

COMMONWEALTH OF PENNSYLVANIA

KEYSTONE MECHANICAL SYSTEMS, INC. : BEFORE THE BOARD OF CLAIMS

VS.

COMMONWEALTH OF PENNSYLVANIA, :
DEPARTMENT OF GENERAL SERVICES: DOCKET NO. 2449

FINDINGS OF FACT

A. The Parties

1. Plaintiff is Keystone Mechanical Systems, Inc., (“Keystone”) a Pennsylvania corporation with a principal place of business at 932 Springbrook Avenue, Route 502, Moosic, Pennsylvania (Admitted Para. 1 of the Answer)

2. Defendant is the Commonwealth of Pennsylvania, Department of General Services (“DGS”) an administrative agency of this Commonwealth with its Office of Chief Counsel at 603 North Office Building, Harrisburg, Pennsylvania. (Admitted Para. 2 of the Answer)

3. Keystone’s Vice President, Dennis Klepadlo (Klepadlo), provided occasional administrative input from Keystone’s office in Moosic, with sporadic trips to Philadelphia. (N.T. 142, 198)

4. Joseph Krutulis (Krutulis), Keystone’s Project Manager in Moosic, was not on-site daily but did travel to Philadelphia for the bi-weekly job conferences. (N.T. 136, 223, 297)

5. Michael Curry (Curry) was Keystone’s Foreman assigned to the Project in June 1994. (N.T. 429; Exhibit D-42)

6. June Boward (Boward), who had twenty-five years of experience with DGS and authored several of DGS’ administrative procedures, served as DGS’ Assistant Director of the Bureau of Construction during the Project. (N.T. 475)

7. Mike Peapos (Peapos), DGS’ Eastern Regional Director for the Bureau of Construction, monitored the problems that arose during construction by reviewing correspondence and personally attending numerous job conferences and special meetings. (N.T. 401)

8. Tom Reed (Reed) took over as DGS’ Construction Inspector Supervisor from Anthony Ritondo (Ritondo) in June 1994. (N.T. 313, 365)

9. Rick Fleming (Fleming), a Union Certified Plumber, served as DGS’ Mechanical Inspector on-site every day for this Project. (N.T. 315)

B. The Project

10. DGS Project 522-2 consisted of renovations and additions to the Philadelphia Diagnostic and Rehabilitation Center (“the Project”) located in downtown Philadelphia. (Admitted Para. 3 of the Answer)

11. The contract documents created five base bids. (N.T. 25)

12. Base Bid #1 encompassed the most work, including renovating the existing Arch Street Diagnostic Center, completely renovating both Cherry Street row homes and completion of all work in the new four story addition that connected the Arch Street facility to the Cherry Street buildings. (N.T. 25)

13. Base Bid #4 encompassed renovating the Arch Street facility and the Cherry Street row homes and completing the first and fourth floors of the new addition but encompassed minimal work on the second and third floors of the new addition, which would then be completed in a subsequent Project. (Emphasis added) (N.T. 40, 370, 435)

14. The City of Philadelphia would have issued a certificate of occupancy without the second and third floors being complete so long as temporary barriers were constructed to preclude anyone from accessing these two floors. (N.T. 435)

15. The Project was originally scheduled to be complete by April 21, 1994. (N.T. 126, 422; Exhibit P-4; Exhibit D-40)

16. Keystone bid \$628,000. on Base Bid #1 and \$577,000. on Base Bid #4, a \$51,000. difference. (N.T. 25, 167, 317; Exhibit P-1)

17. On or about January 26, 1993, DGS awarded four prime contracts for work on Base Bid #4, including Keystone’s HVAC contract in the amount of \$577,000. (N.T. 27, 317; Exhibit P-2)

18. Keystone supplied payment and performance bonds from U.S. Fidelity and Guaranty Insurance Company (USF&G”). (N.T. 199; Admitted Para. 3 of the Answer)

C. Keystone’s SubContractors

19. Keystone subcontracted all physical labor to be performed on the job, leaving only material purchases and paperwork to be performed by Krutulis in Keystone’s home office in Moosic. (N.T. 123, 226)

20. Klepadlo testified on redirect that Keystone's bid did not include any costs for having Curry, Keystone's Foreman, on-site. (N.T. 175)

21. Allstates Mechanical (Allstates), a Subcontractor for Keystone had a scope of work that included the loading and unloading of HVAC equipment, piping and making the various connections for a total contract value of \$145,956. (N.T. 29; Exhibit P-3A)

22. Drexel Insulation's (Drexel) subcontract with Keystone encompassed insulation of all pipes and equipment for a total subcontract value of \$21,500. (N.T. 29; Exhibit P-3B)

23. Johnson Control's (Johnson) subcontract with Keystone encompassed the control work for a total subcontract value of \$148,000. (N.T. 30; Exhibit P-3C)

24. Urban Sheet Metal's (Urban) subcontract with Keystone encompassed fabrication and installation of the sheet metal for a total subcontract value of \$60,700. (N.T. 29; Exhibit P-3D)

25. During the Initial Job Conference, held on March 5, 1993, DGS discussed the necessity of having an approved Superintendent on-site to represent each prime contractor with authority to make decisions. (N.T. 402, 404; Exhibit D-28)

26. Since DGS has no contract with a subcontractor, DGS does not allow a subcontractor to represent a prime contractor on the site. (N.T. 345, 404)

D. Administrative Procedures

27. The Department of Labor & Industry (L & I) requires DGS to collect LIPW forms in order to monitor the prevailing wage rates paid by contractors on every DGS Project. (N.T. 403; Exhibit D-2, D-28)

28. During the Initial Job Conference, DGS also discussed the necessity of having each contractor submit weekly LIPW 51 forms, which contain the name, position, title, man-hours and wages for employees working on DGS Projects. (N.T. 316, 475; Exhibit D-1, D-28)

29. DGS could not process any application for payment that did not include LIPW forms because the Treasury Department would have rejected the application and returned it to DGS without payment. (N.T. 317, 407; Exhibit D-1, D-20)

30. As the HVAC contractor, Keystone was required to submit HVAC drawings to the CPM consultant and all other prime contractors in order to coordinate construction. (N.T. 470)

31. General Conditions for the Project Section 63.33 are very specific. They require all prime contractors to have full-time representation by way of qualified supervision throughout the entire Project. (Emphasis added) (N.T. 404)

32. After subcontracting out all of the physical work, Klepadlo established that Keystone would attend all job meetings, order all equipment, oversee its subcontractors and prepare all the paperwork. (N.T. 30-31)

33. Klepadlo stated that after the 93-94 Winter when work really got going in March 1994, Keystone hired Allstates to manage the job for them. (N.T. 39)

34. At Job Conference #6 held on May 28, 1993, the CPM consultant noted that Keystone's failure to submit HVAC drawings was delaying CPM's scheduling. The CPM schedule had to be prepared without HVAC drawings according to notations in Job Conference #7 held on June 11, 1993. (N.T. 468; Exhibit P-26)

35. Prior to commencing work, Klepadlo acknowledged familiarity with DGS' Change Order (hereinafter C.O.) procedures, the job's contract, drawings, specifications and CPM manual. (N.T. 31-32; Exhibit P-3E, P-3F)

36. Job Conference minutes of August 20, 1993 and September 23, 1993 indicate that Keystone had difficulty with providing other primes with HVAC drawings that were descriptively detailed and having measurements required for accurate HVAC drawings. (N.T. 469-470; Exhibit P-26; Job Conference Report #12)

37. Keystone's failure to make accurate HVAC drawings submissions delayed the approval process during the Summer of 1993. This was months before the issue of pricing C.O. #1 arose. (N.T. 468-470; Exhibit P-26)

E. Applications for Payment

38. Keystone personnel prepared the Contract Breakdown Sheet (used as the basis for submitting Applications for Payment) without input from DGS. (N.T. 317; Exhibit D-7)

39. During the course of the Project, DGS noticed discrepancies in the line items of the Contract Breakdown Sheet. Keystone repeatedly invoiced for 3" copper pipe on the Project. (N.T. 317-

318; Exhibit P-7)

40. DGS personnel could not modify or correct any errors on the typed Applications for Payment without returning it to Keystone for correction. (N.T. 415; Exhibit D-33)

41. In an effort to help Keystone, DGS reviewed draft Applications for Payment to ensure that Keystone accurately invoiced for quantities of materials installed and accurately invoiced for the correct percentage of completed work. (N.T. 169, 318, 387, 412; Exhibit D-32)

42. Despite DGS' assistance, Keystone's Applications for Payment consistently contained mathematical errors, inaccurate descriptions of work completed during the period and failed to include the necessary LIPW forms and EEO reports. (N.T. 318, 405, 434; Exhibit D-31-39)

43. Due to Keystone's haphazard submittals, DGS had to repeatedly contact Keystone to request proper submittals, forms, payroll certifications, steel certifications and other required paperwork. (N.T. 354)

44. Keystone's Application for Payment #2 dated September 23, 1993 was rejected because of incorrect billing for stored materials and its #4 Application for Payment dated November 9, 1993 was rejected for failure to attach LIPW forms for two months, delinquent EEO reports and failure to follow the appropriate procedure for stored materials. (N.T. 405, 407-409; Exhibit D-29-30)

45. DGS returned Keystone's Application for Payment again on January 4, 1994 and January 24, 1994 due to various errors and failure to meet the Prevailing Wage Certification requirement of the Contract. (N.T. 414-415; Exhibit D-33)

46. By transmittal dated March 23, 1994, DGS returned Keystone's Application for Payment #5 for a variety of reasons including failure to submit LIPWs, EEOs and math errors. (N.T.416; Exhibit D-34)

47. By transmittal dated April 20, 1994, DGS returned Keystone's Application for Payment #8 for a variety of reasons including failure to submit LIPWs, EEOs and math errors. (N.T.419; Exhibit D-37)

48. By transmittal dated May 19, 1994, DGS returned Keystone's Application for Payment #9 for a variety of reasons including failure to submit LIPWs, EEOs and math errors. (N.T.420; Exhibit D-38)

49. DGS returned Keystone's initial Application for Payment #11 for several reasons, including Keystone's failure to submit four months worth of delinquent LIPW forms, Keystone's failure to submit EEO reports, an improper request for payment for control wiring that had not been installed and an

improper request for 100% payment for stored material that had not been installed. (N.T.319-321; Exhibit D-7)

50. Keystone resubmitted Application #11 without correcting the lack of LIPW and EEO submittals. (N.T. 321; Exhibit D-7)

51. DGS rejected Keystone's Application for Payment #12 due to a lack of LIPW forms and delinquent EEO reports. (N.T. 323-324; Exhibit D-8)

52. The signature pages on Keystone's acceptable Applications for Payment indicate that DGS personnel were processing acceptable Applications for Payment in a timely manner. (N.T. 416; Exhibit D-31, D-39)

53. Peapos established that Keystone's problems with submitting Applications for Payments that contained mathematical errors, lack of required LIPW forms and EEO certifications continued throughout the duration of the Project and was unrelated to any issues or problems with C.O.'s #1 and #3. (Emphasis added) (N.T. 404-420)

F. Project Delays and Keystone's Performance

54. Klepadlo testified that the archeological dig discussed at the Initial Job Conference caused delays in getting the job started until completed on August 27, 1993 by Hunter Research. (N.T. 34-35; Exhibit D-28; Job Conference Report #1 and #12)

55. From Job Conference Report #4 dated April 4, 1993 to Job Conference Report #12 dated August 28, 1993 only the .01 General Contractor, John S. McManus, Inc. (McManus), reported being delayed. These delays involved need for professional direction, C.O. approvals, HVAC drawings and earth and concrete removal. (Exhibit P-26)

56. The Winter of 1993-1994 was one of the most severe on record and the inclement weather was a major delay to the execution of work on the Project. (N.T. 34-35)

57. DGS did grant Keystone a 53-day extension of time due to weather related delays for the 1993-1994 Winter. (N.T. 442; Exhibit D-40)

58. In December 1993, the General Contractor McManus contacted Keystone about falling behind schedule on coordination of the thru-wall sleeves and complained about Keystone's failure to provide a Field Superintendent. (N.T. 424-425; Exhibit D-41)

59. Since Keystone had no foremen on site, DGS, McManus and Keystone's subcontractors regularly encountered difficulty in reaching anyone from Keystone's office in Moosic, Pennsylvania by phone. McManus notified Keystone that this was delaying the work. (N.T. 337-338, 434; Exhibit D-41, D-46)

60. By letter dated December 6, 1993, McManus put DGS on notice of Keystone's failure to have a Field Superintendent, Keystone's non-performance and Keystone's failure to cooperate. (N.T. 426; Exhibit D-41)

61. In a December 1993 letter, DGS notified Keystone that the lack of a foreman was impacting the job. Keystone finally hired Allstate, its Mechanical Subcontractor, to manage the job in March 1994. (N.T. 38-39, 346; Exhibit D-42)

62. In a letter to Keystone dated May 25, 1994, DGS noted a continued lack of job site representation, on-going problems with LIPW submittals and a lack of coordination. (N.T. 428; Exhibit D-42)

63. On direct, Klepaldo testified that from January 1994 until June 1994, in the Job Conference minutes you will not see one problem or delay in the job conferences. . . . A delay was a big issue on the job. It was mainly due to the General Contractor's weather delay. (N.T. 50, line 1 to 9)

64. From the Initial Job Conference on March 5, 1993 to June 1, 1994, Keystone's subcontractors lacked direction since no Keystone employee acted as on-site foreman to coordinate and direct Keystone's various subcontractors. Mike Curry was assigned as Keystone's on-site foreman on June 1, 1994. (N.T. 345, 429; Exhibit D-42)

65. By letter dated June 14, 1994, DGS advised Keystone about a lack of manpower, especially the absence of Allstate who had not been on the job for two weeks. (N.T. 429; Exhibit D-42)

66. According to DGS' Daily Report for September 9, 1994, a representative from Urban stopped by DGS' job site office and stated that Urban had not been paid by Keystone since May and Urban would not be working until Keystone paid them. (N.T. 340; Exhibit D-6)

67. In a September 13, 1994 letter, Urban notified DGS that Urban had not received payment from Keystone and was unable to contact Keystone to discuss payment. (N.T. 434; Exhibit D-46)

68. Urban and Keystone eventually agreed to have DGS issue joint checks to ensure that

Urban received payment for services rendered on the Project. (N.T. 325; Exhibit D-7)

69. From July through November 1994, DGS and McManus issued a series of letters regarding Keystone's insufficient manpower on the Project. (N.T. 333-345; Exhibit D-10A, D-10L)

70. DGS' letters advised Keystone of insufficient manpower and addressed the manpower needed to complete the contract work (Base Bid #4), not C.O. (Base Bid #1) work. (N.T. 370, 397; Exhibit D-10A, D-10L)

71. Keystone's insufficient manpower delayed McManus' ability to complete contract work because pipe insulation and fire caulking was incomplete. DGS granted McManus a 45-day extension of time to complete their work because of Keystone's failure to finish their work. (N.T. 341, 423; Exhibit D-10I, D-40)

72. Keystone's supplier delivered foreign steel to the Project that had to be removed and replaced. (N.T. 344)

73. According to DGS' daily reports, Keystone failed to man the job from November 1994 through January 12, 1995, the day of final inspection. (N.T. 342; Exhibit D-11C)

G. Change Order #1 and #3

74. After starting the work, Klepadlo was requested by DGS to give a cost breakdown for C.O. #1 to complete the second and third floor via correspondence from the job's Architect, Cecil Baker and Associates (hereinafter "the Professional"), dated January 18, 1994. (N.T. 41-43; Exhibit P-5A)

75. Upon receipt of this request for C.O. #1, Keystone contacted all of its subcontractors and equipment manufacturers to obtain current prices for completing the job. Keystone then provided DGS a cost breakdown for C.O. #1 on January 6, 1994 of \$182,297.02. This was the estimate to complete the work on the second and third floors that were not covered in the original contract documents for Base Bid #4. (N.T. 40-41, 44-45, 370)

76. Thereafter, DGS requested that Keystone redo C.O. #1 cost breakdown to see if a lower number could be reached, which Keystone resubmitted a cost of \$163,456.45 on May 4, 1994. (N.T. 44-45, 254)

77. By letter dated May 5, 1994, the Professional estimated the HVAC C.O. work would cost \$62,436. (N.T. 255; Exhibit 5A)

78. DGS convened several special meetings in an attempt to resolve the difference between Keystone's cost proposal and the Professional's cost proposal. (N.T. 173, 191, 255, 381, 460)

79. The General Conditions of the contract between DGS and Keystone provide that if the Professional, DGS and the contractor cannot agree as to the cost of C.O. work, DGS has the right to determine the cost and the contractor has to proceed with the C.O. work so as not to delay the Project and the contractor may request a construction conference when the work is complete. (N.T. 430)

80. Keystone requested DGS to confirm the estimates submitted by its subcontractors for the revised cost breakdown and to show Keystone the cost breakdown for DGS' estimate of \$62,000. Reed established that he knew that the Professional simply took the \$51,000. difference between Base Bid #1 and Base Bid #4 and added 20% to estimate the value of C.O. #1 work. (N.T. 46-49, 367-368)

81. Klepadlo testified that other primes had received C.O.'s for the additional Base Bid #1 work and were proceeding on the second and third floors and that Keystone's subcontractors were on the second and third floors doing work and trying to keep up. (N.T. 48)

82. Despite repeated requests from Klepadlo to Cecil Baker and DGS for verification on the \$62,000. figure, no such explanation, or cost estimate was ever provided to Keystone. (N.T. 46-48, 267)

83. After receipt of the final number for C.O. #1, Keystone wrote DGS requesting a meeting at which time DGS informed Keystone to do the C.O. work for the \$71,000. figure or face default on the job. (N.T. 51, 192-193)

84. When Keystone refused to proceed with C.O. #1, the other prime contractors (who were proceeding with C.O. work on Base Bid #1) were becoming less productive because they had to work around areas where Keystone should have been installing C.O. work. (N.T. 250)

85. After Keystone had notified DGS on June 22, 1994 that they could not do the additional work on the second and third floors for \$62,000., Keystone received the final number for C.O. #1, in the amount of \$71,000., by DGS's letter dated June 14, 1994 and to submit a claim for the difference in cost between their actual cost and the approved amount. (N.T. 50, 53, 192, 265, 268, 429-430; Exhibit D-43)

86. On direct, Klepadlo explained that Keystone knew it was impossible to do the additional work for \$71,000. and that it would be defaulted if it didn't proceed with the additional work directed to be done under C.O. #1. Klepadlo testified that Keystone did all of its work under the original contract and its subcontractor, Johnson, wired the entire second and third floors, louver work and penetration was done as well as some duct and piping work while trying to keep the Project moving. (N.T. 54-55, 194)

87. Krutulis noted that Keystone would be delayed on the Project until C.O. #1 was resolved. Keystone first received a Notice of Delay on July 24, 1994 which was due to the delay associated with

C.O. #1 work (N.T. 53, 235; Exhibit P-26, Job Conference #33 dated 7/22/94)

88. By memorandum of August 2, 1994, DGS notified Keystone that their Extension of Time Request No. 1 had been reviewed and 53 days were recommended from April 21, 1994 to June 13, 1994, the extended completion date was for weather related delays. (N.T. 422; Exhibit D-40)

89. On August 30, 1994, the Professional notified DGS that the revised estimate for C.O. #3 was \$69,600., which was intended to supplement the previously approved \$71,000. estimate for C.O. #1. (Emphasis added) (N.T. 431; Exhibit D-44)

90. The Professional copied Keystone with its letter to DGS of August 30, 1994 adding \$69,600. to its estimate of \$71,000. for C.O. #1. (N.T. 193, 431, 459, 472; Exhibit D-44)

91. After eight (8) months of meetings and threats of defaulting, DGS agreed to pay Keystone \$140,600., consisting of C.O.'s #1 and #3 (\$71,000. + \$69,600.) to perform the HVAC work required in Base Bid #1 which was not a part of Base Bid #4. (Emphasis added) (N.T. 397, 431, 432, 454-455; Exhibit D-43-44)

92. Klepadlo estimated that Keystone performed approximately 33% of the work requested to be done on C.O. #1. (N.T. 62-63, 455)

93. By Keystone's estimate of 33% of the work accomplished before C.O. #1 was canceled, the value of work completed would be \$53,940.62 (33% of \$163,456.15) or \$46,398. (33% of \$140,600.). However, DGS estimated that only \$7,024.60 worth of work was completed prior to DGS' cancellation of C.O. #1 by a letter dated September 12, 1994 and ended processing the paper work on C.O. #3 (N.T. 62-63, 433; Exhibit D-45)

94. Mr. Reed, on cross, admitted that Keystone had substantially completed their contract. The Board finds that Keystone's estimate of the work required by C.O. #1 to be more reliable than the Professional's various guesstimates and/or DGS estimates of this work. (N.T. 374-375)

H. Default

95. Keystone asserts it was substantially completed as of November 1994 of all Base Bid #4 contracted work. (N.T. 68-70, 466)

96. Mr. Klepaldo testified that by November 1994, Keystone's subcontractors were basically complete;
- A. Allstate had furnished the value chart and had, if any , only minor work to do;
 - B. Johnson had programming of control systems;
 - C. Urban was complete; and
 - D. Drexel was completed except for disputed work inside fan coil control cabinets which were claimed as extra work that Drexel estimated to be worth \$6,000.

(N.T. 69-70)

97. On January 12, 1995, DGS and the Professional conducted a substantial completion inspection on Keystone's work and formulated a punchlist of incomplete and/or deficient contract work. (N.T. 292, 294; Exhibit D-13)

98. On direct, Reed stated that the punchlist was for contract items that should have been performed under Base Bid #4. However, on cross Reed states he was "pretty sure" it didn't contain any C.O. work, but was not sure about "complete combustion air interlock" C.O. #6 or "Complete fuel oil piping" some of which was contract work and some C.O. #8. (N.T. 348, 375-377; Exhibit D-13)

99. On January 30, 1995 a Certificate of Substantial Completion and List of Uncompleted Items was submitted by the Professional and was forwarded to Keystone by DGS. Corrections were to be made within thirty (30) days. (N.T. 74-75, 435, 439, 466; Exhibit D-13)

100. Klepadlo established that by the time C.O. #8 materialized in November, 1994, Keystone was having difficulty getting its subcontractors back to the Project due to payment problems and the C.O. #1 dispute. (N.T. 64)

101. The Project was not substantially complete on January 12, 1995 because the building could not be used or occupied within thirty (30) days due to the incomplete HVAC punchlist. (N.T. 466)

102. Allstates removed all gang boxes, welding apparatus and fittings from the job on January 24, 1995 and refused to return to the Project. Johnson and Drexel both returned and completed their share

and Urban did not have much to complete. (N.T. 75-77, 343; Exhibit D-11C)

103. Keystone sent a letter to DGS dated December 19, 1994 putting DGS on notice about DGS contacting subcontractors directly which improperly and unnecessarily incurred expenses on Keystone's behalf. In response to this, no satisfaction from DGS was received. (N.T. 77-78; Exhibit P-12)

104. Keystone wrote again to DGS on February 8, 1995 requesting a special meeting to discuss the ongoing problem of non-payment and delayed payment of submitted invoices from Keystone to DGS. (N.T. 78-79; Exhibit P-13)

105. In a letter dated February 9, 1995, the Professional estimated it could cost \$34,155. to complete the punchlist, premised upon Keystone completing the work. The Professional further recommended that DGS withhold 1.5 times this punchlist value to complete. (N.T. 348, 479; Exhibit D-15)

106. DGS agreed to a special meeting with Keystone, in Harrisburg on March 2, 1995, to discuss completion of the punchlist work. (N.T. 79, 295, 478; Exhibit D-55)

107. In preparation for the March 2, 1995 meeting with Keystone, the DGS fiscal unit informed Ms. Boward that the balance in Keystone's contract was \$59,639.29 and money for two C.O.'s was \$77,091.91 for a total of \$136,731. (N.T. 479; D-55)

108. At the March 2nd meeting, DGS and Keystone agreed to the following:

- A. The Professional would walk the Project with Keystone to review the punchlist work;
- B. Keystone would return to work immediately to complete the punchlist work;
- C. Keystone would submit an invoice for the difference between 1.5 times the value of the punchlist determined after the walk thru with the Professional and the remaining contract balance of \$59,639.29; and
- D. Keystone could invoice for the net total of completed C.O. work consisting of C.O.'s #2, #4, #5, and #7.

(N.T. 480; Exhibit D-55)

109. At the March 2nd meeting, DGS (relying upon the Professional's \$34,155. estimate value for the punchlist) believed that 1.5 times the \$34,155. totaled \$51,232.50, leaving \$8,406.79 which could have been paid if Keystone submitted an Application for Payment in this amount. (N.T. 479; Exhibit D-15)

110. Klepadlo testified that the punchlist estimate was reduced to \$29,843. after the second walk thru. (N.T. 83-84; Exhibit D-16)

111. Keystone eventually submitted Application for Payment #13 on June 21, 1995 for \$55,976.40, which DGS rejected. (N.T. 507; Joint Exhibit #1)

112. Keystone did not return to the Project nor did Keystone submit an invoice for the difference between 1.5 times the value of the punchlist and the remaining contract balance. (N.T. 349-350, 481-482; Exhibit D-16, D-55)

113. When Keystone failed to return to the Project, DGS issued a three-day notice dated March 21, 1995 in accordance with §63.187 of the contract. (N.T. 439-440; Exhibit D-49)

114. DGS obtained a quote from Winslow (Winslow) (the plumbing Contractor on the job who was familiar with the contract) who estimated it would cost \$82,792. to complete Keystone's punchlist. (N.T. 441; Exhibit D-50)

115. Since Winslow's \$82,792. estimate exceeded the remaining \$59,639.29 contract balance, DGS could not authorize Winslow to complete the work. (N.T. 441; Exhibit D-50)

116. On June 19, 1995, DGS issued a seven-day letter to Keystone with a copy to USF&G instructing Keystone to return to the Project and complete the punchlist work within seven days or face default. (N.T. 442; Exhibit D-51)

117. When Keystone did not return to the Project after the seven-day letter, DGS issued a default letter on July 3, 1995, almost six months to the day after the substantial completion. (N.T. 443-444; Exhibit D-52)

118. USF&G inspected the Project and tendered A. T. Chadwick ("Chadwick") as a replacement contractor. (N.T. 354, 484; Exhibit D-18, D-56)

119. DGS entered into a Tri-Party Agreement with USF&G and Chadwick to complete Keystone's punchlist work for \$78,900. This Agreement calculated \$74,466.51 in Keystone's contract balance which included earned but unpaid funds, retainage and unearned funds. (N.T. 485, 495; Exhibit D-56)

120. Chadwick completed Keystone's punchlist work and invoiced for the remaining funds in the Project account. (N.T. 353, 484, 492; Exhibit D-58)

121. DGS issued a C.O. to Chadwick for \$208,465.63, which encompassed HVAC work, architectural work and other miscellaneous items on the second and third floors of the new addition. (N.T. 472-473; Exhibit P-28)

122. The \$208,465.63 C.O. issued to Chadwick encompassed more work than the \$140,600. total of C.O. #1 and C.O. #3 offered by DGS to Keystone. (N.T. 473; Exhibit P-28)

123. A Pre-Claim Hearing was held on October 30, 1996. (Admitted Para. 15 of the Answer)

124. DGS denied Keystone's claim by letter dated March 10, 1997. (Admitted Para. 15 of the Answer)

I. Damages

1. Retainage Claim

125. Keystone's original Base Bid #4 contract was valued at \$577,000. Keystone was paid \$513,121.72 on Application for Payments #1 through #12 leaving a contract balance of \$63,878.28 not including C.O.'s. (Emphasis added) (N.T. 85, 493; Exhibit D-58; Exhibit P-16)

126. In its narrative dated December 8, 1995 Keystone claimed a balance due and owing under the contract of \$79,666.40 with additions for C.O.'s not paid by DGS. (Emphasis added) (N.T. 90-91; Exhibit P-16)

2. Change Order

127. By letter dated September 12, 1994, DGS informed Keystone that it was canceling C.O. #1 completely and DGS stopped processing C.O. #3 that would have raised the value of Base Bid #1 work to \$140,600. from \$71,000. (Record; N.T. 433; Exhibit D-45)

128. DGS issued C.O. #2 for \$2,671.61, which authorized Keystone to install additional pipe hangers to distribute the load supported by the trusses. (C.O. #2)

129. Keystone estimated the cost for C.O. #2 at \$6,993.97 which did not agree with what DGS

offered but Keystone did proceed to do the work and was paid \$2,671.61. Keystone now claims the difference of \$4,322.36. No evidence was produced at trial that Keystone actually incurred this additional expense. (N.T. 57-58; Exhibit P-18)

130. DGS issued C.O. #4 for the credit amount of \$10,800. because the original contract specifications required control wiring to be installed within conduit but Keystone's subcontractor, Johnson, actually installed the control wiring by attaching it to the studs with duct tape. (N.T. 271, 351-352; Exhibit D-17)

131. At trial, Keystone produced a memorandum dated October 17, 1994 from the Professional recommending a \$2,500. credit for not placing the control wire conduit. (N.T. 272)

132. On November 2, 1994, the Professional revised its estimate of the control wiring credit after Keystone failed to submit same. The new credit recommended was \$10,800. or more than four times its initial calculations. (N.T. 271, 352; Exhibit D-17)

133. On direct, Krutulis testified that "no one from DGS told him why DGS upped the credit four times the Professional's estimate, since they usually met us halfway." (N.T. 271)

134. Keystone paid Johnson \$95,000. the full amount billed for furnishing of labor and materials for the Project. (N.T. 116; Exhibit P-21)

135. The original contract with Johnson encompassed control work valued at \$148,000. There was no evidence presented at trial to document how the \$10,800. credit C.O. #4 was satisfied between Keystone and Johnson. There is no documentation that Keystone was damaged \$10,800. or any part thereof. (Record; N.T. 29)

136. DGS issued C.O. #5 in the amount of \$6,091.91 for relocating various valves and connectors. The work was completed. (N.T. 61, 272-273; Exhibit P-5E)

137. DGS issued C.O. #6 in the amount of \$708.99 to provide a switch damper in the boiler room. (N.T. 62, 273; Exhibit P-5C)

138. Keystone initially estimated the work at \$1,651.41 but DGS cut this in half. At trial Krutulis did not know for sure if the work was done. Reed on direct established that by February 9, 1995 no work had been completed by Keystone on C.O.'s 6, 8 or 9. (N.T. 274, 348; Exhibit D-15)

139. C.O. #7, which Keystone refused to sign, was issued by DGS on May 2, 1995, for work that Keystone performed on Base Bid #1, the second & third floors, which was originally authorized by the approved C.O. #1 and in the process C.O. #3. C.O. #1 was canceled and the processing at C.O. #3

was terminated by letter dated September 12, 1994. (N.T. 274, 374, 433; Exhibit D-45)

141. Keystone had provided a detailed breakdown of its estimate for doing the Base Bid #1 work. Neither DGS nor the Professional produced an estimate breakdown for the three different valuations of Base Bid #1 work. Keystone did perform Base Bid #1 work and kept the Project moving and other primes worked around Keystone. (N.T. 54-55, 194, 250)

142. On March 3, 1995 one day after a special meeting and seven weeks after substantial completion, the Professional executed C.O. #7 for \$7,024.60 which documentation referenced guesstimate of November 6, 1994. The Board finds that Keystone's estimate of Base Bid #1 work accomplished, 33% percent, and its estimate of costs \$163,456.45 more reliable. The value of Keystone's performance is \$53,940.62 for Base Bid #1 work. (Emphasis added) (N.T. 62-63, 374, 433; Exhibit D-45; Def's F of F, #93)

143. DGS issued C.O. #8 in the amount of \$3,180.40 for installation of additional oil piping. (N.T. 64; Exhibit P-5H; Exhibit D-55, D-58)

144. DGS issued C.O. #9 in the amount of \$1,710.71 for ceiling diffusers and return grilles in the ceilings. (N.T. 494, Exhibit P-5I; Exhibit D-55, D-58)

145. C.O.'s #2 (\$2,671.61), #4 (<\$10,800>), #5 (\$6,091.91) and #7 (\$7,024.60), worth a net total of \$4,988.12, were approved by DGS but never invoiced by Keystone so the \$4,988.12 remained in Keystone's account when USF&G took over the Project. (N.T. 494; Exhibit D-56, D-58)

146. C.O.'s #6 (\$708.99) #8 (\$3,180.40) and #9 (\$1,710.71) totaling \$5,600.10 were approved by DGS but never completed by Keystone so the \$5,600.10 remained in Keystone's account when USF&G took over the Project. (N.T. 348, 494; Exhibit D-15, D-55, D-58)

147. At the time of the July 1995 default, the total amount in Keystone's account for C.O. work totaled \$10,588.22 which consisted of the \$4,988.12 for C.O.'s, #2, #4, #5 and #7 (performed but not invoiced) and \$5,600.10 for C.O.'s #6, #8 and #9 (approved but not performed). (N.T. 494; Exhibit D-56, D-58)

148. Since Keystone had not submitted invoices for the \$10,588.12 as of the default, the entire amount was included in the funds turned over to USF&G. (N.T. 494; Exhibit D-56, D-58)

149. For C.O. work, the Board finds that Keystone is entitled to damages of \$46,916.02

(\$53,940.62 minus \$7,024.60) (Emphasis Added)(Record)

3. Delay Claim (Additional Labor)

150. Keystone claims \$64,851.68 for 1,512.50 additional man-hours (mh's) incurred after the April 21, 1994 original completion date. (N.T. 126-132; Exhibit P-16; Exhibit D-1)

151. Keystone maintained a job cost report during the Project but the report was not produced during trial. (N.T. 119)

152. Keystone claimed 208 mh's for its Vice President, Dennis Klepadlo and 328.5 mh's for Joe Krutulis, Project Manager. Their duties were administrative and not direct labor on the Project. (N.T. 142, 137, 198; Exhibit P-16E)

153. Keystone claims 959.0 mh's for Mike Curry who served as Keystone's on-site Foreman, but the LIPW forms only show 937 mh's for Curry. (N.T. 140; Exhibit P-16E; Exhibit D-1)

154. Since the severe Winter weather of 1993 delayed the Project, DGS granted Keystone a 53-day extension of time from the original scheduled completion date of April 21, 1994 to June 13, 1994. (N.T. 422; Exhibit D-40)

155. The LIPW forms show 81.5 mh's for Krutulis, 74.0 mh's for Curry and 16 mh's for other labor during the 53-day extension of time for weather delay from April 21, 1994 through June 13, 1994. (N.T. 138-140; Exhibit P-16; Exhibit D-1)

156. On cross, Klepadlo maintained that Keystone's action and inaction did nothing to delay the Project. (N.T. 139)

157. After the 1993-1994 Winter weather delay, the work got started. The record is replete with examples of Keystone's delaying the progress of work from June 13, 1994 to January 12, 1995. DGS and McManus issued written notices requesting Keystone to increase man-power on the Project. Urban walked off the job due to non-payment by Keystone. (N.T. 325, 333-345, 429, 434; Exhibit D-10A, D-10L)

158. During the period from June 13, 1994 to January 12, 1995, Urban walked off the site complaining about non-payment from Keystone, resulting in DGS issuing two-party checks to Keystone and Urban. (N.T. 325, 340, 434; Exhibit D-6-7, D-46)

159. Substantial Completion Inspection was held on Keystone's Contract on January 12, 1995 leaving punchlist work to be completed. Keystone claims 20 mh's for Krutulis and 50 mh's for Curry after the January 12, 1995 date. (N.T. 139, 141; Exhibit P-16E)

160. The Board finds that Keystone's claim for additional labor includes administrative and supervisory costs and fails to make any adjustments to the claimed amount for delays for which Keystone and/or its subcontractors were responsible. (Record)

4. Additional Work Claimed

1. Fourth Floor Ductwork

161. The Professional reconfigured the ductwork on the fourth floor of the new additional (Base Bid #4 work) in order to accommodate structure changes around the elevator shaft made to the original design and provided a sketch of the revision dated May 2, 1994. (N.T. 275-276, 300, 356; Exhibit D-3; D-3A)

162. The ductwork revision required additional ductwork, elbows and 45 degree bends not in the original design. The Professional did not feel that the cost for increased ductwork would exceed the "credit due" for the change to flexible duct take-offs at the first and fourth floor corridors. No detail estimate by the Professional was produced to support this feeling that the costs were a wash. (N.T. 356-357; Exhibit D-3, D-3A, D-19; Record)

163. Keystone claims damages for this change in ductwork, which claim included work performed by Urban and John Scanlon (Scanlon) valued at \$3,440.88 (including add-ons) which Keystone issued purchase orders and paid \$2,456. (Urban) and \$459. (Scanlon) respectfully. (Emphasis added) (N.T. 275-276; Exhibit D-18E, D-18F)

164. The issue of revisions to the fourth floor ductwork arose after the original scheduled completion date of April 21, 1994. (N.T. 143; Exhibit D-3)

165. Keystone's labor claim for this item consists of 80 mh's for Curry, 50 mh's for Krutulis and 30 mh's for Klepadlo. (N.T. 144; Exhibit P-18)

166. Keystone claims 16.0 mh's of supervision which was not directly associated with the actual performance of the ductwork done by Urban and is compensated by add-ons to direct labor and materials. (N.T. 144, 275-276; Exhibit 18; Claim #3)

167. The Board finds that Keystone is entitled to damages of \$3,440.88 for ductwork revisions

performed on the fourth floor. (Emphasis added) (Record)

2. Additional Hanger

168. The Professional requested a cost breakdown from Keystone to provide additional pipe hangers on May 17, 1994. (N.T. 146; Exhibit P-56)

169. DGS approved C.O. #2 for additional pipe hangers in the amount of \$2,671.61. (N.T. 269; Exhibit P-5B)

170. Since Keystone never invoiced for the \$2,671.61, this money was transferred to USF&G under the terms of the Tri-Party Agreement. (N.T. 494; Exhibit D-56)

3. Breeching

171. Keystone claims damages for altering the path of the breeching (a chimney flue for the boiler that is part of Item #5 on Keystone's cost breakdown) from the designed diagonal path to a 90 degree path. (N.T. 289; Exhibit P-1)

172. Keystone claims 40 mh's for Curry and 60 mh's for Krutulis but does not designate when these hours were allegedly incurred. (N.T. 148, 303; Exhibit P-1)

173. Reed visited the site and sketched the breeching that was actually installed on the Project. (N.T. 358-359; Exhibit D-20)

174. Keystone's claim includes cost for purchasing and installing a lintel valued at \$90.48 (\$78. + 16% add-ons) but Mr. Reed testified, based upon his own observations of as-built conditions that no lintel was installed for the breeching. (Emphasis added) (N.T. 395; Exhibit P-18)

175. The as-built drawing shows extensive modification in the materials required to alter the breeching valued by the Board at \$2,078.28 (\$2,168.76 - \$90.48). The Board finds that Keystone is entitled to \$2,078.28 for additional material costs for breeching. (Emphasis added) (Record; Exhibit P-18; Exhibit D-20)

4. Starters

176. On or about June 2, 1994, Keystone submitted a GSC-23 form (Request for approval of

materials and/or subcontractor) to the Professional requesting approval of Square D as the manufacturer of the starters. (N.T. 360; Exhibit D-21-22)

177. The GSC-23 form submitted by Keystone did not specify a model number for the starters to be supplied by Square D. The GSC-23 contained language stating that these approvals are given with the understanding that all specified requirements shall be met. (N.T. 361; Exhibit D-22)

178. Keystone submitted catalog cuts by Square D, the manufacturer DGS set forth in the Specifications. By Bruce Brooke Associates (Brooke) Memorandum dated June 28, 1994, Keystone asserts the Professional approved their submission. (N.T. 150; Exhibit P-18B)

179. The starters delivered to the Project were Square D F410 starters which Keystone claims were approved. These starters were not acceptable to the field inspector and had to be replaced. (N.T. 150, 193)

180. Since the Square D F410 starters were special order items, they could not be returned for a restocking fee. Keystone had to repurchase the starters incurring \$23,730.43 for the cost of the starters including the add-ons. Keystone left the model D F410 on-site since special ordered items could not be returned. (N.T. 150-157, 229; Exhibit P-18)

181. Keystone's claim for labor for administration and delivery and pick-up are covered by the add-ons for the additional work and not compensable. The Board finds that because of a mix-up in the approval process, Keystone is entitled to damages of \$23,730.43 for the replacement starters. (Emphasis Added) (Record)

5. Louver/Penetration

182. Keystone claims \$22,310.31 for allegedly installing louvers and penetration work on the second and third floors of the new addition. (N.T. 98; Exhibit P-17)

183. Since Keystone claims Curry mh's in this claim, the work must have been done after June 1, 1994 when Curry was assigned to the Project as foreman. (N.T. 152, 308, 429; Exhibit D-24)

184. According to the Specifications, Base Bid #4 required installation of all louvers at exterior walls, except those at exhaust fans EF-3, EF-4 and EF-5. (N.T. 362; Exhibit D-24)

185. Krutulis sent the Professional a letter dated February 10, 1994 that went through the Project floor by floor outlining louver and penetrations in the masonry which were encompassed in Base

Bid #1, but were not included in the scope of Base Bid #4. (N.T. 245, 278; Exhibit D-25)

186. Keystone's letter of February 10, 1994 indicates two fans and two louvers in Rooms 103 and 117. DGS issued C.O. #4 to Winslow, the plumbing prime on the Project to supply and install the two exhaust fans, two louvers and associated ductwork in these rooms. (N.T. 363; Exhibit D-25-26)

187. Keystone's letter of February 10, 1994 also indicated seven exhaust fans and louvers on the fourth floor, one fan and louver on the second floor and one fan and louver on the third floor. DGS issued a C.O. for \$9,663.39 to Winslow for the work on the fourth floor. (N.T. 245, 364; Exhibit D-25, D-27)

188. To the extent Keystone performed work on the second and third floor (Base Bid #1 work). This work is compensated by C.O. #7 and Board award of damages. (Record)

6. Additional Roof Curbs

186. Keystone claims 2,746.72 mh's for Krutulis for work of removing and reinstalling roof curbs without designating the dates these costs were incurred and the work he allegedly performed. (N.T. 284; Exhibit P-17)

189. The Board finds zero damages for roof curbs. (Record)

7. Vandalism

190. Keystone had insurance coverage on this Project. (N.T. 152)

191. Keystone claims \$22,129.79 for re-purchasing and re-installing piping that was ripped out of the walls by vandals. (N.T. 291; Exhibit P-17)

192. §63.122(C) of the General Conditions of the Contract between DGS and Keystone states in part that "[t]he risk of damage to the construction work due to the perils covered by the said fire policies with extended coverage, as well as any other hazard which might result in damage to the construction work, is that of the contractor and surety, and no claims for such loss or damage shall be recognized by the Department. (N.T. 445; Exhibit D-53)

193. The Board finds damages to be zero for the vandalism claim. (Record)

8. Duct ReRouting Second and Third Floors

194. Keystone claims \$10,986.87 for rerouting ductwork near the elevators on the second and third floors of the new addition. (Exhibit D-186)

195. Keystone claims 60 mh's for Curry and 100 mh's for Krutulis without designating when these mh's were incurred. (N.T. 153)

196. The work Keystone performed on the second and third floor has been addressed by C.O. #7 and the Board's award of damages for Base Bid #1 work in excess of C.O. #7. (Record)

9. Fire Dampers

197. Keystone claims \$6,029.90 for fire dampers that were not shown on the drawings and were not within Urban's scope of work. (N.T. 281-282)

198. Keystone listed \$1,387.54 in material required for 14 additional fire dampers. Keystone alleges if the work was outside Urban's contract scope of work, Keystone probably did the work. (N.T. 281-282; Exhibit P-18)

199. Although Keystone claims 20 mh's for Dennis Vonado, the LIPW certified payroll records only show 18 hours for Vonado for the week ending October 28, 1993. (N.T. 154; Exhibit D-1)

200. Keystone claims 35 mh's for Demchak and 25 mh's for Curry but does not identify the time period when these hours were allegedly incurred. (N.T. 154; Exhibit P-17)

201. At trial, no documentation was presented that clearly indicated that the alleged labor costs for fire dampers was actually performed by Keystone and not Urban. The Board finds Keystone is entitled only to damages for the additional materials cost of \$1,387.54 for fire dampers. (Emphasis added) (Record)

10. Stored Materials

202. Klepadlo alleged that Keystone stored the boiler, chiller, air handlers (AHU), breeching and fan coil units at a 5000 square feet (sf) building owned by Klepadlo Enterprises for nine months from the Fall of 1993 until the Spring of 1994 at the cost of \$2,000. per month. Klepadlo Enterprises is owned by the same personnel who own Keystone Mechanical. (N.T. 157, 205)

203. Keystone assumed during the bidding stage that equipment would be stored on-site in Philadelphia. (N.T. 296)

204. The large AHU was scheduled to be shipped on September 27, 1993 while the chiller and the fan coil units were not scheduled for delivery until November 19, 1993. (N.T. 238; Exhibit P-27)

205. On cross, Krutulis incorrectly recalled that the boiler, chiller, two large AHU's and the pumps were delivered to the site on the same day in the Spring of 1994. (Emphasis added) (N.T. 299)

206. The DGS Daily Report shows that the chiller, boiler, cooling tower, and two AHU's were delivered to the site on November 18, 1993. (N.T. 447; Exhibit D-54)

207. On November 29, 1993, Keystone submitted a draft Application for Payment #3 requesting 100% payment for the cooling tower, the chiller, the boiler, the three HP AHU and the 3/4 HP AHU, noting that "all materials are on site." (N.T. 412-413; Exhibit D-32)

208. Keystone's breakdown for Application for Payment #3, which encompassed work completed as of December 20, 1993 listed the chiller Item #3, the boiler Item #4, the three HP AHU units Item #6 for 100% payment. (N.T. 413; Exhibit D-32)

209. The 3/4 horse power air handling unit, Item #7 on Keystone's cost breakdown, was 100% paid as of Application for Payment #4 which encompassed work completed as of January 17, 1994. (N.T. 413; Exhibit D-32)

210. The fan coil units, Items #12 through 20 on Keystone's cost breakdown, was 100% paid for as stored material and 47% installed as of Application for Payment #8 which encompassed work completed as of April 15, 1994. (N.T. 463; Exhibit D-37)

211. The bill of sale for the fan coil units was executed by Keystone on March 7, 1994 and DGS viewed the units in storage in Moosic on April 4, 1994. (N.T. 417; Exhibit D-35)

212. DGS paid Keystone \$27,971.30 for the chiller as stored material, \$19,802.04 for the 55 fan coil units as stored material and \$34,780.13 for the automatic temperature controls for the fan coil units as stored materials. (N.T. 410, 417-418; Exhibit D-31, D-35-36)

213. The evidence provided at trial does not support Keystone's claim of \$34,510.39 for storage. (Record)

10. Consequential Damages

214. Keystone claims \$30,308.30 in attorney's fees allegedly incurred in defending claims by the bonding company, subcontractors and financial institutions as a result of Keystone's actions on this Project. (N.T. 213; Exhibit P-23)

215. Keystone claims \$13,037.40 in damages paid to Mellon Bank to settle Keystone's line of credit. (N.T. 213; Exhibit P-24)

216. Keystone claims \$64,495.52 in monthly payments to maintain its line of credit. (N.T. 214; Exhibit P-25)

217. Keystone's Financial Statement for Fiscal Year 1995 shows a gross profit of \$12,758. (N.T. 221; Exhibit D-5)

218. Total claim for consequential damages is \$120,599.22.

CONCLUSIONS OF LAW

1. Keystone Mechanical Systems, Inc. ("Keystone") exhausted all administrative remedies, thereby rendering the matter ripe for adjudication.

2. The complaint raises issues arising from a contract entered into by an executive agency of the Commonwealth, thereby bringing the matter within the jurisdiction of the Board of Claims.

3. DGS' letter dated March 10, 1997 constituted an affirmative, unequivocal notification that the Commonwealth would not pay Keystone's claim.

4. Accordingly to the Darien Capital Management standard, the claim accrued on or about March 10, 1997.

5. Keystone filed the complaint within 6 months from the date the claim accrued in accordance with 72 P.S. §4651-6.

6. Keystone's bid erred in presuming that various subcontractors could perform the physical labor in Philadelphia while Keystone administered the Project by phone in Moosic.

7. Keystone erred by not including costs in the bid to have a Keystone employee on-site daily to coordinate and direct the subcontractor's work.

8. Keystone's delay in submitting the HVAC drawings delayed the preparation of the CPM

schedule.

9. Keystone's failure to have a foreman on-site every day until June 1, 1994 delayed and disrupted the general contractor, John S. McManus, Inc., (McManus) and resulted in chaotic subcontractor progress that contributed to a spirit of non-cooperation on the Project.

10. From June 1994 through January 1995, Keystone failed to provide adequate manpower on the job to perform contract work required under Base Bid #4.

11. Keystone's failure to provide adequate manpower to complete Base Bid #4 work critically delayed completion of the Project.

12. DGS acted in good faith in attempting to review and assist Keystone in submitting accurate Applications for Payment.

13. DGS properly returned Keystone's Applications that did not include the required LIPW forms.

14. Keystone's inability to receive payment was not caused by DGS but rather by Keystone's own failure to submit accurate invoices accompanied by the necessary supporting documentation.

15. DGS acted within its contractual rights by issuing the June 14, 1994 letter directing Keystone to complete C.O. #1 at a not-to-exceed cost of \$71,000. and to request a Construction Conference when the work had been completed.

16. Keystone's hesitation to proceed with C.O. #1 upon receipt of DGS' June 14, 1994 letter materially breached the contract with DGS.

17. DGS acted in good faith to supplement the \$71,000. not-to-exceed amount on C.O. #1 by initiating C.O. #3 in the amount of \$69,600..

18. Keystone was copied on the notice of the \$69,600. supplement.

19. Keystone's refusal to complete the work encompassed in C.O. #1 and C.O. #3 materially breached the contract with DGS.

20. The Project was not substantially complete in January, 1995, because the HVAC system was inoperable.

21. Keystone's failure to complete the punchlist work within 30 days of the Substantial Completion Inspection materially breached the contract with DGS.
22. DGS acted in good faith in convening a special meeting on March 2, 1995 to address Keystone's concerns about Project completion.
23. DGS was entitled to withhold \$51,232.50 in accordance with the terms of the Contract with Keystone.
24. Keystone was not entitled to the \$51,232.50 until the punchlist work was completed to DGS' and the Professional's satisfaction.
25. Since Keystone failed to satisfy the condition precedent of submitting an Application for Payment requesting release of the difference between \$51,232.50 and the remaining Contract balance of \$59,639.29, DGS was not obligated to release the \$8,406.79.
26. DGS followed the requirements of the contract by issuing a 3-day notice and 7-day notice to Keystone prior to the default.
27. DGS properly defaulted Keystone in July 1995.
28. According to the Doctrine of Equitable Subrogation, USF&G, as the surety who issued Keystone's performance bond, was entitled to the money remaining in Keystone's account as of the date of the default.
29. USF&G properly inspected the job and tendered Chadwick as an acceptable contractor to complete Keystone's punchlist work.
30. Since the \$208,465. C.O. that DGS issued to Chadwick included more work than C.O. #1 and C.O. #3, the \$208,465. figure does not represent an accurate value for the scope of work envisioned under C.O. #1 and C.O. #3.
31. By failing to invoice for earned funds, Keystone waived any contractual right to earned but uninvoiced funds which remained in Keystone's account upon the July 1995 default.
32. USF&G, as the performing surety assumed the role of subrogee and had the right to use the remaining Contract balance to pay for the cost of completing Keystone's work on the Project.
33. Keystone is not entitled to retainage from DGS.

34. By failing to invoice for \$4,988.12 worth of work that was performed on C.O.'s #2, #4, #5 and #7, Keystone waived any claim to these funds and the money became part of the Contract balance turned over to USF&G to be used to complete the Project.

35. The value of Base Bid #1 completed was found to be \$46,916.02 above the \$7,024.60 value of C.O. #7 and Keystone is entitled to damages of \$46,916.02.

36. Since Keystone never performed the \$5,600.10 worth of work on C.O.'s #6, #8 and #9, Keystone never earned this money and has no claim of entitlement to it.

37. Keystone's bid unrealistically omitted costs for on-site supervision.

38. Keystone failed to produce the job cost report that was maintained during the Project.

39. Keystone's inability or unwillingness to segregate delay mh's from additional work item mh's renders the actual labor cost claim inherently unreasonable.

40. DGS presented credible testimony, supported by documentary evidence, which established that Keystone delayed completion of the Project.

41. Keystone's failure to establish by a preponderance of the evidence that DGS caused any delay on this Project bars entitlement to any delay damages from DGS.

42. Since this issue arose after the April 21, 1994 scheduled completion date, the 160 mh's in this claim also appear in the additional labor claim.

43. Keystone's claim of 160 mh's for on-site supervision, field measurements and off-site supervision for simply substituting flexible ductwork along the almost identical path of the rigid ductwork constitutes an unreasonable claim.

44. While the redesign allowed Keystone to use flexible rather than rigid ductwork in branching out runs, the redesign required more elbows and specialty bends added to the materials cost for which there was no cost documentation presented for flexible ductwork to prove the alleged offset.

45. Keystone is entitled to \$3,440.88 for the additional materials cost associated with the redesigned fourth floor ductwork.

46. Keystone failed to provide justification for additional costs beyond the \$2,671.61 approved for C.O. #2, which was never invoiced for and was ultimately turned over to USF&G to complete the Project.

47. Keystone failed to segregate the 100 mh's from the mh's included in the additional labor claim.
48. Keystone's claim of 100 mh's for field measurements and labor for simply altering the path of the breeching constitutes an unreasonable claim, especially in view of the credible testimony by Mr. Reed that no lintel was actually installed.
49. Keystone failed to satisfy the burden of proving the labor portion of the claim for additional cost and is entitled to only the added adjusted materials cost of \$2,078.28.
50. Keystone purchased starters as per approved catalog cuts.
51. Keystone is entitled to the materials cost for the non-returnable starters of \$23,730.43.
52. Winslow, not Keystone, installed the louvers and exhaust fans on the first and fourth floor of the new addition.
53. Keystone's work on the second and third floors, to the extent any was performed, was paid for in C.O. #7 and Board's Award for Base Bid #1 work over and above C.O. #7.
54. Keystone is not entitled to any recovery on this claim.
55. Damage to the copper piping falls within the scope of the builder's risk insurance that Keystone admitted obtaining for this Project.
56. According to §63.122(C) of the contract, Keystone, not DGS, assumed the risk of damage to the copper piping and DGS is not liable for any damages.
57. The mh's in this claim (incurred sometime after June 1, 1994) also appear in the mh's included in the claim for additional labor.
58. Keystone's claim of 160 mh's (twenty 8-hour man-days) for field measurements and installation constitutes an unreasonable claim.
59. Keystone's work, to the extent any was performed, on the second and third floors was paid for in C.O. #7 and Board's Award for Base Bid #1 work over and above C.O. #7.
60. Keystone is not entitled to any recovery on this claim.
61. The mh's in this claim (incurred sometime after June 1, 1994) also appear in the mh's

included in the claim for additional labor.

62. Keystone is entitled to the additional material costs of \$1,387.54 for fire dampers.

63. Keystone's bid erred in assuming the equipment could be stored on-site in Philadelphia.

64. Keystone presented no credible evidence to prove that the chiller, boiler, cooling tower or the 2 AHUs were ever stored in Moosic.

65. The chiller, boiler, cooling tower and 2 AHUs were delivered to the site on November 18, 1993 and Keystone's draft Application for Payment #3 dated November 29, 1993 constitutes an admission of this fact.

66. The bill of sale included in D-35 proves that the fan coil units were not purchased by Keystone until March 7, 1994.

67. The fan coil units were 100% paid for and 47% installed as of April 15, 1994.

68. DGS paid Keystone \$54,582.17 for the fan coil units and automatic temperature controls as stored material.

69. Keystone failed to prove by a preponderance of the evidence that DGS caused any delay that resulted in Keystone having to incur storage costs.

70. Keystone is not entitled to any damages on this claim.

71. Since Keystone breached the contract, DGS acted properly in defaulting Keystone.

72. Keystone failed to prove by a preponderance of the evidence that DGS breached the contract.

73. Since Keystone's actions caused the default, Keystone cannot recover any damages incurred as a result of the default.

OPINION

The Plaintiff is Keystone Mechanical Systems, Inc. (hereinafter "Keystone"), a corporation engaged in business as a Pennsylvania general contractor. Keystone brought this action against Defendant, the

Commonwealth of Pennsylvania, Department of General Services (hereinafter “DGS”), for costs allegedly left unpaid for work finished on DGS Project 522-2 (hereinafter “the Project”). The question before the Board is whether DGS failed to pay Keystone for services rendered and work performed on the Project in accordance with the contract and whether any failure to pay expenses incurred and owing were due to the fault of DGS or the fault of Keystone in breach of the contract. The Board holds that Keystone is not entitled to expenses due to its breach of contract.

A. Rejection of Applications for Payment

Keystone consistently provided DGS with Applications for Payment on an irregular basis and the applications included mathematical errors and inaccurate descriptions of work and failed to include the necessary LIPW forms and EEO reports. Accordingly, DGS rejected Keystone’s Applications for Payment on September 23, 1993, November 9, 1993, January 4, 1994, January 24, 1994, March 23, 1994, April 20, 1994, and May 19, 1994. Keystone’s failure to submit appropriate and correct Applications for Payment including LIPW forms and EEO certifications continued throughout the Project and were unrelated to any problems with Change Orders #1 and #3.

DGS acted in good faith in reviewing Keystone’s Applications for Payment and properly returned incomplete or insufficient applications. Thus, Keystone’s inability to receive payment was directly due to its own failure to submit accurate invoices supported by the necessary documentation.

B. Project Delays and Keystone’s Performance

Keystone claims that additional delays resulted in expenditures requiring additional payment from DGS in the form of delay damages. These delays were directly caused by Keystone. Keystone’s bid for the Project erred in presuming that various subcontractors could perform physical labor in Philadelphia

while Keystone administered the Project from Moosic and erred by not including the cost of a Keystone employee on-site daily to coordinate and direct the subcontractors' work.

Only one General Contractor reported a delay in starting the Project due to delayed completion of research at the site on August 27, 1993. The severity of the winter caused numerous delays and DGS did grant a 53-day extension as a result of the weather conditions. Keystone, however, was directly responsible as it had no on-site foreman and no contact person. This lack of supervision by Keystone, resulted in confusion and lack of coordination on the site and significantly delayed work on the Project, including stopped work by Urban due to Keystone's failure to pay its workers from May to September of 1994.

Keystone's failure to have a foreman on-site every day resulted in delay to the general contractor, John S. McManus, Inc. (McManus) and resulted in a spirit of non-cooperation and chaotic subcontractor progress on the Project. In addition, Keystone critically delayed the Project from June 1994 through January 1995, by failing to provide adequate manpower to complete Base Bid #4. Accordingly, Keystone is not entitled to delay damages as it was directly responsible for all critical delays on the Project.

C. Change Orders #1 and #3

The General Conditions of the contract between DGS and Keystone provide that if the Professional, DGS and the contractor cannot agree as to the cost of Change Order work, DGS has the right to determine the cost and the contractor must proceed with the Change Order work in order to prevent delaying the Project. The contractor may pursue additional payment by a construction conference when all work is complete. Keystone refused to continue work on the Project under Change Order #1 and, as a result, other prime contractors were significantly delayed as they were forced to work around

areas where Keystone should have been completing Change Order #1. DGS subsequently added Sixty-Nine Thousand Six Hundred Dollars (\$69,600.00) to the cost of Change Order #1 by initiating Change Order #3. On September 12, 1994, DGS canceled Change Order #1. At that time, Keystone had completed approximately thirty-three percent (33%) of the work under the Change Order and was entitled to Forty-Six Thousand Three Hundred Ninty-Eight Dollars (\$46,398.00), thirty-three percent (33%) of One Hundred Forty Thousand Six Hundred Dollars (\$140,600.00) for the value of the work.

DGS acted in good faith in increasing the cost of Change Order #1 with Change Order #3 and Keystone materially breached the contract by refusing to proceed with work under the Change Order. The Project was not substantially completed by January 1995 because the HVAC system was inoperable as a result of Keystone's breach.

D. Default

Keystone failed to complete the punchlist work within thirty (30) days of the Substantial Completion Inspection, resulting in material breach of the contract. On March 2, 1995, DGS, in good faith, convened a meeting to address Keystone's concerns about completion of the Project. Keystone was not entitled to the Fifty-One Thousand Two Hundred Thirty-Two Dollars and Fifty Cents (\$51,232.50) balance on the contract until all punchlist work was completed. Keystone failed to complete this work and, accordingly, was properly denied Eight Thousand Four Hundred Six Dollars and Seventy-Nine Cents (\$8,406.79), the difference between Fifty-One Thousand Two Hundred Thirty-Two Dollars and Fifty Cents (\$51,232.50) and Fifty-Nine Thousand Six Hundred Thirty-Nine Dollars and Twenty-Nine Cents (\$59,639.29). As a result of Keystone's failure to complete this work, Chadwick was properly tendered

as an acceptable contractor to complete the work Keystone was required to complete under the contract.

DGS properly defaulted Keystone as a result of this work in July 1995. DGS followed all requirements for default by issuing a 3-day and 7-day notice to Keystone prior to the default. USF&G, as the surety who issued Keystone's performance bond, was entitled to the money remaining in Keystone's account at the time of Keystone's default and was entitled to tender Chadwick as a replacement contractor under the Doctrine of Equitable Subrogation. The Two Hundred Eight Thousand Four Hundred Sixty-Five Dollars (\$208,465.00) amount awarded to Chadwick was an accurate figure for the work to be completed by Chadwick and does not represent a figure unfair to Keystone as it included additional work not encompassed by Change Orders #1 and #3.

Keystone failed to prove by a preponderance of the evidence that DGS breached the contract in any manner. Keystone was properly defaulted by DGS for breaching its duties under the contract.

E. Damages

Keystone's original Base Bid #4 contract was valued at Five Hundred Seventy-Seven Thousand Dollars (\$577,000.00). Keystone was paid a total amount of Five Hundred Thirteen Thousand One Hundred Twenty-One Dollars and Seventy-Two Cents (\$513,121.72) which Keystone claims leaves a balance due and owing of Seventy-Nine Thousand Six Hundred Sixty-Six Dollars and Forty Cents (\$79,666.40), including work performed under Change Orders. Keystone failed to complete substantial amounts of work called for under the contract and materially breached the contract with DGS so that Keystone is not entitled to retainage from DGS.

Keystone failed to invoice for Four Thousand Nine Hundred Eighty-Eight Dollars and Twelve Cents (\$4,988.12) worth of work performed under Change Orders #2, #4, #5 and #7. As a result, Keystone waived any claim to these funds and they became part of the contract balance properly turned over to USF&G to complete the contract. In addition, Keystone failed to provide justification for additional costs beyond the Two Thousand Six Hundred Seventy-One Dollars and Sixty-One Cents (\$2,671.61) approved for Change Order #2 and never invoiced for it so that it was properly turned over to USF&G to complete the project. Keystone is also not entitled to Five Thousand Six Hundred Dollars and Ten Cents (\$5,600.10) under Change Orders #6, #8 and #9 as it never performed work for those funds. Accordingly, Keystone is not entitled to those monies.

Keystone failed to establish by a preponderance of the evidence that DGS caused any delay on the Project. DGS, however, presented credible testimony, supported by documentary evidence, that Keystone delayed completion of the Project. Accordingly, Keystone is not entitled to any delay damages.

Keystone's inability or unwillingness to segregate delay mh's from additional work item mh's renders the actual labor cost claim inherently unreasonable. In addition, Keystone's claim for One Hundred Sixty (160) mh's for on-site supervision, field measurements and off-site supervision for merely substituting flexible ductwork along an almost identical path of the rigid ductwork constitutes an unreasonable claim. The redesign allowed Keystone to use flexible ductwork instead of rigid ductwork resulting in more elbows and specialty bends added to the materials cost. Keystone failed to present documentation to prove the alleged offset for the flexible ductwork. Keystone is, however, entitled to Three Thousand Four Hundred Forty Dollars and Eighty-Eight Cents (\$3,440.88) for the additional materials cost associated with the

redesigned fourth floor ductwork.

Keystone's claim for One Hundred (100) mh's for field measurements and labor for altering the path of the breeching

constitutes an unreasonable claim, particularly in light of testimony that no lintel was ever actually installed by Keystone.

Keystone failed to prove the labor portion of the claim and is entitled to only Two Thousand Seventy-Eight Dollars and Twenty-Eight Cents (\$2,078.28) for the added adjusted materials cost. Keystone is also entitled to the materials cost for the non-returnable starters in the amount of Twenty-Three Thousand Seven Hundred Thirty Dollars and Forty-Three Cents (\$23,730.43). Winslow, however, and not Keystone installed the louvers and exhaust fans on the first and fourth floors of the new addition. To the extent Keystone performed work on the second and third floors, Keystone was paid for this work in Change Order #7 and the Board's award for Base Bid #1 work over and above Change Order #7.

Keystone admitted obtaining builder's risk insurance for this Project and, according to §63.122(C) of the contract, Keystone and not DGS assumed the risk of damage to the copper piping. Thus, Keystone assumed the risk of any damages to the copper piping and DGS is not liable. The mh's for this claim also appear in the mh's included in the claim for additional labor so that the claim for One Hundred Sixty (160) mh's representing twenty 8-hour man days constitutes an unreasonable claim.

Keystone did perform work for which it is entitled to One Thousand Three Hundred Eighty-Seven Dollars and Fifty-Four Cents (\$1,387.54) for fire dampers.

Keystone's bid erred in assuming that equipment could be stored on-site in Philadelphia and it failed

to provide any credible evidence that the chiller, boiler, cooling tower or 2 AHUs were ever stored. Keystone failed to prove by a preponderance of the evidence that DGS caused any delay that resulted in additional storage costs to Keystone. Keystone is thus not entitled to any damages on this claim.

Accordingly, Keystone is entitled to a total of Seventy-Seven Thousand Five Hundred Fifty-Three Dollars and Fifteen Cents (\$77,553.15) for the cost of additional materials incurred for work performed on the Project. Keystone is not entitled to any damages resulting from delay due to its breach of the contract and is not entitled to any costs incurred for which it failed to invoice for payment to DGS as it waived its right to payment by its own error or oversight.

ORDER

AND NOW, this day of June, 1999, it is **ORDERED** and **DECREED** that the Defendant, Commonwealth of Pennsylvania, Department of General Services is indebted unto the Plaintiff, Keystone Mechanical Systems, Inc. in the full and true sum of Seventy-Seven Thousand Five Hundred Fifty-Three Dollars and Fifteen Cents (\$77,553.15) with interest at the legal rate of six percent (6%) per annum from the date of the filing of the Claim.

Upon receipt of payment of said award, Plaintiff shall forthwith file with the Board a Praecipe that the case be marked settled and ended with prejudice.

Each party to bear its own costs other than above noted.

BOARD OF CLAIMS

David C. Clipper
Chief Administrative Judge

Louis G. O'Brien, P.E.
Engineer Member

James W. Harris
Citizen Member

Opinion Signed

June 16, 1999

Opinion Signed