 175)).

PCO 135

The District issued BCD No. 22 on July 26, 1985, directing changes to structural steel in the

mechanical room. Beiro submitted its PCO 135 in the amount of \$553 for the extra work. The change was settled with District representatives for \$553. (AEX 457 (McConnell Tr. 40); AEX 324, at 409737). The District does not dispute entitlement but notes that Hampshire's March 4, 1986 proposal states costs of only \$146. (DEX 231; AEX 324, at 409738). We sustain the claim in the amount of \$160.

PCO 136

The District issued BCD No. 24 on July 31, 1985, directing that Beiro provide continuous channels with clip angles on top of the first floor drywall partitions. Beiro submitted its PCO 136 in the amount of \$20,244. This change was settled with District representatives in the amount of \$20,229. (AEX 457 (McConnell Tr. 40-41); AEX 325, at 409790, 409787). Beiro estimates 61 percent, or \$12,340, of this work was performed prior to termination. (AEX 457 (Murray Tr. 177)). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$12,340.

PCO 137

In response to Beiro's Notice and Request No. 169, the District directed Beiro to use different channels on the glazed partitions. Beiro submitted its PCO 137 in the amount of \$700 for the changed work. We sustain the claim in the amount of \$680. (AEX 326).

PCO 138

In response to Beiro's Notice and Request No. 201, the District directed the installation of concrete curbs at duct penetrations. (AEX 326, at 409875). Beiro submitted its PCO 138 in the amount of \$292 for the additional work. We sustain the claim in the amount of \$282. (AEX 327).

PCO 139A

The District issued BCD No. 32 on October 23, 1985, directing that Beiro provide additional supports for the roof top air handling units. Beiro submitted its PCO 139A in the amount of \$14,202 for the additional work. Because the record does not demonstrate that Beiro paid Lynn and A&L Painting on their claims, we remove those costs and sustain the claim in the amount of \$6,190. (AEX 328; AEX 456 (Murray Tr. 180-81)).

PCO 139B

In accordance with two sketches provided by the District's architect, Beiro was directed to provide additional supports for the roof fans. Beiro submitted its PCO 139B in the amount of \$3,680 for the additional work. We sustain the claim in the amount of \$2,051. (AEX 329; AEX 456 (Murray Tr. 181-82)).

PCO 142

In response to Beiro's Notice and Request No. 176, the District directed Beiro to install additional deck supports. (AEX 330, at 410266). Beiro submitted its PCO 142 in the amount of \$154 for the additional work. We sustain the claim in the amount of \$154. (AEX 330; AEX 456 (Murray Tr. 182)).

PCO 144

The District issued BCD No. 27 on August 29, 1985, directing that Beiro provide steel cover plates at various roof beams. Beiro submitted its PCO 144 in the amount of \$6,712 for the extra work. The change was settled with District representatives in the amount of \$6,712. (AEX 457 (McConnell Tr. 41); AEX 331, at 410293, 410286). Because the record does not show that Beiro paid Lynn and A&L Painting their claimed costs, we remove those amounts and sustain the claim in the amount of \$692.

PCO 145

In response to Beiro's Notice and Request No. 188, the District directed that Beiro cut and weld the Door 89 frame to fit under a beam. (AEX 332, at 410430; AEX 456 (Murray Tr. 184-85)). Beiro submitted its PCO 145 in the amount of \$688 for the extra work. This change was settled with District representatives for the amount of \$500. (AEX 457 (McConnell Tr. 42); AEX 332, at 410422, 410424). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$500.

PCO 146

District representatives directed Beiro to install metal bridging for attachment of the metal siding, as confirmed by Beiro's Notice and Request No. 163. (AEX 333, at 410438). Beiro submitted its PCO 146 in the amount of \$318 for this work. We sustain the claim in the amount of \$300. (AEX 333; AEX 456 (Murray Tr. 185-86)).

PCO 149

The District's architect directed changes to the column covers, requiring the furnishing of J-channel closures. Beiro submitted its PCO 149 in the amount of \$4,410 for the additional work. Beiro estimates that 10 percent of the change work was completed prior to termination. (AEX 456 (Murray Tr. 186)). We deny the claim for lack of adequate support in the record. (AEX 334).

PCO 150

The District directed the installation of a steel beam not depicted on the contract documents by responses to Beiro's Notice and Request Nos. 173 and 199. (AEX 335, at 410535, 410551). Beiro submitted its PCO 150 in the amount of \$2,486 for the additional beam. We deny the claim because the record does not show that Beiro paid Lynn its claimed costs. (AEX 335; AEX 456 (Murray Tr. 187)).

PCO 151

In response to Beiro's Notice and Request No. 189, the District directed Beiro to perform modifications to the frame of Window No. 17. (AEX 336, at 410585). Beiro submitted its PCO 151 in the amount of \$601 for the changed work. This change was settled with District representatives for the full amount of \$601. We sustain the claim in the amount of \$601. (AEX 457 (McConnell Tr. 42-43); AEX 336, at 410564).

PCO 152

As confirmed by Beiro's Notice and Request No. 196, District representatives verbally directed Beiro to perform corrective work to steel beams in the mechanical room. (AEX 337, at 410595). Beiro submitted its PCO 152 in the amount of \$433 for this extra work. We sustain the claim in the amount of \$200. (AEX 337; AEX 456 (Murray Tr. 189)).

PCO 154

Appellants have withdrawn this PCO, in the amount of \$1,185.

PCO 155

In response to Beiro's Notice and Request No. 203, the District provided Beiro with details of the concrete stair at the mechanical room requiring extra work by Beiro. (AEX 339, at 410703). Beiro submitted its PCO 155 in the amount of \$3,383 for the additional work. We sustain the claim in the amount of \$2,000. (AEX 339; AEX 456 (Murray Tr. 190-91)).

PCO 157

Beiro was directed by the District's architect to install 2-inch thick acoustical insulation on the interior of all ductwork exposed to weather. (AEX 340, at 410727-28). Beiro submitted its PCO 157 in the amount of \$9,567 for the additional work. (AEX 340; AEX 456 (Murray Tr. 191-92)). Beiro estimates that 20 percent of this work, or \$1,913.40, was performed prior to termination. (*Id.*, Tr. 192). We sustain the claim in the amount of \$1,913.

PCO 159

In response to Beiro's Notice and Request No. 182, the architect directed a number of changes to the masonry work for the project. (AEX 341, at 410751, 754-55). Beiro submitted its PCO 159 in the amount of \$1,138 for this changed work. (AEX 341; AEX 456 (Murray Tr. 192-93)). Beiro estimates that 75 percent of this work was performed. (*Id.*, Tr. 193; AEX 237). We sustain the claim in the amount of \$854.

PCO 160

When excess deflections of the concrete beams were observed after installation of the

masonry walls, the District directed Beiro, by responses to Notice and Request Nos. 216 and 244 (AEX 342, at 410809, 410801), to demolish and reconstruct the masonry walls. Beiro submitted its PCO 160 in the amount of \$24,035 for the additional work. Because certain work was not completed, Beiro revised its claim to \$22,374. (AEX 342, at 410763). Further, the record does not show that Beiro paid Superior, Lynn, A&L Painting, and BPI their claimed costs. Thus, we sustain the claim in the amount of \$16,700.

PCO 165

As confirmed by Beiro's Notice and Request No. 208, Beiro was directed to increase the thickness and modify the construction of masonry walls in the gymnasium. (AEX 343, at 410847). Beiro submitted its PCO 165 in the amount of \$6,533 for the extra work. (AEX 343; AEX 456 (Murray Tr. 194-95)). Beiro estimates that 90 percent of this work was completed prior to termination. (*Id.*, Tr. 195; AEX 237). Removing most of Beiro's labor, we sustain the claim in the amount of \$5,325.

PCO 169

The District issued FWA No. 9 on November 15, 1985, directing Beiro to modify two manhole covers previously installed by Beiro. (AEX 344, at 410917). Beiro submitted its PCO 169 in the amount of \$157 for the additional work. The change was settled with District representatives for \$166. (AEX 457 (McConnell Tr. 43); AEX 344, at 410915). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$166.

PCO 170A

The District requested that Beiro provide a proposal to perform the work depicted in the change order drawings from the District's consultant, Carson K.C. Mok, in order to remedy the deflections of the elevated concrete slab. Beiro performed additional engineering, estimating, and administrative work relating to the extensive changes. The Mok change order work was never performed. (AEX 454 (McConnell Tr. 416)). Beiro submitted its PCO 170A for the proposal preparation and related costs. (AEX 345; AEX 456 (Murray 196-197)). Removing the unsupported subcontractor portions of the claim as well as some excessive mark-ups, we sustain the claim in the amount of \$8,133.

PCO 175

The District issued FWA No. 12 on December 12, 1985, directing Beiro to install additional gas lines for a low and high pressure gas system. (AEX 346, at 411368). Beiro submitted its PCO 175 in the amount of \$1,132 for the additional work. The change was settled with District representatives for \$1,141. (AEX 457 (McConnell Tr. 43-44); AEX 456 (Murray Tr. 197-98); AEX 346, at 411360). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$1,141.

PCO 181

In response to Beiro's Notice and Request No. 222, the District directed Beiro to install an additional 4-inch drain line in the West lobby area. (AEX 347, at 411489-90). Beiro submitted its PCO 181 in the amount of \$2,762 for the extra work. (AEX 347). Removing BPI's unsupported "job cost" and related mark-ups, we sustain the claim in the amount of \$2,266.

PCO 184

By letter dated October 1, 1985, the District's architect provided revisions to the structural support for the chiller units on the roof of the building. (AEX 348, at 411636). Beiro submitted its PCO 184 in the amount of \$7,672 for the additional work. Because the record does not show that Beiro paid Lynn its claimed costs, we remove those costs and sustain the claim in the amount of \$1,156. (AEX 348).

PCO 184A

In response to Beiro's Notice and Request No. 225 and Sketch No. 47 from the architect, the District directed the relocation of the chiller. (AEX 349, at 411579). Beiro submitted its PCO 184A in the amount of \$9,272 for the extra work. (AEX 349). Appellants deduct a total of \$392 from the claim because some of the work had not been performed. In addition, because the record does not show that Beiro paid BPI and Hampshire their claimed costs, we remove \$8,240 from the claim amount and sustain the claim in the amount of \$640.

PCO 186

The District issued BCD No. 34 on December 26, 1985, directing Beiro to relocate certain piping and ductwork and provide an additional pipe chase due to conflicts in mechanical and electrical systems under the mechanical room. Beiro submitted its PCO 186 in the amount of \$50,739 for the extra work. (AEX 350). Beiro estimates that 30 percent of the changed work was completed prior to termination. The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$15,222.

PCO 187

In response to Beiro's Notice and Request No. 231 concerning conflicts with ductwork, piping and electrical above the ceilings, the District directed Beiro to drop certain ceiling heights and re-route certain piping. (AEX 351, at 411829). Beiro submitted its PCO 187 in the amount of \$15,009 for the changed work. Applying Beiro's estimate of 75 percent completion to the costs shown by the record to have been paid, we sustain the claim in the amount of \$9,983. (AEX 351).

PCO 195

In order to prepare a proposal for the changed work depicted on the Mok change order drawings, Beiro engaged a subcontractor, Construction Engineering Services, Inc., to conduct field measurements and prepare shop drawings. Beiro submitted its PCO 195 in the amount of \$3,016 for

the extra work. (AEX 352). We sustain the claim in the amount of \$3,016.

PCO 196

The District issued an FWA on January 17, 1986, directing Beiro to take field measurements of the clerestory window openings and report the measurements to the architect. The measurements were necessary because the opening size for the window openings varied. Beiro submitted its PCO 196 in the amount of \$973 for the additional work. The change was settled with District representatives for \$931. (AEX 353, at. 412407, 402399). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$931.

PCO 197

Appellants have withdrawn this PCO, in the amount of \$1,985.00.

PCO 198

In response to Beiro's Notice and Request No. 153, the District resolved certain dimensional conflicts between the architectural and structural drawings for the ceiling of Room 192. (AEX 355, at 412441). Beiro submitted its PCO 198 in the amount of \$206 for the extra layout work involved. The change was settled with District representatives for the full amount of \$206. (AEX 457 (McConnell Tr. 44-45); AEX 355, at 412433, 412439). The District does not dispute entitlement or quantum. (DEX 231). We sustain the claim in the amount of \$206.

PCO 199

In response to Beiro's Notice and Request No. 223, concerning conflicts in the ceiling of Room 192, the District directed the installation of a drop ceiling and CMU chase wall. (AEX 356, at 412446, 412458). Beiro submitted its PCO 199 in the amount of \$2,596 for the extra work. (AEX 356; AEX 456 (Murray Tr. 209-10)). Beiro estimates 50 percent of this work was performed prior to termination. (*Id.*, Tr. 210). We are not persuaded that BPI actually performed the work identified in its proposal. R. Bratti's claim is not adequately supported. Applying a completion factor of 50 percent to Beiro's costs yields \$614, which is the amount we sustain for the claim.

PCO 211

Beiro submitted PCO 211 to the District on March 10, 1987, for the costs incurred by Beiro during the suspension of work period. (AEX 122; AEX 455 (Murray Tr. 740); AEX 456 (Murray Tr. 210-11)). Beiro's submission of PCO 211 was made with an understanding that the work was to be restarted within 60 days. (AEX 122). PCO 211 was revised by Beiro's Mr. Murray prior to the 1992 hearing to reflect the fact that the project had been terminated. (AEX 456 (Murray Tr. 210-211)). In PCO 211, as revised, Beiro seeks costs during the 552-day suspension of work period in the amount of \$725,006. (AEX 357). Appellants made one additional revision, which was to use

Ernst & Young's daily G&A rate in their calculation of extended G&A costs, thereby reducing the price for PCO 211 to \$679,982.

Appellants seek direct labor of \$87,841, consisting of extended project maintenance of \$84,498, storage and material handling of \$1,950, and demobilization of \$1,393. Beiro's claimed project maintenance consists of labor costs for one project manager 3 days per week for 39 weeks (\$13,455), another project manager 5 days per week for 37 weeks (\$21,275), a superintendent 5 days per week for 16 weeks (\$12,000), another superintendent half a day per week for 60 weeks (\$4,500), and a project engineer 1 day per week for 8 weeks (\$880). We find the amount of "project management supervision during the suspension" to be excessive for the level of activity at the job site for the period March 1986 through the July 31, 1987 termination. We allow \$15,000 for project management and supervision. The other labor component of project maintenance is project site security for the period from March 1986 through July 31, 1987, in the amount of \$32,388. We allow the entire amount. Thus, we sustain project maintenance labor of \$47,388. We also sustain the storage and material handling labor of \$1,950 and the demobilization labor of \$1,393. Total allowable labor is \$50,731.

Appellants also seek "materials, equipment, and services" costs of \$99,730, consisting of extended project maintenance of \$98,046, storage and material handling of \$504, and demobilization of \$1,180. The project maintenance material costs claimed for project management (\$8,892) is reduced to \$2,000. The material costs for project site security of \$34,759 are sustained. Other material costs we sustain are: extended risk insurance coverage (\$7,894), field office trailers (\$10,996), 8 material storage trailers (\$23,758), and project utilities (\$11,747). Thus, we sustain project maintenance materials, equipment, and services amounting to \$79,407. We also sustain material and equipment costs for additional storage and material handling of \$504 and \$1,180 for project demobilization. Total allowable materials, equipment, and services costs equal \$81,091.

Finally, Appellants seek extended G&A overhead totaling \$679,982 during the 552-day suspension period using a \$727 daily G&A rate calculated by Ernst & Young. For the reasons discussed earlier in connection with Appellants' claim for \$377,760 in unabsorbed overhead costs during the suspension period, we find the District's suspension of work on the Prevocational job was not the proximate cause of Beiro's inability to obtain other bonded work during the delay period but rather a further impediment to financial recovery. We do not find the District liable for Beiro's unabsorbed overhead during the suspension period.

In sum, for PCO 211, we sustain Appellants' suspension claim in the total amount of \$131,822.

Adjusted Contract Price/Contract Cap Summaries

We have previously found PCO costs totaling \$1,346,472. The amount of uncompleted contract work must be deducted, along with payments received from the District, from the adjusted contract price. We find uncompleted contract work to be 33 percent of the original contract amount based on a 67 percent contract amount completed figure set forth in Payment Requisition 19 which

covered performance through February 25, 1986, three days before the stop work order. We summarize our findings on the adjusted contract cap is as follows:

Original Contract Value:	\$ 8,098,000
<u>Less:</u>	
Deductive Change Order No. 1:	\$ <u>(13,295)</u>
Contract Subtotal:	\$ 8,084,705
<u>Plus:</u>	
Subcontractor T for C Claims:	\$ 168,954
Beiro Overhead (10%):	\$ <u>16,895</u>
Subtotal:	\$ 185,849
Beiro Profit (10%):	\$ <u>18,585</u>
Subtotal:	\$ 204,434
PCO Costs:	\$ <u>1,346,472</u>
Adjusted Contract Price	\$ 9,635,611
 <u>Less:</u>	
Uncompleted contract work (33%)	\$ 2,672,340
Payments Received	\$ <u>5,280,934</u>
Adjusted Contract Price Cap:	\$ 1,682,337

Because Beiro's adjusted contract price cap is less than total unpaid performance costs (\$2,673,765), Appellants' recovery is limited to the amount of the adjusted contract price cap of \$1,682,337. Appellants other termination costs are not affected by the adjusted contract price cap. In summary, Appellants are entitled to unpaid contract costs (limited to contract cap) of \$1,682,337 and settlement expenses of \$131,004, plus interest on those amounts as specified in Section C.

SO ORDERED.

DATED: January 3, 2002

/s/ Jonathan D. Zischkau
JONATHAN D. ZISCHKAU
Administrative Judge

CONCURRING:

/s/ Lorilyn E. Simkins
LORILYN E. SIMKINS
Chief Administrative Judge

/s/ Matthew S. Watson
MATTHEW S. WATSON
Administrative Judge