

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of --)
)
Perini Corp.) ASBCA Nos. 51160, 51573
)
Under Contract No. S-54-FA-237)

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OPINION BY ADMINISTRATIVE JUDGE JAMES

These appeals arise from the contracting officer's (CO) final decisions that (i) denied the contractor's claim for \$8,355,913 and 517 calendar days extension of the captioned contract's completion date (ASBCA No. 51160), and (ii) claimed \$2,892,000 in penalties and liquidated damages for 444 calendar days of delay in contract completion (ASBCA No. 51573). The Board consolidated these appeals, and has jurisdiction of them under the Contract Disputes Act of 1978 (CDA), 41 U.S.C. § 607. After a 12-day hearing commencing 3 March 2003, the parties submitted post-hearing and reply briefs. The Board is to decide both entitlement and quantum (tr. 15-16).

FINDINGS OF FACT

1. On 14 September 1990 the Department of State's Office of Foreign Buildings Operations (FBO) issued a solicitation (the IFB) for a fixed-price contract to construct new U.S. Embassy facilities in Caracas, Venezuela (R4, tab A1 at 23, 25). The IFB was amended eight times, changing contract clauses and revising the specifications and the 273 original drawings (R4, tabs A2-A9).

2. On 23 January 1991 FBO awarded contract No. S-54-FA-237 (contract 237) for the fixed price of \$33,952,925 to Perini Corp. under the IFB. Contract 237 required all work to be completed within 930 calendar days after the date of award, which established the completion date as 10 August 1993. (R4, tab E3 at 1-3) FBO gave notice to proceed to Perini on 19 February 1991, which it acknowledged on 25 February 1991 (R4, tab E4).

3. Contract 237 included the FAR 52.233-1 DISPUTES (APR 1984) and, pursuant to 22 U.S.C. § 294, *inter alia*, the FBO 1231.025 EXCUSABLE DELAYS (APR 1987), 1231.055 DIFFERING SITE CONDITIONS (AUG 1987), 1231.099 CHANGES (JUNE 1987), and 1231.121 SUSPENSION OF WORK (SEP 1988) clauses, that were roughly equivalent to the FAR fixed-price type construction contract clauses of those names (R4, tab E3, Form DS-1231, ¶¶ 4.3.1, 15.1.2, 7.1.5, 13.1.1, 16.1.1).

4. Contract 237 included “Form DS-1231-S” whose ¶ 4.1.2(a) provided liquidated damages (LDs) of \$5,500 for each day of delay if the contractor failed to complete the work within the specified time; and ¶ 4.1.4, “Penalty/Bonus-Early Completion Incentive,” provided that \$7,500 per day was payable to the contractor for completion before the contract completion date, as extended, and \$7,500 per day was payable to the Government for completion after such date, with the maximum bonus or penalty of \$450,000 for 60 days, and that ¶ 4.1.4 was “separate and apart” from the contractor’s potential liability for LDs (R4, tab E3, Form DS-1231-S, ¶¶ 4.1.2, 4.1.4).

5. FBO Form DS-1231-S, ¶ 4.2.1(a), of contract 237 required Perini to submit a network analysis schedule in accordance with specification § 01310 to the FBO Project Director (FBOPD) for approval, and to revise such schedule from time to time to reflect actual work progress (R4, tab E3, Form DS-1231-S at 6 of 21).

6. Specification § 01310 of contract 237 required Perini to submit to the FBOPD: (a) 14 days after receipt of notice to proceed, a “60-day Construction Schedule” including certain activity timing and data provided by the FBOPD and between 50 and 100 significant construction activities (¶ 1.3) and (b) within 45 days from the date of Notice to Proceed, a “Construction Schedule . . . of not less than 2,000 . . . activities” with major milestone dates flagged and “significant delivery or intermediate completion restraints” (¶ 1.4). These schedules were to have “logic ties” showing the “Critical Path(s),” plus “Schedule Reports” whose activities correlated to bid price elements so as to ascertain progress payments. The FBOPD was required to review the Construction Schedule within 14 calendar days for accuracy, logic, and soundness of activity durations. (R4, tab E12 at 01310-1 to -7; tab A9 at 2)

7. On 11 March 1991, Perini sent to Mr. Knox Burchett, the FBOPD and CO’s Technical Representative (COTR), submittal No. 01310.01, the 60-day schedule, showing site work starting on 11-12 March 1991 (R4, tabs U15, U17). On 4 April 1991, Mr. Burchett rejected and returned submittal 01310.01 to Perini for revision and resubmittal, citing concern about accurately reflecting start-up conditions (R4, tab U16). On 11 April 1991 Perini submitted to the FBOPD submittal 01310.01(R1), a revised 60-day schedule that added building permit activities, on which FBO took no action due to later submission of the full construction schedule (R4, tabs U17, -19, -20).

8. On 23 May 1991 FBOPD received Perini's initial construction schedule, submittal 01310.03 dated 22 May 1991 (R4, tabs T21, T24; ex. G-1, sub-ex. 29).

9. On 1 July 1991 the FBOPD sent Perini two letters. Letter "FBOC-P-118" enclosed review comments on submittal 01310.03 discussed in a joint review meeting (R4, tab T23). Letter "FBOC-P-119" stated that Perini's submittal 01310.03 construction schedule was "reviewed for compliance and is approved as noted per attached list of [14] comments" (R4, tab T24).

10. On 26 July 1991 Perini sent to FBO revised construction schedule submittal 01310.03(R1), that incorporated "Initial Schedule revisions per FBOC-P-119" (R4, tab T25; tr. 2107-10). That revised schedule, dated 23 July 1991, included 817 construction activities of which 59 were critical, and 1,451 procurement activities of which 8 were critical (R4, tab L1; tr. 1866-67, 2106-07). We refer to this schedule (R4, tab L1) as Perini's "as planned" schedule.

11. FBO's 1 October 1991 letter to Perini stated that its revised construction schedule, submittal 01310.03(R1), was "approved as noted," set forth six notes, of which only one required a change in the duration of an activity (P361, reducing its 95-day float by 30 days), and stated in note 5:

All of our review comments for ["Submittal No. 01310.03 - Construction Schedule"] which were . . . transmitted to you in [FBO letter FBOC-P-118] are now considered to be our additional comments on [Submittal #01310.03R1] in lieu of [Submittal No. 01310.03]. These comments, excluding the 13 remaining revision comments included in [FBO letter FBOC-P-119], are intended to be this office's means of alerting you to potential problem areas with [Submittal #01310.03R1].

(R4, tabs T26, L1, run 21 at 17)

12. Modification Nos. 10, 11, 15, 22, 23, 34 (9 June 1994) and 37 (1 July 1994), extended contract 237's completion date by 277 calendar days to 15 May 1994 (actually 278 days after 10 August 1993 as a result of a miscomputation in Modification No. 34) (R4, tab F; ex. G-1 at 161). Modification Nos. 10, 11, 22, 34 and 37 released FBO, without reservation, of further liability to equitably adjust the changes cited in such modifications.

13. Contract Modification Nos. 1, 10-14, 22-28, 30 and 34-53 were bilateral. FBO Form DS-1231, ¶ 13.3.2(e), provided (R4, tab E3, Form DS-1231 at 68 of 88):

Release by Contractor. The price and time adjustment made in any Bilateral Contract modification shall be considered to

account for all items affected by the change or other circumstances giving rise to the equitable adjustment. Upon issuance of such Contract modification, the Government shall be released from any and all liability under this contract for further equitable adjustments attributable to the facts and circumstances giving rise to the change proposal or request for equitable adjustment.

14. Perini substantially completed performance of contract 237 on 2 August 1995, 444 calendar days after the 15 May 1994 extended contract completion date (R4, tab Q1). Perini's last schedule update, with a data date of 1 August 1995, shows the work 99.6% complete. We sometimes refer to this schedule (R4, tab J53) as the "as-built" schedule (see tr. 2175-76).

15. Perini's 27 October 1995 letter to the CO requested an equitable adjustment (REA) of \$8,355,913 and a 517 calendar day (CD) extension of the contract completion date from 15 May 1994 to 14 October 1995. Perini alleged the following delay causes: (a) the rock fill changes in Modification Nos. 4, 5 and 6; (b) the third floor extension in Modification No. 18; (c) a September 1994 strike; (d) the 1994-95 Christmas-New Year suspension of work; (e) the Venezuelan Government-imposed dusk to dawn curfew from July 1994 to July 1995; (f) 74% lost labor productivity from January 1994 through September 1995; (g) a 1994 manning level shortfall; (h) an October 1992 labor strike, a November 1992 coup attempt, an April 1993 transportation strike and an August 1993 carpentry strike; (i) a 22 March 1994 strike; (j) a 25-26 April 1994 strike; (k) under strength structural concrete; (l) defective rebar design and congested placement; (m) impossible CMU wall requirements; (n) a needlessly stringent concrete floor flatness requirement; (o) excessive drywall requirements; (p) a 1991 Venezuelan labor law change; and (q) 21 "RFPs" issued by FBO after 15 May 1994. Except as stated above, Perini's REA did not identify when the foregoing causes started and ended. (R4, tab O)

16. The CO's 15 August 1997 letter to Perini questioned whether its 27 October 1995 certification complied with the CDA, and requested a revised certification stating the authority of its signer to certify the claim. On 26 August 1997 Perini submitted such certification (R4, tab M). The CO's 27 October 1997 final decision denied Perini's 27 October 1995 REA (R4, tab P). That decision was timely appealed to the ASBCA. The following findings address the delay items alleged in the REA, ASBCA No. 51160.

(a) Rock Fill Change, Modification Nos. 4-6.

17. Specification § 02210, "EARTHWORK FOR SITE," included "rock removal as required in soil stabilization areas including step cuts and key trenches" where shown on the drawings (R4, tab A6 at 02210-1). Section 02276, "ROCKFILL": (a) stated that the extent of rockfill was shown on the drawings (¶ 1.02A); (b) required FBO to have on site "an

experienced, qualified geotechnical engineer . . . to monitor rockfill test pad placement, rockfill placement” (§ 1.03C); (c) required the contractor to test all rockfill materials incorporated in work for compliance with specified moisture, density, and sieve analysis requirements (§ 1.03D), to “[u]se on-site excavated materials for required rockfills unless determined not to be acceptable by the [FBOPD]” (§ 2.01A) and to test off-site rock for abrasion (§ 2.01C); (d) specified that rockfill was to be “[c]lean, sound excavated bedrock” within gradation limits by percent of fines passing by weight for each of five grain sizes, with no more than 10% fines passing No. 200 sieve (§ 2.01B); and (e) required establishing a rockfill processing facility convenient to bedrock stockpiles and areas where rockfill was to be placed (§ 3.03) (R4, tab A6 at 02276-1, -4 to -7).

18. Contract drawings C15 through C26 depict: (a) Fill Area #2 on the east, Fill Area #3 on the southeast, and Fill Area #4 on the southwest, sides of the contract site, and (b) areas requiring soil stabilization, including trench and step cuts into bedrock and “geosynthetic tensile reinforcement” (GSTR)-reinforced rockfill (ex. G-10).

19. Because of incomplete geotechnical investigation before award of contract 237, FBO did not know if the on-site bedrock was suitable and sufficient to provide the specified quantity of rockfill (R4, tabs W10 at 2, W11, W12 at 1, W14 at 3).

20. Perini’s 7 May 1991 letter to the FBOPD provided on-site bedrock test results showing 24.2% fines passing the #200 sieve after compaction testing, and requested his views on the suitability of such bedrock for rock fill (R4, tab W17). The FBOPD regarded Perini’s letter as notice of a differing site condition (tr. 1069). Perini’s 27 May 1991 letter advised the FBOPD that on 24 May 1991 it had stopped site work for lack of an answer to its question about using excavated site material as rockfill (R4, tab W33).

21. FBO’s 12 June 1991 letter replied to Perini that the FBOPD had insufficient evidence to determine that site bedrock was not suitable as rockfill, since Perini’s samples may not have been representative of all available materials or may have been degraded by improper handling or contamination, and suggested that Perini test whether such bedrock could be mechanically screened to reduce the fines (R4, tab W39). Perini assembled a small power screening facility, and reported to FBO on 14 August 1991 that site bedrock, excavated, screened, placed and compacted did not meet specified requirements and 55 to 58% of the rock was waste (R4, tab X4; tr. 1098-1100).

22. By about 12 August 1991, FBO decided that site bedrock could not produce sufficient compliant rock fill, and to change the fill area stabilization design (R4, tabs X5, -6, -7; tr. 1100). On 15 August 1991 the CO directed Gunnar Birkerts & Assoc., Inc. (GBA), FBO’s architect-engineer, to substitute “embankment fill” for “rockfill” in the contract specifications (R4, tab V28). On 5 September 1991 the FBOPD advised Perini that FBO’s architect was revising the slope fill (R4, tab V33).

23. The CO's 13 September 1991 letter authorized Perini to proceed with revised and added drawings and draft specifications which deleted § 02276, ROCKFILL, added § 02271, GABIONS, and revised § 02210, EARTHWORK FOR SITE, to change the slope drain material (R4, tabs V34, -35). On 19 September 1991 the CO issued unilateral Modification No. 4 (Mod. 4) to contract 39 with the aforesaid specifications and drawings changing fill area #3 at a price not to exceed \$200,000 (R4, tab F4).

24. Perini's 15 October 1991 letter to the CO proposed \$2,685,205 and 129 work days due to the impact of the Mod. 4 changes on activity # 124, "Soil excavation to top of bedrock and over-excavate area #3." The 129 work days included 70 work days for the delay from 1 July to 5 October 1991 plus 59 work days to perform the changed work, producing a 180 calendar day extension of the contract completion date. (R4, tab Y4)

25. In Perini's approved, as-planned schedule, activity 124's late start date was 1 July 1991, with 43 days of float (R4, tab L1, run 19 at 2). As of 30 August 1991 the late start date for activity 124, impacted by Mod. 4, was 23 August 1991 with negative 126 days of float (R4, tab Y4 at 30). On 25 October 1991, the CO issued unilateral Mod. 5, which increased the not to exceed price of Mod. 4, and on 17 December 1991 he issued unilateral Mod. 6, extending the Mod. 4 changes to fill area #2 (R4, tabs F5, F6).

26. On 12 December 1991 Perini started activity 121, slope drain material placement in fill area #3, and on 16 January 1992 started activity 124, "Soil excavation to top of bedrock and over-excavate area #3" (R4, tab J53 at 8). Perini added activity 121 with 15 days of float to its February 1992 updated schedule (R4, tab J12 at 1-2, 8).

27. In negotiating an equitable adjustment for Mod. 4, FBO took the position that it delayed Perini 44 days, from 15 August 1991, when FBO received adequate proof that the site bedrock did not produce compliant rock fill, to 27 September 1991, when Perini should have remobilized to resume earthwork, and 64 days were needed to perform the changed work, a total of 108 days, and disagreed with the 180-day extension Perini had proposed on 15 October 1991 (R4, tabs Y6 at 5-6, Y7 at 2-3).

28. The parties executed: (a) bilateral Mod. 10 on 26 June 1992 to definitize Mods. 4 and 5 for a \$1,855,338 price increase and a 108 calendar day extension of the contract completion date; and (b) bilateral Mod. 11 on 1 July 1992 to definitize Mod. 6 for a \$506,839 price increase and a 45 calendar day extension of the contract completion date. Those modifications included releases of Government liability for "the facts and circumstances arising under or related to" each of Mods. 4 to 6. (R4, tab F10, -11)

(b) Third Floor Extension, Mods. 18, 22.

29. On 16 July 1993 the CO issued Mod. 18, to extend the embassy building's third floor concrete slab over the void space, as depicted on FBO sketches, and requested Perini to submit a fixed-price proposal to definitize that change order (R4, tab F18).

30. Perini's 4 August 1993 letter to FBO proposed \$130,437 price increase and 121 calendar day extension for Mod. 18, and also offered such "extension of time at no cost with the understanding Perini will dictate [certain] phase down durations of supervisory positions" and included a schedule of activities and dates to perform the work (R4, tab Y16). On 31 August 1993 FBO asked Perini to consider a 75-80 day time extension for all changes issued before 1 September 1993, including "CTF," "C-Lan system," "3d floor partitions" and "PCC roof hatch" (R4, tabs Y37, -38).

31. Bilateral Mod. 22, executed by the CO on 10 September 1993 and by Perini on 21 September 1993, provided no price increase, extended the contract completion date to 6 April 1994, and stated (R4, tab F22):

Pursuant to the issuance of Modifications 17 through 21, which encompasses [sic] all issues related to the Third Floor Slab Extension, Fire Alarm Zoning Revisions, Combined Transmission Facility [CTF], deletion of CIHS/addition of C-LANB, PCC Roof Hatch, Third Floor Partitions, and all other changes issued prior to September 1, 1993; the contract's performance period is hereby increased [by] 80 calendar days.

CONTRACTOR'S RELEASE

In consideration of the modification agreed to herein as a complete and equitable adjustment for all time related issues, the Contractor hereby releases the Government from any and all extended field, and home office overhead liability under this contract attributable to such facts and circumstances arising under or related to the above noted revisions to the contract.

(c) September 1994 Strike.

32. In November 1994 Perini advised the CO that due to a strike of its entire workforce, it performed no work in the 8-day period 12-19 September 1994, limited work in the 5-day period 20-24 September, and lost five work days and five Sundays during the period 26 September through 29 October 1994, for all of which Perini requested a 24 calendar day extension of the contract completion date (R4, tab Z41).

33. On 20 December 1994 the FBOPD confirmed the effects of the September 1994 strike on Perini's labor force (R4, tab Z42). Despite the FBOPD's recommendation

to give a 20-day extension, the CO granted Perini no time extension for that strike (R4, tab Z45; tr. 1567-68). We find that the 12 September 1994 strike excusably delayed completion of contract performance by 23 calendar days.

(d) Christmas-New Year Suspension, 1994-95.

34. Contract 237's Form DS-1231, ¶ 6.1.3, "Laws and Regulations," provided that the contractor was to comply "with all local labor laws, regulations, customs and practices pertaining to labor . . . to the extent that such compliance is not inconsistent with the requirements of this contract" (R4, tab E3, Form DS-1231 at 29 of 88).

35. FBO and Perini knew of the Venezuelan custom to stop work about one week before Christmas and to resume work by about January 6th (R4, tab T16 at S-4-1). FBO noted: "[Perini's] approved schedule and actual work conditions during 1991/1992 holiday season indicates [sic] that all construction work will be shut down for two weeks or 14 days during the Christmas holiday season" and foresaw lost production in the 1994-95 holiday season (R4, tabs Y10 at 4, Z43). Perini did no work from 17 December 1994 through 8 January 1995 (R4, tabs I43 at 2, I44 at 3). We find that Perini's 17 December 1994 through 8 January 1995 work shut down complied with Venezuelan custom, was not inconsistent with the requirements of contract 237, and, because it continued Perini's prior practice of a scheduled work holiday, did not by itself excusably delay contract completion. However, as we find in connection with ASBCA No. 51573, there was excusable delay during this period arising from the instability in Venezuela.

(e) July 1994-July 1995 Dusk to Dawn Curfew.

36. Perini's 25 February 1997 letter to FBO stated that from July 1994 to July 1995 the Venezuelan Government imposed a dusk to dawn curfew, which resulted in an 11 hour (19%) shorter work week that delayed contract performance by 73 days (R4, tab Z2 at 7; tr. 2128-31). Perini re-computes 69.16 days (19% of 364 days) (app. br. at 85). We find that the 1994-95 curfew excusably delayed completion of contract 237 by 65 calendar days, excluding the 23 concurrent days in finding 33 ($364 - 23 = 341 \times .19$).

(f) 1994-1995 Lost Productivity, (g) Manning Level Shortfall.

37. During 1994-95 Venezuela experienced unforeseen, drastic social and economic instability, including bank failures, a 70% inflation and currency devaluation, strikes and the foregoing 1994-95 curfew (R4, tabs Y46 at 3, Y47 at 3, T5; tr. 307-09, 372, 1536-38, 2124, 2133-34). Despite performance efforts described by the FBOPD as "Herculean" (R4, tab T16 at S-2-3), Perini was unable to maintain sufficient manpower to perform contract 237 to substantial completion by 15 May 1994, the last revised contract completion date (R4, tab I36 at 3-4).

38. Perini's 25 February 1997 letter to FBO calculated a shortfall in manning levels in the period January-May 1994, by the monthly differences between scheduled (2,125 workers) and employed (1,397 workers) labor force, from which Perini derived monthly shortfall percentages and 52.3 calendar days of delay. In February 1997 Perini's scheduler, Mark Wilson, prepared a "baseline" as-built schedule of activities performed after 1 January 1994 showing substantial completion on 2 August 1995. He made three adjustments to that date: (i) a 34-day adjustment to 29 June 1995 to reflect strikes, suspensions and added work; (ii) a 73-day adjustment to 17 April 1995 to reflect 19% work loss due to the curfew; and (iii) a 350-day adjustment to 2 May 1994 to reflect a 74.2% "loss of productivity" in 1994-95. Mr. Wilson derived a 509 calendar day delay from these calculations. (R4, tab Z2 at 6-7, exs. 1-4; tr. 2127-35)

39. We find that although Venezuelan economic instability (finding 37) plainly delayed completion of contract 237, Mr. Wilson's February 1997 manning shortfall calculations, adjusted as-built schedules and 74.2% lost productivity factor (see our quantum findings 68-69, below) do not establish 350 or any other specific number of days of delay due to loss of productivity. (See finding 112 below.)

(h) October 1992 labor strike, November 1992 coup attempt, April 1993 transportation strike, August 1993 carpentry strike.

40. On 15 June 1993 the CO issued unilateral contract Modification No. 15, which extended the contract completion date by six days due to a labor strike from 29 October through 2 November 1992, and a coup attempt on 27-28 November 1992 (R4, tab F15).

41. Bilateral contract Modification No. 23, executed by the CO on 13 September 1993 and by Perini on 20 September 1993, extended the contract completion date by three days due to a transportation strike on 13-14 April 1993 and a carpentry strike on 20 August 1993 (R4, tab F23).

(i) 22 March 1994 strike.

42. FBO's March 1994 Monthly Summary Report stated: "Construction Union struck the project on 3/22/94, no workers on site" (R4, tab I34 at 4). Bilateral Modification No. 37, executed on 28 June 1994 by the CO and on 1 July 1994 by Perini, provided a five-day extension for several causes, including the 22 March 1994 strike, and set forth a contractor release of government liability (R4, tabs F37, Y43 at 5).

(j) 25-26 April 1994 strike.

43. FBO's 25-26 April 1994 Daily Logs and its April 1994 Monthly Summary Report on contract 237 stated: "Local Construction workers union struck the site from

noon on April 25th to noon on April 26th” (R4, tabs H32, I35 at 4). Modification No. 37’s equitable adjustment and release encompassed that strike (R4, tabs F37, Y43 at 5).

(k) Under strength structural concrete.

44. FBO’s January 1992 Monthly Project Report stated: “Concrete Columns K-4.8, K-4, J-4.8, and J-4 . . . poured on December 17, 1991 did not meet minimum compressive strength and were demolished. Contractor is investigating . . . the cause of the problem” (R4, tab I8 at 3). FBO’s 16 and 27 January 1992 daily logs stated, respectively: “Of five concrete trucks three were rejected because of too high slump” and “Contractor . . . demolishing previous columns whose concrete did not meet spec. compression test requirement of 4,000 psi. Compression tests of concrete in previous columns range from 2700 PSI to 3500 PSI” (R4, tab H7). FBO’s 24 February 1992 daily log stated, “All concrete works suspended due to poor results of 28 days brake [sic]” (R4, tab H8). On 8 April 1992 FBO’s engineer William Walker stated that inconsistent cement quality caused the concrete compressive strength failures (R4, tab V24 at 3, CV-6, -8). We find that the under strength concrete the parties encountered from December 1991 to February 1992 was not the fault of FBO and caused no excusable delay.

(l) Rebar design congestion.

45. Specification § 03300, “CAST-IN-PLACE CONCRETE,” ¶ 1.05, “SUBMITTALS,” provided in pertinent part (R4, tab E14 at 03300-12, -13):

C.8. . . . [The contractor shall p]rovide schedules and details showing placing sequences, bending, lengths and locations of all reinforcement. . . .

a. Detailing of Reinforcing Steel shall recognize the arrangement and dimensioning of individual bars, including the location of bend points, hooks and the like so as to preclude interference between bars, sets of bars, and embedded items and so as to allow clear spacing and concrete cover Prepare details and provide sections showing placement sequences to minimize congestion of reinforcing steel at splices, intersecting bars around openings and block-outs, and adjacent to embedded items. Illustrate and note correct placing arrangement and placing sequence to enable field placing crews to properly place and execute the Work.

. . . .

C.9.c. . . . Where practical, stagger splices of adjacent bars.

....

C.13. . . . Pay particular attention to areas of congestion of reinforcement and to areas where reinforcement and other embedded items combine to cause congestion.

46. Contract 237's S200 series drawings stated rebar quantities and sizes, but left the detailing of their lengths, arrangement, and locations of splices and bends to Perini. Drawing S205, General Note 2, stated that the "size, number and spacing of cross ties are indicated in the notes line of the [column] schedule." In drawing S204, the column schedule notes and typical detail 1B required #4 horizontal cross ties; Note H required butt splices of bar ends 450 mm above the top of the floor above for designated columns transitioning from level 2 to level 3; and Note I and Detail 1B required bent or lap spliced "offset dowels" to match the vertical rebars at the upper end of the column. Drawing S702, Detail 2, showed the irregular transition of vertical rebars above level 5 as hooked, extended, offset bent, or spliced. Drawing S200 provided that the "[r]oof and floor slabs and beams act as [the building's] diaphragm elements" and "Splicing of [rebar] is permitted only at locations shown in the contract drawings or as accepted by the [FBOPD]." Drawing S209 depicted the locations and limits of chord rebars spaced at 200 mm within the thickness of the walls at the same elevation as the slab top or bottom of level 4, and the locations of diaphragm rebars in the beams and slabs of all levels of the building. (Ex. G-10; tr. 2573)

47. Perini's approved, as-planned schedule activity P221 "Submittals Reinforcing Steel Bars" had late start and finish dates of 6 August and 4 September 1991, and activity P222 "Approvals/Award Vendor Reinforcing Steel Bars," had late start and finish dates of 5 September and 19 October 1991, all with 165 days of float (R4, tab L1, run 21 at 11). From 25 September 1991 through 5 March 1992 Perini sent rebar detailing submittals to FBO (R4, tabs G3 at 9, 26, G5 at 7, G6 at 7, G7 at 5, 14, G8 at 5), which ignored some of FBO's earlier suggestions and sketches on avoiding or relieving congestion (ex. G-2 at 11 of 25, attachs. G-K; tr. 2585-86).

48. FBO's 23 November 1992 internal memorandum reported a visit of several FBO engineers to the Caracas site in September-October 1992, and stated: "*Findings*: 05. Reinforcing bar crowding was noted on beams, columns and walls (see Photograph Nos. 10 to 12). *Conclusion*: 05. The crowding of reinforcing bars poses a serious problem for concrete honeycombing. However, FBO/Caracas solved this by using pea gravel in the concrete mix instead of 3/4-inch aggregates." (R4, tab V26 at 5-6)

49. The record contains no evidence that any of the rebar specifications or drawings were deficient before, or corrected after, award of contract 237. We find that the 172-day delay allegedly caused by defective rebar design and resulting congestion, and whose start

and finish dates are not identified in Perini's REA (R4, tab O at 12-13), was not the fault of FBO and was not excusable.

(m) CMU wall requirements.

50. Contract specification § 04200, "UNIT MASONRY," ¶ 2.01B, specified concrete masonry units (CMU), Grade N, 16" x 8", lightweight, with three hollow core cells, Type 1, moisture-controlled, per ASTM C 90 (R4, tab E15 at 04200-3, -4).

51. Perini's Request For Information (RFI) Nos. 148 and 149, of 8 September 1992, requested FBO to change the percentage of shrinkage for lightweight concrete from 0.03% to 0.07%, and the three-cell CMU requirement to two-cell at all locations. FBO approved such changes on 25 September 1992. (R4, tab I16 at 23) Perini's RFI No. 152 of 22 September 1992 requested FBO to confirm that all CMUs were to be Grade N, Type 1, and RFI No. 156 of 6 October 1992 requested FBO to confirm the 1,000 psi compressive strength requirement for CMUs, which FBO confirmed on 29 and 28 October 1992, respectively (R4, tab I18 at 23-24).

52. Perini alleged that FBO relaxed some specified CMU requirements because CMUs meeting such requirements were not obtainable in Venezuela and a "proven impossibility" (R4, tab O at 13-14). The record contains no proof that achieving any CMU requirement was impossible. We find that the specified CMU requirements were not impossible to achieve and the 266-day delay allegedly caused by impossible CMU requirements, and whose beginning and ending dates Perini did not identify, was not due to defective government specifications and was not excusable.

(n) Concrete slab flatness requirement.

53. Specification § 03300, "CAST-IN-PLACE CONCRETE," ¶ 1.06D, specified a minimal acceptable floor flatness (FF) requirement of "FF = 25" for steel trowel finish (R4, tab E14 at 03300-19; tr. 2806-07).

54. Perini encountered difficulty in obtaining the specified FF = 25 on the Caracas embassy building floors, and requested and received FBO's approval to apply two coats of grout filler atop the concrete floors, rather than to grind it as § 03300, ¶ 3.14.B.2.3 required (R4, tab E14 at 03300-72), to achieve the specified flatness (tr. 2820, -26). Perini alleged that the specified floor flatness requirement was "somewhat stringent and unusual for . . . an office building" and corrective work to achieve that requirement delayed the next construction activity, installing drywall tracks, for the 252 days before 19 April 1993 (R4, tab O at 14-15).

55. We find that the "FF = 25" floor flatness requirement was appropriate for a building with carpet and linoleum floor coverings (tr. 2807, 2813) and was not impossible

to attain, and Perini’s delay to rework the floors to achieve the specified floor flatness was not the fault of FBO and was not excusable.

(o) Drywall requirements.

56. Contract specification § 09250, “GYPSUM DRYWALL,” required Perini to install gypsum drywall within steel track and stud framing attached to the floors, ceilings and structural walls and columns of the Caracas embassy building (§§ 30.5, 3.06) (R4, tab E20 at 09250-1, -9-10).

57. Perini’s approved, as-planned schedule included the following “Hang drywall and start taping” activities for the five floors of the embassy building:

| <u>Level</u> | <u>Activity #</u> | <u>Late Start</u> | <u>Late Finish</u> |
|--------------|-------------------|-------------------|--------------------|
| 1 | 730 | 9-9-92 | 9-29-92 |
| 2 | 830 | 10-13-92 | 11-4-92 |
| 3 | 1030 | 11-18-92 | 12-12-92 |
| 4 | 1130 | 1-14-93 | 2-8-93 |
| 5 | 1430 | 3-9-93 | 3-29-93 |

(R4, tab L1, run 19 at 8, 19).

58. Drywall was rarely used in Venezuelan building construction. The specified, complex drywall geometry caused cutting and fitting problems for the drywall installers Perini used on the Caracas site. (Tr. 403, 405)

59. Perini’s last schedule update to FBO, dated 1 August 1995, included the following as-built dates for the “Hang drywall and start taping” activities:

| <u>Level</u> | <u>Activity</u> | <u>Actual Start</u> | <u>Actual Finish</u> |
|--------------|-----------------|---------------------|----------------------|
| 2 | 830 | 6-3-93 | 7-28-93 |
| 3 | 1030 | 7-29-93 | 8-26-93 |
| 5 | 1430 | 9-13-93 | 9-30-93 |
| 4 | 1130 | 9-16-93 | 12-6-93 |
| 1 | 730 | 2-5-94 | 3-23-94 |

(R4, tab J53 at 29, 32, 35, 41) We find that the 359-day delay in completing the drywall installation was not the fault of FBO and was not excusable.

(p) 1991 Venezuelan labor law change.

60. FBO Form DS-1164/IFB, "INSTRUCTIONS TO BIDDERS," ¶ 5.4, stated:

The contract will not provide for economic adjustment of the contract price due to fluctuations in costs or prices of labor . . .
. The bidder must allow for all such contingencies, as it considers appropriate, in its bid price.

FBO Form DS-1231 provided in ¶ 14.1.2c, "Taxes -- Foreign Fixed-Price Contracts," for a contract price adjustment for "any after-imposed tax" if the contract price included no contingency for such tax and it was not incurred through the contractor's fault, negligence or failure to follow the CO's instructions. (R4, tab A1, Form DS-1164 at 9 of 16, Form 1231 at 69-70 of 88).

61. FBO's 26 October 1990 letter to bidders stated (R4, tab T31 at 1, 14 of 15):

Q74: New rules/laws regarding all Venezuelan workers will be released by the government/unions sometime during the first quarter of 1991. At this time, it is impossible to obtain information on these new regulations. Will DOS/FBO reimburse the contractor for changes (additional expenses) that result from these new regulations?

A74: An equitable adjustment will be allowed to the extent provided in the contract.

62. Perini's 16 November 1990 letter to FBO stated (R4, tab A11 at 1):

[W]e believe the answer to Question 74 is misleading. The question is directed at a mandated increase in wages ("government/unions"). Our reading is the contract documents and in particular, Instructions to Bidders (Paragraph 5.4) clearly state "the contract will not provide for economic adjustment of the contract price due to fluctuations in costs or prices of labor....". The only relief or source of price adjustment contained in the contract, other than changed conditions, is for after imposed tax (14.1.2c of DS 1231). We believe the answer to question 74 should be rescinded or revised to reflect the limitation to after imposed tax.

63. Perini alleged that effective 1 April 1991 the government of Venezuela revised the local labor law to change the standard work week from 48 hours to 44 hours at the same rate of pay, and that as a consequence Perini's subcontractor, Aliva-Stump, incurred \$200,906 for 4.17% increased direct labor costs (R4, tab O at 19, Schedule D). The record

contains no evidence to substantiate such allegation and no evidence of any delay in completion of contract 237 due to such revised labor law.

(q) 21 RFPs issued by FBO after 15 May 1994.

64. FBO issued to Perini 30 Requests for Proposal (RFP) for changed work after 15 May 1994: RFP No. 047 through RFP No. 073 (R4, tabs I36 to I53). Perini's claim (R4, tab O at 22) and trial evidence did not identify which of those 30 RFPs were the 21 RFPs in this claim item. Bilateral contract modification Nos. 41-42, 44, and 46-48 equitably adjusted 24 of the 30 RFPs (Nos. 047 through 055, 058, 059A, 059B, 059C, 060 through 064, 066 through 068, 070 through 072) and included contractor releases of government liability attributable to the facts or circumstances pertaining to or arising from the modification (R4, tabs F41, -42, -44, -46 to -48).

65. The remaining RFPs are 056, 057, 059, 065, 069 and 073. Perini agreed to perform RFP Nos. 056 and 057 at no additional time or cost to FBO (R4, tab I42 at 22, R4, tab Z48). The National Guard Barracks (NGB) was a building separate from the embassy building. Activity No. 2190, "Guardia Nacional Barracks complete", was on Perini's critical path from October 1994 through July 1995 (R4, tabs J44 to J52). On 25 October 1994 FBO issued RFP No. 059 which told Perini that FBO was considering NGB changes and suggested that Perini "postpone constructions of interior walls for the next several days" (R4, tab Z70). Perini continued NGB work in October-December 1994, and told FBO that the NGB interior partitions were "not critical to [its] completion schedule and would not become critical until after [it] resumes work after the Christmas holiday shutdown" (R4, tabs G37 to G39, Z72). On 6 January 1995 FBO advised Perini of the NGB partition and furniture changes, RFP Nos. 59A, 59B and 59C, which were equitably adjusted and released in bilateral contract Modification Nos. 44, 47 and 48 (R4, tabs F44, -47, -48). Perini resumed all contract work after the holiday shutdown on 8 January 1995 (finding 35). We find that RFP No. 059 did not delay critical path work. FBO chose to do the work in RFP No. 065 under a contract other than 237 (R4, tab I52 at 23). RFP No. 069 of 15 March 1995 was to eliminate a slab and wall opening at L3 northwest void; and RFP No. 073 of 8 June 1995 was to modify an antenna layout (R4, tabs I44 at 23, I46 at 23, I49 at 24). With respect to RFP Nos. 056, 057, 065, 069 and 073, Perini introduced no evidence of the dates when any alleged delay started and ended, and the record contains no evidence that those RFPs delayed any critical path activity.

CPM Opinion Evidence.

66. The Board received Mr. Evans Barba as an expert witness for the government in CPM scheduling, preparation and implementation of CPM scheduling specifications, and claims and schedule delay and disruption analysis, over Perini's objection that CPM scheduling is not a science or technology requiring expert testimony, and would usurp the Board's fact-finding of CPM delays (tr. 2950-51, 2954-55), and received Mr. Barba's

report (ex. G-1) in evidence, overruling Perini's objections thereto (tr. 2956-57). Appellant has renewed its objection for consideration by the panel (app. br. at 111).

67. In 2001 Mr. Barba analyzed the activities that impacted the critical path to contract completion and opined that: (a) FBO was responsible for 72 delay days; (b) there were 8 days of excusable delay; (c) Perini was responsible for 649 delay days; and (d) the evaluation and granting of the 278-day extension of the contract completion date in Modification Nos. 10, 11, 15, 22, 23, 34 and 37 were "incorrect" (ex. G-1 at 23, 171). This analysis fails to acknowledge admitted government and excusable delays, clearly established by the record, and is not credible.

Quantum Evidence in ASBCA No. 51160.

68. On 15 October 2001, Perini filed its amended "Statement of Additional Costs Claimed," consisting of two items totaling \$4,957,350 with profit and bond (reduced from \$8,355,913 in the REA, finding 15) (ex. A18). The first item was "Increased Cost Claimed Due to Loss in Labor Productivity 1994-1995" totaling \$996,607 exclusive of mark-ups. Perini (a) calculated the average revenue per man-hour by dividing its "Total Billings" by total man-hours, deriving \$18.20 average per man-hour from July 1991 through December 1993, and \$4.70 average per man-hour from January 1994 through September 1995, (b) stated that the ratio of \$4.70 to \$18.20 per hour was 25.8%, yielding a 74.2% loss of productivity, and (c) calculated the lost productivity cost by the following formula: $\$2,339,743 \text{ total } 1994\text{-}95 \text{ labor cost} \div 1.742 = \$1,343,136$; $\$2,339,743 - \$1,343,136 = \$996,607$ (ex. A-18 at 5). Perini alleged (R4, tab T2 at 18), but did not substantiate the number of employees and their hourly wages for the work activities performed from 1991 to 1995.

69. The Board overruled Perini's objection and received FBO's witness Patrick McGeehin as an expert in construction accounting and applicability of claims pricing methodology in the construction industry, to include methodologies of labor inefficiency (tr. 2875). Mr. McGeehin opined that Perini's two time periods were not comparable because the mobilization, site and concrete activities performed from July 1991 through December 1993 were different from the wood, plastic, doors, finishes and specialty work activities Perini performed from January 1994 through September 1995, and its "Total Billings" included not only labor but also material, freight, general conditions, and field overhead costs, which front-loaded Perini's costs in relation to labor hours incurred and distorted Perini's labor productivity formula (tr. 2885-88). The 27 June 1996 Defense Contract Audit Agency (DCAA) audit of Perini's October 1995 REA voiced the same conclusion about its labor productivity methodology (ASBCA 51573, R4, tab 5 at 6-7). We find this evidence persuasive.

70. As modified on 15 October 2001, Perini's second item of costs claimed was "Extended Overhead Cost Claimed for Period From May 15, 1994 to Final Completion," and included:

| | |
|---|---------------|
| Perini Extended Field Overhead | \$2,860,957 |
| Perini Extended Home Office or G&A Overhead | 366,037 |
| Aliva-Stump Extended Field Overhead | 241,982 |
| Aliva-Stump Extended Home Office Overhead | <u>20,936</u> |
| Total Amount Claimed for Overheads | \$3,489,912 |

Perini continued to calculate extended home office overhead based on 517 calendar days of delay (see finding 15). Perini added \$448,652 profit at 10% of the sum of items 1 and 2 (\$996,607 + \$3,489,912) and \$22,179 bond premium at .004494% of items 1 and 2 plus profit, for a revised total of \$4,957,350. (Ex. A-18 at 5-12)

71. DCAA's 27 June 1996 audit of Perini's October 1995 REA found that Perini's 1990 bid omitted home office cost, the extended overhead costs claimed included direct and duplicative overhead costs, and its recommended home office cost was \$780/day. DCAA's 31 May 1996 audit of the Aliva-Stump (subcontractor) portion of Perini's claim for extended overhead and labor costs, profit and bond premium, recommended allowance of 52.4% of Aliva-Stump's extended overhead costs based on the Eichleay formula, and questioned all other costs Aliva-Stump claimed. (ASBCA 51573, R4, tab 5 at 9, 15-16, 23-25)

Evidentiary Rulings.

72. The presiding judge sustained FBO's objection on ground of surprise to receipt in evidence of Perini's proposed exhibits A-4, A-4A to A-8, and A-10 to A-13, consisting of adjusted CPM computer runs generated in August 2001 and related data, because they had not been provided to FBO in accordance with the Board's 15 November 2002 Scheduling Order. The presiding judge also sustained FBO's objection to demonstrative exhibits A-43 and A-44 prepared during the hearing. (Tr. 2151-52, 3989-90; see also prehearing motions and responses). At the hearing FBO moved to strike any testimony presenting the information set forth in the August 2001 adjusted CPM exhibits. The presiding judge stated that, after the transcripts were received and appellant had the opportunity to show that such testimony came from other admissible evidence, then the Board would either (a) grant the motion, to the extent that such testimony derived exclusively from the foregoing rejected exhibits, or (b) deny the motion to the extent that such testimony was derived from independent admissible evidence (tr. 2152-58).

73. FBO identified the testimony to which it objected as tr. 2112, line 5, to tr. 2116, line 4; tr. 2116, line 19 to tr. 2118, line 18; tr. 2119, line 12 to tr. 2124, line 24; and

tr. 2134, line 25 to tr. 2137, line 12. Perini opposed FBO's foregoing motion on the grounds that it was untimely and the testimony was based upon independent evidence.

DECISION ON ASBCA No. 51160

I.

Appellant conditionally renewed its exception to the presiding judge's exclusion of its August 2001 adjusted CPM computer data, if the Board were to accept FBO's contention that appellant had provided no CPM analysis (app. reply br. at 29). The Board: (A) does not accept such contention and has considered appellant's as-planned and as-built computer data (see findings 10, 14, *inter alia*); (B) grants respondent's motion to strike the following testimony of Mr. Wilson: tr. 2118, lines 8-17; tr. 2119, lines 12-16; tr. 2120, first two words and lines 7-9, 15-16; tr. 2121, lines 12-13; tr. 2135, line 12; and tr. 2136, lines 2-15; and (C) affirms the presiding judge's ruling on Mr. Barba's testimony and exhibit G-1 (see findings 66-67).

II.

A contractor has the burden of proving its equitable adjustment claim for delay costs. *See Skip Kirchorfer, Inc.*, ASBCA Nos. 40515, 43619, 00-1 BCA ¶ 30,622 at 151,168. A contractor is entitled to an extension of time but not to recover costs occasioned by an excusable delay, with no fault of either party. *See Consolidated Molded Products Corp. v. United States*, 600 F.2d 793, 798-99, 220 Ct. Cl. 594, 602-03 (1979). "Agreement to a new completion schedule precludes subsequent claims for time extensions and delay costs based on causes that existed prior to the date of that agreement." *Sierra Blanca, Inc.*, ASBCA Nos. 30943 *et al.*, 91-2 BCA ¶ 23,990 at 120,082 (bilateral modifications provided a "full and complete equitable adjustment in full accord with [the] Equitable Adjustments Waiver and Release of Claims clause" of the contract); *see Taylor Corp.*, ASBCA Nos. 37139, 38351, 90-2 BCA ¶ 22,693 at 113,970 (no mention of release in bilateral modification), *aff'd on recon.*, 90-3 BCA ¶ 22,958.

Bilateral Modification Nos. 10, 11, 22, 23, 34 and 37, and unilateral Modification No. 15, collectively extended the contract completion date by 278 days to 15 May 1994. In Modification Nos. 10-11, 22, 34 and 37, Perini released FBO of further liability for the revisions or modifications identified in such modifications. All bilateral modifications were subject to the FBO Form 1231, ¶ 13.3.2(e), release provision (findings 12-13), akin to the "Equitable Adjustments Waiver and Release of Claims" clause in *Sierra Blanca*.

Perini contends that it is entitled to at least 709 compensable delay days for the items alleged in its October 1995 REA on the rationale that the 1991-93 changes extended the contract performance into the 1994-95 Venezuelan economic upheaval period, making subsequent delays compensable (app. br. at 107-08, 130-31). In the legal authorities Perini

cites, including *Paul Hardeman, Inc. v. United States*, 406 F.2d 1357, 186 Ct. Cl. 743 (1969); *Schmid v. United States*, 351 F.2d 651, 173 Ct. Cl. 302 (1965); *J. D. Hedin Construction Co. v. United States*, 347 F.2d 235, 171 Ct. Cl. 70 (1965); *Peter Kiewit Sons' Co. v. United States*, 157 F. Supp. 726, 138 Ct. Cl. 668 (1957); *Charles G. Williams Construction, Inc.*, ASBCA No. 42592, 92-1 BCA ¶ 24,635; *Eastridge Excavating Contractors, Inc.*, ENG BCA No. 2683, 67-1 BCA ¶ 6379; *I. K. Construction Enterprises, Inc.*, ASBCA No. 10987, 67-1 BCA ¶ 6271, the tribunals did not award compensation for excusable or contractor-responsible delays occurring after a contract extension or extensions to which the parties bilaterally agreed and for which the contractor discharged the Government, without qualification or reservation, from further liability for the facts and circumstances from which such extensions arose, as in the instant appeal.

Of the 17 delay items alleged in Perini's October 1995 REA (finding 15), we have found: (i) 241 delay days equitably adjusted and released in contract Modification Nos. 10-11, 22-23, and 37 (findings 28, 31, 41-43), and (ii) no additional compensable delay days (findings 35, 39, 44, 49, 52, 55, 59, 63, 65). We will consider excusable delay days in deciding ASBCA No. 51573. We deny the appeal in ASBCA No. 51160.

ADDITIONAL FINDINGS ON ASBCA No. 51573

Perini alleged the 17 delay items in its claim under ASBCA No. 51160 (finding 15), and also six other excusable delay items, with 140 calendar days of delay, to defend against the liquidated damages and penalties disputed in ASBCA No. 51573. Perini did not claim compensation for these delays, but argued that they excuse LDs and penalties. (App. br. at 76, 107-08, 129-30)

(i) Updated Specifications and Drawings (17 days claimed).

74. The IFB included FBO Form DS-1164/IFB, "INSTRUCTIONS TO BIDDERS," which stated in ¶ 3.4(b) that the government would "provide the successful bidder" one set each "of the specifications and drawings when the Notice to Proceed is issued" (R4, tab A1 at 1, 5 of 16).

75. Perini's bid on the IFB acknowledged that it received all the IFB amendments by 11 December 1990 (R4, tab E3 at 2). The specifications and drawings promised in Form DS-1164, ¶ 3.4(b), incorporated the revisions which Perini already had (finding 1).

76. On 28 February 1991 Perini told FBO that Perini had not received the sets of updated specifications and drawings that FBO was to furnish (R4, tabs T27, T28). The CO's 1 March 1991 letter to Perini: (a) promised to send a "set of . . . the updated contract drawings and specifications" and (b) sent proposed Modification No. 1 to contract 237 to incorporate 202 "updated" drawings revised by IFB amendments, but no updated specifications, at no change in contract price or contract completion date (R4, tab T29).

Perini and the CO respectively signed that modification on 7 and 11 March 1991 (R4, tabs T30, F1).

77. Perini started work on 25 February 1991, the date it received FBO's notice to proceed (R4, tab J53 at 7; finding 2). We find that FBO's delay in providing updated drawings to Perini did not delay the start or the overall completion of contract 237, and was released pursuant to FBO Form DS-1231, ¶ 13.3.2(e) (see finding 13).

(ii) Building Permit (42 days claimed).

78. FBO Form DS-1231, "CONTRACT CLAUSES AND CONDITIONS," in contract 237 provided in ¶ 5.2.1.(a) that the "Government shall be responsible for obtaining . . . the initial building permits" (R4, tabs A6 at 3, E3, Form DS-1231 at 26 of 88).

79. On 26 February 1991 FBO learned that Venezuelan officials had questioned the adequacy of the building permit the embassy previously had obtained. On 8 March 1991 FBO learned that the Venezuelan municipality proposed to withdraw that permit, and began efforts to obtain a temporary permit. (R4, tabs T35, T36, U11, T40)

80. On 9 April 1991 Allen Olson, assistant FBOPD, told Perini to use 22 April 1991 as the date by which FBO would have the building permit, after which Perini could begin constructing temporary facilities (tr. 1817-18, 2104-05; R4, tab U18).

81. Perini's 11 April 1991, revised, 60-day schedule, submittal 01310.01(R1), added a critical path activity for FBO to obtain and post building permit by 22 April 1991. Such activity showed a connection and restraint between receiving the municipal building permit and starting site work on 29 April 1991. (R4, tabs U17, U19; tr. 469-70)

82. FBO received the Baruta Municipality's 22 April 1991 letter authorizing soil consolidation and leveling at the contract work site, which letter FBO hand-delivered to Perini on 26 April 1991. FBO's 29 April 1991 letter authorized Perini to start grading and stabilizing earth, as well as the temporary office buildings, but not the embassy New Office Building (NOB). (R4, tab U26)

83. Perini's 13 June 1994 letter to the CO requested a 13-day extension, without extended overhead costs, from 17 April 1991, when Perini informed FBO that Perini intended to start construction, until 30 April 1991, when Perini received the Baruta Municipality's 22 April 1991 letter under cover of FBO's 29 April 1991 letter (R4, tabs U25, U26, X50).

84. In Perini's approved construction schedule, submittal 01310.03(R1), the as-planned, late finish date for activity 13, "FBO TO OBTAIN BUILDING PERMIT," was 24

April 1991 (R4, tab L1, run 19 at 1). We find that FBO delayed contract completion by six calendar days (from 24 April to 30 April 1991) in obtaining building permits.

(iii) Line Drilling (28 days claimed).

85. Specification § 02389, “ROCK MASS REINFORCEMENT SYSTEM,” (a) described that system as consisting of (i) “lateral rock anchors and dowels installed in face of vertical bedrock excavation, against which building will be constructed. System will be installed in lifts as bedrock is excavated, and encased in reinforced shotcrete . . . specified in [§] 03361” and (ii) “vertical rock dowels in locations shown” (¶ 1.03A); (b) required “ASTM A 615, Grade 60, deformed single length steel bar, size No. 11 (minimum dia. 35 mm (1-3/8")), epoxy coated” dowels (¶ 2.01D); and (c) required the drilling of straight holes in which to install the dowels (¶ 3.02B, D) (R4, tabs E13 at 02389-1, -5, -8, -9, A6, attach. 5 at 9-10).

86. Specification § 01505, “TEMPORARY FACILITIES AND SERVICES,” ¶ 1.5.3 stated: “All of the following temporary [security] facilities must be completed prior to commencement of excavation of the [NOB] building,” enumerating security fencing, an access control facility, vehicle access points, a security storage facility, lighting, an emergency backup generator, conduit and wiring, fencing protection and intrusion detection systems (R4, tab E12 at 01505-4 to -9).

87. Perini’s construction schedule, submittal 010310.03(R1), stated as-planned late start and finish dates for the following pertinent activities:

| <u>Act. No.</u> | <u>Description</u> | <u>Late start</u> | <u>Late Finish</u> |
|-----------------|---|-------------------|--------------------|
| 17 | Rock excavation for temporary facilities | 4-25-91 | 4-25-91 |
| 14 | Install security fence and perimeter lighting | 4-30-91 | 6-11-91 |
| 26 | Install temporary electric | 4-30-91 | 6-11-91 |
| 16 | Install access control facility | 5-15-91 | 6-11-91 |
| 25 | Construct access road/ temp paving | 5-15-91 | 6-11-91 |
| 30 | Set up secure storage /warehouse | 6-18-91 | 8-1-91 |
| 210 | Install vertical rock dowels/line drilling | 5-16-91 | 6-12-91 |

(R4, tab L1, run 19 at 1, 3, 40)

88. On 13 February and 25 April 1991, Perini requested FBO to authorize starting line drilling before completing the temporary security facilities (R4, tabs U22, X33).

89. On 15 May 1991 FBO received the Baruta Municipality's 14 May 1991 letter authorizing all construction activities for the new embassy building (R4, tab U14), copies of which letter FBO provided to Perini on 23 May 1991 (R4, tab U10).

90. After about 15 weeks of FBO review (R4, tabs X34, X36, W11), the FBOPD's 3 June 1991 letter to Perini authorized commencing line drilling before completion of temporary facilities, which letter Perini received on 4 June 1991 (R4, tab X37).

91. Perini's September 1991 schedule update stated that activity 210 was actually started on 13 June 1991 and finished on 25 July 1991 (R4, tab I4 at 1). We accord no probative weight to Mr. Barba's view that such work was for activity 550 (tr. 3756-57).

92. We find that FBO's unreasonable delay in authorizing Perini to depart from the requirement of specification § 01505, ¶ 1.5.3, to complete temporary security facilities before starting line drilling, which the parties regarded as excavation, resulted in Perini's loss of 20 days to advance the start of line drilling, critical activity 210, *viz.*, from 16 May 1991 through 4 June 1991, and to earn an early completion bonus.

(iv) Rock Mass Reinforcement Change; GSTR Approval (6 days claimed).

93. On 16 and 28 August 1990, Haley & Aldrich (H&A), geotechnical consultants to FBO's architect-engineer, recommended to GBA, FBO's architect which had prepared the IFB specifications and drawings (ex. G-10 at 1), to make additional subsurface test borings to confirm the bedrock conditions immediately west of the proposed Caracas embassy building location and hence the validity of the rock mass reinforcement design (R4, tabs U31 at 1-2, U32 at 1-2).

94. FBO authorized GBA to perform those additional test borings on 23 October 1990 (R4, tab U33). On 2 November 1990 FBO amended the IFB to delete specification § 02011, H&A's March 1990 Final Report on Subsurface Investigations and Geotechnical Design Recommendations, and § 02012, "GEOTECHNICAL EXPLORATION" (R4, tab A6, attach. 5 at 3).

95. GBA received H&A's 21 November 1990 preliminary results of the additional test borings, that rock quality decreased with depth rather than remaining constant, as previously assumed, and sent them to FBO on the same date (R4, tab U35). FBO opened bids for the IFB on 18 December 1990 (R4, tab C1 at 1), but did not advise bidders of the additional subsurface investigations in Caracas (tr. 500).

96. H&A's 19 December 1990 report to GBA stated that at the Caracas embassy site, rock quality decreased with depth, was somewhat more decomposed and fractured at depth, and contained zones of soil-like material (R4, tab U37). H&A's 21 December 1990 letter to GBA recommended revising the embassy's rock mass reinforcement design due to the foregoing additional test boring results (R4, tab U38). FBO received the foregoing H&A letters between 4 and 9 January 1991 (R4, tab U39).

97. On 13 June 1991 the CO proposed that GBA revise drawings S001, S002 and S003 for lateral dowels and anchors in the rock mass reinforcement design (R4, tab U41). On 25 July 1991 FBO sent to Perini revised drawings S001 - S003, and requested a change cost proposal (RFP #1) (R4, tabs U42 to -44). On 12 and 28 August 1991 Perini sent proposals to FBO (R4, tabs U45, -46). The CO authorized Perini to proceed with the work in revised drawings S001 - S003 on 7 September 1991 (R4, tab U47), and issued a change order on or about 13 September 1991 (Mod. 3) incorporating those revised drawings at a \$40,949 provisional price increase (R4, tab F3).

98. Perini's approved, as-planned construction schedule, submittal 10310.03(R1), for critical path activity 216, "INSTALL AND GROUT ROCK ANCHORS AT INITIAL EXCAVATION," stated late start and finish dates of 26 June and 2 July 1991 (R4, tab L1 at 3).

99. Perini's last, as-built schedule, dated 1 August 1995, stated that Perini started activity 216 on 21 August 1991 (R4, tab J53 at 5). We find that: (a) RFP #1 delayed critical path activity 216 from 26 June to 21 August 1991, for 56 calendar days, and (b) in bilateral Modification No. 51, executed on 4 October 1996, the parties definitized the price of Mod. 3 at \$24,458 and no change to the contract performance period, with a contractor release (R4, tab F51 at 2).

GSTR Approval (no separate or identified days claimed).

100. Specification § 01300, "SUBMITTALS," ¶ 1.6.1, provided:

General: Except for submittals for the record and similar purposes, where action and return on submittals is required or requested, the [FBOPD] will review each submittal, mark with appropriate "Action," and return within forty-five (45) calendar days of receipt. Where the submittal must be held for coordination, the [FBOPD] will so advise the Contractor without delay.

(R4, tabs E12 at 01300-7, A8 at 4)

101. Specification § 02275, “GEOSYNTHETIC TENSILE REINFORCEMENT” (GSTR), stated that: (a) GSTR consisted of--

manufacturer’s standard continuous sheet material fabricated from synthetic polymers, with uniform openings in repetitive geometric pattern, permitting soil or rock fill to penetrate, enhancing fill to subgrade contact, creating reinforced earth matrix, and complying with specified requirements. . . .

(¶ 2.01A); (b) the extent of GSTR was shown on the drawings and GSTR was to be used for slope reinforcing (¶ 1.02A-B); (c) GSTR of each of the specified types was to be obtained from a single source (¶ 1.03B); (d) submittal of manufacturers’ technical product data, shop drawings, samples and certifications for each GSTR material was required (¶ 1.04); (e) a unit mass of “[n]ot less than 644 g/sq. m (19 oz./sq.yd.), ASTM D 3776” was required (¶ 2.01C); and (f) “Acceptable Manufacturers: Subject to compliance with requirements, provide products of one of the following [sources]: . . . Mirafi, Inc., Charlotte, North Carolina” (¶ 2.01I) (R4, tab A6 at 02275-1, -3 to -6).

102. Perini’s approved, as-planned schedule, submittal 10310.03(R1), stated for activity P011, GSTR “SUBMITTALS,” late start and finish dates of 13 and 12 August 1991, and for activity P012, GSTR “APPROVALS/AWARD VENDOR,” late start and finish dates of 13 August and 26 September 1991, each of which activities had 187 days of float (R4, tab L1, run 21 at 1). FBO’s review comments had pointed out that the duration of zero days for activity P011 was too optimistic (R4, tab T23 at 8).

103. Perini’s first GSTR submittal 02275.01, of 11 March 1991, submitted product data for Mirafi’s “Miragrid 7T” GSTR, whose unit mass was 7 ounces per square yard, to FBO for approval (R4, tabs V4, -9 at 3).

104. The FBOPD rejected that GSTR submittal on 6 May 1991, stated that Miragrid 7T did not comply with the 644 g/sq.m (19 oz./sq.yd), unit mass requirement in specification § 02275, FBO would ask GBA to clarify whether such requirement was appropriate, and FBO returned the submittal to Perini for resubmission (R4, tab V8).

105. Perini resubmitted the Miragrid 7T GSTR submittal to FBO six times, between 14 May and 30 October 1991. FBO exceeded the 45-day review requirement by 17 cumulative days for the GSTR submittals. During the review, H&A’s advice to GBA and FBO vacillated, sometimes saying that the GSTR 19 oz./sq.yd. unit mass requirement was correct, and sometimes that it was erroneous. (R4, tabs V4, -5, -10 to -12, -14 to -21)

106. On 29 October 1991 FBO sent Perini final revised specifications and drawings for the Mod. 4 changes, which specified two types of GSTR for slope reinforcement, “Type A,” for fill area #2, and “Type B” for all other fill areas, and required a “Long Term

Allowable Design Load” (LTADL) of “not less than 14.59 kN/M (1,000 lbf/ft)” for Type A and “24.81 kN/M (1,700 lbf/ft)” for Type B (R4, tab V40).

107. On 20 December 1991, FBO approved Perini’s 30 October 1991 Miragrid 7T GSTR submittal, except in two designated fill area locations, without changing the unit mass requirement in specification § 02275, ¶ 2.01C (R4, tab V16; tr. 821-22). Activity P012, GSTR approval, was not on the critical path on 20 December 1991 (R4, tab J10 at 3); and its number of days of float is not in the record. We find that FBO’s delay in approving Perini’s GSTR Miragrid 7T submittal did not delay contract completion.

108. On 28 January 1992 Perini submitted to FBOPD for approval, Mirafi “Miragrid 10T” for use as Type B GSTR, with product data showing that the LTADL of Miragrid 10T was 2,045 lbs. (R4, tab V44). After FBO review and Perini’s resubmittal on 25 February 1992, the FBOPD approved Miragrid 10T for use on 27 March 1992, within the 45-day review time (R4, tab W1).

(v) Christmas-New Year Suspension, 1993-94 (17 days claimed).

109. Perini stopped work at the contract site from 17 December 1993 through 2 January 1994 (R4, tabs H28 at 14, H29 at 1, I31 at 3). We find that such stoppage complied with Venezuelan custom and, because it continued Perini’s prior practice of a scheduled work holiday (see finding 35), did not excusably delay contract completion.

(vi) Extra Work, Mod. 34 (30 days claimed).

110. FBO’s 13 December 1993 cable No. 374117 added work to contract 237. Perini’s 10 January 1994 letter to FBO stated that such added work would require a time extension. (R4, tabs Y40, F34) Perini’s 4 March 1994 letter to FBO proposed \$42,495 and a 30-day extension for the work in cable No. 374117 (R4, tab Y39).

111. Bilateral Modification 34 increased contract 237’s price by \$28,500, extended its completion date by 30 calendar days to 10 May 1994, and included Perini’s release of government liability for the “facts or circumstances pertaining to, or arising from this modification” (R4, tab F34 at 3).

1994-95 Delay Due to Venezuelan Instability

112. By 31 December 1993, which was 1073 calendar days after the 23 January 1991 contract award, Perini had performed 84% of the original and changed work under contract 237 (R4, tab I31 at 6). At that rate, had there been no subsequent excusable delay, Perini should have completed the remaining 16% of the contract work in 204 more calendar days, ending 23 July 1994. The parties agreed to a 30-day extension in Mod. 34 (finding 111), which we find was for added work Perini performed in 1994, and a 5-day

extension in Mod. 37 for March and April 1994 strikes (findings 42-43). We have found clear proof that the 1994-95 Venezuelan economic conditions (findings 37, 39) and other excusable delays protracted Perini’s performance to 2 August 1995, the date of substantial completion (finding 14). We find no more reliable method for computing delay damages (see finding 39) than the “jury verdict method,” and that the foregoing evidence is sufficient for us to make a fair and reasonable approximation of excusable delay in 1994-95. From 31 December 1993 to 2 August 1995 was 579 calendar days. We find that of those 579 calendar days, there were 340 calendar days of unadjusted excusable delay (579-204-30-5), which 340 days represent a reasonable estimate of all excusable delays from 1 January 1994 to 2 August 1995 (excluding those adjusted in Mod. 34), and encompass not only Perini’s 1994-95 lost productivity and manning shortfall (findings 37-39), but also the September 1994 strike (finding 33), and the July 1994 to July 1995 curfew (finding 36).

Liquidated Damages, Penalties, and Final Decision

113. FBO’s September 1990 estimate of liquidated damages was \$5,500/day (ASBCA 51573, R4, tab 2). The CO’s 26 May 1994 letter notified Perini that the government was assessing LDs in accordance with Form DS-1231-S, ¶ 4.1.2 (R4, tab F34).

114. The CO’s 23 January 1998 letter to Perini enclosed a memorandum recommending that he issue a final decision assessing penalties and LDs against Perini. Perini was afforded an opportunity to respond to such memorandum. On 3 March 1998 Perini stated to the CO that the delay in completing contract 237 “was the result of excusable causes . . . encountered in 1994-1995 that were beyond our control and without our fault or negligence, and that we are entitled to extensions of time that will effectively relieve us of any obligation . . . for [LDs] or penalties.” (ASBCA 51573, R4, tabs 13, 14 at 9) Perini introduced no evidence that the \$5,500/day LD rate was unreasonable.

115. The CO’s 5 May 1998 final decision assessed under contract 237:

| | |
|---|-------------|
| Penalties – 60 days at \$7,500/day (Max. Allowed) . . . | \$450,000 |
| [LDs] – 444 days at \$5,500/day | \$2,442,000 |
| TOTAL | \$2,892,000 |

(ASBCA 51573, R4, tab 15), which decision Perini timely appealed to the ASBCA.

DECISION ON ASBCA No. 51573

I.

Appellant moved to strike four attachments to respondent’s post-hearing brief addressing FBO’s policies and procedures for construction bonuses and penalties and correspondence to and from the Congress regarding contract 237, and the proposed

findings of fact and argument based on them, because such documents were not admitted in evidence. Respondent opposes, arguing that the Board should take “judicial notice” of the attachments, which are “unchanged from the day they were first published” and “easily verifiable as part of the Government archive” pursuant to Rule 201 of the Federal Rules of Evidence (gov’t reply br. at 34-35).

FRE 201 provides in pertinent part:

A judicially noticed fact must be one not subject to reasonable dispute in that it is . . . capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned A court shall take judicial notice if requested by a party and supplied with the necessary information.

Whether the four attachments to respondent’s brief are “unchanged from the day they were first published” and “easily verifiable as part of the Government archive” as respondent contends cannot be determined with certainty by resort to information of unquestionable accuracy and accessible to the Board, because we have not attempted to gain access to the State Department’s archives to verify such documents. In our view, however, respondent’s four attachments make no material difference in our findings and decision on this appeal. Accordingly, appellant’s motion to strike is moot.

II.

Of the six additional alleged excusable delays, we have found that items (i), (iv), (v), and (vi) did not delay completion of contract 237 or were released by Perini (findings 77, 99, 107-09, 111), and items (ii) and (iii) excusably delayed contract completion by 26 calendar days in 1991 (findings 84, 92). We have also found a 340 calendar day excusable delay during the period 1 January 1994 to 2 August 1995 (finding 112).

With respect to the 340 excusable delay days found for the period 1994-1995 (finding 112), we used the “jury verdict method” to determine the reasonable number of days. “Before adopting the ‘jury verdict method,’ the court must first determine three things: (1) that clear proof of injury exists; (2) that there is no more reliable method for computing damages; and (3) that the evidence is sufficient for a court to make a fair and reasonable approximation of the damages.” *Dawco Construction, Inc. v. United States*, 930 F.2d 872, 880 (Fed. Cir. 1991), *overruled on other grounds, Reflectone, Inc. v. Dalton*, 60 F.3d 1572, 1579 (Fed. Cir. 1995) (*en banc*). We conclude that the evidence in this record satisfies the foregoing three criteria for adoption of the jury verdict method to determine excusable delay in 1994-95.

We hold that Perini has proven entitlement to a 366 calendar day (26 + 340) diminution in the number of days of delay for which it is liable for liquidated damages.

III.

Perini contends that either the \$5,500/day LDs or the \$7,500/day “penalty” in contract 237’s Form DS-1231-S, ¶¶ 4.1.2(a), 4.1.4, is unenforceable (app. br. at 136-37). Perini has the burden of proving the amount of LDs is unenforceable. *See DJ Manufacturing Corp. v. United States*, 86 F.3d 1130, 1134 (Fed. Cir. 1996).

Criteria for liquidated damages are found in *Kothe v. R. C. Taylor Trust*, 280 U.S. 224, 226 (1930): “[A]greements to pay fixed sums plainly without reasonable relation to any probable damage which may follow a breach will not be enforced” and:

When [liquidated damages provisions] are fair and reasonable attempts to fix just compensation for anticipated loss caused by breach of contract, they are enforced. . . . They serve a particularly useful function when damages are uncertain in nature or amount or are unmeasurable, as is the case of many government contracts.

Priebe & Sons, Inc. v. United States, 332 U.S. 407, 411-12 (1947).

FBO’s September 1990 estimate of liquidated damages was \$5,500/day (finding 112). Appellant has not introduced any evidence that the \$5,500/day LD rate was unreasonable (finding 114). The \$5,500/day LD rate equated to about 16/1000ths of one percent of the \$33,952,925 initial contract price (finding 2). Such rate is well within the zone of reasonableness. *See DJ*, 86 F.3d at 1137-38 (1/15 of one percent per day was reasonable).

FBO argues that the \$7,500 daily penalty was “mandated” by 22 U.S.C. § 4856(a) (gov’t br. at 279). Pub. L. 99-399, Title IV, § 406(a), as codified in 22 U.S.C. § 4856(a), provides:

The Director of the Office of Foreign Buildings shall provide for a contract system of bonuses and penalties for the diplomatic construction program funded pursuant to the authorizations of appropriations provided in this title.

The \$7,500/day bonus/penalty rate was FOB’s reasonable implementation of 22 U.S.C. § 4856(a), as such provision appeared in the IFB and as agreed by the parties in contract 237, Form DS-1231-S, ¶ 4.1.4 (finding 4). We hold that the ¶ 4.1.2 LD clause and the ¶ 4.1.4 penalty clause in contract 237 are enforceable.

CONCLUSION

We sustain ASBCA No. 51573 to the extent of reducing the number of days of enforceable liquidated damages by 366 days, from 444 as assessed, to 78 days as validly assessable, which amounts to a reduction of \$2,013,000 (\$5,500 x 366), and we deny the balance of this appeal. In lieu of the \$2,892,000 LDs and penalties that FBO assessed (finding 115), Perini is liable to pay FBO \$879,000 in penalties and LDs (\$5,500 x 78 + \$7,500 x 60).

Dated: 30 January 2004

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

I concur

I concur

MARK N. STEMLER
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
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 Nos. 51160 and 51573, Appeals of Perini Corp., rendered in conformance with the Board's Charter.

Dated:

EDWARD S. ADAMKEWICZ
Recorder, Armed Services
Board of Contract Appeals