ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --	)	
	)	
Lovering-Johnson, Inc.	)	ASBCA No. 53902
	)	
Under Contract No. N62467-93-C-1144	)	

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OPINION BY ADMINISTRATIVE JUDGE PEACOCK

This appeal involves multiple claims seeking a total of $6,862,667.18 and time extensions of 267 days under the referenced contract for design and construction of family housing. Only entitlement, including the number of days of delay, is before us for decision.

FINDINGS OF FACT

Basic Contract Facts

1. The Navy awarded the referenced contract to Lovering-Johnson, Inc. (LJI) on 1 September 1995 for the design and construction of a housing office/community center, 140 family housing units (including an option quantity) and associated site improvements at a former Naval Air Station at Glenview, Illinois (R4, tabs 1, 5 at 00252). All phases of the project were completed in February 1998 (R4, tabs 48, 52; tr. 1/146, 175).

2. Completion of all work was required within 915 calendar days of award. However, ¶ 3.6.1.1 of § 00911 provided for a "Phased Construction" schedule as follows:

> Within the overall project schedule, commence and complete the on-siste [sic] construction work in phases. Each phase of

> the work shall be completed within the number of calendar days stated in the following schedule. . . . Associated site improvements needed for a particular phase to be complete and usable shall be considered as required as part of the phased work.
>
> CONSTRUCTION SCHEDULE
>
> | PHASE | DESCRIPTION | COMPLETION DAY |
> |---|---|---|
> | A | HOUSING OFFICE/ COMMUNITY CENTER | 420 |
> | B | 20 UNITS | 465 |
> | C | 20 UNITS | 555 |
> | D | 20 UNITS | 645 |
> | E | 20 UNITS | 735 |
> | F | 20 UNITS | 825 |
> | G | 20 UNITS AND THE REMAINDER OF WORK | 915 |
> | OPTION 1 | 20 UNITS (AREA C) | 735 |

(R4, tab 5 at 00262) At time of award, the completion date for phase A was 24 October 1996 and the completion date for phase G was 4 March 1998 with the intermediate dates in between (R4, tab 1 at 00003).

3. The contract incorporated by reference, *inter alia*, the following standard FAR clauses:

> CHANGES, FAR 52.243-4 (AUG 1987)
> DEFAULT, FAR 52.249-10 (FIXED-PRICE CONSTRUCTION) (APR 1984)
> DIFFERING SITE CONDITIONS, FAR 52.236-2 (APR 1984)
> DISPUTES—ALTERNATE I, FAR 52.233-1 (DEC 1991)
> PERMITS AND RESPONSIBILITIES, FAR 52.236-7 (NOV 1991)

SCHEDULES FOR CONSTRUCTION CONTRACTS,
FAR 52.236-15 (APR 1984)
SITE INVESTIGATION AND CONDITIONS AFFECTING THE
WORK, FAR 52.236-3 (APR 1984)

(R4, tab 5 at 00214-15)

4. The Request for Proposals (RFP) identified three areas, Areas A, B, and C, commonly referred to as Sites A, B and C. The southeastern corner of Site A and all Site B were designated "N.I.C.," Not In Contract. (App. supp. R4, tab 20 at sheets 1, 2, 3)

5. Prior to the start of construction, appellant was required to submit a Quality Control Plan (QC Plan) for government approval. (R4, tab 5 at 00289, 00293, § 01400, ¶¶ 1.2.1, 1.6.3)

6. By letter dated 11 May 2002, more than four years after substantial completion of all phases, appellant submitted a certified omnibus claim in the amount of $6,862,667.18 plus unquantified cardinal change damages and requests for time extensions of 267 days (R4, tab 184). The 267 days represents the time period from 3 September 1997 to 12 June 1998 (282 days) less 15 days for which appellant takes responsibility (*see* app. supp. R4, tab 3 at 7th page, S-1). The claim was denied by the Contracting Officer in a final decision dated 8 August 2002 (R4, tab 183). This timely appeal followed. The omnibus claim consists of the following 14 individual claims plus the cardinal change allegation:

1	Additional Civil Improvements (Site A)	$ 620,523.77
2	Playground Improvements	$ 70,806.13
3	Base Aggregate Material (BAM)	$ 68,184.59
4	Additional Sidewalks and Interior Paths	$ 39,156.22
5	Electrical Requirements	$ 172,515.93
6	Additional Quality Control Costs	$ 152,561.20
7	Smooth Ceilings[1]	$ 48,957.22
8	Additional Plan Review Architectural Design (excl. additional civil improvements)	$ 181,060.82
9	Additional Winter Protection Expenses	$ 83,282.83
10	Miscellaneous Additional Work Items	$ 4,478.42
11	Changes to the Prevailing Wage Rate[2]	$ 305,402.90
12	Acceleration	$ 4,463,585.23
13	Contract Retainage	$ 193,382.92
14	Liquidated Damages	$ 458,769.00
	Total	**$ 6,862,667.18**

(R4, tab 184)

7. Five claim items pertain primarily to the pre-construction design period and/or involve delay that relates to or stems from that period. Appellant concedes that there were no significant delays once construction commenced (tr. 1/177-78). Because these five claims and the delay issues are intertwined and not easily segregable, we address them as a group in the next section of the opinion. Thereafter, we discuss each of the remaining items. The five design period and delay-related issues are: 1. Additional Civil Improvements; 8. Additional Plan Review/Architectural Design; 9. Additional Winter Protection Expenses; 12. Acceleration; and, 14. Liquidated Damages.

Further Findings of Fact--Design Period and Delay-Related Issues

a. The Exclusion Area and Design of the Storm Water Drainage System

8. The Title Sheet of the solicitation's drawing package contained the following "GENERAL NOTE":

[1] LJI is no longer seeking relief with respect to claim item 7 (app. br. at 30). Appellant has also failed to brief or otherwise support its "cardinal change" contentions and we consider that element of the omnibus claim to have been abandoned.

[2] Claim item 11 involves appellant's compliance with Department of Labor wage rate requirements that were applicable to the contract. The Navy does not dispute entitlement. Accordingly, claim 11 is sustained.

> DESIGN CONCEPTS AND CONCEPTUAL INFORMATION PROVIDED ON ALL RFP DRAWINGS SHALL BE VERIFIED FOR ACCURACY AND COMPLETENESS PRIOR TO INCOPORATION INTO THE FINAL DESIGN. VARIATIONS FROM THIS DRAWING WILL BE PERMITTED IN PREPARING THE FINAL DESIGN SUCH THAT PRESCRIPTIVE, FUNCTIONAL OR AESTHETIC REQUIREMENTS EXPRESSED ELSEWHERE WITHIN THIS RFP ARE NOT ADVERSELY AFFECTED. USE OF THESE DESIGN CONCEPTS AND CONCEPTUAL INFORMATION SHALL NOT BE CONSTRUED AS A WAIVER FROM DESIGN/BUILD REQUIREMENT [SIC] EXPRESSED ELSEWHERE IN THIS RFP.

(App. supp. R4, tab 20 at sheet 1)

9. Section 2B.3, "GRADING AND DRAINAGE" of Part 5, "PERFORMANCE TECHNICAL SECTIONS" required appellant, among other things, to design and construct a storm water drainage system at both sites A and C, including runoff from adjacent properties (R4, tab 5 at 00386). The following paragraphs of this section addressed pertinent requirements for this work:

> b. DESIGN CRITERIA: Storm drainage shall be by the rational method using 10-year one hour storm frequency in accordance with Village of Glenview standards. All runoff onto the site from adjacent properties shall be included in the storm drainage calculations. Contractor shall provide a clearly defined stormwater overflow route with supporting calculations to convey runoff away from all housing units during storm events which exceed the 10 year storm event.
>
> . . . .
>
> d. SURFACE STORM DRAINAGE: Drainage system shall be properly coordinated with surrounding properties to insure that runoff does not cause damage to other properties. Ponding on the site is prohibited.
>
> . . . .

> f. MINIMUM PIPE SIZE: Storm drains, culverts, and downdrains shall have a minimum diameter of 12 inches.

(R4, tab 5 at 00386)

10. With respect to flows in excess of a ten-year storm, the parties interpreted the above provision to require that the design only be sufficient to handle excess storm water up to a 100-year storm, *i.e.*, consistent with Village of Glenview (Glenview) standards (R4, tab 211 at 3; tr. 2/32-33, 5/24-25). The "rational method" is used to determine the size of piping needed to accommodate projected storm flows (tr. 3/68-69).

11. Sites A and C are not connected and their storm water drainage issues are not related. The disputes in this appeal center primarily on Site A. Storm water flowed from west to east across Site A and from south to north at Site C. At Site C, water exited onto a cemetery on the site's northern boundary. A swale that could be used to transport water overland was located along the southern boundary of Site A (tr. 3/61, 5/17; R4, tab 205 at 2; app. supp. R4, tab 20 at sheet 4). The RFP drawings showed twin 60-inch culverts entering from offsite and terminating at a potential borrow pit at the southwest corner of Site A. "Standing" water was also indicated in the culverts' location. The RFP drawings also showed existing 36-inch and various other size pipes along the southern boundary of Site A. (App. supp. R4, tab 20 at sheets 4, 7-9, 13-15, 20-22) Prior to submission of its offer, appellant failed to observe the 60-inch twin culverts entering the southwest portion of Site A during a pre-proposal site visit (tr. 1/199-200).

12. Among other licensing/permit requirements, appellant was required to obtain the approval of and a permit from Glenview prior to starting construction (tr. 1/180-81). With respect to obtaining permits, § 01560 of the specifications contained the following provision:

> 1.6.3 LICENSES AND PERMITS
>
> The Contractor shall be responsible for obtaining all permits and licenses that are required to complete the project, inclusive of the associated fees, including but not limited to the following:
>
> a. Village of Glenview
>
> b. Metropolitan Water Reclamation District (MWRD)

c. Illinois EPA (Sanitary and Water)

d. Illinois NPDES (Soil Erosion)

. . . .

> The Contractor is responsible to perform quality control inspections of the work in progress, and to submit certifications to the applicable regulatory agency, via the Contracting Officer, that the work conforms to the contract and permit requirements. The inspections and certifications shall be provided through the services of a Professional Engineer, registered in the state where the work is being performed.

(R4, tab 5 at 00318-19)

13. Appellant retained Boarman Kroos Pfister Rudin & Associates (BKPR), a Minnesota "Architecture Interior Design Engineering" firm to assist in the development of the proposal. BKPR consulted with RLK Associates, Inc. (RLK) regarding the civil engineering requirements of the solicitation during the proposal development stage. RLK's principal, Richard Koppy, was unable to recall what parts of the solicitation he reviewed during consultations with BKPR but knew that the storm drainage design was "preliminary" and incomplete. He also recognized that there was no mention of the "flow rate we needed to design for through the site" (tr. 3/59). LJI was unaware that any civil engineer had contributed to the storm drainage design in the ultimate proposal submitted by appellant. Neither LJI nor BKPR/RLK made any pre-proposal investigation or estimate of the flow rate to be anticipated or other information essential to the development of a civil design. The 60-inch twin culverts were readily observable and indicated in the solicitation drawings. Their presence indicated that there were substantial flows coming from off site that needed to be considered in the drainage design. Mr. Koppy first learned of the twin culverts on a site visit after award and recognized the need for investigating the possibility of a "huge flow moving through the site" (tr. 3/54-57). (R4, tab 243; tr. 2/20, 27-28, 52, 3/7, 10, 46, 49, 54-57, 60, 5/10-11, 22) Mr. Koppy did not detail his interpretation of design information in the RFP and did not develop an estimate of the costs of constructing the storm drainage system, providing appellant only with an estimate of RLK's proposed design fees (tr. 3/64, 70-71). Construction costs associated with the storm drainage system were based on a quote from an excavation/grading subcontractor, Lake County Grading (LCG). LCG's quote was incorporated into LJI's quote for the site grading work (tr. 2/128). There is minimal

evidence how LCG interpreted the storm drainage requirements of the solicitation.[3] LJI performed no review of the civil drawings prior to incorporating LCG's bid into its proposal (tr. 2/101). Appellant's project manager interprets the "RFP documents" to imply that only "a small pipe system" was required (tr. 2/128). RLK's "original plan" prior to investigating the site and analyzing the flow rate was to use pipe (of undisclosed size) for the 10-year storm and a swale for the 100-year storm (tr. 3/62-63).

14. Part 5 of the contract, "PERFORMANCE TECHNICAL SECTIONS", at ¶ 2B.1.g of §2B, "SITE DESIGN AND CONSTRUCTION," required appellant to perform an extensive independent post-award study of subsurface conditions and provide a "Soil and Foundation Report" stating in part:

> g. CONTRACTOR SOIL AND FOUNDATION REPORT: . . . The independent soils and foundation report, . . . shall be furnished with the Contractor's initial design submittal. This report shall be prepared by a registered professional civil/geotechnical engineer, registered and authorized to perform such work in the State in which the project is located, experienced in soil mechanics, and shall certify the adequacy of the soil and foundation aspects of the design, including but not limited to:
>
> . . . .
>
> 4. Surface and subsurface drainage.

(R4, tab 5 at 00382)

15. There is no evidence that appellant consulted Glenview regarding storm water detention requirements prior to October 1995. Glenview maintained a "Subdivision and Engineering Guide" (Glenview SEG) setting forth design criteria to be used in constructing the housing project that was available to offerors during the solicitation phase. With respect to storm water detention, the guide provided criteria for the design of the detention system. In addition to stating requirements regarding the 10 and 100-year flows, the Glenview SEG required that calculations be provided "to substantiate the available capacity of the existing receiving storm sewer/stream in light of the design discharge from the proposed development." (R4, tab 254 at IV.6-8, 10, and tab A)

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[3] As of 13 February 1996, LCG's estimate of its cost for the "added storm at Glenview" included primarily the costs of excavating the borrow pit/detention pond, the cost of installing 1143 linear feet of 72-inch pipe and removing 1700 linear feet of existing 36-inch pipe (R4, tab 154 at 00994-95).

16. The solicitation drawings depicted a potential borrow pit in the southwestern corner of Site A near the twin 60-inch culverts along Site A's western boundary. The drawings depicted drains to the borrow pit area permitting the pit to serve as a storm water detention pond. (App. supp. R4, tab 20 at sheets 4, 13, 20; tr. 3/131, 5/44) A civil engineer reviewing the solicitation drawings would know the pit was intended to serve as a detention pond as borrow material was removed. The "ponding" prohibition was interpreted by both parties as precluding standing ponds of water within the housing project but not barring use of the excavated borrow pit on the periphery of Site A as a large detention facility or "pond" for control of storm water surges. Appellant in fact depicted the area in blue in its proposal drawings as the "Borrow Pit & Ponding Area." (Tr. 1/200-02, 5/44-45; app. supp. R4, tab 153, Area A Site Plan)

17. On 4 October 1995, the Navy conducted a pre-design meeting. At that point, appellant had not yet retained a civil engineer. At the meeting, the Navy informed appellant that the southwestern corner of Site A was a former landfill that was contaminated and could not be disturbed. The area is referred to by the parties as the exclusion area. Site A was expanded to the southeast to compensate for the loss of the exclusion area. The exclusion area contained the solicitation's potential borrow pit and ponding area for collecting off-site storm drainage runoff. These changes required some redesign of the site. (App. supp. R4, tabs 20, 119, 153; R4, tab 222; tr. 5/8-9) Movement of the affected housing units and other site improvements involved reconfiguring the computer-assisted-design (CAD) drawings to reflect their shifted new location since no construction had commenced (R4, tab 222).

18. Appellant planned generally to complete all design work from October through December 1995, commence construction on 1 March 1996, complete construction in 18 months and the entire project approximately 5 months early (tr. 1/61-62). At the pre-design meeting, appellant indicated that it would complete "the drawings and calculations between October-December" (app. supp. R4, tab 119). The parties also agreed that the most efficient and expeditious method of reviewing appellant's design materials was to submit the design materials to the Navy in advance of the 40% and 80% review points (tr. 4/56-57).

19. At a meeting among the parties and Glenview on 13 October 1995, LJI received a copy of a 1990 study (The Naval Air Station Stormwater Management Study) prepared by the engineering firm Harza Environmental Services, Inc. (Harza) for the Navy from Glenview (hereinafter the Harza report or study) (app. supp. R4, tab 29 at 2; R4, tabs 70, 75, 250; tr. 3/134, 5/14-15). The solicitation contained no representations regarding actual storm water flow rates at the site and did not reference the 1990 Harza study. Appellant could have obtained the 1990 Harza report from the Village prior to submission of its offer (tr. 3/56-58; ex. G-1; R4, tab 254 at tab A). In addition to the

1990 Harza study, the village had available for offerors, extensive mapping of the area, and other studies by Harza as well as other engineering consultants (R4, tab 254 at tab A).

20. The 1990 Harza report was a generalized study and was outdated because of the construction of additional detention facilities. It also did not employ the "rational method" required by the solicitation. LJI's engineer did not use the flow rates in the report to design the storm water drainage system after award. LJI used more current, specific and relevant data in developing its design than that contained in the Harza report. (Tr. 3/65-69; app. supp. R4, tab 2 at 2-24)

21. An additional Harza report, prepared after award of the instant contract and dated 23 October 1995, contained a proposal for use of 84-inch piping to handle storm water drainage at Site A (app. supp. R4, tabs 2 at 2-24, 5). This report is not in evidence but appellant had access to the report prior to 4 January 1996 (R4, tab 212).

22. In early November 1995, appellant retained the Minnesota civil engineering firm, RLK (tr. 1/70, 2/20, 4/56-57, 189, 5/9; app. supp. R4, tab 133; R4, tabs 204, 217). Because the civil improvements are generally built first, it is important for the civil design to be accomplished early (tr. 5/7-9). RLK discussed the changes to the Site A location with LJI's architect on 9 November 1995. The next day, RLK estimated the detention pond requirements to be 6 to 6.5 acre feet. RLK engaged an Illinois, "Chicago area" civil engineering firm Gewalt Hamilton Associates, Inc. (GHA) to assist with the storm drainage design and "handle some of the local issues" (tr. 2/24, 46-47, 5/25-26). On 15 November, GHA met with Glenview's engineer to discuss the drainage design. (R4, tab 154 at 00924-25, 00931-32)

23. On 16 November 1995, appellant scheduled the 40% design review conference with the Navy for 7 December 1995 (R4, tab 30).

24. In a letter to BKPR of 30 November 1995, RLK requested additional design information and guidance. One issue raised by RLK concerned a "problem with overland drainage to the cemetery [adjacent to Site C]." The letter noted that Glenview "has previously been in litigation with the cemetery for draining onto the cemetery." RLK asked for additional topographical data or utility "as-built" plans for the impacted area adjacent to Site C to determine the feasibility of several design options that could accommodate the concerns of Glenview. (R4, tab 207)

25. The 40% Design Review Meeting (the 40% DRM) was held on 7 December 1995. None of the civil drawings had been prepared at that time. The government determined that various aspects of the architectural design differed from contract requirements (tr. 4/59-60, 84, 90-97; R4, tabs 175, 209, 210). Appellant also had not

prepared a Basis of Design with supporting calculations, contracted for soil borings or prepared any specifications. The Navy complained about the lack of progress, particularly in the civil area, as well as the deletion of architectural features shown in LJI's proposal that were considered by the Navy to reduce the quality of the project. (Tr. 4/60-68, 5/21-22; R4, tab 33; app. supp. R4, tabs 34, 62) With respect to the storm water drainage design, the government, *inter alia*, asked appellant to describe the planned storm water system included in its proposal to compare with the design options discussed at the meeting that were occasioned by the changes to the site (app. supp. R4, tab 34 at ¶ 29).

26. In a follow-up letter to LJI dated 14 December 1995, the government stated that the materials presented at the 40% DRM were incomplete and listed 11 items that had been included in appellant's proposal but had been eliminated (or reduced) in the design documents presented to the Navy at the DRM. None of the items pertained to the storm water drainage design. The letter indicated that, if appellant did not agree that the items were required, it should notify the Navy. The letter also referred to a telephone conversation between the parties on the same date in which appellant indicated it would resubmit the 40% materials and resolve outstanding issues to the government's satisfaction. (R4, tab 175; app. supp. R4, tab 35)

27. The contract stated that "60 calendar days [of the 915 day performance period were] exclusively reserved for Contracting Officer conformance review of the Design Documents Submittal" (R4, tab 5, ¶ 3.6.1 at 00262). However, it contained no specific time limit for Navy "review" of interim (40% and 80%) design documentation. After the extensive problems noted by the government at the 40% DRM, the parties engaged in an extensive and extended discourse attempting to address and resolve these and other problems.

28. On 15 December 1995, civil engineers for both parties met with the Glenview engineer to discuss requirements for storm water drainage. The parties agreed that appellant would be in compliance with local and water district regulations along with the contract requirements if appellant provided a closed storm sewer system sufficient to handle a 10-year storm and an overland flood route sufficient to handle a 100-year storm. Calculations for a nearby "Glen Lakes Estate" project indicating a lower flow rate than the 1990 Harza report were also discussed. GHA stated that it would consult with Harza about their calculations and independently estimate the flow rates. (R4, tab 211 at 2-3; app. supp. R4, tab 110; tr. 3/67-69)

29. On 28 December 1995, BKPR started work on the 40% Basis of Design and was also developing specifications for the 80% design review conference (app. supp. R4, tab 36).

30. By 4 January 1996, GHA had determined that the Harza flow rates did not incorporate the effects of subsequently constructed detention facilities and were overstated by approximately 20%. Using information from the Glen Lakes project, GHA calculated the 100-year peak storm flow to be 392 cubic feet per second (cfs) and the 10-year storm peak flow rate to be 194 cfs. The capacity of the twin 60-inch culverts depicted on the solicitation drawings was 475 cfs. (App. supp. R4, tab 2 at 46-47, tab 20 at sheet 4, tab 212; tr. 3/67-69)

31. Because the peak flow rates were lower than those anticipated in the Harza report, appellant determined that only one drainage pond was required rather than the two proposed in the 1990 Harza report. In a memorandum to LJI dated 9 January 1996, RLK proposed two alternative designs based on GHA's 4 January computations and recommendations: 1. Routing both the 10 and 100-year by pass flow in one below ground 72-inch diameter pipe rather than the larger 84-inch pipe mentioned in the October 1995 Harza report; or, 2. Routing the 10-year flow through one below ground 60-inch pipe and the 100-year flow through both that pipe and a drainage swale. (R4, tab 212; app. supp. R4 tab 2) By letter of 19 January 1996, GHA recommended the overland swale and 60-inch pipe option (R4, tab 214). Appellant eventually elected the first alternative, installing a 72-inch underground piping system at Site A with a detention pond at the new borrow pit location (tr. 1/132, 2/134).

32. Appellant also concluded that only a 5.2 acre-feet detention pond was needed rather than the 8 acre-feet pond depicted on the solicitation drawings. As a result, appellant reduced the amount of excavation and associated cost by 4500 cubic yards. (R4, tab 228 at 1; tr. 5/35-36)

33. There is no evidence of any order from the contracting officer or any government representative directing appellant to install underground pipe large enough to handle a 100-year storm event, instead of using a combination of pipe and an overland flow at Site A (tr. 2/32-35, 51-55). The use of solely underground piping was based on appellant's evaluation that it would be cheaper (tr. 3/64).

34. There is no evidence that the Navy ordered appellant to make any changes to its storm drainage system design other than those needed to accommodate the site revisions (tr. 2/133-34, 3/64; R4, tab 184).

b. Additional Pre-Construction Delays

35. Specification section 00911, RFP DESIGN/BUILD REQIREMENTS, stated in part:

PART 1 GENERAL

. . . .

1.3 DEFINITIONS

1.3.1 Design

Prescriptive documents which include but are not limited to design drawings, project specification, and design analyses specifically prepared by the Contractor to incorporate pre-award Contractor proposals accepted by the Contracting Officer and to meet the design/build requirements contained within this specification section.

1.3.2 Design Analyses

Contractor prepared documents which contain a written basis of design describing how and why the design was selected and backup calculations for the intended performance.

. . . .

PART 3 EXECUTION

3.1 DESIGN CONFERENCES

. . . .

3.1.2 Interim Design Review Conference

Schedule and host two interim design review conferences. These interim review conferences will be similar to an over-the-shoulder review of the design progress-to-date and are anticipated to last for one work day each. These interim design reviews should be held at approximately the 40 percent and 80 percent completed design accomplishment.

. . . .

3.2.4 Performance Drawings

Designs and information shown on the performance drawings are intended for use in preparing the design drawings. However, the designs and information indicated in the performance drawings shall be verified for accuracy and completeness prior to their use in the Design. Variations will be permitted from the performance drawings in preparing the design so long as aesthetic, functional, and/or other prescriptive requirements shown are not affected.

. . . .

3.3 SPECIFICATIONS

3.3.1 Specifications Provided

Two types of specification sections are provided for use in development of the project specification.

a. Performance

b. Prescriptive

. . . .

3.3.1.2 Prescriptive Specifications

Prescriptive specifications contain specific requirements which describe materials, products, systems, sizes, ratios, fabrication, quality of workmanship, method of installation, and other data. Options, where permitted, are limited to those included in the specifications.

. . . .

3.4 DESIGN ANALYSES

Prepare design analyses consisting of a basis of design and calculations for each design discipline.

(R4, tab 5 at 00252-59)

36. At a meeting with the Navy on 17-18 January 1996, appellant indicated that it would submit a full 40% design package in one week (R4, tab 172; app. supp. R4, tabs 42, 133).

37. In a letter to appellant dated 19 January 1996, the Navy complained about the lack of progress on the design, perceived failures to comply with contract requirements and changes to LJI's proposal that the Navy considered reduced the value and desirability of the project (app. supp. R4, tab 39).

38. In a memorandum dated 23 January 1996, BKPR proposed various changes to the Navy that would result in "no cost" or cost savings if accepted (app. supp. R4, tab 40). The Navy indicated its conditional acceptance or rejection of the proposed changes by letter of 30 January 1996 and requested additional cost and quality information detailing the variations from appellant's proposal (R4, tab 42).

39. Section 01311 of the contract specifications, CONTRACTOR PREPARED NETWORK ANALYSIS SYSTEM (NAS), set forth detailed requirements for a NAS in pertinent part as follows:

> 1.5 NETWORK SYSTEM FORMAT
>
> . . . .
>
> 1.5.1 Diagrams
>
> Show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned. . . . Show activities of the Government that affect progress and contract-required dates for completion of all or parts of the work.
>
> . . . .
>
> 1.5.4 Additional Requirements
>
> In addition to the tabulation of activities, the computation will include the following data:
>
> a. Identification of activities which are planned to be expedited by use of overtime or double shifts to

be worked, including Saturdays, Sundays and holidays including dates of notification.

b. On-site manpower loading schedule

. . . .

1.6 SUBMISSION AND APPROVAL

. . . .

1.6.2 Preliminary Network

Submit a preliminary network defining the planned operations during the first 90 calendar days after contract award within 30 calendar days. . . . In accordance with paragraph entitled, "Monthly Reports," the preliminary network may be used for requesting progress payments for a period not to exceed 90 calendar days after receipt of "Contract Award." Payment requests after the first 90 calendar day period shall be based upon the complete network.

1.6.3 Completed Network

Submit the complete network analysis, indicating all activities in the contract consisting of the network mathematical analysis and network diagrams, within 60 calendar days after contract award.

. . . .

1.6.7 Monthly Reports

The Contractor monthly narrative report shall include the following entries and follow the format listed below.

State whether the contract is on schedule, ahead or behind schedule, stated in number of calendar days, based on the approved contract schedule.

Comment on current critical path, same as the previous month, or shifted. Comment on activities, progress along the four most critical paths, Total Float Report, current and anticipated problems.

. . . .

Comment on activities planned to start during the next 30 days utilizing the Look-Ahead Report[.]

Comment on anticipated problems in attaining late start of activities utilizing the Late Start Report.

The narrative report shall specifically reference, on activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes, referring to the Input Data Report.

Comment on Government responsibility activities utilizing the Government Responsibility Report.

. . . .

1.7 CONTRACT MODIFICATION

When a contract modification to the work is required, submit proposed revisions to the network reflecting the impact. Submit the proposed network revisions with the cost proposal for each proposed change.

1.8 TIME EXTENSIONS

. . . Extension of time for performance required under the clauses entitled, “Changes,” “Differing Site Conditions,” “Default (Fixed-Price Construction)” or “Suspension of Work” of the Contract Clauses will be granted only to the extent that equitable time adjustments for the activity or activities affected exceed the total float or slack along the network paths involved.

(R4, tab 5 at 00099-00106)

40. Appellant's scheduling subcontractor started preparing the NAS in January 1996 (tr. 3/83). Appellant furnished its initial schedule, the "Preliminary NAS," to the Navy on 2 February 1996. The schedule only covered the construction through the Phase A community center. Appellant did not furnish a complete schedule until September 1996 (as discussed below). The "Preliminary NAS" showed the "redesign" of the storm water drainage as a non-critical path activity and indicated that critical path construction activities would commence on 30 April 1996. The late start date for grubbing for the community center was 24 June 1996. The period for government review of the 40% and 80% designs was indicated to be 20 workdays each. The period allotted to procure necessary permits was seven workdays with five days of float. (R4, tab 168 at 1066-76)

41. By letter of 8 February 1996, appellant informed the Navy that the design of the storm water system would be completed by 8 March 1996 and submitted on that date to the government and "required permit agencies" (app. supp. R4, tab 44). The letter enclosed a letter dated 16 January 1996 (app. supp. R4, tab 38) that requested a modification to the contract. The government had not received the 16 January letter prior to its receipt of the 8 February letter (app. supp. R4, tab 43). The modification request was for the following alleged changes:

1. Excluding the "Clean Area"
2. Addition of 3.5 acres of new land to SE Area
3. Redesign of Sites A & C
4. Additional civil engineering, design and construction cost at Site A. The RFP required swale is inadequate to handle the 100-year storm water runoff.
5. Additional civil engineering, design and construction at Site C. No existing storm drainage system.

(App. supp. R4, tab 38)

42. The 8 February 1996 letter further indicated that "[a]ll information concerning the modification" would be delivered to the government by 15 February 1996 (app. supp. R4, tab 44).

43. Also on 8 February 1996, appellant revised its schedule with a late start date for grubbing of 28 June 1996, along with a late finish date for preparing a complete schedule of 8 March 1996 and for submitting its Contractor Quality Control plan of 5 April 1996. The allotted duration indicated in the schedule for obtaining utility permits was 45 workdays with 20-work days float on an early finish date of 10 May 1996. (R4, tab 168)

44. At a meeting on 15 February 1996, the parties discussed storm drainage and appellant's pending request for an equitable adjustment (REA). Appellant indicated that it was LJI's "first experience" with design/build, that no design work had been performed from award of the contact on 1 September 1995 to 4 October 1995 and that appellant had not retained a civil engineer prior to November 1995. Appellant indicated that the government should disregard the 2 February "Preliminary NAS" and that a complete schedule would be submitted within 7-10 days. (App. supp. R4, tab 133) At that time, appellant was seeking a 105-day time extension using a project award date of 11 September rather than the actual 1 September 1995 award date; it also projected that: the 100% design would be approved by 9 May 1996, construction would commence on 17 June 1996 and the entire project would be completed by 22 January 1998 (*id.*; app. supp. R4, tab 134). The government also instructed appellant concerning the backup documentation it would need to review the REA (R4, tab 217).

45. On 5 March 1996, appellant submitted an REA seeking, *inter alia*, a 131-calendar day time extension as a result of the relocation of the borrow pit and the unanticipated quantity of storm water encountered at the site on the basis that it constituted a differing site condition. Appellant contended its planned start and finish dates for construction were 2 April 1996 and 27 August 1997, and that the "Impacted" dates were 17 June 1996 and 6 January 1998 (131-calendar days after 27 August 1997). (R4, tab 154 at 00917, 01002).

46. The government received appellant's 40% design documentation on 11 or 12 March 1996. Only one "sample" specification section (for brick masonry) and no soils report were included. LJI also did not identify the changes to its proposal that were contained in the 40% design documents. LJI's architect requested that the Navy review and provide its responses to the 40% design submission to the architect "no later than . . . 18 March 1996." The architect also stated that it would proceed with the 80% design without waiting for the Navy's comments. (App. supp. R4, tabs 50, 55)

47. On 15 March 1996, appellant notified the Navy that, "[t]he plans and specifications are basically (98%+) complete" and the civil provisions would be submitted to Glenview for approval the following week (app. supp. R4, tab 52). Appellant stressed the "urgency of getting the [Navy's] review comments and the approval of the 40% Plans" (*id.*). According to appellant's 8 February 1996 schedule, the estimated finish date for the design was 5 April 1996 (R4, tab 168).

48. In a cure notice dated 19 March 1996, the Navy notified appellant that the 40% design proposal was incomplete and failed to conform to the contract in areas previously discussed by the parties (app. supp. R4, tab 53; R4, tab 150).

49. With respect to variations from contract requirements, the specifications included the following provision:

> 1.3.4 Variations
>
> Variations from contract requirements require Government approval pursuant to Contract Clause entitled "FAR 52.236-21, Specifications and Drawings for Construction" and will be considered where advantageous to the Government. When proposing a variation, submit a written request to the Contracting Officer, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to the Government. If lower cost is a benefit, also include an estimate of the cost saving. Identify the proposed variation separately and include the documentation for the proposed variation along with the required submittal for the item.
>
> . . . .
>
> 1.3.4.3 Review Schedule Is Modified
>
> In addition to the normal submittal review period, a period of 10 working days will be allowed for consideration by the Government of submittals with variations.

(R4, tab 5, § 01300 at 00273)

50. In its 19 March 1996 response to the cure notice, appellant *inter alia*, complained that despite its REA the cure notice "requests the completed 40% design submittal sooner than would be warranted due to the excusable delays." However, LJI promised to provide the requested information "within the next several days." (App. supp. R4, tab 54; R4, tab 150)

51. On 21 March 1996, appellant sent to the Village of Glenview a "Basis of Design-Civil" including calculations and drawings dated 15 March 1996. A related submission was sent to the Navy on the same date. (App. supp. R4, tab 56; R4, tabs 220, 221)

52. By letters dated 20 and 23 March 1996, the Navy notified appellant that its REA submission was incomplete. In particular, the Navy requested design, materials, quantity and engineering information for the purpose of comparing what was included in appellant's original proposal to that required because of the site revisions. (App. supp. R4, tabs 54, 56; R4, tabs 148, 221)

53. Appellant sent the then current (15 March 1996) civil drawings to the Navy in late March 1996. On 28 March 1996, the Navy notified appellant that the 40% design was complete and undergoing review. In the letter, the Navy again complained about changes in appellant's original proposed design that reduced the quality of the project without benefit to the government. (App. supp. R4, tab 62)

54. In March 1996, the Navy reviewed the 40% design submittal, developing a 12-page list of comments and identifying numerous issues and problems with the submittal, the vast majority of which were unrelated to relocation of the borrow pit or storm water drainage issues and redesign occasioned thereby (R4, tabs 218-222).

55. On 3 April 1996, the government forwarded extensive comments to appellant after review of the 40% design submission, excluding the civil design comments (app. supp. R4, tab 64).

56. On 2 April 1996, appellant requested permission to commence civil and site work shortly after 1 May 1996. On 4 April 1996, the government informed appellant that no civil or site work could begin before approval of the civil/site drawings and specifications and submittals required prior to the start of construction, including the NAS and CQC Plan. As a further condition to starting construction, the government required appellant to guarantee that it would make all design changes required without requesting an equitable adjustment. (App. supp. R4, tab 65; R4, tab 140)

57. By 23 April 1996, appellant had sent the 80% design review documentation and soils report to the Navy (app. supp. R4, tabs 70, 72, 73). The 80% design review conference was held on 25-26 April 1996. Representatives of the Navy, LJI and Glenview attended. The design of the storm water drainage remained "basically the same" (app. supp. R4, tab 75 at 2). One exception related to the failure of LJI's draft civil specification to specify reinforced concrete pipe (RCP). (*Id.;* R4, tab 227) RCP was a requirement of the prescriptive section of the RFP's specifications (R4, tab 5 at 00359). Appellant agreed to "review the RFP and revise the spec if needed" (R4, tab 227).

58. The contract provided that "[c]onstruction work cannot be started until the 'Design' has been approved by the Contracting Officer and a written authorization to

commence with the specific construction is received from the Contracting Officer" (R4, tab 5, ¶ 3.6.2 at 00262).

59. LJI submitted its Safety Plan and Environmental Protection Plan on or about 6 May 1996, its CQC Plan on or about 6 June 1996 and its Demolition Plan on or about 20 June 1996 (app. supp. R4, tab 3 at 5-2).

60. On 7 May 1996, 17 pages of comments from the Navy's technical review of appellant's 80% design submission were transmitted to the ROICC (R4, tab 226).

61. There is no persuasive evidence that the Navy's comments, disapprovals or itemization of problems during the design review process (regarding improper variations from or inaccuracies in the various design submissions) lacked merit, were unwarranted or caused appellant extra work.

62. On 13 May 1996, a technical review of the REA was performed by a Navy civil engineer who noted, among other things, as follows: the contractor benefited from the relocation of the borrow pit and detention pond because the size of the substituted area was 50% larger; the contractor calculated that it would need only 5.243 acre-feet for the storm water detention pond as opposed to the 8 acre-feet of storage capacity contemplated by the RFP, thus eliminating the cost of excavating an additional 4500 cubic yards of material; with respect to the civil storm water design generally, the contract required appellant to formulate a design pursuant to the "performance" drawings and specifications, including Glenview standards; there was no indication that appellant ever contacted Glenview or observed (or understood the significance of) the "obvious" twin culverts prior to submission of its proposal; the entire civil design for the project should have been on the order of $62,000 "start to finish, including permits;" because no significant civil design work had been done prior to relocation of the borrow area, appellant's lost design costs were "on the order of $5000 at most;" and, some "additional storm drainage piping" was likely required by the change. (R4, tabs 228, 229) This information was later transmitted to the contracting officer for negotiations leading to Modification No. P00002 (tr. 5/19-20, 44-49).

63. On 29 May 1996, the Navy again asked appellant to submit the additional information relating to the REA originally sought in the Navy's 20 March letter (finding 52). The letter also noted appellant's failure to submit its project schedule to the government and, because no time extension had been granted to date, the assessment of liquidated damages was scheduled to commence per the contract on 25 October 1996. (App. supp. R4, tab 80; R4, tab 132)

64. After receiving no additional information concerning the REA, the Navy ROICC sent appellant a letter dated 21 June 1996 "to resolve the issue." The letter

divided and discussed the dispute in three categories: redesign of site layout required by the exclusion area; design and construction of the storm water system at Site A; and, additional design and construction costs at Site C. With respect to required redesign caused by the exclusion area, the ROICC noted that LJI had been provided with a 60% larger borrow area and that at the pre-design stage any minor relocation of the housing units could be simply accomplished by shifting the units around on the required CAD drawings when they were prepared. Regarding Site A, the ROICC emphasized that the contract required appellant to design the system but appellant failed to: contact Glenview to determine its standards as required by the specifications, hire a local civil engineer prior to November 1995, exercise a reasonable degree of care investigating the site and recognize the significance of the drainage issue that was made apparent by the presence of the twin culvert drains at the site. The ROICC also noted that even though appellant had not investigated Glenview requirements, the government was willing to consider additional costs that might arise from Glenview's "request" that drainage be provided away from the cemetery to the extent that appellant could demonstrate any increase from the design included in the proposal/contract. However, the ROICC reiterated that the supporting information requested in the 20 March 1996 letter had never been submitted by LJI. As a result of the Navy's analysis, the ROICC concluded that appellant's REA lacked merit. (App. supp. R4, tab 83)

65. Appellant's architect submitted what it termed "100% documentation" to the Navy on 26 and 28 June 1996 (R4, tab 128; app. supp. R4, tab 84).

c. Commencement of Construction and Completion of Design

66. On 19 July 1996, the Navy issued a notice to proceed with clearing, grubbing and mass grading. LJI started on-site construction on 24 July 1996. Appellant also proceeded with certain construction without receiving notices to proceed. For example, it commenced excavation and utility work on 1 August 1996, prior to issuance of the Notice to Proceed for that work on 21 August 1996. (App. supp. R4, tabs 1, 3, 82A, 86, 127, Jackmond at chart 1; R4, tab 123, 127)

67. Appellant did not obtain the required utility and building permits from Glenview and cognizant state agencies until 23 August 1996 (app. supp. R4, tab 3 at S-2; R4, tabs 5, 203; tr. 1/180-81, 2/64-65).

68. Appellant submitted its NAS to the Navy on or about 17 September 1996 (R4, tabs 116, 126, 132, 140; app. supp. R4, tabs 81A, 82A, 89). The schedule received by the Navy in September failed to comply with requirements for phased construction found at paragraph 3.6.1.1 of specification section 00911. Nevertheless the Navy determined that it would use it for progress payment purposes. (R4, tabs 5, 116)

69. On 19 September 1996, appellant received the Navy's authorization to proceed with the excavation and pouring of concrete footings and foundations, curbs, gutters and roads, contingent upon approval of the proper submittals and receipt of necessary permits (R4, tab 122; app. supp. R4, tab 82A).

70. On 20 September 1996, appellant resubmitted its 5 March 1996 REA. Appellant stated that it would respond "more specifically" to the ROICC's 21 June 1996 letter (finding 64) by separate letter. The letter also stated that it was not a request for a CO decision. (App. supp. R4, tab 81A; R4, tab 120)

71. On 23 September 1996, appellant requested a time extension of "approximately" 122 working days or a direction to accelerate construction for "impacts encountered during the Initial and Design Phase of the project." (App. supp. R4, tab 81A at 2; R4, tab 119)

72. By letter of 24 September 1996, LJI complained of the "Navy's lack of response to [appellant's REA]" and the government's failure to issue NTPs that would mitigate the delay. Accordingly, appellant stated that it would "proceed with constructive acceleration." (App. supp. R4, tab 82A)

73. The parties held a final design review conference on 2 October 1996. The Navy later directed appellant to submit the "Original Design Documents" required by specification section 00911, paragraph 3.5.2 incorporating the final design comments that had been discussed and accepted by the parties. (R4, tabs 5 at 00261, 109) The vast majority of the comments and items listed for revision had no relation to the storm water drainage issue (app. supp. R4, tab 95 at 1-27).

74. We conclude based on the entire record that government reviews of the design submissions were reasonable and timely given the piecemeal manner of their transmission and the numerous defects therein.

75. On 25 October 1996, the Navy responded to appellant's 23 September 1996 request for a time extension. The government repeated its 21 June 1996 (finding 64) request for "justification or substantiation for a time extension." (App. supp. R4, tab 83A) Absent further substantiation, the government "assume[d] that the 'impacts encountered'" were the same as previously addressed in the REA. The Navy indicated that appellant should request a final decision if it disagreed with the government's prior rejection of its REA. Absent justification for a time extension, the government declined to order appellant to accelerate. It stated that it expected completion by the contract completion date and that liquidated damages would be assessed. (*Id.*)

76. At a meeting between the parties on 13 November 1996, appellant stated that it "would like to re-introduce the REA, with additional information" (R4, tab 107).

77. On 5 December 1996, LJI informed the government that LJI's REA presentation would be postponed into the next year and that the 100% design documents would be delivered as soon as possible. In addition, appellant agreed to meet with the Navy to finalize negotiations for the "Credit/Add items" that arose during the design phase. (R4, tab 110 at 00827)

78. On 6 December 1996, appellant asserted that the government had directed appellant at the meeting of 13 November 1996 to "incorporate all 100% review comments, RFI responses, cost reduction items and as-built information into the Final 100% Contract Drawings." Appellant maintained that "[t]his requirement is to be accomplished at project close-out" and therefore the direction constituted a change to the contract. (R4, tab 111)

79. On 11 December 1996, the Navy informed appellant in response to the 6 December letter that it was required by specification section 00911, paragraph 3.5.2 to submit Original Design Documents (R4, tab 109). The Navy advised appellant that it was not required to incorporate as-built or RFI responses into its Original Design Documents but it might be advantageous to do so (*id.*; *see also* app. supp. R4, tab 182). A later letter of 21 February 1997 also advised appellant that RFI and as-built information was not required to obtain approval of the 100% design documents (app. supp. R4, tab 93). The contract required appellant to maintain two current sets of record drawings at the site showing all variations as construction progressed and conditions encountered. Both partial and final payments were conditioned on compliance with this requirement to maintain current "marked" drawings. (R4, tab 5, ¶ 1.5 at 00209)

80. On 19 December 1996, the Navy authorized appellant to proceed with all rough-in activities (app. supp. R4, tab 182).

81. On 14 January 1997, appellant informed the Navy that it would submit an "up-dated" REA with the supporting data requested by the Navy (R4, tab 101 at 00806). The Navy was withholding liquidated damages by this date (R4, tab 104).

82. On 17 January 1997, appellant alleged that the government's refusal to grant time extensions constituted constructive acceleration and that it was increasing its crew sizes to meet the unextended contract completion dates (R4, tab 100).

83. On 28 January 1997, the government responded that appellant was "undermanning the job based on [LJI's] own manpower loaded schedule" (app. supp. R4, tab 89A). The Navy also complained that appellant had repeatedly failed to supply

adequate supporting documentation as promised without which appellant's claims could not be reevaluated (app. supp. R4, tabs 89A, 90).

84. In addition, on 28 January 1997, the Navy issued a second cure notice stating that both Phases A and B were late and the 100% design documentation had not yet been submitted necessitating piecemeal issuance of NTPs to "keep the project moving" (app. supp. R4, tab 89A).

85. On 4 February 1997, appellant admitted that it had not yet accelerated pending the outcome of negotiations on a forthcoming REA regarding the problems in the civil portion of the work. Appellant stated that the REA would be submitted on 26 February 1997. It also admitted that after commencement of construction its progress had been as anticipated. (R4, tab 97 at 00789-90)

86. On 5 February 1997, the Navy agreed to defer any action on the cure notice until appellant submitted its revised REA and final design documents on 26 February 1997 (R4, tab 97).

87. On 7 February 1997, the Navy advised LJI that it observed, "no evidence [of acceleration] . . . the project is still undermanned, progress is slow, and your schedule continues to slip" (R4, tab 97).

88. The record reflects that prior to 10 February 1997, appellant performed some activities that were not on the critical path earlier than anticipated. There is no persuasive evidence that any extra effort with respect to these activities accelerated completion of any phase of the schedule. (R4, tab 96; tr. 3/103-04)

89. On 20 February 1997, LJI claimed that it had accelerated. It noted that the schedule was not "slip[ping]" but rather was inaccurate and needed to be updated. (R4, tab 96)

90. Appellant submitted "100% Final Review Drawings" on 26 February 1997 (R4, tab 89).

91. On 12 March 1997, appellant made a presentation to the Navy supporting its REA. The meeting resulted in the Navy's determination that there were "possible" entitlement areas within the REA for purposes of responding to the Navy's cure notice. (R4, tab 92) According to the Navy's 13 March 1997 letter, the areas of "possible" entitlement, with associated cost and time, were as follows:

1. Shifting of the Borrow Pit:	Cost	Time
a. Cost and time to re-plot site A & C.	$5,968	14 days
b. Cost and time to move one building to Site C.	$45,536	(incl.)
2. Additional Civil/Storm Water at Site C:		
a. Cost of civil/storm system above RFP requirements.	$91,815	Concurrent
-Associated engineering costs w/Site A	$5,964	
Total if 100% of these REA items are approved;	$149,283	14 days

(*Id.*)

92. The letter anticipated a further meeting "next Wednesday" in which appellant was to provide "breakdowns of original RFP required costs, . . . actual costs, and justification as to how, why, and to what extent these items were caused by the Government" (*id.).*

93. On 13 March 1997, the Navy also indicated to appellant that its 12 March presentation was not an adequate response to the 28 January cure notice. The letter gave appellant an additional 10 days to present additional excusable causes of delay other than the "possible" areas of entitlement recognized by the Navy at the 12 March meeting, and a plan for completing the contract. (R4, tab 91)

94. On 21 March 1997, LJI reasserted its belief that the grounds set forth in its REA entitled it to a time extension that would put it on schedule (R4, tab 88). Appellant stated that it would accelerate completion of the project working through the weekends and complete the phases of the project on the following dates:

Phase A (Community Building):	May 1, 1997
Phase B (20 Units):	June 1, 1997
Phase C (20 Units):	July 1, 1997
Phase D (20 Units):	August 1, 1997
½Phase E (20 Units):	September 1, 1997
½Phase E (20 Units):	October 1, 1997

(R4, tab 88 at 2)

d. Liquidated Damages

95. The contract included FAR 52.212-5, LIQUIDATED DAMAGES – CONSTRUCTION (APR 1984) – ALTERNATE I (APR 1984) which stated in part:

> (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government as liquidated damages, the sum of the amounts as listed below for each calendar day of delay. If more than one phase of the work is in arrears at the same time, damages may be assessed concurrently.
>
> | | |
> |---|---|
> | PHASE A: | $252.00 PER DAY |
> | PHASE B: | $222.00 PER UNIT PER DAY |
> | PHASE C: | $222.00 PER UNIT PER DAY |
> | PHASE D: | $222.00 PER UNIT PER DAY |
> | PHASE E: | $222.00 PER UNIT PER DAY |
> | PHASE F: | $222.00 PER UNIT PER DAY |
> | PHASE G: | $222.00 PER UNIT PER DAY |
> | OPTION 1: | $222.00 PER UNIT PER DAY |

(R4, tab 5, § 00720 at 00191)

96. Appellant's 21 March 1997 letter also asserted that the liquidated damages rates for delayed completion of the housing units were punitive and an unenforceable penalty. Appellant proposed that the Navy reduce the amount, defer imposition until final payment and expeditiously resolve its Site A claim. (R4, tab 88 at 00757-58) There is no contention or evidence that the daily liquidated damages rate for delayed completion of the Phase A community center, *i.e.*, the first phase of the project, was excessive or otherwise constituted an unenforceable penalty.

97. The Navy deferred imposition of liquidated damages related to the housing units until final payment (tr. 2/126; R4, tabs 75, 253). LJI acknowledged that the Navy had agreed that the specified $222 per unit per day rate for the housing units (Phase B and subsequent phases/options) was excessive (tr. 1/192). Nevertheless an indeterminate amount of liquidated damages related to the housing units was actually withheld at the original per diem rate from payments due appellant and then released (in 1997) (R4, tabs 75, 84, 87, 88, 104; app. supp. R4, tab 89A) At the hearing, the government conceded that the rate ($264/day) used for delayed completion of the Phase A community center should have been $252 per day. The government also noted at the hearing that the

beneficial occupancy dates for 16 units in Phase D should have been four days earlier and there were possible errors as to Phase B. (Tr. 6/22, 27, 30-31)

98. The total amount of liquidated damages ultimately assessed, after consideration of the time extensions granted by modifications discussed *infra*, was $458,769. Of this amount, $84,744 pertained to the delayed completion of the community center, Phase A of the contract. (R4, tabs 22, 25)

99. On 25 March 1997, the Navy indicated that it had decided not to terminate the contract for default (R4, tab 87).

100. The Navy approved appellant's 100% design, with the exception of landscaping, on 27 March 1997 (app. supp. R4, tab 100).

101. By letter to appellant of 29 April 1997, the Navy recounted the results of negotiations regarding appellant's REA and requested appellant to confirm its agreement on the following:

> 1. Shifting of the Borrow Pit:
> Design costs & reploting [sic] of site A & C: $3,021
> Costs resulting from shifting of Borrow Pit: $11,094.43
> 2. Additional Civil/Storm Water at Site C:
> Design/engineering costs: $5,240
> Cost of civil/storm system: $66,396.50
> Total: $85,751.93
>
> 3. It was agreed that a no cost time extension of the 14 days requested for these items would be accepted by the Government.

(R4, tab 86)

e. The Delay-Related Modifications

102. Pursuant to bilateral Modification No. P00002 (Mod. 2), bearing an effective date of 9 January 1998, the parties agreed that appellant was entitled to a 20 calendar day time extension for Phase B and a price adjustment of $96,595 for the following items:

> PC #000004: 1. All costs associated with the redesign of the site plan (layout) at Sites "A" and "C" resulting from Government introduction of the Exclusion Area.

> 2. All redesign and construction costs at Site "C", including additional Civil redesign and storm water system improvements due to Village of Glenview requirements.
>
> 3. All additional road, curb and gutter, and site lighting at Sites "A" and "C" required as a result of Government introduction of the Exclusion Area.

(R4, tab 6)

103. In Mod. 2, appellant released the government from further liability for "equitable adjustments attributable to such facts or circumstances giving rise to the 'Proposal for Adjustment'." (*Id.*) The redesign and construction costs referenced in the second item of Mod. 2 quoted above encompassed work required to satisfy Glenview's request to pipe storm water rather than route it overland to the cemetery (tr. 3/21-22). Appellant's witnesses participating in the negotiations testified that Site A storm drainage work was not considered (tr. 1/172, 182-84, 2/105-12). No government witness with knowledge of the negotiations testified concerning their scope.

104. Pursuant to bilateral Modification No. P00004 (Mod. 4) having an effective date of 28 January 1998, the parties agreed to reduce the rates for delayed completion of each of the housing units to $26.76 per day. Although Mod. 4 indicates that the revised rate was "$26.76 per day," appellant's project manager, who negotiated and executed the modification on behalf of appellant, testified that the new agreed rate was $26.76 per unit per day (tr. 1/146). There is no dispute that the intended revised rate was $26.76 per unit per day (*see* app. br. at 31). The daily rate specified for the Phase A community center remained unchanged at $252.00. The contract price and completion dates were not revised. The modification contains no release or reservation of rights. (R4, tab 6)

105. Pursuant to bilateral Modification No. P00005 (Mod. 5) also bearing an effective date of 28 January 1998, the parties agreed to various additive and deductive changes primarily involving the interior design of the housing units and community center and the addition of a fence and a sidewalk at Site C. The parties also agreed to substitute 24 Site C option units for the Site A units originally scheduled to be constructed in Phase B. As a consequence, the first Site A units were not due until 8 May 1997, the Phase C delivery date. The net result was an agreed price reduction of $5,627.00 and a 60-day extension of the contract performance period for each of Phases B through F. (R4, tab 6; tr. 1/79, 127-28, 145, 187, 2/142) There is no mention of storm water drainage in the modification and the record otherwise contains no definitive

evidence linking the time extension to storm water issues. According to appellant's project manager the time extension was for the "additional work that we ended up having to do" as a consequence of the extra work required by the modification (tr. 2/116). Although Mod. 5 references negotiations regarding "PC #000009" that PC is not in the record. The modification's release also references a "Proposal for Adjustment" that is not in the record. (R4, tab 6)

Decision—Design Period and Delay-Related Claim Items

Resolution of claim items 1 (Additional Civil Improvements) and 8 (Additional Plan Review/Architectural Design) primarily controls whether appellant is entitled to relief for delay. To an extent, LJI's allegations regarding the design process overlap and/or are intertwined.

With respect to claim item 1, appellant argues that it experienced delays and increased costs as a result of the government's excessive requirements for designing the storm water drainage system, the failure of the Navy to disclose the 1990 Harza study and site revisions necessitated by the contaminated exclusion area. Although the legal theories for recovery are not clearly articulated in appellant's briefs, LJI essentially contends: 1. that it encountered a Type I differing site condition, *i.e.*, higher storm water flows than represented in the contract; 2. The Navy failed to disclose superior knowledge, *i.e.*, the 1990 Harza Report; and, 3. it was not fully compensated by Mod. 2 for the changed location of the borrow pit.

With respect to claim item 8, appellant contends more generally that the Navy imposed added design requirements and failed to timely review design documents as well as appellant's REA.[4]

As a consequence of these delays, appellant claims it is entitled to a time extension of 267 days. It further contends the Navy's failure to grant a time extension caused LJI to accelerate (claim item 12), incur additional winter protection costs in the winter of 1996/1997 (claim item 9) and resulted in the improper imposition of liquidated damages (claim item 14).

Before reaching the merits of appellant's claims, we address the government's contention that appellant's claim for additional compensation with respect to Site A is

[4] In various correspondence and other documents contained in this voluminous record, appellant has alleged other possible theories of entitlement. These contentions and their factual underpinnings have not been fully developed much less briefed and we consider them to have been abandoned and do not address them in this opinion.

barred by Mod. 2. The government bears the burden of proving the affirmative defense of accord and satisfaction. *E.g., Southwest Marine, Inc.*, ASBCA No. 39472, 93-2 BCA ¶ 25,682 at 127,762. We consider that Mod. 2 only partially resolved issues associated with the site revisions and did not constitute a complete accord and satisfaction insofar as Site A is concerned. Most significantly, the plain language of the modification itself distinguishes between Site A and Site C, awarding compensation for storm drainage construction costs associated with the latter but not the former. The proposed change (PC# 000004) is not in evidence. No record of negotiations is included with the modification**.** Only appellant offered testimony from participants in the negotiations preceding execution of the modification. According to those witnesses, storm drainage costs for Site A were not included. The government failed to rebut that testimony. Our findings also track the contemporaneous correspondence regarding the negotiations. That correspondence reflects clear differentiations made by the government between Site A and Site C. Whereas the Navy conceded liability for the Site C revisions and construction costs, it consistently challenged liability for Site A storm water drainage work. At best, Mod. 2 is ambiguous with respect to the scope of its coverage and fails to unequivocally exclude appellant's Site A claim. The government has failed to satisfy its burden of proving its affirmative defense.

Nevertheless, we consider that appellant's claims regarding the Site A storm drainage work lack merit except with respect to the changed location of the borrow pit. We discuss the detailed reasons for that conclusion and other aspects of the delay-related claims below.

Claim Items 1 and 8

1. Type I Differing Site Condition and Allocation of Storm Drainage Design Responsibility

The gravamen of much of the dispute in this appeal flows from appellant's general complaint that it was required to perform "unfunded preliminary design studies" (app. reply br. at 8) that exceeded its contractual design responsibilities. Appellant alleges primarily that the government required it to perform extra design work on the storm drainage system.

Fundamentally, appellant misconstrues the extent of its design responsibility. Its interpretation of the contract in that respect is unreasonable. Under the performance requirements of the specifications, LJI was required to design a storm drainage system that included piping capable of handling a 10-year storm including runoff from adjacent properties. Flows in excess of the 10-year storm could be routed offsite by overland swale rather than through pipes. The final design was to consider the results of a soils

report to be prepared by appellant after award. Appellant, not the Navy, was to use the "rational method" to compute anticipated flows, size the pipe and design the swale.

Appellant's differing site conditions (DSC) allegations are premised on the view that the Navy had already done the storm drainage design work for it. LJI points to parts of the solicitation drawing package noting depictions of various sizes of pipe on the southern boundary of Site A. Based on these drawing "indications," appellant considers that the Navy thought small size pipe (12 to 36-inch) would be sufficient to handle the flows. Since appellant eventually selected a design option requiring installation of 72-inch pipe, it concludes that the drawings misled it.

These contentions are without merit. First, no reasonable contractor would assume that the Navy had developed a storm water drainage design relieving LJI of the design responsibilities noted above. It is axiomatic that a contract must be interpreted as a whole giving reasonable meaning to all its provisions. *Hol-Gar Manufacturing Corp. v. United States*, 351 F.2d 972 (Ct. Cl. 1965). Appellant's interpretation fails to give effect to contractual provisions detailing its storm drainage design responsibilities rendering them essentially meaningless and superfluous. *See Gould Inc. v. United States*, 935 F.2d 1271, 1274 (Fed. Cir. 1991); *United States v. Johnson Controls, Inc*., 713 F.2d 1541, 1555 (Fed. Cir. 1983). Appellant's own civil engineer noted that the drawings were only preliminary at best. The title sheet of the solicitation's drawings package expressly indicated that any design concepts and information were required to be verified prior to development of the "FINAL" design by appellant and were subject to revision if required elsewhere by the RFP. This cautionary note was reiterated in the specifications. In view of the broad scope of appellant's design responsibilities, appellant's alleged reliance on purported "indications" that drastically reduced those duties was unreasonable. *Cf. Pacific Alaska Contractors, Inc. v. United States*, 436 F.2d 461 (Ct. Cl. 1971). Moreover, to the extent appellant assumed that it need only follow the purported RFP "design," that supposition was not only unreasonable but also raised patent conflicts with its design responsibilities that it should have resolved prior to proposal submission. *See Comtrol, Inc. v. United States*, 294 F.3d 1357, 1365 (Fed. Cir. 2002); *Wickham Contracting Co. v. United States*, 546 F.2d 395, 398 (Ct. Cl. 1976); *Space Corp. v. United States*, 470 F.2d 536, 538 (Ct. Cl. 1972).[5]

Second, there is no careful and considered analysis of what the drawings purported to "indicate." Appellant has failed to explain, much less brief the reasonableness of its interpretation of any contractual indications. The pipes in the solicitation drawings are

[5] For similar reasons, we reject LJI's related argument that the government warranted the adequacy of the storm drainage design specifications and they were defective. *United States v. Spearin*, 248 U.S. 132 (1918).

ambiguous "indications" of site conditions at best. Details concerning the specific pipe sizes and routing and the swale that would complement any piping to handle larger flows are not addressed by appellant. The plans depict several piping systems and we cannot conclude without probative engineering guidance what these depictions reasonably implied with respect to a feasible design of the storm drainage system had the Navy not excluded the borrow pit.

Third, the likelihood of high storm water flows would have been apparent to appellant if it had performed an adequate site investigation. A site investigation would have confirmed drawing "indications" of the presence of the twin 60-inch culverts and potentially "huge flows" from off-site water sources. The "obvious" significance of the large culverts to the drainage design should have been recognized by appellant's designers. Because high flow rates were reasonably implied by the discernible site conditions and drawings, appellant's site investigation was insufficient. The condition was not "unknown" or latent. *Cf. H.B Mac, Inc. v. United States*, 153 F.3d 1338, 1346 (Fed. Cir. 1998); *Vann v. United States*, 420 F.2d 968 (Ct. Cl. 1970).

To the extent that appellant contends that the swale prescribed in the specifications "would not work," there is no persuasive evidence detailing why it would not have been a satisfactory complement to drainage pipes for large storms (app. reply br. at 8). No detailed design analysis in the record supports appellant's contention. In fact, overland routing of high flows was an option proposed by LJI's civil engineer. Appellant elected to install the larger pipe because it was cheaper than constructing a pipe and swale system.

LJI argues that our decision in *M.A. Mortenson Co.*, ASBCA No. 39978, 93-3 BCA ¶ 26,189 should control the disposition of this appeal. In *Mortenson,* the Board found that the quantities indicated by the government were defective. Here, appellant has not proved that the plans were defective putting aside the change relating to the exclusion area. Therefore we need not further consider the details of the *Mortenson* case.

2. The Harza Report

Appellant seeks recovery for what it describes as "Additional Civil Improvements" (*i.e.*, claim item 1) on the basis that the government failed to disclose the 1990 Harza study. LJI alleges that the report constituted "superior knowledge" that should have been disclosed to appellant before final proposal revisions. LJI first obtained the 1990 report at the October 1995 design progress meeting, the only one of three Harza studies in the documentary record.

The report was not "superior knowledge." The government is not required to disclose information that is reasonably available from other sources. *See H.N. Bailey*

& Assocs. v. United States, 449 F.2d 376 (Ct. Cl. 1971); *Ambrose-Augusterfer Corp. v. United States*, 394 F.2d 536, 547 (Ct. Cl. 1968); *Johnson Controls World Services, Inc.*, ASBCA Nos. 40233, 47885, 96-2 BCA ¶ 28,458 at 142,140-41 (contract placed offerors on notice of Department of Labor's role and appellant's duty to insure compliance with DOL requirements); *Atlas Constr. Co.*, PSBCA No. 267, 76-2 BCA ¶ 12,217 (contractor merely had to ask for public Water District charges). The report was not in the exclusive custody of the Navy. It was publicly available and readily obtainable from Glenview before submission of proposals. Glenview's storm drainage standards were integral to the civil design but appellant did not consult the Village prior to award. Appellant in fact was given a copy by Glenview when it first commenced major work on the civil design after award.

Moreover, the materiality or "vital" nature of the report is dubious. The 1990 report was general in nature and not site specific for the project. The calculations in the report were not prepared in accordance with the contractually prescribed "rational method." To the extent the data could be considered relevant, the calculations were outdated, failing to reflect subsequently-installed storm runoff protections. Appellant in revising its design did not rely on the information. It used more up-to-date data and studies. The report cannot reasonably be said to have had a material impact on LJI's performance.

At most, the Harza data was cumulative of other site and contractual information that should have placed appellant on notice of potentially high water flows and the extent of its design responsibilities to control those flows. Appellant failed to perform an adequate site or civil engineering investigation and analysis of storm water drainage issues. There is no liability where a reasonable analysis of solicitation documents or the work site provides adequate notice of the conditions to be anticipated. *Ambrose-Augusterfer Corp. v. United States, supra*; *General Maintenance & Engineering Co.,* ASBCA No. 14691, 71-2 BCA ¶ 9124 (condition of bridge materials could have been determined by adequate site investigation). We note in particular that the twin 60-inch culverts and 8-acre foot detention pond/borrow pit indicating high flows were shown in the solicitation drawing package and were readily discernible at the site.

3. The Changed Location of the Borrow Pit/Detention Pond--Impact of Site Revisions and Loss of the Exclusion Area

Appellant maintains that post award changes to Site A increased the time and cost of performance. LJI contends that it started its design work once it was awarded the contract but the changed borrow pit location caused it to reconfigure and redesign the layout for Site A.

Impacts caused by the site revisions were recognized by the Navy. The parties negotiated an equitable adjustment culminating in their execution of bilateral Mod. 2. As discussed above, the equitable adjustment only partially compensated LJI for the changes. We have rejected the Navy's contention that the Mod. 2 constitutes an accord and satisfaction.

As the proponent of a claim, appellant bears the burden of proving liability, causation and resultant injury. *E.g., Wilner Constr. Co. v. United States,* 24 F.3d 1397, 1401 (Fed. Cir. 1994) (*en banc*); *Electronic and Missile Facilities, Inc. v. United States,* 416 F.2d 1345, 1355 (Ct. Cl. 1969). Evidence of some damage resulting from the change or other claim event is necessary to establish entitlement. *Cosmo Constr. Co. v. United States,* 451 F.2d 602, 606 (Ct. Cl. 1971); *Superior Abatement Services, Inc.,* ASBCA Nos. 47118, *et al.,* 94-3 BCA ¶ 27,278 at 135,897; *Western States Management Services, Inc.,* ASBCA Nos. 37504, *et al.,* 92-1 BCA ¶ 24,663 at 123,040; *G&O General Contractors,* ASBCA No. 27315 83-2 BCA ¶ 16,890 (no evidence that differences in equipment/performance methods increased appellant's costs); *Logistical Support, Inc.,* ASBCA No. 26941 82-2 BCA ¶ 15,995 (appellant failed to prove cost of new tile more costly to maintain than pre-change tile).

The government concedes that appellant's costs and time were increased by the changes to the site to the extent recognized in Mod. 2. The present dispute involves whether appellant is entitled to a further equitable adjustment. The parties have been unable to resolve this issue and have fully tried and briefed their dispute in this appeal. It was the primary issue litigated and the focus of appellant's REAs since early in the design stage. To establish entitlement in these circumstances, appellant must prove that it is entitled to a greater equitable adjustment than awarded by the contracting officer. *Lemar Constr. Co.,* ASBCA Nos. 31161, 31719, 88-1 BCA ¶ 20,429 at 103,333 (no entitlement where contractor failed to prove equitable adjustment unilaterally awarded by contracting officer was inadequate); *Zinger Constr. Co.,* ASBCA Nos. 28788, 32424, 87-3 BCA ¶ 20,196 at 102,286-87, 102,290-92 (no proof that appellant entitled to a further equitable adjustment for various changes and differing site conditions than unilaterally awarded by government); *see also Lectro Magnetics, Inc.,* ASBCA No. 15971, 73-2 BCA ¶ 10,112 at 47,512 (no proof that substituted pump cost more or took longer to install than pre-change pump). For entitlement purposes, appellant need not quantify the amount of increased costs but it must prove that they were caused by the change and/or the extent of any delay.

We consider that appellant has established entitlement to an equitable adjustment for the loss of the exclusion area and relocation of the borrow/ponding area. The Navy's civil engineer tasked with reviewing the impact of the change on the Site A work found that "some additional storm drainage pipe" was likely required and that additional civil design costs were incurred. Neither the additional design or construction costs were paid

pursuant to Mod. 2. This evidence suffices to establish entitlement. The details of the monetary adjustment are subject to negotiation by the parties on remand.

We further consider that the increased work caused by the change excusably delayed LJI entitling it to a time extension but not delay damages. For reasons discussed below, we have concluded that there were other concurrent contractor-caused delays during the design period. Taking into consideration all of the factors impacting appellant's progress, the lack of contemporaneous scheduling information and factors concurrently delaying LJI during the design period, we conclude that appellant is entitled to a 20 day time extension for each phase of construction at Site A. We emphasize that civil site preparation was the first category of work to be performed and delays to that work necessarily extended commencement of follow-on work. We also consider that the 20-day time extension negotiated by the parties for the Site C storm drainage revisions best approximates the extent of the excusable delay resulting from the changes to Site A.

However, we emphasize that but for the site revisions, appellant would not be entitled to recover additional design and construction costs associated with the storm water system. Accordingly, on remand it is incumbent on LJI to demonstrate the relative difficulty of the work before and after the changes to the site. It must isolate the consequences of the change.

Claim 1 is sustained as to entitlement to the extent indicated.

4. Government Review of Design Documentation and the REA (Claim Item 8)

Appellant contends that the government took too long to review its design documents and the REA. According to LJI, the government's review of the 40% and 80% design should have been a minor, "over-the-shoulder" analysis of its design.

The short answer to these assertions is that appellant's design documentation for months was incomplete, submitted piecemeal, error-filled, replete with variations from contractual requirements and otherwise inadequate. *Cf. Maysons Piping Contractors, Inc.*, ASBCA Nos. 28446, 29036, 86-1 BCA ¶ 18,626 at 93,592. These design deficiencies necessitated a continuing discourse with the government intended to assist LJI in meeting the requirements of the contract. Because of the extensive deficiencies in the design documentation in and around the 40% and 80% review points, an "over-the-shoulder" review could only have been a first step in resolving them.

Appellant has not shown that the actions and comments of the government reviewers were wrongful. With respect to the final design package, the contract granted the government a 60-day review period. There is no showing that the Navy exceeded the period. Insofar as the continuing design discourse and communications prior to

submission of the 100% design are concerned, we are unable to find that the periods taken by the government to address the extensive issues were unreasonable.

Numerous problems with the design documentation did not relate to storm drainage issues. These problems necessitated frequent resubmissions and extensive discussions. However, appellant has failed to prove that the government actions were either in error or dilatory.

In general, LJI emphasizes that there are distinctions between a "design/build" contract and a "design/award/build" contract. According to appellant, the contract was the former but it became the latter because of the unanticipated amount of design work that it was required to perform. However, LJI fails to address the specific contract provisions in this case. It provides no precise allegations explaining how the Navy required more than the contract. Except as discussed in connection with claim items 2 through 6, appellant fails to challenge specific determinations of the government reviewers. Particulars not generalities were required.

LJI also generally contends that it was not permitted to change the design submitted in its technical proposal. To the extent that appellant has pointed out specific examples, they are addressed elsewhere in this opinion and found without merit. However as a general proposition, the structures, details and finishes that appellant offered to provide in its proposal became part of the contract. It could not offer features and later provide lesser quality alternatives without identifying the variations and generally offering them at a reduced cost to the Navy. Absent precise proof concerning the alleged "performance specification" that the government did not permit it to vary, appellant was required to build what it proposed.

Appellant also objects to Glenview's review of the storm drainage design. This contention ignores provisions of the contract that not only contemplated Glenview review but also the requirement that it obtain permits for the work from Glenview as well as other Illinois state entities. Appellant's misunderstandings regarding Glenview's role and involvement prolonged the design stage of performance. To the extent that Glenview's needs resulted in the Navy's imposition of additional requirements with respect to Site C, appellant was granted an equitable adjustment by Mod. 2. There is no proof that Glenview caused extra work at Site A.

The protracted negotiations regarding appellant's REA also do not entitle appellant to a time extension. Voluntary negotiation of claims is a routine contract administration matter. Appellant also repeatedly promised, but failed in important part, to provide supporting documentation for its allegations. This failure continues to be reflected in the record before us. Moreover, appellant could have invoked the disputes process by requesting a final decision.

5. Lack of Proof of Delay and Concurrent Delay Generally

The record is replete with evidence that appellant was responsible for other delays during the development of the overall design in general and the storm water design in particular.

Appellant started the civil design work late. It waited to retain a civil engineer until November 1995 more than two months after contract award. Appellant seeks delay damages essentially from the award of the contract without deducting the period when it performed no meaningful civil engineering work. There is no persuasive evidence that LJI performed significant civil design work prior to the site revisions.

In short, multiple concurrent, contractor-caused delays are intertwined with any possible minor delays for which the government could be held responsible. Appellant fails to recognize, account for or segregate these other contractor-caused delays. Accordingly, it cannot recover monetary compensation for the periods involved. *E.g*., *Blinderman Constr. Co. v. United States*, 695 F.2d 552, 559 (Fed. Cir. 1982); *William F. Klingensmith, Inc. v. United States,* 731 F.2d 805, 809 (Fed. Cir. 1984); *Wunderlich Contracting Co. v. United States,* 351 F.2d 956, 969 (Ct. Cl. 1965); *Commerce Int'l Co. v. United States,* 338 F.2d 81, 90 (Ct. Cl. 1964).

Our findings also detail the numerous design defects unrelated to the storm water drainage that occurred throughout the various design phases and submissions particularly with respect to the architectural features of the housing units. The design involved multiple disciplines and engineering specialties. Problems pertaining to the civil design were for the most part subsumed within LJI's overall design deficiencies that necessitated repeated resubmissions. There is no allegation or persuasive evidence that any specific Navy comment regarding non-civil design issues was unreasonable or imposed extra work on appellant except to the extent discussed in connection with claims 2 through 6.

Appellant also failed to timely prepare submittals that were prerequisites to the start of construction. Appellant does not argue that these submittals were merely "administrative" and easily completed. In particular, there is no reliable contemporaneous NAS in the record for the design period. Appellant wholly failed to comply with its contractual responsibilities to timely provide performance schedules. No arguably adequate NAS was submitted for the first year of performance well after appellant had commenced construction, with or without limited notices to proceed from the Navy. The government had a contractual right to base any time extension on NAS submissions. Progress payments were also to be based on updated schedules. Appellant's failure to provide schedules deprived both parties of a valuable contract administration tool that was designed, *inter alia,* to contemporaneously identify and

provide notice of the impact of the claim events on completion of the construction phases. The contemporaneous absence of the required scheduling materials rendered the NAS tool useless during much of the period involved in this dispute and subject to after-the-fact manipulation and rationalization. It also frustrated analysis and resolution of appellant's REA.

The significant civil design options had been determined by early January 1996. The civil design was in all material respects complete by early March 1996. To the extent that design delays continued to afflict appellant after March 1996, those delays were not attributable to the storm water drainage civil design at Site A and are not defined with specificity in this record.

Claim Items 12 (Acceleration) and 9 (Winter Protection)

The essential premise underlying appellant's acceleration and winter protection costs claims is that it was at least excusably delayed by events associated with claim items 1 and 8. With the exception of the time extension of 20 days granted for claim item 1, we have rejected that premise.

The Federal Circuit Court of Appeals recently described the elements of constructive acceleration in *Fraser Constr. Co. v. United States*, 384 F.3d 1354, 1361 (Fed. Cir. 2004) as follows:

> A claim of constructive acceleration ordinarily arises when the government requires the contractor to adhere to the original performance deadline set forth in the contract even though the contract provides the contractor with periods of excusable delay that entitle the contractor to a longer performance period. 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.

Several of these elements have not been established by appellant. The *sine qua non* of acceleration is proof of excusable delay. *E.g.*, *Norair Engineering Corp. v. United States*, 666 F.2d 546, 548 (Ct. Cl. 1981); *Phillips Nat'l, Inc.*, ASBCA No. 53241, 04-1 BCA ¶ 32,567 at 161,102-03; *DANAC, Inc.,* ASBCA No. 33394, 97-2 BCA ¶ 29,184 at 145,152, *aff'd on recon.,* 98-1 BCA ¶ 29,454. We have concluded that appellant is entitled only to a 20-day time extension as a result of the changes that impacted the storm drainage design for Site A. The parties also agreed in Mod. 2 that LJI was entitled to a 20-day time extension for the Site C storm water drainage work. Even with the grant of these and all other time extensions (in other modifications), appellant still would not have timely completed the work according to estimates it made contemporaneous with any acceleration. There is no persuasive evidence that appellant accelerated prior to March 1997. According to LJI's projections at that time, Phases A and B would not be completed until 1 May and 1 June, respectively even if it accelerated (finding 94). LJI was late for reasons other than any excusable delay regardless of any acceleration.

The record also reflects that the information provided to the government, in particular scheduling information required by the contract, was generally insufficient. Appellant repeatedly offered to provide schedules and update its REA with information requested by the government but for the most part failed to do so.

Moreover, contrary to the phased construction completion schedule specified in the contract, appellant appears to have concentrated on activities that were not proven to be on the critical path to completing the phases in order. Updated scheduling information required by the contract was intended, *inter alia*, to identify acceleration efforts. Appellant has failed to explain how the schedules provided to the government demonstrated that work was accelerated by activities critical to phased project completion. This information is not self evident from unexplained scheduling data available. Moreover, the Navy contemporaneously indicated that available information demonstrated undermanning of the job, not acceleration.

Because appellant's delays were for the most part not government-caused, its claim for additional winter protection costs is also denied. The 20-day delay associated with claim item 1 did not cause appellant to incur the costs.

Claim items 9 and 12 are denied.

Claim Item 14—Liquidated Damages

Appellant seeks return of the amount of $458,769 in liquidated damages withheld from final payment by the government. The amount of appellant's claim is the amount of the withholding. The original liquidated damages rate for the housing units was revised by mutual agreement of the parties pursuant to Mod. 4. The unenforcability of the original penalty rate for the housing units is not in dispute. The Navy conceded the point in 1997. The Navy told appellant that the rate would not be enforced. The Navy also agreed not to withhold liquidated damages from progress payments during performance. The amount withheld from final payment with respect to the housing units was computed using the Mod. 4 housing unit rate not the original penalty rate. In short, the government's assessment with respect to the housing units is not grounded in the original clause. It is predicated on the new negotiated rate established by bilateral modification.

The government bears the burden of proving entitlement to the liquidated damages withheld. *E.g., Insulation Specialties, Inc.*, ASBCA No. 52090, 03-2 BCA ¶ 32,361 at 160,100-01 (and cases cited; noting also appellant's burden of proving its affirmative claims seeking monetary relief for alleged delays). We have concluded above that LJI is entitled to a 20-day time extension. The liquidated damages assessment must be adjusted accordingly. In addition, the government conceded at the hearing and we have found that certain other elements of the assessment were incorrect (finding 97). The appropriate modifications to the assessment are to be determined by the parties on remand. The record fails to establish any other basis for reduction of the amount withheld.

To that extent only, this portion of the appeal is sustained in part.

Further Findings of Fact--Playground Surface (Claim Item 2)

106. The contract specifications required the installation of a non-abrasive surface on the playground tot-lots' "fall zone" surface to prevent injury. A gravel surface is permitted outside the "fall zone." (R4, tab 5 at 00398)

107. During the contract's design phase, LJI indicated that the tot lots would be larger than the specified minimum size but would comply with the specifications (R4, tab 177).

108. At the 80% interim design review conference, appellant stated that it would install the "rubberized" (*i.e.*, the specified non abrasive) surface as well as pea gravel (R4, tab 227 at 5). Although the parties discussed various changes to the tot lots including reducing their size, they did not address changing the rubberized surface to pea gravel (tr. 4/142-43). Appellant's contemporaneous list of proposed changes as well as other contemporaneous evidence contain no mention of any promise by a government

representative that appellant could substitute pea gravel in "fall zones" in exchange for an increase in the size of the tot lots (R4, tabs 6, 230, 231, 237).

Decision—Playground surface

Appellant alleges that increasing the size of the tot lots was conditioned on substituting pea gravel for the specified rubberized surface. The contemporaneous record contains no record of the offer much less its acceptance by the government. To the extent that the overall size of the tot lots was actually increased, appellant either acted as a volunteer or was compensated for any increased costs in the overall modifications to the tot lots. Under either circumstance, appellant may not recover.

Claim item 2 is denied.

Further Findings of Fact—Road Base (Claim Item 3)

109. Solicitation Amendment No. 0003 included detail design sketches prepared by the Village of Glenview and stated that the sketches were to be considered mandatory, *i.e.*, prescriptive design requirements (R4, tab 5 at 00060).

110. One of the Village's sketches detailed the requirements for roads to be constructed by appellant. That sketch indicated that the road pavement was to contain eight inches of base aggregate material (BAM) installed in three layers. (R4, tab 5 at 00065; tr. 1/204, 4/215-16, 5/36-39) Appellant conceded that the RFP required 8-inch BAM. There is no evidence detailing appellant's interpretation of the sketch at the time it submitted its proposal.

Decision—Road Base

Appellant maintains that it was permitted to substitute its own road pavement design for that set forth in Amendment No. 0003. The assertion is without merit. The pavement detail sketch prepared by the Village was expressly stated to be a prescriptive, mandatory requirement. Appellant has failed to cite any provision of the contract granting it latitude to vary the sketch's BAM requirements.

Claim item 3 is denied

Further Findings of Fact—Sidewalk Width (Claim Item 4)

111. The contractor was required to install sidewalks along the street and within the interior of the housing project at both Sites A and C. The contract drawings depicted a "typical" sidewalk with a width of five feet without regard to whether the "typical"

sidewalk was along the street or in the project's interior. (R4, tab 5 at 00128-29; app. supp. R4, tab 20 at sheet 3; app. supp. R4, tabs 75, 146)

112. LJI alleges that it proposed four-foot sidewalks within the interior and five foot sidewalks along the streets (tr. 1/164-67). There is no contemporaneous document in the record supporting this allegation. LJI's proposed Site Plan contained interior sidewalks that were as wide as or wider than those shown along the streets (app. supp. R4, tab 153). There is no evidence that appellant relied on its claimed interpretation at the time of submitting its offer.

Decision—Sidewalk Width

Appellant claims that it was permitted to install four-foot sidewalks within the project's interior. The government contends that the claim is barred by accord and satisfaction and, in any event, is without merit because it is based on an unreasonable interpretation of the contract.

We need not reach the government's accord and satisfaction defense. Appellant's current interpretation of the contract is unreasonable and contrary to the interpretation reflected in its proposal. The "typical" sidewalk depicted in the pertinent drawing was not limited to sidewalks along streets. Absent some other contract provision addressing the width of sidewalks, the drawing controlled both street and interior sidewalks. Appellant also had failed to prove that it relied on its interpretation given the site plan submitted with its proposal.

Claim item 4 is denied.

Further Findings of Fact—Electrical (Claim Item 5)

113. During performance, appellant opted to change the type of wiring used in the electrical design. The wiring in question was not required by the contract. Nevertheless, the Village instructed appellant that the proposed substitute wiring was not allowed. LJI discussed the issue with a government representative and admits that it was told that LJI was not obliged to comply with the Village's requirement to provide the original wiring. There is no contemporaneous evidence of further discussions among the parties, including the contracting officer or the Village, concerning the issue. Appellant installed the original wiring anyway. (Tr. 1/167-68)

Decision—Electrical Wiring

Appellant claims its increased costs resulting from installation of the original wiring because the Village would not permit substitution. The claim lacks merit. The

Navy told appellant that the substitute wiring was permissible. Appellant installed the original wiring voluntarily not because it was directed to do so by the government. *E.g.*, *Len Co. & Assocs. v. United States*, 385 F.2d 438, 443 (Ct. Cl. 1967); *S-TRON*, ASBCA Nos. 45893, 46466, 96-2 BCA ¶ 28329; *Metric Constructors, Inc.*, ASBCA No 46279, 94-1 BCA ¶ 26,532, *recon. denied*, 94-2 BCA ¶ 26,827; *Bruce-Andersen Co.*, ASBCA No. 29558, 88-1 BCA ¶ 20,431. No change to the contract was ordered or directed by an authorized government representative. *Cf. MC II Generator & Electric*, ASBCA No. 53389, 04-1 BCA ¶ 32,569 at 161,169.

Claim item 5 is denied.

Further Findings of Fact—Quality Control (Claim Item 6)

114. LJI's vice-president testified that the "Navy" would not allow appellant's assistant quality control manager to also serve as a "civil" quality control inspector and there were related issues with the tot lots (tr. 1/169-70, *see also* tr. 2/147-49). There are no further details regarding this restriction.

Decision—Quality Control

Appellant's allegations are too general and vague to sustain its burden of proof. Among other things, the record does not indicate the identity and authority of the "Navy" official that imposed restrictions, or the time and other pertinent circumstances surrounding the alleged orders or directives. Nor does appellant otherwise detail how the contract was allegedly violated. We are unable to conclude that extra requirements were imposed or the contract was constructively changed.

Claim item 6 is denied.

Miscellaneous and Contract Retainage (Claim Items 10 and 13)

115. The sole "miscellaneous" matter briefed by appellant involves the requirements for a digital dialer for the Community Center's fire alarm system that would automatically call the Glenview Fire Department in the event of a fire (app. br. at 38-39). Appellant claims that an unidentified Glenview official required that the automatic dialing system be installed in lieu of a less costly type (tr. 1/171-72). There is no evidence that appellant was directed by any Navy official to install the digital dialing system.

116. Appellant contends that the government made deductions from the contract ("retainages") that it was not entitled to take. Certain of these deductions pertain to deductive items that were offset against additive items and addressed in Mod. 5 (finding

105, *supra*). The other items pertain to deductions taken in unilateral Modification P00006 (Mod. 6) which contained the following description of the items:

> PCO# 10 Delete W4 windows and fountain; change interior storage doors from double to single; delete utility room door; change closet and storage doors in master bedroom from double to single; and reduce bulk storage.
>
> Decrease -$65,488.00

(R4, tab 6)

117. Appellant offered credits to the government for the items deleted by Mod. 5 totaling $50,414 (R4, tabs 231, 237).

Decision-Miscellaneous and Contract Retainage

Appellant claims that it was required to install a more expensive fire alarm system. The source of any such "requirement" is uncertain. In any event, the Navy did not direct appellant to install the automatic dialing system. Absent an order from an authorized Navy official, the contract was not constructively changed and appellant is not entitled to recover.

The deductions taken by the government involve two modifications. The deductive items in Mod. 5 were the result of the bargaining preceding execution of that bilateral modification. Mod. 5 involved both the addition and deletion of work. An unconditional release was included. Appellant offers no reason for avoiding the release. To the extent appellant's contract "retainage" claim is based on deductive items considered in the Mod. 5 negotiations, the claim is barred. Mod. 5 operated as an accord and satisfaction.

With respect to the Navy's unilateral deductions reflected in Mod. 6, the government bears the burden of proving that it is entitled to the deductions. *See Nager Electric Co. v. United States*, 442 F.2d 936, 946 (Ct. Cl. 1971); *Fru-Con Constr. Corp.*, ASBCA Nos. 53544, 53794, 05-1 BCA ¶ 32,936 at 163,164-65; *Michael-Mark Ltd.*, IBCA Nos. 2697, *et al.*, 94-1 BCA ¶ 26,453 at 131,634. Appellant conceded that the government is entitled to credits of $50,414 for the deleted items rather than the $65,488 estimated by the government and set forth in Mod. 6. Because the only dispute between the parties involves the value of the deleted items, this portion of the appeal is denied as to entitlement and remanded to the parties for determination of quantum.

Claim items 10 and 13 are denied.

CONCLUSION

Claim items 1, 11 and 14 are sustained to the extent noted herein. Those claims, as well as claim item 13, are remanded to the parties for determination of quantum. The remainder of the appeal is denied.

Dated: 17 November 2005

ROBERT T. PEACOCK
Administrative Judge
Armed Services Board
of Contract Appeals

I concur in result. I attach more significance to the government's failure to disclose the Harza report prior to award than is reflected in the majority opinion.

ELIZABETH A. TUNKS
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I concur

_____
MARK N. STEMPLER
Administrative Judge
Acting 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 No. 53902, Appeal of Lovering-Johnson, Inc., rendered in conformance with the Board's Charter.

Dated:

_____
CATHERINE A. STANTON
Recorder, Armed Services
Board of Contract Appeals