ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of)	
Robust Construction, L.L.C.))	ASBCA No. 54056
Under Contract No. NAFC33-98-C-0038)	
APPEARANCES FOR THE APPELLANT	Γ:	Robert L. Magrini, Esq. Brigid F. Kennedy, Esq. Hayes Magrini & Gatewood Oklahoma City, OK
APPEARANCES FOR THE GOVERNMI	ENT:	Thomas H. Gourlay, Jr., Esq. Engineer Chief Trial Attorney John Roselle, Jr., Esq. District Counsel Charles L. Webster, III, Esq. Engineer Trial Attorney U.S. Army Engineer District, Tulsa

OPINION BY ADMINISTRATIVE JUDGE JAMES

This appeal arises from the contracting officer's (CO) 30 September 2002 final decision which denied in its entirety the contractor's 6 May 2002, \$440,377.21 claim alleging constructive acceleration of the contract for \$393,531.21 and seeking recovery of \$46,846 in assessed liquidated damages. The Board has jurisdiction of this appeal under the Disputes clause of the captioned, non-appropriated fund instrumentality (NAFI) contract. After a three-day hearing in Oklahoma City, the parties submitted post-hearing and reply briefs. The Board is to decide entitlement only (tr. 1/18).

FINDINGS OF FACT

1. On 30 June 1998 the U.S. Army Corps of Engineers (COE) and Robust Construction, L.L.C. (appellant) entered into contract No. NAFC33-98-C-0038 (contract 38) to construct two temporary lodging facilities (TLF), designated "Building A" and "Building B," a service building designated "Building C," with an underground irrigation

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Administrative Judge John I. Coldren, III, who presided at the hearing, is deceased.

system, utilities and landscaping at Altus Air Force Base (AAFB), Oklahoma, for the firm, fixed-price of \$2,549,485 (R4, tab 4 at 3-4, tab 5 at 01025-1, tab 7 at 2).

- 2. Contract 38 included the following relevant provisions.
- (a) Clause H-2, <u>LIQUIDATED DAMAGES CONSTRUCTION</u>: (APR 1984)², provided for liquidated damages of \$794 for each day of delay beyond "the time specified in the contract" (R4, tab 5 at H-1).
- (b) Clause H-22, <u>TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER</u>, stated a "base line" of anticipated adverse weather days for each calendar month, required the contractor to record the occurrence of adverse weather on its daily Contractor Quality Control (CQC) report, and provided for time extensions under the Default clause for weather that was more severe than the anticipated weather baseline and actually caused a delay to the completion of the project (R4, tab 5 at H-6).
 - (c) Clause I-3, CHANGES, authorized the CO to make changes—
 - (1) In the specifications (including drawings and designs);
 - (2) In the method or manner of performance of the work;
 - (3) In the NAFI-furnished . . . site; or
 - (4) Directing acceleration in the performance of the work.

Clause I-3 required the contractor to give notice of constructive changes and provided for equitable adjustments for changes. (R4, tab 5 at I-2)

- (d) Clause I-15, DISPUTES (AUG 1997), provided that any dispute or claim concerning the contract that was not disposed of by agreement was to be decided by the CO in a written decision from which the contractor could appeal within 90 days after its receipt to the ASBCA (R4, tab 5 at I-15).
- (e) Clause I-17, DEFAULT (FIXED-PRICE CONSTRUCTION), provided that the contractor shall not be charged with damages for failure to complete the work within the specified time if the delay arose "from unforeseeable causes beyond the control and without the fault of the contractor," including "acts of the NAFI in either its sovereign or contractual capacity" and "unusually severe weather," and required the contractor to notify the CO of the causes of delay within 10 days from their commencement (R4, tab 5 at I-17).

² Contract 38's clauses were not prescribed by the FAR, but by the NAFI.

- (f) Clause I-27, SUSPENSION OF WORK, provided for an adjustment, without profit, for any delay necessarily caused by an unreasonable suspension, delay, or interruption of the work ordered by the CO or by the CO's failure to act within a specified or reasonable time, unless the work "would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other" contract provision (R4, tab 5 at I-23).
- (g) Clause I-30, SCHEDULES FOR CONSTRUCTION CONTRACTS, required the contractor, within five days after the work commenced on the contract or another time determined by the CO, to submit to the CO for approval a "practicable schedule showing the order in which the Contractor contemplates starting and completing the several salient features of the work . . . in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period"; authorized withholding approval of progress payments until such schedule was submitted; required the contractor to enter actual progress on the chart as directed by the CO and to deliver the annotated schedule to the CO; and provided—
 - (b) . . . If, in the opinion of the [CO], the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the [CO], without additional cost to the NAFI. In this circumstance, the [CO] may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the [CO] deems necessary to demonstrate how the approved rate of progress will be regained.

(R4, tab 5 at I-24-25)

- (h) Clause I-36, PAYROLLS AND BASIC RECORDS, required the contractor to submit weekly copies of payrolls showing the daily and weekly number of hours worked by all laborers and mechanics (R4, tab 5 at I-29-30).
- (i) Clause I-64, DIFFERING SITE CONDITIONS (DSC), required the contractor to give prompt notice to the CO of any subsurface or latent physical conditions at the site which differed materially from those indicated in the contract or ordinarily encountered and generally recognized as inhering in work of the nature specified, required the CO to investigate such site conditions promptly after receipt of such notice, and, if the DSC caused an increase or decrease in the contractor's cost of, or time required for,

performing any part of the work, required an equitable contract adjustment (R4, tab 5 at I-61-62).

(j) Clause I-67, NONAPPROPRIATED FUND INSTRUMENTALITY, stated:

The Nonappropriated Fund Instrumentality (NAFI) which is a party to this contract is a non-appropriated fund instrumentality of the Department of Army [sic]. NO APPROPRIATED FUNDS OFTHE [SIC] UNITED SATES [sic] SHALL BECOME DUE OR PAID THE CONTRACTOR BY REASON OF THIS CONTRACT. This contract is NOT subject to The [sic] Contract Disputes Act of 1978.

(R4, tab 5 at I-3)

- 3. Contract 38's specifications provided in pertinent part:
- (a) Section 01040, COORDINATION, FIELD ENGINEERING, AND MEETINGS, ¶ 1.1.1, stated that "The Contractor shall obtain written permission/approval from the [CO] 21 days prior to: . . . (2) Making any excavation: Any damage to underground utilities, communication lines, etc, will be the responsibility of the Contractor if the approval is not obtained. . . . " (R4, tab 5 at 01040-1).
- (b) Section 01310, PROJECT SCHEDULE: (i) required the contractor, "[p]ursuant to the . . . SCHEDULE [sic] FOR CONSTRUCTION CONTRACTS" clause, to prepare and submit progress schedules for the CO's approval, to be used as the basis for measuring progress for payment purposes (\P 1.1, 3.1, 3.2), using a computer software system (¶ 3.3) and the "Critical Path Method (CPM) of network calculation" (¶ 3.3.1) at an appropriate level of detail, as specified by the CO (¶ 3.3.2), including activity durations (¶ 3.3.2.1), government "activities that could impact progress" (¶ 3.3.2.3), and estimated average number of workers per day (¶ 3.3.2.4); (ii) provided that "[t]he schedule interval shall extend from notice-to-proceed to the contract completion date" (¶ 3.3.3); and (iii) required the contractor to provide, within 20 calendar days after acknowledgement of the notice to proceed, a "Preliminary Project Schedule" defining the contractor's planned operations for the first 60 calendar days (¶¶ 3.4, 3.4.1); within 40 calendar days after notice to proceed, an "Initial Project Schedule" for the entire project (¶ 3.4.2); and "Periodic Schedule Updates" based on the results of regular progress meetings (¶ 3.4.3). The "Initial Progress Schedule" and "Periodic Schedule Updates" were required to include narrative reports, schedule reports and a network diagram clearly showing the "critical path" (\P 3.5 to \P 3.5.5.3) (R4, tab 5 at 01310-1 to -6).

(c) Section 01440, CONTRACTOR QUALITY CONTROL, required the contractor, not later than 30 days after receipt of the notice to proceed, to furnish for government review a CQC Plan, provided that "[c]onstruction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started" (¶ 3.2.1) and required the contractor to submit to the government a quality control report for each day worked stating the trades and number of personnel working, weather conditions encountered, and any delays encountered (¶ 3.8k) (R4, tab 5 at 01440-1, -3, -8).

4. In contract 38's drawings:

- (a) Sheet C2.01, "Architectural Site Plan," depicted the footprints of new Buildings A, B and C within the project's "boundary limits" in an area encompassed to the north, east, south and west, respectively, by Dogwood Avenue, First Street, Circle Drive, and Altus Street. From Dogwood Avenue, Building A was 195' to the south, Building B was 135' to the south (and to the east of Building A), and Building C was 82' to the south (and to the north of Building B). (R4, tab 7 at 2)
- (b) Sheet C1.01, "Site Demolition Plan," depicted several underground utility lines: (a) a television line crossing the north end of what was shown on the other sheets as the footprint of Building A, (b) gas and water lines crossing the existing and the new storm drain channel paths, (c) telephone and television lines crossing what was shown on the other sheets as the footprint of Building B; and (d) a 2" gas line, 4" water line and 8" sanitary sewer line each noted "TO BE REMOVED" crossing the southeast corner and the middle and southern side of the footprint of Building B. The 4" water line was arrow noted "1". Note 1 stated: "EXISTING 4" . . . WATERLINE MUST REMAIN IN SERVICE UNTIL NEW 8" . . . AND NEW 10" . . . WATERLINE [sic] ARE IN PLACE COMPLETE. . . . " Sheet C1.01 itself did not show the new building footprints. Sheets C2.01, C3.01, C4.01 and E1.01 showed those footprints. Sheet E1.01 showed underground telephone and television lines crossing the footprints of Buildings A and B. (R4, tab 7 at 1-5) We find that bidders could locate the underground utility paths and new building footprints by comparing the drawing sheets.
- (c) Sheet C4.01, "Paving, Drainage & Grading Plan," depicted (a) an existing storm drain channel extending from the northeast corner of the site at Dogwood Avenue in a southwesterly direction, crossing the footprints of Buildings A and B, continuing to the west side of the project site, and joining an existing, north-south, storm drain channel parallel to, and west of, Altus Street, and (b) a new storm drain channel to be constructed by the contractor to the north of the footprints of Buildings A and B and roughly parallel to, the existing storm drain channel crossing the site (R4, tab 7 at 4). The existing storm drain channel was about 5-6 feet deep and 12 feet wide at the top (tr. 1/45).

- 5. On about 16 July 1998 appellant's vice president, Mr. Gary A. Davis, and its quality control manager, Mr. Gary W. Jones, met on site with Mr. Clif B. Warren, COE's resident engineer at AAFB and Administrative CO (ACO), and talked about getting dig permits in order to perform excavation work. Messrs. Davis and Jones testified that ACO Warren told them that he would get or initiate the dig permits by the time appellant received notice to proceed. (Tr. 1/35, 37-38, 81-82, 139-41, 2/123; supp. R4, tab 5; app. supp. R4, tab 39 at 2) ACO Warren recalled that he met with Messrs. Davis and Jones at that time, but did not recall saying that he would have the dig permits available when the notice to proceed was issued (tr. 2/122). We find that ACO Warren offered to initiate the process of getting dig permits by the time appellant received the notice to proceed.
- 6. Contract 38 required appellant to complete performance not later than 272 calendar days after the date it received notice to proceed (R4, tab 5 at H-1). The CO issued, and appellant received, notice to proceed on contract 38 on 12 August 1998 (R4, tab 6c at 2). Therefore, the initial contract completion date was 11 May 1999.
- 7. In August 1998 appellant's planned sequence of critical path activities for contract 38, which it first "shared" with the COE on 17 September 1998, was to relocate existing utilities, to divert rain water from the existing storm drain channel, to excavate concurrently the new storm drain channel and foundation "pad" for Building A, and to excavate sequentially the pads for Buildings B and C (tr. 1/42-51, 140-43, 185-87, 2/49-50; app. supp. R4, tab 13).
- 8. On 13 August 1998 appellant mobilized on the contract work site, COE's inspector David Tighe directed appellant to stop work on "dirt operations only" until the dig permits were obtained, and appellant notified ACO Warren that it was unable to proceed with site stripping or other digging activities; the ACO received that notice on 15 August 1998 (R4, tabs 6d, 6e; app. supp. R4, tab 5; tr. 1/41, 2/149-50).
- 9. Appellant's CQC Reports from 13 August to 15 September 1998 stated: "No dig permit preventing all phases of construction." Appellant, nonetheless, installed perimeter fencing; removed trees from Building A's site; did preparatory inspections for clearing and grubbing, utility excavation and backfill and earthwork; laid out locations for the box culvert, underground utility lines, parking lot, and Building A; cut concrete curbs and gutters; stripped and stockpiled topsoil; and excavated and exposed sprinkler valves and underground telephone cables crossing the new storm drain culvert (R4, tab 6f, tab 6i at 23-43). We find that the COE's 13 August 1998 direction did not prevent all phases of construction, but only some subsurface excavation.

- 10. On 19 August 1998 appellant submitted its CQC Plan to the COE, which disapproved it on 25 September 1998 (R4, tabs 6h at 2-3, 6t at 1). Appellant was able to proceed with construction in the absence of an approved CQC Plan (tr. 2/126).
- 11. On 28 August 1998 the COE issued to appellant a dig permit that included the staging area to the west of the site, but did not include the footprints of Buildings A, B, and C (R4, tab 7 at 2; app. supp. R4, tabs 8, 135 at 1; tr. 1/51-52, 56).
- 12. Appellant had workers and excavation equipment on site for stripping topsoil and trenching on 2-4, 8-11 and 16 September 1998 but was not able to make progress on critical work because of the lack of a complete dig permit (R4, tab 6i at 24, 29-31, 33, 39-40, 42).
- 13. Appellant's 3 September 1998 letter requested the COE's permission to install 12" pipe in the existing drain channel under Building A to allow drainage and permit pad construction, to divert rain water into the new storm drain once it was completed, and to "fill the 12" PVC pipe with flowable fill." On 8 September 1998 ACO Warren denied that request because of concern about differential movement due to leakage around and through the pipe. (Supp. R4, tab 17 at 1-2; tr. 1/45-46, 2/114, 155-56)
- 14. Appellant's 9 September 1998 letter advised ACO Warren that the dig permit received did not cover the whole site, and it ceased digging (app. supp. R4, tab 9; tr. 1/52-53).
- 15. Appellant's 11 September 1998 letters notified the ACO of its plan to start relocating underground utility lines and excavating the new storm drain channel on 14 September 1998 and of an undisclosed underground telephone line crossing Building B's footprint (supp. R4, tab 18; app. supp. R4, tab 10). On 16 September 1998 appellant received a complete dig permit (app. supp. R4, tab 15 at 1). Appellant's 16 September 1998 letters notified the ACO of an undisclosed underground television line and a 4" water line supplying Buildings 20, 21 and 22, and crossing the footprints of Buildings A and B (not the 4" water line shown on Sheet C1.01), and a 3" gas line at 30' depth and a 10" transite water line crossing the new storm drain channel path near Dogwood Avenue (supp. R4, tab 1b at 36; app. supp. R4, tabs 10-12, 15, 135; tr. 1/56-60, 144-49, 156-57). We call the foregoing undisclosed underground utilities the "DSCs."
- 16. We find that the COE's delay in issuing the complete dig permit delayed subsurface excavation for the new storm drain channel for 14 calendar days from 2 September (finding 12) to 16 September 1998.
- 17. Appellant's 17 September 1998 letter informed the ACO of its plan to "open a diversion channel from existing drain into new storm drain and open a diversion channel

from new storm drain into existing channel allowing us to divert storm drainage around building pad 'A'" (app. supp. R4, tab 13; tr. 1/45-50). The intended diversion channels were the new branch storm drain Line "D" east of Building A ("Diversionary Ditch 5") and a channel west of Building A ("Diversionary Ditch 6") joined by a segment of the new storm drain channel, Line A ("Diversionary Ditch 4") (app. demo. ex. 1; tr. 1/45-46).

- 18. Appellant started, but did not complete, such diversionary channels (tr. 2/165-67). It stated that "we had started to do this [diversion channel "prior to Altus Street"] at one time, but stopped because it was of no benefit and there is no location along this project where it is feasible" (app. supp. R4, tab 31 at 1). Instead, appellant used the existing storm drain channel until the new storm drain channel, Line A, was sufficiently complete to drain storm water in mid-January 1999 (tr. 1/221, 2/114, 156-57).
- 19. Appellant's CQC Reports stated: (a) from 16 September through 20 October 1998, "Storm drain culvert delayed due to . . . 10" transite water line" and (b) from 16 September through 13 November 1998, "Construction for building pads for TLF A and TLF B are [sic] delayed pending proposed mod for 4" water line and tv trunk line" (supp. R4, tab 1b at 36, tab 1c at 44,46, tab 1d at 29, 36).
- 20. Appellant planned to excavate, install culverts and backfill the new storm water drain channel, "Line A," in three segments: station 1+13.27 to station 4+28 (activities SD-01, -02, -03); station 4+28 to station 5+65 (activities SD-12, -13, -14); and station 5+65 to station 7+07.53, the "Junction Box" (activities SD-17, -19, -20) (R4, tab 6u at 13, tab 7 at 4). From 21 September to 1 October 1998 appellant excavated Line A (R4, tabs 6u at 26-27, 6x at 52-54; supp. R4, tab 1b at 48).
 - 21. Appellant's 22 September 1998 letter to the COE stated:

Excavation and backfill operations that were scheduled to begin on T.L.F. building "A" today are postponed awaiting direction to resolve the tv trunk line issue and the 4" pvc waterline issue. T.L.F. building "B" is also postponed due to these issues.

That letter ignored that the new storm water drain channel excavation and culvert installation had to be finished before Buildings A and B pad excavation could begin (finding 18). (App. supp. R4, tab 15 at 1)

22. ACO Warren's 24 September letter to appellant acknowledged that the 4" water line, reported on 16 September 1998, had to be relocated and requested a cost proposal therefor by 2 October 1998 (R4, tab 6n).

23. At the end of September 1998 Mr. Gary Githens, appellant's expert scheduling consultant, prepared an "Initial Schedule Critical Path" whose activities included:

Activity Description	<u>Start</u>	<u>Finish</u>
	0.44 • 40.0	0/10/0
Start Project	8/12/98	8/12/98
Reroute Underground Telephone	8/12/98	8/21/98
Sewer Line A & Manholes	8/24/98	9/9/98
Remove Existing Sanitary Sewer & MHs	9/10/98	9/17/98
AA/Cuts-Fill, Bldg A Pad Area	9/18/98	10/2/98
A/Building Pad	10/5/98	10/12/98

That initial schedule omitted any activities to excavate and install culverts in the new storm water drain channel, which were delaying the start of Building A's excavation and foundation pad. (App. supp. R4, tab 140; tr. 2/52, 72, 75-76) There is no evidence that appellant gave that initial schedule to the COE (app. supp. R4, tab 134).

- 24. Appellant started to install 5' x 3' box culvert (activity SD-02) in Line A on 25 September 1998 and finished up to the "Junction Box" at station 7+07.53 (activity SD-19) on 14 January 1999 (supp. R4, tab 1b at 60, tab 1f at 34), at which time the new storm drain channel, Line A, was functional (finding 18).
- 25. Appellant's 1 October 1998 letter proposed \$17,916.42 to relocate the 4" water line; its 14 October 1998 letters to the ACO proposed \$14,308.84 to relocate the 4" water line, due to a subcontractor's price reduction, and prices to lower the 3" gas line, to splice the telephone line, and to run a new television cable. (App. supp. R4, tabs 21-24).
- 26. ACO Warren's 27 October 1998 letter to appellant stated that no payment could be made until the contract 38 progress schedule was submitted and approved (R4, tab 60).
- 27. On 6 November 1998 the CO issued unilateral Modification No. P00002, which stated: "Notice To Proceed," cited the DSC clause, and listed four items: (i) relocate the existing (undisclosed) 4" water line under Building B to the south of Buildings A and B, (ii) lower the existing 3" gas line to allow construction of the new concrete drainage ditch, (iii) use "base sub-contractor Telemon" to splice the relocated telephone cables, and (iv) install a new government-furnished television cable in a designated path and backfill the existing television cable in the existing drainage ditch, for a not to exceed \$18,600 price and no change in the contract completion date, but provided for negotiating an equitable price and time adjustment (supp. R4, tab 2b).

- 28. On 9 November 1998 appellant received the foregoing "Notice To Proceed" (app. supp. R4, tabs 29, 31; tr. 2/133). Appellant's 10 November 1998 letter to the COE stated that it had notified its subcontractor Pippin to begin to relocate the 4" water line (app. supp. R4, tab 30).
- 29. On 13 November 1998 appellant received the COE's scope of work for the undisclosed 4" water line relocation and on 17 November 1998 received another notice to proceed on the 3" gas line and television line (app. supp. R4, tab 31).
- 30. On 20 November 1998 appellant submitted a contract progress schedule, data date 12 August 1998, with 23 critical activities, but without start and finish dates and manloading (app. supp. R4, tab 32 at 1, tab 135 at 2-3; tr. 1/73, 2/53-56):

Activity No.	<u>Description</u>	<u>Duration</u>
GEN-01	Start project	0
UTIL-EL18	Reroute Underground	6
UTIL-PM10	Sewer Line A & Manholes	10
UTIL-PM11	Remove Existing Sanitary	5
SITE-AA02	Cuts-Fill, Bldg Pad A	10
A-FDN01	A/Building Pad	5
A-FDN02	A/Perimeter Bms	15
A-FDN03	A/Prep & Place Internal Bms	15
A-STR01	A/Wall Framing	10
A-STR02	A/Trusses	5
A-STR03	A/Roof Deck	10
A-STR06	A/Standing Seam Roof	30
B-STR06	B/Standing Seam Roof	30
S-STR06	S/Standing Seam Roof	10
S-BL10	S/Gypsum Board & Insulation	3
S-BL12	S/Tape & Bed	5
S-BL16	S/Painting	5
S-BL20	S/Vinyl Flooring & Base	10
S-BL21	S/Lockers	1
S-BL25	S/Final Clean & Touchup	5
GEN-12	SA/Inspection Punch List	4
GEN-15	Project Complete	0
GEN-16	Final CAD As Built Drawings	50

The durations of the first 22 activities total 194 (probably work days, which when multiplied by 7/5, produces 271.6, rounded to 272 calendar days). The foregoing progress schedule set forth many other activities to be done concurrently with a critical

activity, including excavation and culverting of the new storm drain channel Line A (SD-01 through SD-19; tr. 2/56). These other concurrent activities included:

Activity No.	<u>Description</u> <u>Con</u>	ncurrent With
UTIL-PM15 PM10	Remove Exist. Gas Lines	UTIL-
SD-01 PM10	Excavate Altus St to Sta [4+28]	UTIL-
SD-02 PM11	Culvert Altus to Sta [4+28]	UTIL-
SD-12 PM11	Excavate Sta 4+28 to [5+65]	UTIL-
UTIL-PM13 PM11	Remove Exist. 4" Water [Line]	UTIL-
SD-17 UTIL-PM01 SD-13 SD-19 SD-09 B-FDN01	Excavate Sta 5+65 to [Junction] New 8"/10" Water Main Culvert Sta 4+28 to 5+65 Culvert Sta 5+65 to Junction Line D, Inlet & MH B/Building Pad Cuts Fill Pldg Pad P Area	SITE-AA02 SITE-AA02 SITE-AA02 A-FDN01 A-FDN01
SITE-BA02	Cuts-Fill, Bldg Pad B Area	A-FDN02

- 31. The COE received the foregoing schedule on 23 November and disapproved it on 2 December 1998 for failing to allow time for utility (dig) permits and a float time "logic error" due to neglecting the requirement in Note 1 on drawing sheet C1.01 to keep the existing 4" water line in service until the new 8"/10" water lines were completed (R4, tab 6t at 1; app. supp. R4, tab 34).
- 32. On 24 November 1998 appellant planned to start relocating the undisclosed 4" water line on 1 December and to finish on 13 December 1998, in order to start excavating the Building A pad on 14 December 1998 (app. supp. R4, tabs 32-33). Appellant's 25 November 1998 letter to its subcontractor Pippin stated that "[t]he building pads for TLF 'A' and TLF 'B' are dependent upon the completion of the relocations of the [existing] sanitary sewer and the [undisclosed] 4" water line" and told Pippin to begin such work by 30 November 1998 (supp. R4. tab 27). Pippin worked instead on the new 8" sanitary sewer "Line A" south of the footprints of Buildings A and B for 19 calendar days during the period 30 November 1998 to 27 January 1999 (supp. R4, tab 1d at 65, tab 1e at 2, 30, 32, 34, 37, 61, 63, 66, 69, tab 1f at 11, 28, 31, 37, 47, 49, 51, 54, 57).
- 33. On 16 December 1998 appellant submitted to the COE "frag-nets" prepared by Mr. Githens in bar-chart format, without indicating a critical path. He stated that the

"critical path remains the same as on the initial schedule" and calculated 32 days of delay due to lack of a dig permit at the time of notice to proceed, and 91 days of delay due to the undisclosed 4" water line relocation, extending the contract completion date to 8 September 1999. (App. supp. R4, tabs 37-38; tr. 1/87-89, 2/60-65)

- 34. Appellant began to relocate the undisclosed, in-service, 4" water and TV lines, DSC items, on 17 December 1998 (supp. R4, tab 1e at 37). On 17 December 1998 appellant told ACO Warren that the drawing sheet C1.01, Note 1, requirement to complete the 8"/10" water line before removing the existing 4" out of service water line was not a constraint and was a "defective specification," since the new 8"/10" water line did not service buildings 20-22 and had no bearing on the 4" water line, and we so find. Nonetheless, ACO Warren directed appellant to comply with Note 1. (App. supp. R4, tab 39; tr. 1/126-27, 154, 2/16-17) After weather delays, weekends and holidays, Pippin excavated and installed the 8"/10" water line from 28 December 1998 to 28 January 1999 (R4, tabs 6v at 7, 6z at 45).
- 35. On 14-15 January 1999 appellant started excavating for the Buildings A and C pads, finished excavation and installation of Building C's pad on 19-22 January, resumed and completed excavating for the Building A pad on 26-28 January and 4-5, 8-10 February 1999. (R4, tab 6z at 20, 23, 28, 31, 35, 41, 43, 45, supp. R4, tab 1g at 11, 14, 21, 24, 27). Appellant resumed the undisclosed 4" water line relocation on 25 January and 1-2, 4 and 8 February 1999 (R4, tab 6z at 39, 43, 45, supp. R4, tab 1g at 2, 11, 21). We find that from 16 September 1998 to 14 January 1999, excavating and culverting the new storm drain channel Line A and relocating the undisclosed (DSC) TV and 4" water lines were parallel critical path activities, both of which had to be completed before appellant could begin to install the Building A pad. From 14 January to 8 February 1999, the DSCs continued to constrain installation of the Building A pad.
- 36. We apportion the periods of excusable and exclusively contractor-responsible delays during the 145 calendar days from 16 September 1998 to 8 February 1999 as follows. The DSCs appellant reported to the COE on 11 and 16 September 1998 (finding 15) delayed starting excavation of the new storm drain channel Line A from 16 to 21 September (5 calendar days). The DSCs caused a further excusable delay from 21 September to 13 November 1998 (53 calendar days), when appellant received the COE's work scope for the undisclosed 4" water line (finding 29). Excavation and installation of culverts in the new storm drain channel, which had to be operable before building pad excavation could begin, resulted in exclusively contractor-responsible delay (findings 7, 17-18) from 13 November to 17 December 1998, except for one excusable weather day on 30 November 1998 (33 calendar days). On 17 December 1998 ACO

³ Concurrently appellant's subcontractor Pippin delayed starting the relocation of the undisclosed 4" water line, and worked instead on the new 8" sanitary sewer

Warren directed appellant to finish excavating the 8"/10" water line, before relocating the undisclosed (DSC) 4" water line, pursuant to defective Note 1 on drawing sheet C1.01 (finding 34), and on that day appellant worked on DSCs (1 calendar day excusable). From 18 December 1998 to 8 February 1999 (52 calendar days) (findings 34-35), appellant was excusably delayed by the ACO's insistence upon adherence to the defective Note 1, weather, and the DSCs.

37. Appellant's approved, 14 January 1999 progress schedule set forth 23 critical path activities, including the following activities relevant to this appeal:

Activity No.	<u>Description</u>	<u>Start</u>	<u>Finish</u>
GEN-01	Start project	08/12/98	08/12/98
PERMIT	Digging Permit	08/12/98	09/01/98
UTIL-PM01	New 10"/8" Water Main	09/02/98	09/25/98
UTIL-PM13	Remove Existing 4" Water Line	09/28/98	10/01/98
SITE-AA02	AA/Cuts-Fill, Bldg Pad A	10/02/98	10/09/98
A-FDN01	A/Building Pad	10/12/98	10/14/98

That progress schedule did not list as critical activities SD-01, -02, -09, -12, -13, -17, and -19 for the excavation of, and installation of culverts in, new storm drain channel Lines A and D. (R4, tab 6y at 1, 76; app. supp. R4, tabs 139, 141 at 4; tr. 1/107, 2/72-81)

- 38. In their 10 February 1999 negotiations to equitably adjust Modification No. P00002, the parties agreed upon a 45 calendar day extension (supp. R4, tab 2e at 4-5; tr. 1/224).
- 39. On 8 March 1999 the CO issued to appellant unilateral Modification No. P00003, citing the Default clause, and extending the contract completion date by 28 calendar days (from 11 May to 8 June 1999) due to unusually severe weather during the period 13 August through 30 November 1998. Those 28 days included 17 days in October and 10 days in November (prior to 13 November) 1998. (Supp. R4, tab 2c)
- 40. On 19 March 1999 appellant sent the COE frag-nets of critical activities in bar-chart format listing delays due to the digging permit, relocating unidentified utilities, and suspension of 4" water line relocation to work on 8"/10" water lines, resulting in a 144 calendar day extension and contract completion on 30 September 1999 (app. supp. R4, tab 64; tr. 2/65-73). Those frag-nets did not all show the actual start and finish dates of impacting and impacted activities. For example, FRAG-01, Digging Permit, shows

line for 19 calendar days during the period 30 November 1998 to 27 January 1999 (finding 32).

- 12 August to 16 September 1998; the actual delay was 2-16 September 1998 (finding 16). FRAG-07, Work Involving 4" Water Line, shows 18 January to 8 February 1999; that work was done on 17 December 1998 and 25 January to 8 February 1999 (findings 35-36). SITE-AA02, Building A pad cuts, shows 8-22 February 1999; the work started on 14 January 1999 (finding 35). (App. supp. R4, tab 64 at 7)
- 41. The COE internally wrote that as of 18 March 1999 "delivery of this project in Sept time frame is viewed as unacceptable by the base commander" (app. supp. R4, tab 128 at 1, 3), and told appellant that the 30 September 1999 completion date "wouldn't work for them" (tr. 1/91). At a 31 March 1999 "partnering" meeting of representatives of the appellant, the COE, and the AAFB commander, the CO's representative (COR) Jim Inman told appellant that the contract was to be completed by 25 July 1999 because the Air Force wanted it, and asked appellant to submit a progress schedule showing a 25 July 1999 contract completion date (app. supp. R4, tab 69; tr. 1/92-93, 161, 190-93), which represents a 75-day extension to the initial contract completion date of 11 May 1999 (finding 6).
- 42. The record contains no written acceleration order from the CO. According to Randal Rochell, appellant's President, Steve Arant, the newly appointed ACO, directed Mr. Rochell by telephone on 14 April 1999 to "accelerate your schedule" to meet the 25 July 1999 completion date (tr. 1/194-95). Appellant's 14 and 19 April 1999 letters to ACO Arant reported such direction, provided a revised schedule (not in evidence) modified to reflect a 25 July 1999 completion date, and stated that the adjusted schedule would have additional cost, additional manpower and longer work hours (R4, tabs 6ee, 6ff). Appellant's 4 May, 8 May and 16 July 1999 letters to the COE mentioned an "accelerated schedule" (app. supp. R4, tabs 80-81, 94). We find that the ACO ordered appellant to complete performance by 25 July 1999.
- 43. Appellant's 19 April 1999 letters notified five of its subcontractors to accelerate their schedules (app. supp. R4, tab 76). Appellant and its subcontractors accelerated by increasing crew sizes by adding temporary carpenters and laborers, by extending work hours and days from five days at 8 hours per day to six days at 10 hours per day (tr. 1/94-95, 161-62, 179, 2/17-19, 37; app. supp. R4, tab 91 at 6). Before 14 April 1999 appellant worked 226 hours on 6 Saturdays. After that date it worked 2,376.5 hours on 23 Saturdays and 5 Sundays. (Supp. R4, tabs 1a-1o) The COE tabulated contract 38's certified weekly payroll data for the employees of appellant, Pippin Brothers and S. B. Jones, its subcontractors who worked on the underground utility line DSCs. Before 15 April 1999, their crew sizes ranged from 3 to 38 workers and averaged 17.9 workers, and the number of overtime hours was 261.4. After 14 April 1999, their crew sizes ranged from 11 to 63 workers and averaged 37.3 workers, and the number of overtime hours was 3,190.75. (R4, tabs 6kk, 6ll, 6mm; tr. 1/89-91, 103, 110-

- 13) We find that after 14 April 1999 appellant increased crew sizes and incurred more than 12 times the overtime hours incurred prior to that date.
- 44. On 27 April 1999 the CO issued to appellant unilateral Modification No. P00006, extending the contract completion date by 8 calendar days (from 8 to 16 June 1999) due to unusually severe weather during the period 1 December 1998 through 31 March 1999. Those 8 days included 6 days from 18 to 31 December 1998 and 2 days in March 1999. (Supp. R4, tab 2f at 10-11)
- 45. After reviewing appellant's progress schedule updates since 20 November 1998 (finding 30), to equitably adjust Modification No. P00002, on 18 May 1999 the CO issued unilateral Modification No. P00005, extending the contract completion date by 45 calendar days to 31 July 1999 (supp. R4, tab 2e).
- 46. Appellant actually started to construct storm drain "Line D" on 24 May and finished it on 16 July 1999 (R4, tab 6x at 70), more than six months after storm drain channel "Line A" was operable on 14 January 1999 (findings 18, 24).
- 47. ACO Arant's 30 July 1999 letter to appellant denied that he ever told appellant to accelerate its work schedule, stated that appellant's schedule update accompanying its June pay request (not in evidence) showed that it was "at least 120 days behind schedule," and stated that appellant changed its manpower and work schedule to complete the contract by 31 July 1999 as required by contract Modification Nos. P00005 and P00006 (R4, tab 3 at 11-12).
- 48. On 11 August 1999 the CO issued to appellant unilateral Modification No. P00009, extending the contract completion date by 18 calendar days (to 18 August 1999) due to unusually severe weather during the period 1 April through 30 June 1999. Those 18 day included two days, 3 and 13 April, before 15 April 1999. (Supp. R4, tab 2i)
- 49. Appellant substantially completed contract 38 on 10 November 1999 (R4, tab 6x at 72).
- 50. On 25 April 2000 the parties executed bilateral Modification No. P00016, citing the Changes clause, and extending the contract completion date by 25 calendar days for relocating a 1½" water main in mid-April 1999 (supp. R4, tab 2-p; tr. 1/118). Thus, the last extended contract completion date was 12 September 1999.
- 51. The CO initially calculated liquidated damages of \$46,846 at \$794 per day for 59 days of delay to 10 November 1999, but on 16 August 2001 released 34 days, or \$26,996, and assessed and withheld from contract payments to appellant for the remaining 25 days through 7 October 1999 (\$19,850) (app. supp. R4, tabs 125-26).

- 52. On 6 May 2002 appellant submitted a \$440,377.21 certified claim to Mr. Rick L. Hedrick, COE Tulsa, alleging delays from mid-August 1998 to February 1999 due to the COE's belated issuance of the dig permit and the underground utility DSCs, CO Arant's direction to complete the contract by 25 July 1999, and appellant's resulting acceleration of contract performance. The claim sought \$393,531.21 for that acceleration and release of \$46,846 in assessed liquidated damages. (R4, tab 3)
- 53. Mr. Hedrick's 30 September 2002 final decision, signed as contracting officer, denied appellant's claim in its entirety (R4, tab 2). Appellant timely appealed that final decision to this Board by filing of its 26 December 2002 complaint (R4, tab 1), which the Board received on 27 December 2002.

DECISION

I.

Appellant argues that on 14 April 1999 ACO Arant orally ordered appellant to "accelerate" work to meet a 25 July 1999 completion date (app. br. at 7). Respondent argues that ACO Arant told appellant to meet the current contract completion date, plus the 45 days agreed upon to equitably adjust Modification No. P00002 (gov't br. at 66, 78). Appellant counters that it had notified the COE that it was entitled to 123 days of delay for the delayed dig permit and the DSCs on 16 December 1998, and it had modified such extension to "144 calendar days" on 19 March 1999 (app. br. at 9), considerably more than the 73 days on which the ACO relied. The issue presented is whether the ACO's 14 April 1999 communication to appellant constituted a constructive acceleration order.

To prevail in a constructive acceleration claim, a contractor must prove the following elements:

... Although different formulations have been used in setting forth the elements of constructive acceleration, the requirements are generally described to include the following elements, each of which must be proved by the contractor: (1) that the contractor encountered a delay that is excusable under the contract; (2) that the contractor made a timely and sufficient request for an extension of the contract schedule; (3) that the government denied the contractor's request for an extension or failed to act on it within a reasonable time; (4) that the government insisted on completion of the contract within a period shorter than the period to which the contractor

would be entitled by taking into account the period of excusable delay, after which the contractor notified the government that it regarded the alleged order to accelerate as a constructive change in the contract; and (5) that the contractor was required to expend extra resources to compensate for the lost time and remain on schedule. *See Norair Eng'g Corp. v. United States*, 229 Ct. Cl. 160, 666 F.2d 546, 548 (1981) (compressing these five elements into three essential elements-excusable delay, an order to accelerate, and acceleration with attendant costs)

Fraser Construction Co. v. United States, 384 F.3d 1354, 1361 (Fed. Cir. 2004).

From 22 August 1998 (20 days after receipt of notice to proceed on 12 August 1998) to 14 January 1999, there was no approved, as-planned, progress schedule for contract 38 (finding 37). For that interval, a tribunal may properly find which activities were critical to performance of the contract as a whole based on other evidence showing the contractor's actual operations. *See Titan Pacific Construction Corp. v. United States*, 17 Cl. Ct. 630, 636-38 (1989) (ASBCA properly rejected an expert's "theoretically adjusted as-planned schedule" that disregarded the facts that actually existed in on-site operations), *aff'd*, 899 F.2d 1227 (Fed. Cir. 1990) (Table); *Conner Brothers Construction Co.*, VABCA Nos. 2504 *et al.*, 95-2 BCA ¶ 27,910 at 139,268-69 (testimony and daily logs more probative than bar chart impact analysis), *aff'd*, 113 F.3d 1256 (Fed. Cir. 1997) (Table).

Appellant submitted frag-nets to the COE on 16 December 1998 and 19 March 1999 (findings 33, 40), without updating to reflect activities that were or became critical before the impacting events, notably the excavation and culverting of the new storm water drain channel, Line A (findings 7, 20, 23, 30, 37). Thus, appellant's frag-nets are of limited usefulness in evaluating the dig permit and DSC delays. See Fru-Con Construction Corp., ASBCA Nos. 53544, 53794, 05-1 BCA ¶ 32,936 at 163,162 (a credible CPM time impact analysis should take into account and give appropriate credit for all of the impacts to the project); Norair Engineering Corp., ENG BCA Nos. 3804 et al., 90-1 BCA \P 22,327 at 112,205 ("[a] contractor's initial network analysis . . . is constantly changing Activities which were not critical prior to the new event may be rendered critical; Whether the change or delay affects the critical path must be determined on the basis of conditions existing immediately prior to its occurrence; not on how it might have changed what someone planned (or should have planned) months or years previously"). Furthermore, appellant's frag-net analyses did not all reflect the actual start and finish dates of the impacting and impacted activities (finding 40). Hence those analyses are not sufficiently credible to show the duration of delays. See Youngsdale & Sons Construction Co. v. United States, 27 Fed. Cl. 516, 552-53 (1993).

Applying the foregoing legal criteria to appellant's constructive acceleration claim, we determine that, as of 14 April 1999, when the ACO ordered appellant to complete performance by 25 July 1999 (finding 42), appellant has proven the following calendar days of excusable delay:

<u>Period</u>	Calendar Days (Cause)	<u>Finding</u>
9/2-16/98	14 (belated dig permit)	16
9/16-11/13	58 (DSCs)	36
12/17/98	1 (DSCs)	36
12/18/98-2/8/99	52 (various causes)	36
Total:	125 calendar days	

To the foregoing 125 calendar days we add non-duplicative weather delays of 1 day in November 1998, 2 days in March and 2 days in April 1999, totaling 130 calendar days (findings 39, 44, 48).

Appellant timely notified the CO of excusable delays and requested schedule adjustments for them (findings 8, 13-14, 33, 40). The CO denied any extension beyond 25 July 1999 (findings 41, 42). As a result, appellant increased its work force and work hours after 14 April 1999 (finding 43). The 130 calendar days of excusable delay tabulated above exceed the 75 calendar days' extension allowed by the ACO's deadline of 25 July 1999 (findings 41, 42). Accordingly, we hold that appellant has established the elements of proof of a constructive acceleration to the extent of 55 calendar days (130 days - 75 days).

II.

The government may assess liquidated damages only for contractor-responsible delays resulting in failure to complete performance by the contract completion date until the date the work is available for beneficial occupancy. A contractor is entitled to time extensions for government-caused delays and excusable delays, even when they are concurrent with contractor-caused delay. In other words, the government does not have the right to liquidated damages for a delay resulting concurrently from excusable, government-responsible, and contractor-responsible delays that are not apportionable. *See Skip Kirchdorfer, Inc.*, ASBCA Nos. 40515, 43619, 00-1 BCA ¶ 30,622 at 151,168.

The CO withheld liquidated damages for 25 days of delay ending 7 October 1999 (finding 51). Contract 38 was modified to extend the completion date by the following number of calendar days:

<u>Modification</u>	Calendar Days	Finding
P00003	28	39
P00006	8	44
P00005	45	45
P00009	18	48
P00016	<u>25</u>	50
Total:	124 calendar days	

From 2 September 1998, when the dig permit delay began (finding 16) to 8 February 1999, when appellant completed relocation of the undisclosed 4" water line (finding 35), there were 159 calendar days. Those 159 days included the 28 days in Modification P00003 for September-November 1998 weather delays (finding 39), the 6 days in December 1998 which were among the 8 days in Modification P00006 for weather delays (finding 44), the 45 days in Modification P00005 for the DSCs (finding 45), and the 33 days of contractor-responsible delay from 13 November to 17 December 1998 (finding 36). We subtract those 112 duplicative days of excusable delay (28 + 6 + 45 + 33) from the foregoing 159 days, leaving 47 net days of additional excusable delay. When those 47 excusable delay days are added to the last officially revised completion date of 12 September 1999 (finding 50), the contract completion date becomes 29 October 1999. We hold that the COE erred by withholding liquidated damages for the 25 days from 12 September to 7 October 1999.

CONCLUSION

We sustain the appeal to the extent of 55 calendar days of constructive acceleration in part I and the 25 calendar days of liquidated damages in part II, and deny the balance of the appeal. The appeal is remanded to the parties to resolve quantum in accordance with the foregoing holdings.

Dated: 7 July 2005

DAVID W. JAMES, JR. Administrative Judge Armed Services Board of Contract Appeals

(Signatures continue)

I concur	I concur		
MARK N. STEMPLER	EUNICE W. THOMAS		
Administrative Judge	Administrative Judge		
Acting Chairman	Vice Chairman		
Armed Services Board	Armed Services Board		
of Contract Appeals	of Contract Appeals		
I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 54056, Appeal of Robust Construction, L.L.C., rendered in conformance with the Board's Charter. Dated:			
	CATHERINE A. STANTON		
	Recorder, Armed Services		
	Board of Contract Appeals		