ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of -	)	
	)	
Meltech Corporation, Inc.	)	ASBCA Nos. 61766, 61767, 61872
	)	
Under Contract No. W912DR-14-D-0021	)	

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APPEARANCES FOR THE GOVERNMENT:	Michael P. Goodman, Esq. Engineer Chief Trial Attorney Adam J. Kwiatkowski, Esq. Engineer Trial Attorney U.S. Army Engineer District, Baltimore

OPINION BY ADMINISTRATIVE JUDGE CATES-HARMAN

These appeals are consolidated with fifteen (15) other appeals.[1] A previous decision was issued on summary judgment and cross-motions for summary judgment denying entitlement in ASBCA Nos. 61706 and 61768 (see *Meltech Corp*., ASBCA Nos. 61706, 61768, 22-1 BCA ¶ 38,117, *aff'd* 2023 WL 4503517 (Fed. Cir.)). This decision addresses entitlement in ASBCA Nos. 61766, 61767 and 61872. The disputes involve a United States Army Corps of Engineers (USACE) Multiple Award Task Order contract that included both Design-Build and Design-Bid-Build construction projects within the Baltimore District Area of Responsibility, including the renovation of Building 8609 at Fort Meade, MD. The Board has jurisdiction to hear these appeals pursuant to the Contract Disputes Act of 1978, 41 U.S.C. § 7105. We will address each of the three appeals separately. For the reasons stated below, we deny ASBCA No. 61766 (emergency lighting) and find for the appellant in ASBCA No. 61872 (day room shelf) and ASBCA No. 61767 (heat trace).

FINDINGS OF FACT

[1] ASBCA Nos. 61766, 61767, and 61872 are consolidated with ASBCA Nos. 61694, 61706, 61762, 61763, 61764, 61765, 61768, 61869, 61870, 61871, 62091, 62987. The lead appeal is ASBCA No. 61694. (A decision on summary judgment resolved ASBCA Nos. 61706 and 61768).

Contract and Task Order

1. On June 10, 2014, USACE issued a Request for Proposals (RFP) for a Multiple Award Task Order Contract (MATOC) that included design-build and design-bid-build construction projects within the Baltimore District area of Responsibility. This was Phase 1 of a two-phase construction procurement. (Joint Stipulations of Fact (JSOF) ¶ 1 at 1; R4, tab 2)

2. The MATOC included renovating several similar dormitory buildings at Fort Meade, including Building 8609 (JSOF ¶ 3 at 1).

3. Building 8609 is an approximately 39,000 square foot barracks facility built in 1954 "that is in need of major repairs and code compliance of major systems" as the building and systems were beyond serviceable life (app supp. R4, tab 351 at 4).

4. Previously, on May 15, 2014, USACE had contracted with Black and Veatch (B-V) (Contract No. W912DR 10 D 0018), to prepare "a partial criteria Design-Build Request for Proposal" package for the renovation of Building 8609, including barracks room renovation, bathroom renovation, hallway renovation, and sprinkler system (app supp. R4, tab 351 at 1, 4-5). The scope of B-V's work was to "[d]evelop performance criteria for all design disciplines for the Request for Proposal [] Design-Build Package. Use tables, text, sketches, drawings and others to illustrate the performance criteria" and to "[i]dentify any work to be done by others for such items as furniture, equipment, utility connections (water, sanitary sewer, gas, electric, and telephone). . ." (App supp. R4, tab 351 at 6)

5. B-V's contract with USACE required it to perform a field investigation of Building 8609, provide a structural analysis, and "provide all necessary services required for the preparation of a complete and biddable RFP Design-Build Package" (app supp. R4, tab 351 at 5, 7). B-V's contract described the field investigation as, "The A-E shall . . . [v]isit the project site to determine existing and planned future conditions affecting the RFP. A-E will immediately advise the DM if any . . . situations are observed during the field investigations." (App supp. R4, tab 351 at 11) B-V was to review drawings, "[d]etermine visible relevant exiting conditions not available on existing as-built drawings" and to "[i]ndicate presumed existing hidden conditions and include verification in the design-build RFP" (app supp. R4, tab 351 at 12). With respect to the final design-build RFP submittal by B-V, the contract provided that "[t]he level of detail shall reflect both prescriptive and performance requirements for the project" and include "as-built drawings showing existing conditions including any drawings for demolition . . . and necessary drawings, results of the field investigation . . . and the structural analysis" (app supp. R4, tab 351 at 12).

6. USACE's Design Criteria for the MATOC RFP, , describe the renovation of Building 8609 as:

> Building 8609 is a 38,490 SF three story, permanent barracks with a hammerhead shaped one story portion housing the main entry and administrative/community functions. The building was constructed circa 1955. The building was last renovated in 1975 when individual rooms and air conditioning were added. In 1982, the windows were replaced but do not meet current Anti-Terrorism Force Protection (AT/FP) requirements. Only limited maintenance and repair work has occurred since. The mechanical, plumbing and electrical systems are to be replaced. The roofs are to be replaced with a sloped, gabled roof assembly. Exterior walls are to be retrofitted or replaced with a complete brick veneer façade and masonry veneer base. New windows are to be installed throughout. The building envelope must prohibit water infiltration and mold must be remediated.

(R4, tab 2 at 1, tab 3 at 7)

7. Section 00100 of the Proposal Submission Requirements states that "The Contractor will provide all design, management, supervision, labor, materials, tools, and equipment necessary for the performance of the work. Task orders may be either Design-Build or Design-Bid-Build." (R4, tab 2 at 5)

8. On August 14, 2014, USACE issued Amendment 0003 to RFP W912DR-14-R-0003 for two seed projects under the MATOC to provide Design Criteria for the Design-Build renovation of Building 8609 at Fort Meade and Building 4501 at Aberdeen Proving Ground. Each task order was to be awarded separately. (JSOF ¶ 7 at 2)

9. USACE scheduled a pre-bid site visit for bidders to walk through Building 8609 on August 14, 2014 (R4, tab 355 at 1, 3).

10. On September 15, 2014, Meltech submitted its technical and cost proposals for the renovation of Building 8609. Meltech's proposal included a preliminary schedule. According to this schedule, the design period would begin on November 18, 2014, and end on June 4, 2015. The construction period would begin on May 29, 2015, and end on April 26, 2016. (JSOF ¶¶ 11-12 at 2)

11. On September 29, 2014, USACE awarded Meltech Base Contract No. W912DR-14-D-0021. On September 30, 2014, USACE awarded Task Order Contract No. 0002 to Meltech for the renovation of Building 8609. CLIN 0002 included the renovation of Building 8609 and "[a]ll costs in connection with construction of the [Building] 8609 . . . complete as specified in this Request for Proposal [], and in accordance with approved design documents prepared by the Contractor" (R4, tab 7 at 1-2). The Task Order Contract provided Meltech with a 540-calendar day performance period beginning from the Notice to Proceed date. The Notice to Proceed was issued on November 17, 2014, and the original completion date was May 10, 2016. (JSOF ¶¶ 13-16 at 2-3)

Relevant Contract Clauses and Design Criteria Specifications

12. The contract incorporated by reference FAR 52.236-21, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997), which stated that the contractor shall coordinate the drawings and review them for accuracy and compliance with contract requirements (R4, tab 2 at 42, tab 6 at 7). In addition, it stated that approval of the drawings by the CO does not relieve the contractor of any errors or responsibility for complying with the contract's requirements. In pertinent part:

> e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. . . . Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract . . . .

FAR 52.236-21(e).

13. The contract incorporated by reference FAR 52.236-23, RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR (APR 1984), which stated that the contractor is responsible for the accuracy of the drawings and the government's approval of the drawings does not operate as a waiver to the contract's requirements (R4, tab 2 at 42, tab 6 at 7). In pertinent part:

> (a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and

> other services furnished by the Contractor under this contract. . . .
>
> (b) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of the services furnished under this contract.

FAR 52.236-23.

14. The contract incorporated by reference FAR 52.236-2, DIFFERING SITE CONDITIONS (APR 1984), which states:

> (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of[-]
>
> (1) [S]ubsurface or latent physical conditions at the site which differ materially from those indicated in this contract[;] or
>
> (2) [U]nknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.
>
> (b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

> (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in paragraph (a) above for giving written notice may be extended by the Contracting Officer.
>
> (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(R4, tab 2 at 41, tab 6 at 6; FAR 52.236-2)

15. The contract listed FAR 52.211-13, TIME EXTENSIONS (SEP 2000), which states:

> Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

(R4, tab 6 at 14; FAR 52.211-13)

16. The contract incorporated by reference FAR 52.236-3, SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984), which states:

> (a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and

> (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.
>
> (b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(R4, tab 6 at 6; FAR 52.236-3)

17. The Design Criteria required four distinct design submittals: 30% (Concept Submittal), 50% (Preliminary Design Review Submittal), 95% (Final), and 100% (Design Complete) (R4, tab 3 at 99, 109-10, 116-17).

18. The design submittals are to ensure "that the design criteria are being correctly interpreted" (R4, tab 3 at 99, 109). The 95% Final Design Submittal provides that construction plans require "the level of detail needed for bidding the project, including a complete list of . . . materials to be used" (R4, tab 3 at 110). The 100% Design Complete Submittal states that "[a]fter the Final Design Review, the Contractor shall revise the Contract Documents by incorporating any comments generated during the Final Design Review and shall prepare final hard copy Contract Specifications" (R4, tab 3 at 116-17).

19. The Design Criteria Design After Award Section 01 12 00, Design Submittals, describes that the contractor may proceed with building after submitting

and receiving approval by the contracting officer of the (100%) design submission package:

> 1.2 SEQUENCE OF DESIGN-CONSTRUCTION
>
> Fast track construction start is permitted by this contract. The Contractor may proceed with the construction work included in a separate design package after the Government has reviewed the final (100%) design submission for that package, review comments have been addressed and resolved to the Government's satisfaction and the Contracting Officer (or the Administrative Contracting Officer) has agreed in writing that the design package may be released for construction.

(R4, tab 3 at 92)

20. Design Criteria, Section 01 33 00, paragraph 1.4, "Government Reviewed or Approved Submittals," describes that USACE's review and approvals of the contractor's submittals shall not be construed as a complete check but indicate the materials "appear to meet the Solicitation and Accepted Proposal":

> 1.4 GOVERNMENT REVIEWED OR APPROVED SUBMITTALS
>
> The Contracting Officer's Representative conformance reivew [sic] or approval of submittals shall not be construed as a complete check, but will indicate only that design, general method of construction, materials, detailing and other information appear to meet the Solicitation and Accepted Proposal. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for design, dimensions, all design extensions, such as the design of adequate connections and details, etc., and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal

> for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

(R4, tab 3 at 135) (emphasis added)

21. Design Criteria, Section 01 33 00, paragraph 1.11.1 discusses the Submittal Procedures in which the accuracy of the contractor's submittals is its responsibility:

> 1.11.1 Procedures
>
> In the signature block provided on ENG Form 4025 the Contractor certifies that each item has been reviewed in detail and is correct and is in strict conformance with the contract drawings and specifications unless noted otherwise. The accuracy and completeness of submittals is the responsibility of the Contractor. . . . Each variation from the contract specifications and drawings shall be noted on the form; and, attached to the form, the Contractor shall set forth, in writing, the reason for and description of such variations. If these requirements are not met, the submittal may be returned for corrective action.

(R4, tab 3 at 136-37) (emphasis added)

EMERGENCY LIGHTING – ASBCA No. 61766

Design Criteria Specifications and National Fire Protection Association Requirements

22. The National Fire Protection Association (NFPA) has regulations for "multiple degrees of life safety, fire department responses" (tr. 3/140). In particular, NFPA 101, "Life Safety Code," contains the minimum requirements for life safety for buildings under construction, during construction, and after construction (tr. 3/140). Emergency lighting must provide minimum illumination for occupants to exit the building safely (tr. 3/141). Annex A, Explanatory Material of NFPA 101, describes the "Life Safety Code" as "Life safety in buildings includes more than safety from fire. Although fire safety has been the long-standing focus of NFPA 101, its widely known title, Life Safety Code, and its technical requirements respond to a wider range of concerns, including, for example, crowd safety." (NFPA 101, Annex A, § A.1.1.5, 2012 ed.)

23. The Design Criteria specifications for the renovation of Building 8609 Section 3.9.3 Life Safety and Fire Protection required "compl[iance] with NFPA 101 for building related egress and safety to life. Occupancy definitions in NFPA 101 shall be used to determine means of egress requirements." Section 3.9.3 states that Building 8609 dead-end corridors must comply with NFPA 101. (R4, tab 3 at 25-26)

24. The illumination strength of light fixtures is assessed in foot candles (tr. 1/199, 12-15). A light meter is necessary to measure illumination (tr. 1/199).

25. Design Criteria specification for Interior Electrical, Emergency Egress Lighting, Section 01 10 00, paragraph 6.10.7b, stated that emergency egress lighting will comply with NFPA 101 and provide a minimum of 10 Lux, 1 foot-candle, with an emergency power backup of 90 minutes:

> EMERGENCY EGRESS LIGHTING
>
> Emergency egress lighting will provide a minimum of 10 Lux (1 foot-candle) for all means of egress as required by NFPA 101. Power to all emergency egress life safety lighting will be supplied by local battery back-up, integral to fixture, with a 90 minute operation length of time. Illumination will be provided by selected fixtures and wired ahead of any local switching. Additional emergency egress lighting will be provided for exterior egress. The fluorescent fixture over the doorway of each vestibule will be unswitched[.] Exit signage will be LED. LED exit signs will be wired to flash during fire alarm. Exit signage will be located at all exits, paths of egress as required by NFPA 101. Design will include electronic IES file calculations in all critical areas.

(R4, tab 3 at 67)

26. Relevant performance requirements for emergency lighting from NFPA 101, Chapter 7, Section 7.9 include:

> 7.9.2 Performance of System.
>
> 7.9.2.1 Emergency illumination shall be provided for a minimum of 1½ hours in the event of failure of normal lighting.

7.9.2.1.1 Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 ft-candle (10.8 lux) and, at any point, not less than 0.1 ft-candle (1.1 lux), measured along the path of egress at floor level.

7.9.2.1.2 Illumination levels shall be permitted to decline to not less than an average of 0.6 ft-candle (6.5 lux) and, at any point, not less than 0.06 ft-candle (0.65 lux) at the end of 1½ hours.

7.9.2.1.3 The maximum-to-minimum illumination shall not exceed a ratio of 40 to 1.

(NFPA 101, Chapter 7, 7.9.2.1, 2015 ed.; R4, tab 269)

27. The contract incorporated FAR 52.246-12, INSPECTION OF CONSTRUCTION (AUG 1996) (R4, tab 2 at 55), which states in relevant part:

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. . . . All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

. . . .

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor

> for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.
>
> (f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price.
>
> . . . .
>
> (i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

FAR 52.246-12.

Emergency Lighting Design Submittal and Approval

28. Meltech's Project Manager Robin Roberts submitted Meltech's plan for interior drawings of emergency lighting, which were reviewed and approved by the Registered Fire Protection Department Manager and Engineer, Shane Hatmaker. By letter dated March 23, 2016, Mr. Hatmaker concluded, "To the best of my knowledge the design for the fire protection and life safety systems meet all requirements from applicable NFPA documents, UFC, Fort Meade Standards and U.S. Army Corp [sic] of Engineers requirements." (App. supp. R4, tab 550)

29. Based on Mr. Hatmaker's approval, the interior emergency lighting drawings were prepared and issued for construction for the first, second, and third floors of Building 8609. "PLAN – LIGHTING", sheet numbers E-101, E-102, and E-103, show Building 8609's layout for each floor, specifically designating the lighting location with a box and the type of lighting with the terms "C", or "CE". (R4, tab 308 at 113-15)

Inspection of the Emergency Lights

30. On December 6, 2017, Edward Lindsay, the Fire Inspector at Fort Meade, inspected the emergency lighting fixtures Meltech had installed in Building 8609 (JSOF ¶ 1 at 28). So that no sunlight would be available to illuminate the building through any window, Fire Inspector Lindsay conducted the test at 6:00 a.m., 62 minutes before sunrise at Fort Meade. Electricity to the building was turned off, and a light meter was used to measure light at one foot above the floor in various locations. (Tr. 3/143)

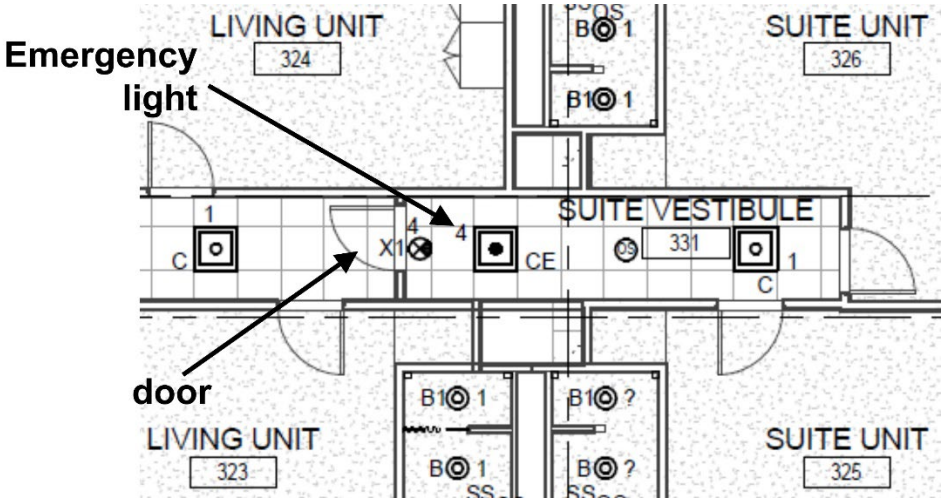
31. The lighting test consisted of (i) checking the observed installed emergency lights against the lighting drawings, (ii) letting the emergency lights run for ninety minutes on battery power, and (iii) measuring the illumination under emergency lighting (JSOF ¶ 2 at 28).

32. Fire Inspector Lindsay performed over 300 emergency lighting tests, while in his capacity at Fort Meade. In each instance Fire Inspector Lindsay used a light meter supplied by the contractor. (Tr. 3/154-55)

33. A "light meter" was provided to Fire Inspector Lindsay for the inspection by Meltech's subcontractor (tr. 3/142; app. br. ¶ 6 at 42).

34. During the lighting test, the Fire Inspector noted deficiencies with the design of the emergency lighting system. The noted design deficiencies were: (i) Due to insufficient lighting, a standard fixture needed to be switched out for an emergency fixture in the back corner of the computer room (room 141); (ii) A standard fixture was installed in the first-floor corridor near room 126 instead of an emergency fixture as shown on the plans. (JSOF ¶ 3 at 28-29; app. supp. R4, tabs 845, 847; R4, tab 308 at 113)

35. Due to insufficient lighting at the east end of the 1st, 2nd, and 3rd-floor corridors of the barracks portion of the building near rooms 123, 223, and 323, respectively, the standard light fixtures ("C") at those three locations needed to be changed to emergency fixtures ("CE") (JSOF ¶ 3 at 28-29). The insufficient lighting noted by Fire Inspector Lindsay near rooms 123, 223, and 323 (collectively referred to as rooms x23) was caused by a hallway door that was immediately adjacent to rooms x23, which partially blocked the emergency light ("CE") on the other side of the door (tr. 3/162, 164, 187). *See* the below figure (this figure highlights the third-floor hallway of Building 8609. The hallways of Floors 1 and 2 are similarly designed (*see* tr. 3/147: 23-25)):



36. The interior design drawings (drawing number F-721-11-26) dated December 4, 2015, noted that residential wings would be separated from business areas with a 1-hour fire barrier in accordance with NFPA 101, Table 6.1.14.4.1 (R4, tab 308 at 1, 3 (occupancy separation)).

37. The standard lighting fixtures ("C") installed by Meltech in the corridors near rooms 123, 223, and 323 and in the computer room, required replacement to emergency lights ("CE"). CE lights were shown on the approved 100% interior drawings[2] (JSOF ¶ 4 at 29; R4, tab 308 at 113-15).

38. During the lighting test, the Fire Inspector noted deficiencies with the functioning of the emergency lighting system. The noted deficiencies were: (i) The emergency light fixture at the top of Stair #1 on the third floor did not work; (ii) The emergency light fixture at the landing between the second and third floors of Stair #1 did not work; (iii) The emergency light fixture at the landing between the second and third floors of Stair #2 did not work; (iv) After the 90-minute battery test, the emergency lights in the basement main electrical room, second-floor laundry, and third-floor laundry were too dim, due either to a battery or bulb problem. (JSOF ¶ 5 at 29; app. supp. R4, tab 845)

39. Immediately following the test, Fire Inspector Lindsay verbally informed Meltech that the building failed the lighting test and provided relevant NFPA sections

[2] We note the approved interior design drawings (drawing number F-721-11-26) dated December 4, 2015, by URS Group, Incorporated (URS), utilizes the 2012 edition of "NFPA 101 – Life Safety Code" to be applied as the Applicable Code, while the parties commonly refer to the more recent 2015 edition. The parties do not raise this as an issue and the Board's review of NFPA 101 section 7.9 of the 2012 and 2015 editions concludes that they do not appear to differ in relevant language (R4, tab 308 at 1, 3 (applicable codes)).

for egress lighting (tr. 3/149, 151). At this time, Fire Inspector Lindsay did not provide specific lighting measurements in the failed areas (tr. 1/201).

40. The same day, Fire Inspector Lindsay filed a memo to file describing the December 6, 2017, emergency lighting test for Building 8609, which states:

> The emergency light test was started on building 8609. When we started the test with rep from Meltech and his subcontractor that supplied the light meter. During the test there was several lights in the stairwells that did not work. There was several lights that did not last the 90 minutes. There are several area's in the corridors that the reading on zero on the meter when we started the test. On the drawing there was an emergency light near the door in the computer room which was not installed. I explained to Barry [Barry Boyd, Meltech Senior Project Manager] that the emergency light test would not pass because of the issues with the emergency lights. Barry started [sic] the computer room was there [sic] fault. I stated to Barry what the code was for emergency lighting under NFPA 101 chapter 7 section 7.9.2. Barry stated that they will have to take care of the issue since the design does not meet code.

(R4, tab 266)

41. In an email dated December 6, 2017, to Meltech's subcontractor, Mr. Anton Van Peppen, Director of Quality Control and Safety, highlighted the failed emergency lighting test and noted "design issues" and subcontractor light installation issues that needed to be addressed, "After the 90 minute battery test the emergency lights . . . were too dim. Either a battery or a bulb problem." Mr. Van Peppen requested that the subcontractor fix the deficiencies and let Meltech know when the building will be ready for a retest. (R4, tab 264) The new emergency lights could not be installed immediately but had to be ordered, with an approximately six-week wait time (R4, tab 268; app. supp. R4, tab 846 at 1).

42. The next day, Meltech's Senior Project Manager sent an email to USACE Project Engineer Melvin Damoudt and other USACE representatives stating that Meltech was correcting "the errors made in the installation of certain emergency lights." He also noted that the approved drawings for emergency lights did not contain emergency lights in those failed areas. (App. supp. R4, tab 846 at 1)

43. By email dated January 9, 2018, from Mitchell Burns, Corps of Engineers Baltimore District Fire Protection, to USACE Project Engineer Melvin Damoudt, and

Fire Inspector Lindsay, Mr. Burns stated, "In my opinion it is clear that this is a design issue: the Contractor should not demand a mod from the Government for a failure of this system to perform to code requirements" (R4, tab 269).

44. Meltech corrected the deficiencies noted by the Fire Inspector on January 30, 2018 (JSOF ¶ 6 at 29; app. supp. R4, tab 846; R4, tab 273 at 1).

45. Meltech's Director of Quality Control and Safety, Anton Van Peppen, testified that Meltech did not challenge Fire Inspector Lindsay's December 6 test as they were afraid to "further delay the occupancy" of Building 8609. In addition, Mr. Van Peppen testified that Meltech did not have enough information at the time and did not take the time to investigate whether Fire Inspector Lindsay had performed the lighting test correctly. (Tr. 1/306-07)

46. There is no evidence that Meltech conducted its own emergency light test prior to the December 6 emergency lighting test, or thereafter, when Meltech installed the new replacement lights (tr. 1/218; R4, tab 268 at 1).

47. We find that Meltech did not challenge the December 6 emergency lighting test results during performance of the contract, nor did it request a retest.

REA, Claim, and Notice of Appeal

48. On January 9, 2018, Meltech requested an equitable adjustment reflecting a delay of ninety days due largely to the lead time of ninety days for delivery of the specified lights, and an additional cost of $4,850 (JSOF ¶ 7 at 29; R4, tab 268). Meltech's letter did not challenge Fire Inspector Lindsay's process and use of the light meter provided by Meltech's subcontractor (R4, tab 268).

49. On June 11, 2018, Meltech converted its REA to a claim (JSOF ¶ 8 at 29; R4, tab 241).

50. Meltech filed a timely Notice of Appeal from a deemed denial.

HEAT TRACE – ASBCA No. 61767

The RFP Required Replacing Communal Gang Bathrooms and Constructing Private Bathrooms In Each Dormitory Room

51. Building 8609 is comprised of a three-story concrete frame and concrete masonry unit (CMU) infill, double-loaded corridor residential wing, with its[] long axis running east-west, and a single story "hammerhead" barracks facility on the western end of the residential wing, with its[] long axis running north-south.

Building 8609 consisted of three floors that ran the full length of the barracks portion. The barracks portion had a heated basement in the eastern portion. The western portion of the area below the first floor was an unheated crawl space. (R4, tab 3 at 9; JSOF ¶ 14 at 17) Each floor of the barracks portion of Building 8609 contained a long corridor down its center, with dorm rooms on either side. The existing barracks also contained two gang bathrooms, located at the same South-West location on each floor. (R4, tab 3 at 384) The existing layout contained two communal bathrooms on the first floor of the dormitory. The RFP required the elimination of the communal bathrooms, gang bathrooms, located at the same location on each floor (tr. 1/162). A private bathroom was to be constructed in each two-occupant dormitory room. In the existing building, domestic water pipes only needed to reach as far down the corridor as the westmost communal bathroom. In the renovated building, domestic water pipes needed to reach far enough down the corridor to reach the westmost dorm rooms. (R4, tab 3 at 364, 384)

52. The contract contemplated design after award (R4, tab 7).

The Architect-Engineer, B-V, Provided The Structural Analysis For The RFP And Believed The New Plumbing Lines Could Be Installed In The First-Floor Ceiling

53. In developing its structural analysis for Building 8609 for USACE, B-V's Design Manager, Randall Gowler, stated that its team did a structural analysis and field investigation of Building 8609 to "make a judgment on what would be necessary in terms of the renovation." In assessing Building 8609, B-V took measurements above the ceiling, where accessible and without destruction of any of the building, to determine whether there was sufficient space for the new plumbing. B-V's Design Manager stated the measurements taken of Building 8609 "were important to be able to describe what the demotion might be, and what [the] new work would be, and how it would all fit within the building." B-V believed that the new plumbing lines to be installed would fit above the ceilings, "where we measured, I understood that our plumbing would fit. . . . [W]e did believe that all of the plumbing would fit." (App. supp. R4, tab 722 at 20-22, Randall Gowler depo. transcript; JSOF ¶ 4 at 16) In providing the structural analysis of Building 8609 for the RFP, B-V took the above the ceiling measurements of Building 8609 and reviewed drawings of "similar TBUP [Training Barracks Upgrade Program] buildings." However, B-V personnel "were not checking dimensions as we would with an as-built" and did not measure the entire building (app. supp. R4, tab 722 at 20-21, 23, Randall Gowler depo. transcript). B-V noted measurements were not taken in places where the ceiling was solid, which required removal of material or was blocked by overhead components. B-V included drawings of a different building in the RFP, Building 8545 "because we were more familiar with that building than the others." (App. supp. R4, tab 722 at 20-23, Randall Gowler depo. transcript)

Site Visit

54. Prior to renovation, Building 8609 contained a drop ceiling concealing the lights, mechanical piping, sprinkler piping, electrical conduit, fire alarm cable, HVAC ducts, and other building support components (tr. 1/170). Even removing the ceiling tiles provided low visibility of the underlying support components of the building as each building support component could obscure view of other components and the building structure (tr. 1/170). Meltech's personnel were unable to observe the underlying structural components of the building prior to demolition, and prospective offerors were not provided access to inspect the space above the ceilings during the site visit given any view of the space (tr. 1/169-70; app. supp. R4, tab 676 at 1-2, Travis Claggett decl.).

55. Meltech's Senior Project Manager, Travis Claggett, provided a declaration concerning the pre-bid site visit. Mr. Claggett declared that the site visit was a guided tour by USACE that lasted about an hour. Mr. Claggett stated that contractors were not provided ladders to inspect the ceilings, were not instructed to bring their own, and were not invited to inspect the space above the ceiling in the first-floor corridors. He stated that no other contractor had brought their own equipment or ladder for the site inspection. The contractors spent only a few minutes to walk the first-floor corridor. (App. supp. R4, tab 676 at 1-2, Travis Claggett decl.)

56. Melvin Damoudt, USACE's Project Engineer, provided a declaration stating that he conducted the site visit for the contractors interested in submitting proposals for the renovation of Building 8609, and "contractors were free to look above the ceilings." He took a photograph of at least one contractor inspecting a lower height ceiling in the common area by pushing up the tile with his hands. (ASBCA No. 61767 gov't cross mot., ex. G-4, Melvin Damoudt decl.; G-3, photograph)

Design Criteria Drawings Do Not Show That A Concrete Girder Ran Across The First-Floor Corridor And Varying Concrete Girder Conditions Including Four Girders Extending 6-8 Inches Below Other Girders

57. USACE's Design Criteria, Functional and Area Requirements section 3.4 states that "Drawings of Building 8609 will be provided to the bidders as part of the solicitation by USACE" (R4, tab 3 at 10). Section 3.4.3, Space Layout, states that floor plan drawings are in Appendix G:

> The Design Build Contractor will develop and implement the space layout design. Rough diagram plans are included in this document to provide a guide for potential adjacencies and relationships, but not to specify

> restrictions or preferences. The Floor Plan diagrams are located in Appendix G: DRAWINGS.

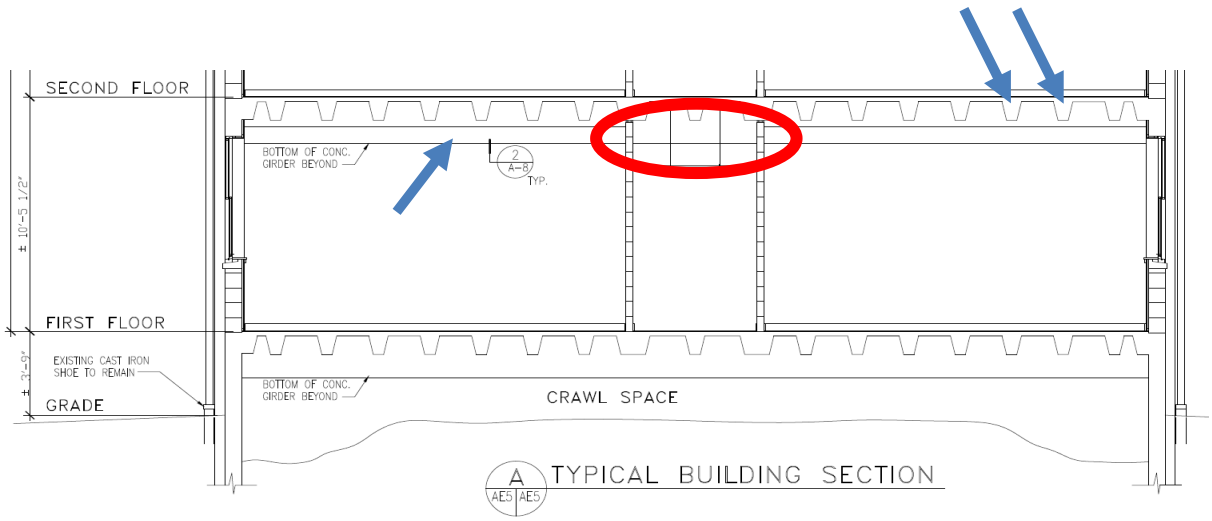
(R4, tab 3 at 10)

58. Appendix G contained several drawings of existing and new conditions (JSOF ¶ 2 at 16; R4, tab 3 at 359-85).

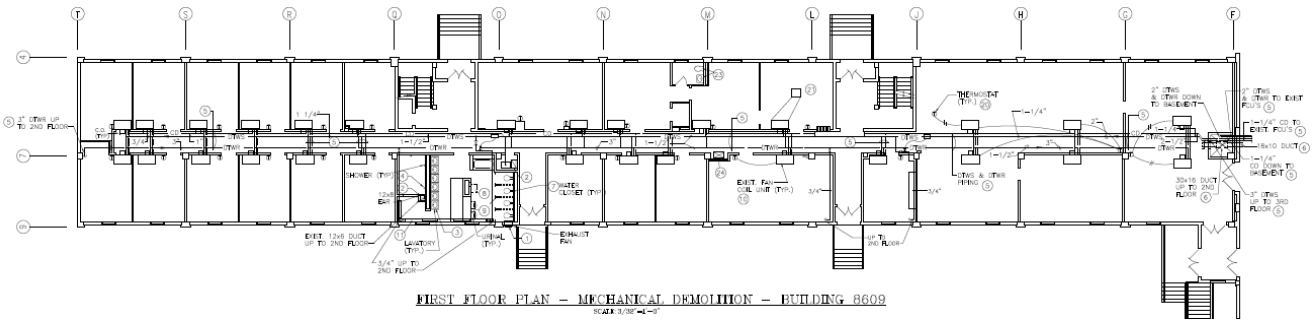
59. Appendix G Drawing A-5 depicted the planned new layout with gang bathrooms replaced with individual bathrooms within each dorm room (R4, tab 3 at 364).

60. The Design Criteria, Appendix G, section 01 10 00, Project Specific Requirements, paragraph 6.8 addresses plumbing. Paragraph 6.8.1 states that the drawings indicate existing conditions, but caution that it does not indicate restrictions, "Refer to Appendix G for existing Plumbing Drawings. The drawings are included in this document for reference to indicate existing conditions and are not intended to indicate restrictions or preferences." (R4, tab 3 at 58)

61. Appendix G Drawing AE4 is a cross-section of the three-story barracks portion, "Typical Building Section." Drawing AE4 further indicates the presence of a concrete girder running across the ceiling on either side of the first-floor corridor but does not show the girder continuing through the corridor (single arrow and oval in the below figure). (R4, tab 3 at 369) Drawing AE4 does not indicate any variance in the dimensions of existing concrete girders in the crawl space and on each floor throughout the barracks. As highlighted in the below figure: double arrows highlighting first-floor girders in the below figure; oval highlighting girder running across the ceiling does not traverse the center corridor (R4, tab 3 at 369).



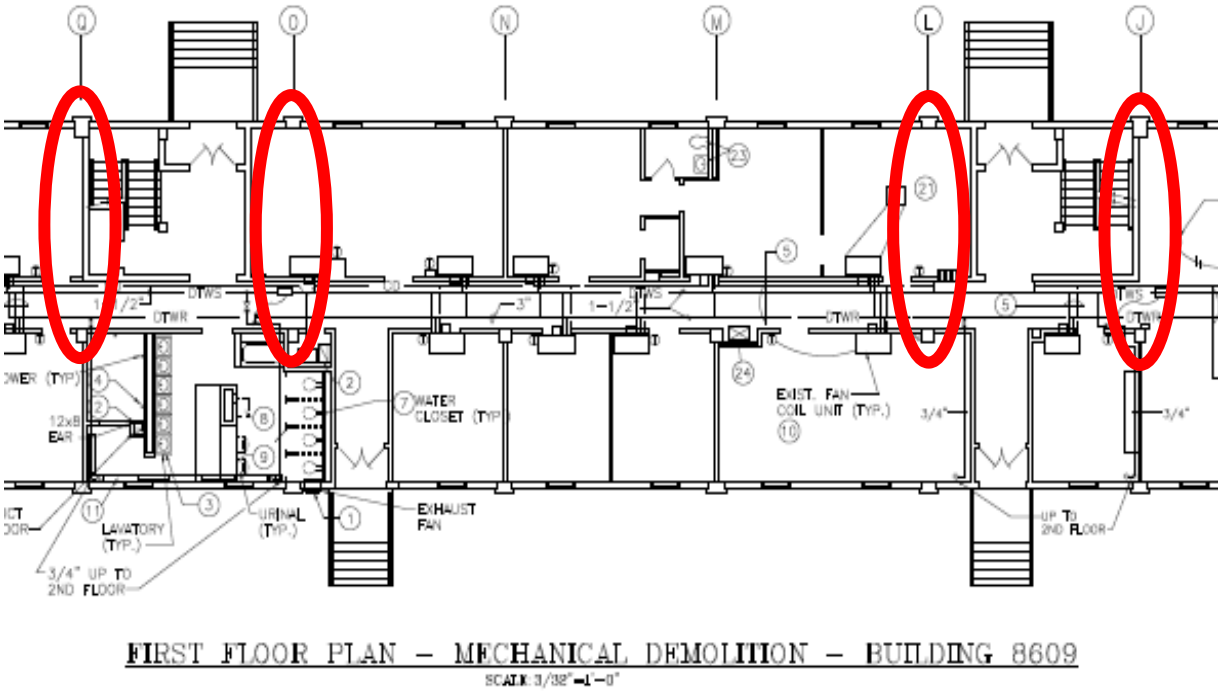
62. Appendix G Drawing M-3 is titled, "First Floor Plan Mechanical Demolition" and depicts 1.5 and 3-inch diameter hot and cold-water piping running uninterrupted in the first-floor ceiling. This piping is part of a two-pipe HVAC system that brings hot and cold water to fan coil units to heat and cool interior spaces (R4, tab 3 at 372; tr. 1/171-72). Drawing M-3 also depicts the 12 column lines (F, G, H, J, L, M, N, O, Q, R, S, T), but does not show these columns crossing any beams across the hallway corridor.



(R4, tab 3 at 372)

63. Appendix G Drawing M-13 is titled, "Fan Coil Piping Detail Typical" and depicts the dual temperature water piping system running above the corridor ceiling with no structural obstructions or interferences (R4, tab 3 at 382).

64. Appendix G Drawing M-8 is titled, "First Floor Plan – Mechanical New Work – Building 8609," and shows the building plan in detail and depicts the proposed new system for heating and cooling the renovated dorm rooms with the fan coil system with dual temperature piping ranging in size up to 3 inches in diameter running down the first-floor corridor (R4, tab 3 at 377; tr. 1/172-73). Drawing M-8 also depicts the 12 column lines (F, G, H, J, L, M, N, O, Q, R, S, T), but does not show these columns crossing of any beams across the hallway corridor. *See* the below blow-out of Drawing M-8 ovals highlighting column lines J, L, O, and Q.

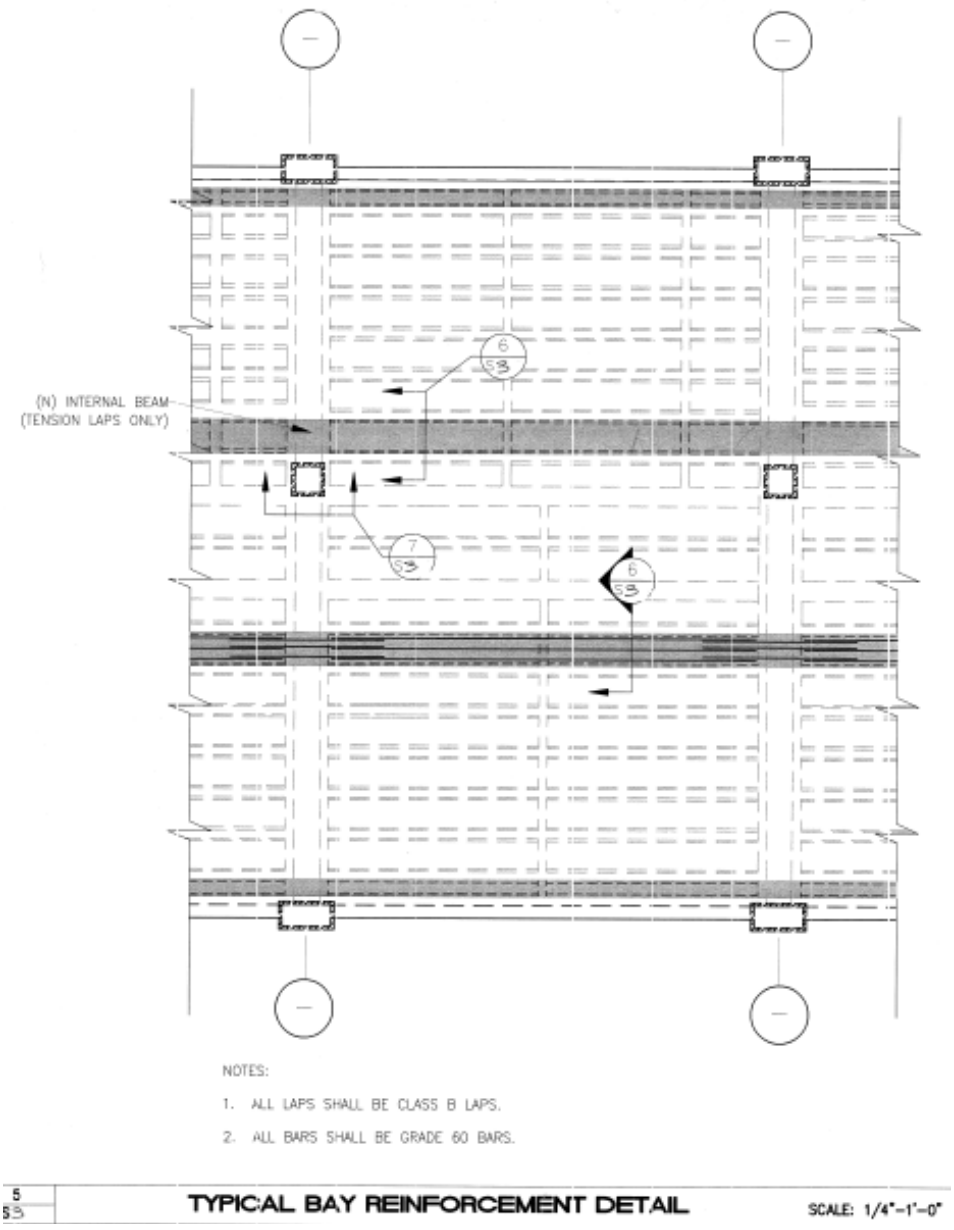


FIRST FLOOR PLAN – MECHANICAL DEMOLITION – BUILDING 8609

(R4, tab 3 at 377)

65. The Design Criteria also contains Appendix L, titled "Preliminary Structural Design Analysis" which includes as-built structural drawings for another building, 8548 (R4, tab 3 at 485; tr. 1/310-11). Building 8609 was originally constructed in the 1950s and went through several renovations by the Department of Public Works for Fort Meade; however, as-built drawings capturing changes made to Building 8609 were not available (findings 3, 6; tr. 3/11).

66. Appendix L contains a drawing, titled "Typical Bay Reinforcement Detail" (R4, tab 3 at 488). The following description is derived from the parties' trial testimony. This figure (reproduced below) depicts the building as if above the building, looking down onto it. The two black squares in the middle represent interior columns that are running from the bottom of the building to the top of building. The horizontal dashed lines represent tie reinforcement. The blank rectangles on the top and bottom of the figure are the exterior columns on the outside of the building that are running from the bottom of the building to the top of building. Between each exterior column (rectangle) and each interior column (square), along the vertical, the transverse direction, a column line is a beam (unshaded white running in the vertical that is interrupted by shaded grey) that extends all the way from the outside column to the interior column along the vertical without interruption. (Tr. 5/222-24) Regardless, we find that this figure, as it is labelled for a design from a different building, Building 8548, was not clear that the girders traversed across Building 8609, uninterrupted in the first-floor ceiling.



(R4, tab 3 at 488)

67. USACE's Project Engineer Melvin Damoudt's duties were to review drawings and submittals, evaluate changes, attend design review meetings, and perform on-site inspections (tr. 3/7, 9). Mr. Damoudt testified that Appendix G Drawing AE4 could contain a drawing error as it fails to show a concrete beam or girder extending through the wall into the center of the hallway corridor (tr. 3/63-64, 82). Mr. Damoudt testified that these types of drawings typically "may show either a dotted line or a continued line. But it's supposed to show something" when a drawing is to depict a structure passing through a wall, column, or beam. (Tr. 3/63-64)

68. Mr. Damoudt testified that if these types of details were too small to be captured in the drawings, the designer of record, B-V, typically would provide an enlarged "blow-out" to show any variances in the dimensions of the existing concrete girders or any structural obstructions (tr. 3/64-65). Mr. Damoudt stated as the RFP did not contain this blow-out drawing, it was "human error," and it should have been provided (tr. 3/66).

Meltech's Proposal

69. On September 4, 2014, B-V provided responses to USACE concerning offerors' questions with respect to the RFP (app. supp. R4, tab 359). Relevant pre-bid questions and B-V's responses are listed, including B-V's clarification that Appendix L drawings are from another building and should only be used for pricing, not for construction purposes:

> Question 34: The existing drawings provided in this RFP are lacking information useful in providing a good design solution (i.e. dimensions existing structure to remain, such as columns, beams, etc.). Please provide more detailed information on the existing facility so we can give a feasible working solution.
>
> [Response] The Government has agreed to provide these drawings as noted below per Section 01 10 00 DESIGN CRITERIA, page 8, 3.4 FUNCTIONAL SPACES "Drawings of Building 8609 will be provided to the bidders as part of the solicitation by USACE."
>
> . . . .
>
> Question 45: 6.4.lc [Site Engineering, Existing Conditions] says to refer to Appendix G for existing Site Drawings. There are no Site Drawings in Appendix G, please provide (TBUP)
>
> [Response] The only site drawing is the drawing included in the Utility Information in Appendix B. It is intended that a new site drawing will be developed as part of the field survey completed by the designers. The reference to Appendix G in paragraph 6.4.1 should be deleted.
>
> . . . .

Question 75: The RFP mentions the existence of partial existing structural drawings, please provide for review.

[no response]

. . . .

Question 129: Please provide a complete set of structural drawings including foundation drawings, bearing capacity, floor and roof plans and building design loading, sections and details for this facility.

[no response]

. . . .

Question 142: Please provide a complete structural set of drawings including but not limited to: Concrete design strength, reinforcing steel strength, design codes used for design, design loading used for design, foundation bearing capacity, girder/beam/joist size and reinforcing pattern and details for floor and roof structural members, column size reinforcing pattern and details, dimensioned girder/beam/joist plans for floors and roof, dimensioned column grid, slab thickness and reinforcement for each floor and roof, slab on grade thickness and reinforcement, masonry infill details including masonry size type and compressive strength, complete foundation drawings including foundation types and sizes, reinforcing steel requirements for each element and details of reinforcement and finally comprehensive sections and details? (TBUP)

[Response] The Government has agreed to provide these drawings as noted below per Section 01 10 00 DESIGN CRITERIA, page 8, 3.4 FUNCTIONAL SPACES "Drawings of Building 8609 will be provided to the bidders as part of the solicitation by USACE."

. . . .

Question 149: Appendix L Preliminary Structural Design Analysis From Building 8548:

a. Has the design concept shown on the drawings in Appendix L been reviewed, vetted and approved by USACE PDC?

b. Have the attached drawings been used in construction?

c. Are buildings 8609 and 8548 similar enough to assume methodology shown on the drawings in Appendix L are adequate for pricing Building 8609? (TBUP)

[Response]

a. We assume it has been vetted by PDC, but it is only applicable for pricing and not for construction per updated UFC.

b. It is our understanding that these were used for building 8548.

c. These two buildings are similar enough to assume methodology for pricing for Building 8609 but not for construction per update UFC.

(App. supp. R4, tab 359 at 6, 8, 10, 16, 18-19)

70. On September 5, 2014, USACE issued Amendment 6 to RFP W912DR-14-R-0003 which included responses to offerors' questions with respect to the RFP (app supp. R4, tab 360).

71. Replacing the existing gang bathrooms with individual dormitory bathrooms required Meltech to make significant revisions to the plumbing system in order to provide necessary service to each dorm room. Meltech planned on running water supply pipes above the ceiling of the first-floor corridor of the barracks portion of Building 8609 in order to serve each dorm room. In reviewing the Design Criteria specification, drawings, and site visit, Mr. Van Peppen, Meltech's Director of Quality Control and Safety, testified that "it was apparent [there] was a free and open space above the first-floor corridor to run that piping" as "[t]here were no obstructions" from the building (tr. 1/173-74). He further stated, "Meltech planned on starting in the hammerhead with large pipes and moving down through the first-floor corridor, teeing off at each unit to serve each unit as the pipe went by, and the pipe could gradually decrease in size as it went down the corridor" (tr. 1/164). To service the plumbing requirements for the second and third floor dormitories, since these rooms would be stacked, Meltech planned to have the "pipes tee off into the unit, go down to the

fixtures, and up to the fixtures above and then again up to the fixtures on the third floor" (tr. 1/165).

72. On September 15, 2014, Meltech submitted its technical and cost proposals for Building 8609's renovation (R4, tab 5; JSOF ¶ 11 at 2). Section 1.15.6, Plumbing System, states that the "Plumbing system will be designed based on the requirements of the RFP and in accordance with applicable portions of the UFCs. In general, existing building distribution plumbing system will be modified to accommodate new floor plan and plumbing layout." (R4, tab 5 at 25) Meltech's technical proposal addressed domestic cold and hot water lines "will be modified to accommodate new plumbing layout" and "branch piping will connect to the new fixtures where required" (R4, tab 5 at 25-26).

73. USACE's resident engineer and contracting officer's representative, Cedric Bazemore, testified that bidder's proposals are not typically reviewed by the USACE's construction office to determine if it is compliant with the RFP (tr. 2/73-74).

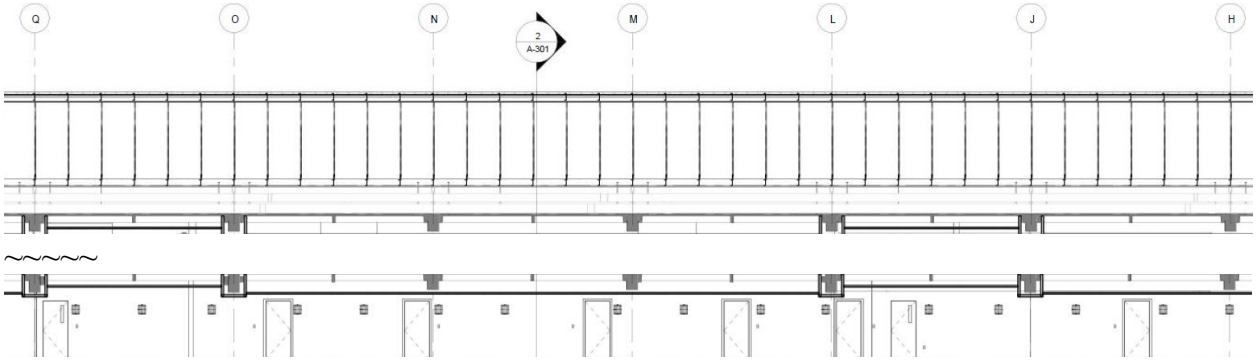
USACE Never Supplied As-built Drawings for Building 8609

74. Following contract award, Meltech continued to request copies of the as-built drawings. Although, initially, USACE stated it was still looking for them, USACE later concluded that while it agreed to provide whatever as-built drawings it had, that promise was limited to the solicitation phase. (App. supp. R4, tab 245 at 9500, tab 251 at 9555-56, tab 306 at 13655, 13674-75, tab 668 at 1) Accordingly, it is undisputed that the government did not provide the as-builts drawings of Building 8609 to Meltech (tr. 1/310-11, 3/10-11) (*see* SOF ¶ 10 of *Meltech Corp., Inc.*, ASBCA No. 63556, 25-1 BCA ¶ 38,720 at 188,260).

Following Demolition, Meltech Discovered Concrete Girder Variances On The First Floor Ceiling

75. The first drawings to identify variances in the height of some beams (Q, O, L, J) were lower than other beams (S, R, N, M, H, G) was Meltech's 30% Concept Design, dated May 22, 2015. Drawing A-301 depicts first-floor domestic water lines crossing column lines Q, O, L, & J. (App. supp. R4, tab 758 at 30) Note

that columns lines Q, O, L and J are noted are lower and below columns N, M, and H (app. supp. R4, tab 758 at 30).



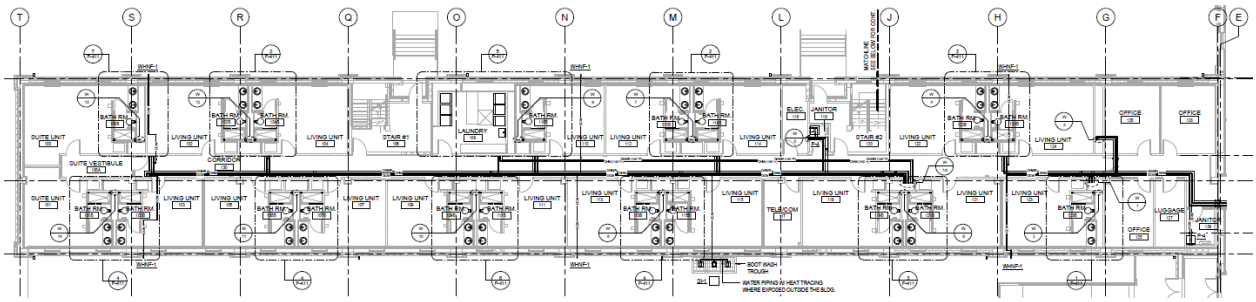
76. Demolition of the first floor took place between August 2015 and was completed in December 2015 (tr. 1/233).

77. Following demolition, Meltech discovered that each concrete girder was continuous through the concrete masonry unit (CMU) walls and spanned across the corridors. Four concrete girders located directly below the original gang bathrooms at column lines J, L, O, and Q extended considerably lower than the others, and the floor had been recessed 6 to 8 inches lower than the rest of the building in order to facilitate setting the tile beds and the drainage for the original gang bathroom showers. In addition, those lower girders were also thicker to compensate for the load bearing weight requirements of the recessed concrete girders. (Tr. 1/178, 183-89, 3/9-14) These concrete girder variances appear to be from the original bathroom installation and contain features not captured in the RFP structural drawings (tr. 1/187; R4, tab 3 at 359-85, Appendix G).

78. Mr. Van Peppen testified that he was shocked to find the concrete girders extend through the first-floor corridor, but "[w]e expected to make it work. And then we came across the other four beams that were at a different elevation." (Tr. 1/231) The girder was important since it's a structural member that holds up the slab above the ceiling. Based on his 30 years of experience of renovating hundreds of buildings, Meltech expected the concrete beam not to extend across the first-floor corridor as shown in Drawing AE4 because an interrupted beam in this situation is sufficient to hold up the slab, "That's a very short span across that corridor. The slab could have spanned that easily. . . . And it would be bearing on a [concrete masonry unit, CMU] wall . . . . There was a [CMU] wall running down both sides of the corridor that could have carried -- that, that beam could have framed into." (Tr. 1/231-32)
Mr. Van Peppen testified that it was not uncommon for buildings to have structural concrete girders stop at a corridor, as depicted in Appendix G drawings, including a barracks at Camp Lejeune that he worked on (tr. 1/232).

79. The presence of the four lowered concrete girders at column lines J, L, O, and Q spanning the first-floor corridor, their increased thickness, and their bottoms were only 8 feet above the finished floor, hampered Meltech from installing the new water pipes in the space above the ceiling (R4, tab 239; tr. 1/177-79, 309-10). The remaining beams located on the first floor did not prohibit plumbing line installation (tr. 1/183).

80. Meltech's 100% Interior Drawings dated December 4, 2015, P-111 depicts all planned plumbing lines running down the ceiling of the first-floor ceiling. The pipes enter at the junction of the barracks and hammerhead portion and continue almost to the "S" column line. (R4, tab 308 at 62) Drawings P-411, P-412, and P-413 depict risers carrying water vertically from the first-floor units to stacked second and third-floor units (R4, tab 308 at 62, 69-71; tr. 1/167-69).



81. Meltech submitted RFI 2602-052 to its Designer on April 12, 2016. RFI 2602-052 requested Meltech's designer, URS, "change the routing of the domestic water lines and the water lines to the laundry room from the first-floor hallway ceiling to the crawl space from H line to T line." The RFI stated that the existing beams (J, L, O, and Q) did not allow enough room, 8 feet above finished floor, for the domestic water lines. (R4, tab 239 at 9)

82. URS replied to RFI 2602-052 on April 14, 2016, and provided a revised sketch of drawing P-110 relocating the domestic water lines in the crawl space (R4, tab 239 at 10). URS stated that "piping will be required to be heat traced[3] since it is located in the unheated crawl space" (R4, tab 239 at 9).

Meltech's REA And Claim

83. On January 9, 2018, Meltech submitted an REA to USACE "because the domestic water piping that was supposed to be run above the first floor corridor ceilings would not fit above the ceiling because the existing building structure had

[3] Heat trace cable is an electric heating cable used to protect outside pipes from freezing. Contractors use such cables inside for unheated areas of a building (tr. 1/179).

beams at . . . column lines J, L, O, and Q. The solution was to run the plumbing lines in the unheated crawl space below the first floor slabs." Meltech notes that there was not any additional cost from the plumber to run the water piping in the crawl space; however, additional heat tracing and a more robust heat trace system including control panel, required "five times as much heat trace cabling and associated fittings, additional electric power feeds, and a 150 amp breaker installed in the main switch gear." Meltech requested $130,134, and an additional 59 days to extend the completion date of the project to December 29, 2017. (R4, tab 239 at 1)

84. Meltech requested a contracting officer's final decision and certified its claim on June 11, 2018 (R4, tab 241).

85. The Contracting Officer did not issue a final decision (JSOF ¶ 26 at 19; tr. 1/188).

86. On August 23, 2018, Meltech filed a notice of appeal to the Board.

Interrogatories Responses

87. Interrogatory No. 1 asked the government, "Please state the means by which Meltech could have ascertained prior to bidding the project that the area above the first floor ceiling contained large concrete beams." The government responded, "Appellant could have seen the concrete beams during the pre-proposal site inspection, or in photographs and drawings attached to the Design Criteria." (App. supp. R4, tab 675 at 43)

88. Interrogatory No. 5 asked the government, "Please state whether you agree that the existence of the concrete beams above the first floor corridor ceiling prevented Meltech from installing the piping in the ceiling space." The government responded, "Admitted that as a practical matter, the concrete beams prevented Appellant from placing the pipes above the 1st floor ceiling." (R4, tab 675 at 45)

DAY ROOM SHELVING CREDIT– ASBCA No. 61872

Day Room RFP Requirements

89. The "Day Room" is a common space portion of Building 8609's hammerhead section. A shelving unit, like a large home entertainment center, was to be designed and constructed in the day room. (JSOF ¶ 1 at 14)

90. Design Criteria Section 01 10 00, paragraph 1.0 Project Objectives, describes that the "building will have a 25-year useful design life before a possible re-use/re-purpose or renovation requirement" and that the "[m]aterials and methods

will reflect this by choosing the lowest Type of Construction allowed by code for this occupancy/project" (R4, tab 3 at 6).

91. The Functional and Area Requirements of the Design Criteria section 3.1 General stated that the "construction types, design layouts, materials, finishes and utility systems outlined in this document are meant to convey design requirements and allowable systems, but are not to be taken as preferences by the Client or User" (R4, tab 3 at 9).

92. For shelving in the day room, the RFP contained no specific requirement as to the type of material to be used, but Section 3.9.2, Architectural Design, of the Design Criteria, described the "Material and Product Selection Criteria" as "Materials will meet the requirements of the criteria. The criteria establish a minimum quality level." (JSOF ¶ 2 at 14; R4, tab 3 at 24-25) For the cabinets, the Design Criteria stated: "[f]inish material to be plastic laminate" (R4, tab 3 at 24).

93. The Black & Veatch package for the renovation of building 8609 included a detailed Cost Report dated July 17, 2014.identifying "plastic laminate on particle board" for the day room shelving custom cabinet (app. supp. R4, tab 354 at 22-23).

Meltech's Proposal and Design Submissions

94. Meltech's proposal was divided into tabs, including a Technical Approach. Meltech's proposal did not specifically address the day room cabinet and shelving materials; rather, the proposal outlined that the interior finishes will be "modern" and "upgraded interior employing durable finishes":

> In compliance with the RFP scope of work, all the existing building finishes will be replaced with new, durable, high quality finishes to offer a modern and upgraded interior employing durable finishes and materials conducive to group living. Color boards will be submitted with the Work Plan submittal, including samples of colors and finishes of interior surfaces.
>
> . . . .
>
> Contractor furnished and installed items as described in detail in the RFP will be provided.

(R4, tab 5 at 7-8)

Meltech's 100% Design Submittal Included White Oak Veneer for the Day Room Cabinet

95. Meltech submitted "Design Complete (100%) Submission – Building" specifications dated December 4, 2015 (R4, tab 309 at 1). Under Section 06 20 00, subsection 2.9.1 Wood Millwork – Dayroom Media Storage Unit described that the finishing material as "[v]eneer shall be minimum 1/28" thick (quarter slice white oak)" (R4, tab 309 at 155).

96. On March 9, 2016, the administrative contracting officer issued a letter accepting the 100% interior submittal package in accordance with section 01 12 00 paragraph 1.2 and stated that "Meltech is hereby released for construction of the design features included in the 100% Interior Submittal Package" (R4, tab 20). The letter continues stating that the government's "acceptance of this design package does not relieve Meltech Corp., Inc. from the responsibility of any design errors or omissions. Any revisions to the 100% Interior Submittal Package drawings and specifications shall be reviewed and approved by the Designer of Record and submitted to the Government for concurrence." (R4, tab 20)

Later, Meltech Seeks to Clarify the Material and Asks to Substitute with Plastic Laminate

97. On September 20, 2016, Meltech submitted RFI 2602-121 to clarify the material type indicated on drawing A-405 detail 8, "[w]hat species is WD-1?" The following week, on September 26, 2016, the designer of record responded that the material type is "quarter slice white oak . . . as specified in section 06 20 00 para. 2.9" of the approved Design Complete 100% Submittal. (R4, tab 274 at 3) We note that the designer of record's response does not refer to the Design Criteria specification; instead, the response highlights the section and paragraph of the approved Design Complete 100% Submittal, Wood Millwork – Dayroom Media Storage Unit that the veneer is "quarter slice white oak" (*see* R4, tab 309 at 155).

98. Meltech's original agreement, prior to the submission of the 100% Design Specifications, with its subcontractor, Cavanaugh Cabinets, was to supply Meltech with plastic laminate material for the day room shelving unit (JSOF ¶ 7 at 15).

99. On October 4, 2016, in response to Meltech's cost inquiries, Cavanaugh Cabinets quoted Change Request #01, the costs of the architectural millwork to use "Grade AA White Oak veneer" for the day room cabinets, shelving, and countertop finish was $13,250 more expensive than plastic laminate (R4, tab 274 at 1).

100. After approval of the 100% Design Specifications, on November 8, 2016, Meltech submitted RFI-0108, to the designer of record requesting that it allow Meltech

to substitute plastic laminate for the white oak for the shelving unit, "[Design Complete (100%) Submission] Specification section 06 20 00 paragraph 2.9 requires quarter slice white oak veneer for the Dayroom Media Storage Unit. Due to the excessive expense of using white oak veneer, we prefer to substitute plastic laminate per spec section 06 41 16.00 10." (R4, tab 275)

101. On February 10, 2017, following the submission of revised detailed drawings showing the material change from white oak veneer to plastic laminate, USACE agreed to "the proposed change finishing material from white-oak veneer to plastic laminate" (R4, tab 279).

102. The administrative contracting officer testified that the substitution of the plastic laminate for the oak veneer did not change or deviate from the requirements of the Design Criteria (tr. 2/90-91).

103. In a follow-up email to Meltech on March 21, 2017, USACE's Project Engineer, Melvin Damoudt, stated that USACE had approved the change, "but we told Meltech that a credit will be ask[ed] by the Government." Mr. Damoudt noted that as Meltech is the fabricator of the pieces, it wanted the fabrication costs so that USACE may negotiate a credit for this change in material (R4, tab 280).

104. After several follow-up emails from Mr. Damoudt to Meltech for the cost differential between white-oak veneer to plastic laminate, Meltech sent a copy of Cavanaugh Cabinets' October 4, 2016, quote for $13,250 (R4, tab 281 at 2-6). On April 11, 2017, Mr. Damoudt emailed Meltech stating that now USACE has the decrease in the fabrication cost, his office can negotiate a credit with Meltech (R4, tab 281 at 1).

105. Within minutes, Meltech's Senior Project Manager, Barry Boyd, responded to Mr. Damoudt stating:

> With all due respect, no credit will be forthcoming. The plastic laminate cabinets and shelving in the day room meet the requirements of the RFP and therefore satisfy Meltech's contractual responsibility in this regard. Should the COE or customer have required the oak cabinets and shelving, Meltech would have required a modification of the contract in order to proceed.

(R4, tab 282 at 1)

106. The administrative contracting officer responded to Meltech the same morning stating that USACE intended to pursue a credit for the decreased costs

surrounding the change in material per section 01 12 00 paragraph 1.3 as this was a deviation from the accepted design, including oak finished cabinets. The contracting officer stated that the final design included every finish that is included in the total contract price. The contracting officer declined to issue a contract modification to change the material of the day room cabinet, shelving, and countertop from white-oak veneer to plastic laminate, as USACE has the right to pursue a credit for this material substitution. (R4, tab 282 at 1)

107. On May 18, 2017, Meltech completed the installation of the day room shelving unit with plastic laminate (R4, tab 29 at 1768, 1790, 1795).

108. On June 14, 2017, USACE officially responded to RFI-0108, agreed to the material change from white oak veneer to plastic laminate, and stated that "[it] reserves the right to pursue a credit for the proposed change" (R4, tab 276).

Day Room Credit Calculation and Meltech's Claim

109. To determine a credit for the change in materials, USACE took the price differential quoted by Cavanaugh Cabinets ($13,250), added bonding costs, overhead, and profit to arrive at a total credit of $16,447 (JSOF ¶ 10 at 15; R4, tab 284 at 1).

110. On September 1, 2017, Meltech responded to USACE's proposed credit modification, stating that it "received no cost savings resulting from the use of the plastic laminate cabinets and shelving in lieu of white oak material." Meltech stated that it had "budgeted for plastic laminate cabinets and shelving" but "during the design phase, a note was added to the drawings to make these white oak primarily to match the oak picture rails on the adjacent walls. The plastic laminate ultimately used was chosen by the designer of record to match the picture rails." (R4, tab 283)

111. USACE took a credit of $16,447 in unilateral Modification No. R00007 dated April 13, 2018 (R4, tab 286).

112. On January 23, 2018, Meltech submitted a certified claim seeking a resolution of the controversy regarding the day room shelf credit in the amount of $16,447 (R4, tab 285).

113. USACE did not issue a COFD, and the claim was deemed denied (JSOF ¶ 14 at 16).

114. On November 6, 2018, Meltech filed a notice of appeal.

DECISION

EMERGENCY LIGHTING – ASBCA No. 61766

The Parties' Contentions

Appellant contends it is entitled to a constructive change for its work to meet the Fire Inspector's directive to replace standard light fixtures (app br. at 84). Appellant argues that its 100% interior drawings, which included the emergency lighting system, were reviewed and approved by the engineer of record, the government, and Fire Inspector Lindsay before appellant installed the light fixtures (app. br. at 84; app. resp. br. at 36). Appellant argues that "[t]he government has presented no evidence Meltech's installation failed to comply with the approved design documents" and questions the Fire Inspector's testing and results. Specifically, it argues that Fire Inspector "Lindsay did not use a calibrated, stand-alone light meter while conducting his inspection, instead relying on a phone application that had been provided by an employee of the electrical subcontractor," and Meltech was never provided with a copy of the results of the failed inspection. (App. br. at 84-85; app. resp. br. at 34-35) As the government cannot produce a test report of the failed lighting inspection, the accuracy of the Fire Inspector's conclusions and alleged findings are not supported, and the Board should not consider Fire Inspector Lindsay's testimony "at his word" (app. reply br. at 29).

The government argues that the Fire Inspector conducted the emergency lighting test of Building 8609 in accordance with NFPA 101, which was incorporated into the contract. The government contends that certain test areas failed to provide the minimum amount of illumination along the path of egress consistent with the requirements set forth in NFPA, Chapter 7, sections 7.8 and 7.9 (gov't br. at 56). The government argues further that Meltech did not object to the building's failure of the December 6, 2017, emergency light test and instead began to immediately direct its subcontractor to order the appropriate light fixtures and install them (gov't br. at 58). The government notes that appellant never tested the emergency lighting system and never requested a government retest of the failed December 6, 2017, test (gov't br. at 60). The government challenges appellant's version of the events surrounding the December 6, 2017, lighting test (gov't br. at 61). The government argues that Meltech's behavior following the failed emergency lighting test, directing its subcontractor to fix the deficiencies, and Meltech's failure to inspect and test the emergency lighting to ensure it met the contract's requirements to conform to NFPA 101 as directed under FAR 52.246-12(b), demonstrates appellant is in no position many years later to challenge Fire Inspector Lindsay's December 6, 2017, test results (gov't br. at 59-60). Finally, the government argues that approval of appellant's drawings does not act as a waiver and does not shift the risk that those drawings will meet the contractual requirements, citing FAR 52.236-23, Responsibility of the

Architect-Engineer Contractor and *Thomas J. Davis, Inc.*, ASBCA No. 62634, 21-1 BCA ¶ 37,886 at 183,993 (gov't reply br. at 47-48).

Emergency Lighting Discussion

It is well-settled that the Government has the right to obtain precisely what is specified in the contract. *Astro Dynamics, Inc.*, ASBCA No. 28381, 88-3 BCA ¶ 20,832 at 105,361; *Norwood Precision Prod., Textron, Inc.*, ASBCA Nos. 38095, 38196, 90-3 BCA ¶ 23,200 at 116,429; *Am. Mech., Inc*., ASBCA No. 52033, 03-1 BCA ¶ 32,134 at 158,892; *Pyrotechnic Specialties, Inc.*, ASBCA No. 57890 *et al.*, 17-1 BCA ¶ 36,696 at 178,693. Here, it necessitated strict compliance with NFPA 101, Life Safety Code, which governs the amount of minimal light for safe egress when the emergency lighting system is activated (finding 22).

The contract incorporated NFPA 101 and required emergency egress lighting to provide a minimum of 10 Lux, 1 foot-candle, with a 90-minute operation length of time (findings 23, 25). During the testing, Fire Inspector Lindsay noted several deficiencies in the emergency lighting in Building 8609. Those deficiencies included a hallway door installed on each of the first, second, and third floors proximate to rooms x23, which blocked the emergency light, "CE," from sufficiently illuminating to the requirements of NFPA 101. (Findings 34-35, 38) In addition, insufficient lighting was noted in the computer room and near room 126 (finding 34). NFPA requirements were clearly set forth in the contract, leaving little question of what was required to make the emergency lighting safe for building egress (findings 23, 25). While "Meltech concedes the fire marshal rejected its work as not meeting code requirements due to allegedly insufficient light readings in certain locations," it challenges both the accuracy of the underlying failures and the truthfulness of his testimony (app. reply br. at 28). Contrary to these challenges, the evidence presents a different picture.

Appellant's contemporaneous behavior immediately after being informed of the failed emergency test demonstrated an acquiescence to the December 6, 2017, results. Meltech did not challenge the test results; instead, it instructed its subcontractor to fix the deficiencies, immediately ordering the appropriate emergency light fixtures and providing updates to the government project engineer on how it would address the failures identified by the Fire Inspector on December 6, 2017 (findings 41-42, 44-45). Meltech's behavior following the failed emergency lighting test is consistent with its communication, where it identified that several emergency light fixtures were not working, and that a standard fixture was installed in place of an emergency fixture, as shown in the room 126 plans. Similarly, Meltech acknowledged a "battery or a bulb problem" after the 90-minute battery test (finding 41). Testimony from Meltech's Director of Quality Control and Safety stated that Meltech did not want to challenge the December 6 results. More importantly, Meltech chose not to conduct its own investigation after the December 6th test. (Findings 45-46) Meltech's testimony is

consistent with its behavior in that it accepted the failures identified by the Fire Inspector, and have failed to make any showing that the testing conducted by the Fire Inspector was flawed.

Furthermore, appellant was required by FAR clause 52.246-12(b) to "maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements" (finding 27). Appellant failed to present any evidence of a pre-inspection of the emergency light fixtures (finding 46). We can only conclude from this that Meltech did not test the system beforehand to ensure it worked, that it conformed to the contract's and NFPA 101's illumination requirements, and that it was ready for government testing (finding 46).

We are unconvinced by appellant's allegations raised years after the inspection. The picture appellant now paints of the events surrounding the December 6, 2017, test is in stark contrast to the record. Meltech's questions about the accuracy of the test include complaints over Fire Inspector Lindsay's use of a "borrowed" cell phone with a downloaded application to perform the light measurement (finding 33; app. br. at 42, 84; app. resp. br. at 34-35). We note that the contract incorporated FAR clause 52.246-12(e), requiring the contractor to furnish the equipment necessary for the government to perform inspections and tests (finding 27). Appellant has presented no evidence to support that the December 6, 2017, test was unreasonable or defective. Instead, the record shows that Meltech accepted the December 6, 2017, test results without challenge (findings 41-42, 44-47). In order for the Board to find that the government assumed the costs associated with replacing the light fixtures and resulting delays, we need much more than what has been presented here. *See generally Alonso & Carus Iron Works, Inc.*, ASBCA Nos. 38312, 40334, 90-3 BCA ¶ 23,148 at 116,203. If Meltech had concerns about the conduct or method of inspection, it should have raised them with the contracting officer at the time. Meltech could have challenged the test results with test results consistent with FAR clause 52.246-12(b) or requested a retest. *See* (finding 47). Instead, neither was done. We conclude that Meltech's compliance with the government's test results was the direct result of a failure to meet the contract requirements.

Similarly, appellant's argument that the 100% interior drawings, which included the emergency lighting system, were reviewed and accepted by the engineer of record, should shift responsibility from Meltech to the government is equally without merit (app. br. at 84; app. resp. br. at 36-37). The contract incorporated Architect-Engineer clause, FAR 52.236-23, which states that the contractor is responsible for the accuracy and quality of the drawings and "[n]either the Government's review, approval or acceptance of . . . the services required under this contract shall be construed to operate as a waiver of any rights under this contract" (finding 13). Appellant is contractually obligated under the Architect-Engineer clause

to exercise its architectural skill, ability, and judgment with reasonable care and without negligence. *E.g., Ralph M. Parsons Co.*, ASBCA No. 24347, 85-1 BCA ¶ 17,787 at 88,877; *William Tao & Assocs., Inc.*, ASBCA No. 32986, 89-2 BCA ¶ 21,588 at 108,711 ("[Contractor] failed to perform its obligation to design the roofing system of the [building] as a reasonably prudent architect-engineer should have to prevent the extensive condensation which occurred after construction of the facility and which necessitated redesign and corrective roofing work."); *Brunson Assocs., Inc.*, ASBCA No. 41201, 94-2 BCA ¶ 26,936 at 134,152-53 (The Board rejected the doctrine of comparative fault of the government when it reviewed and approved construction design, but later, due to the contractor's faulty design, the building collapsed. The Board applied the Architect-Engineer clause, FAR 52.236-23, holding that appellant did not satisfy its contractual duty when it "did not adequately consider the combined stresses and forces resulting from both axial forces and local bending moments at the kink points on the arch. It also did not undertake the required analysis of unbalanced snow load."). Thus, the contractor bears the design risk of complying with the requirements of the specification in a firm fixed-price, design-build contract. *John C. Grimberg Co.*, ASBCA No. 58791 *et al.*, 18-1 BCA ¶ 37,191 at 181,052-53, *rev'd on other grounds*, *United States Army Corps of Eng'rs v. United States*, 817 F. App'x. 960 (Fed. Cir. 2020); *Conquistador Dorado Joint Venture*, ASBCA No. 60042 *et al.*, 20-1 BCA ¶ 37,628 at 182,679 ("the design risk is transferred to appellant"); *Meltech Corp., Inc.*, ASBCA Nos. 61706, 61768, 22-1 BCA ¶ 38,117 at 185,157-58. In order to provide secure egress from Building 8609, Meltech was required to provide sufficient emergency lighting when the system was activated, which was required to meet code requirements, including the Life Safety Code, NFPA 101. Sufficient illumination for emergency egress was a requirement of this firm fixed-price, design-build contract, and the costs to meet that requirement cannot be shifted to the government as appellant suggests. *See* (findings 22- 23, 25-26); *see also Lakeshore Eng'g Servs., Inc. v. United States*, 748 F.3d 1341, 1347 (Fed. Cir. 2014) ("The essence of a firm fixed-price contract is that the contractor, not the government, assumes the risk of unexpected costs."); *Edinburgh Int'l*, ASBCA No. 58864, 16-1 BCA ¶ 36,227 at 176,744 ("Everything points to appellant bearing the risk of these increased performance costs unless some other language in the contract shifted the risk . . . to the government."). We have long held that the government's approval of the contractor's drawings does not operate as a waiver of the contract's requirements. *Brunson Assocs., Inc.*, ASBCA No. 41201, 92-1 BCA ¶ 24,571 at 122,580. Furthermore, the contract incorporated the Inspection of Construction clause, FAR 52.246-12, which places the responsibility on the contractor for replacing or correcting work not conforming to contract requirements and provides that a government inspection does not relieve the contractor from any contract requirement (finding 27).

Finally, as we indicated above, Meltech's failure to inspect and test its installation of the emergency lighting system contributed to the failed December 6,

2017, test and any subsequent delays associated with the ordering and replacement of the light fixtures. *See Conquistador Dorado Joint Venture*, ASBCA No. 60042 *et al.*, 24-1 BCA ¶ 38,486 at 187,067 ("[contractor] failed to comply with [] clause [FAR 52.236-23] because it failed to manage and coordinate the work of the designers, and its team in general. At a minimum, compliance with the clause would have meant ensuring that both the design professionals and the workers in the field understood what the contract required".)

Having failed to show that the emergency lighting system installed in Building 8609 met the contract's requirements, appellant's appeal is denied.

HEAT TRACE – ASBCA No. 61767

The Parties' Contentions

Appellant argues it can recover for a Type I differing site condition "for the added heat tracing it installed for relocated [water] piping due to unanticipated overhead obstructions in the first-floor corridor ceiling of Building 8609" (app. resp. br. at 26; app. reply br. at 6). Citing *Nova Grp./Tutor-Saliba v. United* States, 159 Fed. Cl. 1, 35 (2022), appellant argues that it relied on the RFP drawings in Appendix G showing the existing conditions above the drop ceiling in the first-floor corridor in preparing its design to place plumbing piping in the first-floor corridor ceiling (app. br. at 67; app. resp. br. at 28). In particular, appellant argues that Appendix G drawing AE4, which is a cross-section of the three-story barracks, shows a concrete girder running across either side of the ceiling of the rooms in the first-floor corridor but "does not show the girder continuing across the width of the corridor" (app. br. at 67-68). "The drawing does not depict any variance in that space or the possibility of any conditions that would impede access to that space above the drop ceiling" (app. resp. br. at 28). Appellant interpreted the Appendix G drawings to indicate that "the area above the first-floor corridor ceiling to be free and clear of any structural beam obstructions that would impact planned plumbing installations" (app. br. at 68). Appellant contends that the drawings depicted in Appendix L are not applicable and are for another building, Building 8545 (app. resp. br. at 29). However, following demolition, appellant discovered that each concrete girder ran across the first-floor corridor, four of which (J, L, O, and Q) extended approximately 6-8 inches lower than the other girders, which "prevented Meltech from installing the new water pipes in the space above the ceiling" (app. br. at 25, 68). Instead, appellant argues that varying beam conditions are not typical in buildings like Building 8609, and it was forced to run the pipe through the unheated crawlspace beneath the building (app. br. at 25). Appellant contends its claim is supported by a Type I differing site condition as it experienced additional, unexpected costs to the heat trace piping in the unheated crawlspace to prevent pipe freezing (app. br. at 25, 67). Appellant argues it was not

foreseeable that concrete girders of varying dimensions existed above the first-floor corridor ceiling (app. br. at 68).

The government contends that appellant inferred too much from Appendix G's drawings. The government argues that the drawings accurately represented that certain pipes were in the ceiling of the first-floor corridor, but the drawings did not represent the volume of space above the ceiling or represent that there was room for additional pipes or other features (gov't resp. br. at 5). The government concedes that appellant may have shown that it "could not have reasonably anticipated that the elevations of the beams would not be uniform," but argues that "varying beam conditions had nothing to do with the conflict with water lines" (gov't resp. br. at 7-8). Instead, the government argues, appellant's issue with installing water piping above the first-floor corridor concerns whether there was sufficient space for this utility, not varying concrete girder height (gov't resp. br. at 7-8). The government argues that Appellant cannot prevail on a different site condition theory as Meltech has not provided evidence "that the presence of beams at eight feet was unusual" (gov't resp. br. at 9).

In addition, the government disputed when Meltech learned that the first-floor beams at column lines Q, O, L, and J were lower than the other beams, observing that, two months before demolition, the 30% Design Submittal, dated May 22, 2015, sheet A-301, showed that beams Q and O were lower than the beam at N (gov't resp. br. at 5-6).

Was Meltech Untimely in Reporting the Differing Site Conditions?

The government challenges the timeliness of the differing site condition claim stating that Meltech did not report the issue with the concrete girder traversing across the ceiling and the varying column line heights until much later in the contract (gov't br. at 49). "Meltech waited twenty-one months to inform USACE of the conflict between domestic water pipes and the first-floor beams. Meltech understood that the eight-foot beams caused a conflict by no later than April 12, 2016, when Meltech asked URS to relocate the pipes to the crawl space" but only informed USACE of the conflict in its request for equitable adjustment on January 9, 2018 (gov't br. at 49-50).

In order to prevail in a case in which notice of a differing site condition has not been provided on a timely basis by the contractor, the government has the burden of proving that the untimeliness caused prejudice to its case. *See Big Chief Drilling Co. v. United States*, 15 Cl. Ct. 295, 303 (1988) (citing *H.H.O. Co. v. United States*, 12 Cl. Ct. 147, 164 (1987)) and *Gulf & W. Indus. v. United States*, 6 Cl. Ct. 742, 755 (1984). The government has failed to show how the timing of Meltech's notice prejudiced it. Indeed, the government has admitted that "the concrete beams prevented [Meltech] from placing the pipes above the 1st floor ceiling" and the necessity to reroute the

piping into the crawl space (finding 88). The government has failed to allege any prejudice whatsoever and thus has failed to carry its burden. *See George Sollitt Constr. Co. v. United States*, 64 Fed. Cl. 229, 291 (2005) (The Navy had shown that the lack of timely notice prejudiced it because the contractor's solution for the missing dowels may have been entirely unnecessary, or a lower cost solution might have been preferred.); *Schnip Bldg. Co. v. United States*, 227 Ct. Cl. 148, 163-64, 645 F.2d 950, 959 (1981) (approving and quoting a board of contract appeals' decision that rejected a contractor's claim because "'[t]he lack of a timely notice was prejudicial to the Government because it effectively prevented any verification of [the contractor's claim of a differing site condition] and also the employment of alternate remedial procedures'"). Moreover, even when such prejudice is proven, it does not bar recovery, but rather increases the contractor's burden of persuasion of the constructive change claim. *Hunt Bldg. Corp.*, ASBCA No. 31775, 89-1 BCA ¶ 21,196 at 106,969-70; *SUFI Network Servs., Inc.*, ASBCA No. 55306, 06-2 BCA ¶ 33,444 at 165,778-779. Without more, the government's challenges to the timeliness of the claim fails.

Heat Trace Discussion

Type I Differing Site Condition

A Type I differing site condition, such as that alleged here, is premised upon the notion that the government has misrepresented conditions at the site and the contractor reasonably relied upon this representation to its detriment.

The elements of a Type I differing site condition, which FAR 52.236-2(a)(l) defines as "subsurface or latent physical conditions at the site which differ materially from those indicated in this contract," are: "(1) the condition indicated in the contract differs materially from those actually encountered during performance; (2) the conditions actually encountered were reasonably unforeseeable based on all information available to the contractor at the time of bidding; (3) the contractor reasonably relied upon its interpretation of the contract and contract-related documents; and (4) the contractor was damaged as a result of the material variation between expected and encountered conditions." *Optimum Servs., Inc.*, ASBCA No. 58755, 15-1 BCA ¶ 35,939 at 175,653-54 (citing *Stuyvesant Dredging Co. v. United States*, 834 F.2d 1576, 1581 (Fed. Cir. 1987); *Comtrol, Inc. v. United States*, 294 F.3d 1357, 1362 (Fed. Cir. 2002)).

To be eligible for an equitable adjustment for a Type I differing site condition, factors (1) and (3) above require that the contract indicate what the conditions encountered would be. *See Comtrol, Inc.*, 294 F.3d at 1363 (citing *P.J. Maffei Bldg. Wrecking Corp. v. United States*, 732 F.2d 913, 916 (Fed. Cir. 1984)); *see also United Contractors v. United States*, 177 Ct. Cl. 151, 161-62, 368 F.2d 585, 595 (1966)

(interpreting the Changed Condition clause (which was a predecessor to the Differing Site Condition clause) and stating that where a contract is silent about alleged unforeseen conditions there "can be nothing 'shown on the drawings or indicated in the specifications' from which the actual . . . conditions can 'materially' differ") (quoting *Ragonese v. United States*, 128 Ct. Cl. 156, 159, 120 F. Supp. 768, 769 (1954)).

Element 1: The Design Criteria Drawings Indicated the Column Heights Were Not Variable, and a Concrete Girder Did Not Extend Above the First-Floor Ceiling

In determining whether a contract indicates a condition exists, the "language of a contract must be given that meaning that would be derived from the contract by a reasonably intelligent person acquainted with the contemporaneous circumstances." *CDM Constructors, Inc.*, ASBCA No. 60454 *et al.*, 18-1 BCA ¶ 37,190 at 181,012 (quoting *Hol-Gar Mfg. Corp. v. United States*, 351 F.2d 972, 975 (Ct. Cl. 1965)). Thus:

> We must seek to put ourselves in the position of appellant at the time he bid on the contract, *i.e.*, we must seek the meaning that would be attached to the language by a reasonably intelligent bidder in the position of appellant, who would be expected to have the technical and trade knowledge of his industry and to know how to read and interpret technical engineering specifications and perform construction work in accordance with such specifications.

CDM, 18-1 BCA ¶ 37,190 at 181,012 (quoting *Adrian L. Roberson, d/b/a Roberson Constr. Co.*, ASBCA No. 6248, 61-1 BCA ¶ 2,857 at 14,915).

The government's argument that the Design Criteria and drawings do not make a "positive representation of the conditions" is misplaced (gov't br. at 42). Indeed, the Design Criteria provided detailed drawings of Building 8609 that show the locations of the concrete girder and column lines (findings 61-64). First, Appendix G drawings of Building 8609 show that the first-floor girder is interrupted in the ceiling and does not traverse the ceiling above the first-floor hallway (finding 61). This feature of the concrete girder not extending through the ceiling above the first-floor hallway is repeated in many figures (findings 61-64). Second, the Appendix G drawings show the column lines, the location for each, and the bottom height of each as being the same. Thus, the drawings show the column lines in detail but do not show the observed variances in their height from the floor and do not show the observed concrete columns crossing any of the beams across the first-floor hallway (findings 61-64). In addition, Appendix G drawings did not contain an exploded view to explain any hidden or latent features. These drawings do not include "call-outs," marks, or lines to put the bidder on

notice that these features were not being shown or to put the bidder on notice to inquire (findings 67-68). For example, in *David Boland, Inc.*, ASBCA No. 61923 *et al.*, 21-1 BCA ¶ 37,822 at 183,656-57, the Board found that although the specification drawings did not explicitly show the buried telecommunications line was concrete encased, a reasonable contractor would have concluded it was concrete encased as the specification figures distinguished between exposed wiring for existing lines and encased ductlines. *David Boland, Inc.*, 21-1 BCA ¶ 37,822 at 183,654, 183,656-57. Here, the Design Criteria do not highlight height variances in the concrete column lines or obstructions in the ceiling above the first-floor hallway. In fact, USACE's Project Engineer testified that these features should have been shown in the drawings, and it was "human error" not to include a blow-out or exploded view highlighting variances in the concrete girder height or showing any structural obstructions (findings 67- 68). Of course, express statements are not required before a differing site conditions claim can be entertained. The indications as to site conditions "need not be explicit or specific, but only enough to impress or lull a reasonable bidder." *See Foster Constr. C.A. & Williams Bros. Co. v. United States*, 193 Ct. Cl. 587 (1970); *Stock & Grove, Inc. v. United States*, 204 Ct. Cl. 103, 133-34 (1974); *Fairbanks Builders, Inc.*, ASBCA No. 18288, 74-2 BCA ¶ 10,971 at 52,218-221.

The government argues unconvincingly that Appendix L showed that transverse beams were continuous and did not stop at the corridors. First, Appendix L is a "Preliminary Structural Design Analysis" containing as-built structural drawings for a different building, Building 8548, instead of Building 8609 (findings 65-66, 69). As-built drawings of Building 8609 were never provided to the bidders to show what the actual conditions were (findings 5, 69, 74).

Nor is the government's reliance on Appendix L supported by the government's responses to offerors' questions. In its response to a question about whether "buildings 8609 and 8548 [are] similar enough to assume methodology shown on the drawings in Appendix L are adequate for pricing Building 8609," AECOM cautioned bidders on relying on Appendix L drawings for construction purposes (finding 69).

Accordingly, the government's reliance on Appendix L drawings is not persuasive as Appendix L (1) contains as-built drawings from a different building (8548) and is labeled "Design From Building 8548," (2) the lack of detail in Appendix L drawings do not show varying column line heights, (3) USACE cautioned the use of Appendix L drawings for construction purposes in response to pre-bid questions, and (4) the information contained in Appendix G drawings for Building 8609 provided sufficient information about the beams to bidders that it should not anticipate any issues associated with the beams' height from the floor or whether the beams fully transversed the first-floor corridor. USACE is correct that a drawing error, "human error," in the Appendix G Drawings for Building 8609

provided in the solicitation to bidders likely contributed to misunderstandings of the columns, which Meltech reasonably relied on (findings 67-68).

Determining what the contract indicated requires interpretation by stepping into "the shoes of a reasonable and prudent contractor and decide how such a contractor would act in interpreting the contract documents." *Randa/Madison Joint Venture III v. Dahlberg*, 239 F.3d 1264, 1274 (Fed. Cir. 2001) (quotations and citation omitted). Here, Meltech has identified Appendix G drawings from the Design Criteria that indicated the location, orientation, and features of the column lines and concrete girders in the first-floor ceiling. Meltech has presented sufficient evidence upon which a reasonable fact finder could find that the Design Criteria drawings indicated what the conditions, location, and orientation of the column lines and concrete girders would be. In addition, Meltech has presented sufficient evidence that the Design Criteria drawings indicated that column lines would not contain varying heights from the floor and that the first-floor girder would be interrupted and would not traverse continuously above the hallway. Such indications "'need not be explicit or specific' so long as they provide sufficient grounds by which the contractor can justify his 'expectation of latent conditions materially different from those encountered.'" *Neal & Co. v. United States*, 36 Fed. Cl. 600, 617 (1996) (citing *P.J. Maffei Bldg. Wrecking Corp. v. United States*, 732 F.2d 913, 916 (Fed. Cir. 1984)).

Elements 2 and 3: The Conditions Encountered Were Reasonably Unforeseeable Based on All Information Available to the Contractor at the Time of Bidding; Meltech Reasonably Relied Upon Its Interpretation of the Design Criteria Documents

As there is sufficient overlap in elements 2 and 3 of Type I differing site conditions, we will discuss them together.

The government argues that firsthand knowledge is required to show reliance on representations in government-furnished documents regarding the presence or absence of concrete beams or their dimensions; and without firsthand knowledge, Meltech cannot meet a Type I claim (gov't br. at 41; gov't resp. br. at 4). While firsthand knowledge can be helpful evidence, it is a type of weighted evidence and is not a requirement to satisfy the burden of proof for a Type I differing site condition. *See generally* the Board's discussion on weighing firsthand knowledge testimony: *Hurst Excavating, Inc.*, ASBCA No. 37351, 93-3 BCA ¶ 25,935 at 128,991 (The Board reaffirming its earlier decision on weighing the evidence, which included a contractor's principal witness who had little to no firsthand knowledge, but finding substantial evidence in the cited record that the contractor satisfied its burden of proof.); *Emerald Maint., Inc.*, ASBCA No. 43929, 98-2 BCA ¶ 29,903 at 148,053-55 (The Board gave little weight to the contractor's project manager's testimony who demonstrated a lack of familiarity with the project, in which most of his project management activities were 150 miles offsite, were conducted in writing, he lacked

sufficient knowledge of performance activities, his lack of project awareness was demonstrated that he could not even locate the contractor's project field office on a site plan, and he was not familiar with the names of contractor's employees who signed its proposed schedules.). Rather, a contractor must prove a Type I differing site condition elements by a preponderance of the evidence. *Stuyvesant Dredging Co.*, 834 F.2d at 1581 (A contractor must prove, by a preponderance of the evidence, that certain conditions were indicated in the contract, that the contractor relied on those indications, and that the conditions actually encountered differed materially from those indicated in the contract.); *Optimum Servs., Inc.*, ASBCA No. 58755, 15-1 BCA ¶ 35,939 at 175,653; *Tetra Tech Facilities Constr., LLC*, ASBCA Nos. 58568, 58845, 16-1 BCA ¶ 36,562 at 178,087.

The second element requires that Meltech show that, based on the information reasonably available at the time of its proposal, the actual conditions it encountered were "reasonably unforeseeable based on all the information available to the contractor at the time of bidding." *Stuyvesant Dredging Co.*, 834 F.2d at 1581.

The government argues that Meltech knew two months prior to the start of demolition that the first-floor beams at column lines Q, O, L, and J were lower than the other beams in the dormitory, citing the Concept (30%) Design Submittal dated May 22, 2015, Sheet A-301. Thus, "Meltech's assumption that the beams height would be uniform was not reasonable" or that "the Government disclosed enough information to allow an adept [bidder] to conclude that the beam heights varied," which would exclude a Type I differing site condition. (Gov't reply br. at 5-7) However, the issue is whether the conditions encountered differed materially from those indicated in the contract and upon which the contractor based its bid, not from conditions discovered after the contract award. *See Tetra Tech Facilities Constr.*, 16-1 BCA ¶ 36,562 at 178,087-88.

Here, prospective bidders were allowed to do a site investigation of the building, which included a USACE-guided walk-through that lasted about an hour (findings 9, 54-56, 71). For a Type I claim, the contractor is held to what a *site viewing* would reveal. The prospective bidder is entitled to rely on the accuracy of information included in the solicitation. The contractor is not obligated to conduct its own surveys or go beyond what a simple sight viewing might reveal. *See United States v. Atl. Dredging Co.*, 253 U.S. 1, 11 (1920) (holding "where it is stated that the direction to contractors to visit the site and inform themselves of the actual conditions of a proposed undertaking will not relieve from defects in the plans and specifications"); *Dan G. Trawick, III Contractors*, ASBCA No. 47779, 98-2 BCA ¶ 29,781 at 147,571 ("It is well settled that contractors are charged only with the knowledge of any defects that a reasonable site investigation would have revealed. . . . Here, the Government has not introduced any evidence of what a reasonable site investigation would have shown. It has not told us what the appellant should have

looked for and what it would have discovered had a site visit been conducted.") (internal citations omitted). That is, Meltech may not recover if it could have discovered the varying column line heights and non-interrupted concrete girder spanning above the first-floor hallway during a *reasonable* site investigation before it submitted its proposal. *See generally Operational Serv. Corp.*, ASBCA No. 37059 *et al.*, 93-3 BCA ¶ 26,190 at 130,379 (Bidder had a right to rely on government-supplied documents and information as reasonably accurate, "[a] bidder could not be expected to eyeball the variations in the sizes of 100 different areas, many of which had irregular boundaries," and "[e]ven if there was sufficient time, it also would be unreasonable to expect a bidder to undertake the expense of having all the areas surveyed."); *Urban Gen. Contractors, Inc.*, ASBCA No. 49653, 96-2 BCA ¶ 28,516 at 142,401.

Meltech attended the site visit on August 14, 2014, and performed a visual inspection throughout the space. The site visit was constrained as the building was occupied, limited to one hour, and guided by USACE (findings 9, 54-55). Inspection above the ceiling was restricted as much of that space was filled with building support components that blocked the view of column lines and concrete girder (findings 53-54). Only part of the building had a drop-down ceiling; other parts contained sheetrock (findings 53-54). Prospective bidders were not allowed to remove or destroy the ceiling to take measurements (finding 55). Similarly, in preparation for the Design Criteria documents for the RFP, USACE's architect-engineer, B-V's, site investigation was also constrained for the same reasons (finding 53). B-V acknowledges that it was limited by the accessibility of the ceiling and could not determine whether interferences existed in the first-floor ceiling. While B-V stated it believed the piping would fit in the ceiling, it could only speak to the measurements it took. (Finding 53) The results B-V obtained from its investigation were included in the Design Criteria and drawings. Consistent with B-V's internal conclusions, Meltech's Director of Quality Control and Safety testified that because there were no obstructions identified in the drawings, and with the information obtained during the site investigation, there appeared to be sufficient space to install the piping above the first-floor ceiling (finding 7). Meltech submitted its proposal and priced it based on assumptions made from the Design Criteria documents. The proposal provided the new plumbing layout that was to be installed in the first-floor ceiling (finding 72). However, the loss of the above-the-ceiling space, which included column lines J, L, O, and Q extending 6-8 inches lower than the rest of the column lines, concrete girders extending through the first-floor corridor, and the bottoms of some column lines being only 8 feet above the finished floor, prevented some of the new plumbing being installed in the first-floor ceiling (findings 77-79, 81-83, 88).

The Design Criteria and drawings did not identify any of the conditions encountered by Meltech. At least four drawings in Appendix G represented the location and configurations of first-floor ceiling beams, which depicted them as not continuous (findings 61-64, 78). The government has not cited to any evidence in the

record that Meltech's site visit was inadequate, nor would a reasonable site visit have identified the varying height differences of the column lines or the concrete girder extending above the hallway in the first-floor ceiling. It is unreasonable to conclude that a contractor having access only to a portion of the first-floor ceiling would identify varying column line height differences and concrete girders through a spiderweb of lights, mechanical piping, sprinkler piping, electrical conduit, fire alarm cable, HVAC ducts, and other building support components. *Cf. ECI Const., Inc.*, ASBCA No. 43843, 92-3 BCA ¶ 25,197 at 125,552 ("We are convinced, had appellant made a site visit, it would have observed the condition complained of."). A reasonable site visit does not include an exhaustive search or possible destruction of building components to see what is behind them. *Kinetic Builders, Inc.*, ASBCA No. 32627, 88-2 BCA ¶ 20,657 at 104,399 (Board rejecting the government's argument that the site investigation was inadequate because the contractor could have discovered the problem condition if it had performed destructive testing such as boring and augering, when the contractor was not obligated to conduct such an investigation). The Design Criteria Drawings misrepresented both the column lines' heights and the concrete girder fully extending through the ceiling across the first-floor hallway. The architect-engineer services provided by B-V were to "provide all necessary services required for the preparation of a complete and biddable RFP Design-Build Package" (findings 4-5). B-V was unsuccessful in this attempt. The USACE must assume responsibility for the representations of Building 8609's structural components in the Appendix G drawings of the Design Criteria provided to bidders before award. These drawings misrepresented the column lines' heights and the concrete girder fully extending through the ceiling across the first-floor hallway. More importantly, the government admits in its responses to interrogatories ". . . that as a practical matter, the concrete beams prevented Appellant from placing the pipes above the 1st floor ceiling" (finding 88).

We are convinced that a reasonable pre-bid site investigation would not have revealed the conditions encountered by appellant. *AAAA Enters., Inc.*, ASBCA No. 28172, 86-1 BCA ¶ 18,628 at 93,604 ("The materials in question were covered by blown sand and even assuming that a differing site condition occurred, the petroleum substances were not easily distinguishable from the existing asphalt coatings."). We held in *Fortec Constructors*, ASBCA No. 26453, 82-2 BCA ¶ 15,845, that a contractor could recover on its claim where it could have found the differing site condition only by searching for it. Accordingly, we determine that Meltech's site investigation as it relates to this claim was reasonable, and it would not have identified varying height differences in the column lines and the concrete girder extending above the hallway in the first-floor ceiling. *See S.T.G. Constr. Co., Inc. v. United States*, 157 Ct. Cl. 409, 415 (1962) (Whether the site investigation was reasonable "is dependent upon the facts and circumstances of the particular case."); *Zinger Constr. Co., Inc.*, ASBCA No. 26331, 82-2 BCA ¶ 15,988, *aff'd*, 807 F.2d 979 (Fed. Cir. 1986) (the contractor

assumes the risk of drawing deficiencies that were or should have been discovered by a pre-bid site visit).

It was reasonably unforeseeable for Meltech to identify through either the site visit or the Design Criteria documents the existence of varying heights of the column lines, concrete girders extending through the first-floor corridor, and the bottoms of some column lines being only 8 feet above the finished floor. Based upon the cited evidence, it was reasonable for Meltech to conclude that it could install the water piping in the first-floor ceiling. We determine that the Design Criteria documents and drawings misled bidders on Building 8609's structural layout and design.

Element 4: Meltech was Damaged as a Result of the Material Variation Between the Expected and Encountered Conditions

The government argues that even if it had provided complete location and dimension information about the first-floor beams, Meltech would not have changed its proposal and thus did not include the cost of the heat trace system (gov't br. at 53). "For at least seven months (the end of demolition in September of 2015 to the request to URS change the piping in April of 2016), Meltech had all the information it could possibly have about first-floor beam dimensions, but still planned to run pipes in the first-floor ceiling" (gov't br. at 54). Thus, the government argues that since Meltech did not immediately request to change the piping after notice of the different beam dimensions, Meltech would have still proposed the piping in the first-floor ceiling even if it had known of the issues surrounding the first-floor column lines and girder (gov't br. at 54).

It is inappropriate for the Board to speculate on imagined outcomes that were not briefed or part of the record. The fourth element requires that Meltech prove that it was damaged due to the material variation between expected and encountered conditions. The government is correct in noting that "Meltech did not include the cost of a heat-trace system in its pricing proposal because it did not anticipate needing to install such a system" (gov't br. at 53). After reviewing the Design Criteria drawings and from their site investigation, Meltech planned to install the plumbing pipe in the first-floor ceiling (findings 71-72, 78). Meltech's several-month delay from building demolition to submitting its request to URS to reroute the pipe is reasonable. Meltech testified that after identifying the concrete girders extended through the first-floor corridor, it planned to make it work until another issue popped up. Beams J, L, O, and Q had lower heights, and the column bottoms were only 8 feet above the finished floor. The combination of these unanticipated conditions caused Meltech to devise an alternative plumbing layout. *See* (findings 77-81).

Meltech submitted its request on April 12, 2016, to "change the routing of the domestic water lines and the water lines to the laundry room from the first-floor

hallway ceiling to the crawl space from H line to T line," as there are four beams whose lower height do not allow a minimum of 8 feet above the finished floor (finding 81). URS approved Meltech's request and stated that "piping will be required to be heat traced since it is located in the unheated crawl space" (finding 82).

Although there was no additional cost to run the piping in the crawl space versus the first-floor ceiling, Meltech was required to install a more robust heat trace system, which it had already contemplated in its pricing proposal for the sprinkler lines in the hammerhead crawl space (finding 83). The modified heat trace system included a more extensive control panel, additional heat trace cable and fittings, additional electric power feeds, and a 150-amp breaker to be installed in the main switch gear at a cost of $130,134. Meltech completed the additional work associated with the heat trace system on December 29, 2017. Meltech's claim also requests an additional 59 days[4] to extend the completion of the project from October 31, 2017, the previously requested date for the end of the performance period, to December 29, 2017. (Findings 83-84)

The purpose of the Differing Site Conditions clause is to induce bidders to rely on information concerning subsurface conditions given by the government in the solicitation and not to include contingencies in prices for those conditions. With the promise of equitable adjustment should a differing condition be, indeed, encountered:

> Bidders . . . need not consider how large a contingency should be added to the bid to cover the risk. They will have no windfalls and no disasters. The Government benefits from more accurate bidding, without inflation for risks which may not eventuate.

Foster Constr. C.A. & Williams Bros. Co. v. United States, 193 Ct. Cl. 587, 614 (1970).

There is sufficient evidence in the record that the rerouting of the plumbing pipe into the first-floor crawl space with the addition of the heat trace system increased Meltech's costs. We determine that Meltech has proved by a preponderance of the evidence that it was injured by the differing site condition. Accordingly, Meltech is entitled to recover its additional performance costs caused by the Type I differing site conditions.

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[4] Five of the 13 consolidated appeals had a delay component of the claim. For efficiency, the parties agreed to a portion of the hearing dedicated to delay for ASBCA Nos. 61765 (base access), 61767 (heat trace), 61869 (initial delay), 61870 (100% IFC delay), and 62091 (liquidated damages). Accordingly, the Board will issue a separate opinion on the delay concerning these appeals.

DAY ROOM SHELVING – ASBCA No. 61872

The Parties' Contentions

Meltech appeals a credit taken by the government for material associated with the Day Room Shelving. Meltech argues that the Design Criteria set forth in the specification identify plastic laminate as the finish material for the Day Room Shelving. Meltech's proposal did not indicate white oak veneer in the day room shelving, but later, after the contract award during the design phase, Meltech mistakenly listed white oak veneer as the material, which was approved in the 100% Interior Specifications. (App. br. at 92; app. resp. br. at 44) Meltech argues that the plastic laminate material fully meets the performance requirements of the RFP, and therefore, the government credit is not appropriate (app. reply br. at 43).

The government argues that while the solicitation identified plastic laminate for the Day Room Shelving, the 100% Interior Specification prepared by Meltech included a white oak finish for the shelving unit. The 100% Interior Specification is a contract document that Meltech is obligated to follow, yet it installed plastic laminate. (Gov't br. at 78) The government maintains that it is entitled to receive "precisely what is specified in the contract," which was white oak veneer (gov't br. at 78; gov't resp. br. at 49-51). The government asserts that Meltech breached the contract when it performed work that did not conform to the 100% drawings without a change order issued by the Contracting Officer (gov't br. at 75; gov't resp. br. at 49). The government alleges it incurred damages in its time to review requests that "depart from the approved design." These damages include the time it takes to go through multiple layers of review, including engineers and the contracting officer, who do not work for free. (Gov't resp. br. at 52) The government argues it was appropriate for the administrative contracting officer to reduce "the contract price by $16,447 to account for the installation of cheaper plastic laminate in place of white oak" as contractors should not "be given unlimited ability to impose costs on the Government at any time, while pocketing all the savings" (gov't br. at 78; gov't resp. br. at 51-52).

Day Room Shelving Discussion

Design-build contracts are common for construction, renovations, and repair projects, where the government provides the contractor with its requirements, but the contractor is free to exercise its ingenuity in achieving that objective or standard of performance and selecting the means to do so. *See generally ECC Int'l, LLC*, ASBCA No. 58875, 20-1 BCA ¶ 37,683 at 182,961. It is not uncommon for issues to arise in design-build contracts. One of the more common issues is when the contract describes a certain requirement, but later during the design process, the contractor will submit in the 35% or 100% design submittal with a lower requirement. The government will

unknowingly approve that design, not realizing the contractor may have "slipped in" or made an error on one of the requirements; thus, the approved 100% design has a lower requirement as compared to the contract. In these situations, we have found that the government is justified in demanding the contractor provide the requirements specified in the RFP and resulting contract. *See Sauer, Inc.*, ASBCA No. 61847, 21-1 BCA ¶ 37,939 at 184,269-272 (a contract for Design Build/Design Bid Build construction for new construction, renovations, alterations, and repair projects for multi-story barracks. In its final design, the contractor mistakenly switched the above-ground sanitary waste piping systems type from cast iron to PVC pipes, which was a deviation from the contract's terms and conditions.); *Swinerton Builders Nw.*, ASBCA No. 57329, 17-1 BCA ¶ 36,738 at 179,012-018 (The Board determined that the Army was justified in assuming the contractor's mechanical/HVAC proposal met the RFP requirements for a boiler/chiller system, the contractor's failure to specifically advise the government that its HVAC/mechanical proposal included a deviation from the RFP requirements, and the Army did not waive the RFP required HVAC/mechanical system requirements).

Thus, our long-held rule has been that the government cannot properly be blamed for approving the design when the contractor failed to inform the government that its design deviated from Task Order minimum requirements. *See Watts Constructors*, LLC, ASBCA No. 61493, 20-1 BCA ¶ 37,563 at 182,387 (no evidence that quality assurance representatives who observed non-compliant contractor work knowingly waived the contractual terms); *Rivera Constr. Co., Inc.*, ASBCA Nos. 29391, 30207, 88-2 BCA ¶ 20,750 at 104,853 (the prime contractor was ignorant of its nonconforming change to the minimum requirements, and coordination and supervision of subcontractor work is responsibility of prime contractor); *Fortec Constructors*, 83-1 BCA ¶ 16,374 at 81,407 ("unwitting Government approval of a noncomplying submittal does not change the contract or estop the Government from demanding strict conformance to the contract.").

The present appeal is unique and unlike any of the other cited appeals dealing with a mistake in the approved 100% specification. Those previously described cases have the commonality that the RFP/contract had a higher requirement than the resulting approved 100% design document. Thus, the government was getting a lower quality, lower requirement than what was originally contracted for. In contrast, Meltech made a mistake during the design phase and provided a much higher quality/requirement than the RFP. This may be a case of first impression before the Board in which the government contracts for a requirement, the contractor makes a mistake during the design phase and submits a higher requirement, and now the government demands that the contractor is bound to its mistake since the government had approved the 100% design submittal.

The government bears the burden of establishing that the contract required the work upon which it seeks a credit and that it is "entitled to an equitable adjustment for a deductive change to reflect the cost savings to the contractor." *C.H. Hyperbarics, Inc.*, ASBCA No. 49375 *et al.*, 04-1 BCA ¶ 32,568 at 161,150; *Nager Elec. Co. v. United States*, 442 F.2d 936 (Ct. Cl. 1971); *Fru-Con Constr. Corp.*, ASBCA Nos. 53544, 53794, 05-1 BCA ¶ 32,936 at 163,165.

The government cites *Pyrotechnic Specialties, Inc.*, ASBCA No. 57890 *et al.*, 17-1 BCA ¶ 36,696 at 178,692-93, and *Trade W. Constr., Inc.*, ASBCA No. 61068, 20-1 BCA ¶ 37,713 (Trade West I), for the propositions that the government is "entitled to receive 'precisely what is specified in the contract,'" and the "government is entitled to insist on strict compliance with its contract specifications, and has no obligation to accept substitutes" (gov't br. at 78-79). Yet, none of the government's cited cases address a contract, which is a contractor design, government-approved 100% design specification, and contractor build.

For example, *Pyrotechnic Specialties* dealt with whether government-provided specifications were defective for the production of distress smoke flares following the Army's rejection of two production lots for their failure to pass multiple acceptance tests. The contract in *Pyrotechnic Specialties* included government-furnished tables, drawings, and text for the smoke flare's appropriate production, testing, and functional requirements. The Board determined that the contractor offered little evidence to support its assertion that it substantially complied with the specifications and showed that the government's specifications were defective. *See Pyrotechnic Specialties*, 17-1 BCA ¶ 36,696 at 178,694-695.

Trade W. Constr. dealt with jetty repairs in which the contractor was to place stones weighing 14 to 22 tons onto an existing jetty, ensuring that the stones formed a compact mass and interlocked with each other and the existing stone. The contract's specifications contained government-furnished descriptions and drawings for the stone size, stone source, and the placement of the stone, which described how the stone was to be positioned and the requirements for interlocking. *Trade West I*, 20-1 BCA ¶ 37,713 at 183,067, 183,075-76; *Trade W. Constr., Inc.*, ASBCA No. 61068, 22-1 BCA ¶ 38,214 at 185,572-74, 185,597-04. Yet, the contractor failed to show that it met the requirements of the contract's specifications and figures that the installed stones were angular, of varying sizes and shapes, and interlocked and formed a compact mass. *Trade W. Constr., Inc.*, 22-1 BCA ¶ 38,214 at 185,600-04. Accordingly, the government's cited cases are distinguishable from the present appeal as they involve a different contract type in which the government provides the contractor direction on how to perform the contract.

Most typically, in the case of a deductive contract change, any downward price adjustment is based upon the cost savings to the contractor, that is, the costs "the

contractor would have incurred had the work not been reduced or deleted." *Celesco Indus., Inc.*, ASBCA No. 22251, 79-1 BCA ¶ 13,604 at 66,681, 66,683. Yet, Meltech's request to change the oak veneer to plastic laminate did not result in any cost savings for either party. The Design Criteria described that the materials shall be of the "lowest [t]ype of [c]onstruction," which includes "plastic laminate" as a cabinet finish material (findings 90, 92-93). Although Meltech intended to install plastic laminate cabinets and shelving in the day room, Meltech's 100% Design submittal mistakenly described the day room shelving and media storage unit as having "quarter slice white oak" (findings 94-95, 98). The administrative contracting officer testified that the substitution of the plastic laminate for the oak veneer did not change or deviate from the requirements of the Design Criteria (finding 102).

"Proof of the parties' intentionality is relevant to our deciding how the deductive change should be priced." *Osborne Constr. Co.*, ASBCA No. 55030, 09-1 BCA ¶ 34,083 at 168,513 (citing *CTA Inc.*, ASBCA No. 47062, 00-2 BCA ¶ 30,947 at 152,763). It is important to note that Meltech did not inform the government that it purposely provided materials that exceeded the RFP's quality standards. There is no evidence that appellant submitted a deliberately low bid on the day room shelving. In addition, there is no evidence that Meltech purposely submitted in its 100% Design submittal with finishing materials that exceeded the RFP's minimal standards to gain favor for future bidding opportunities. As we have held that the government does not waive RFP requirements when it unwittingly approves a lesser quality design, a contractor's reasonable mistake should not require it to provide materials above and beyond the contracts requirements. This is an example of a contractor's mistake during the design-build phase, in which the contractor ultimately provided a finished material at the quality specified in the RFP/Design Criteria. There was no savings by Meltech nor a loss to the government. The equitable adjustment should not increase or decrease the contractors' loss at the government's expense. *Nager Elec. Co. v. United States*, 442 F.2d 936, 946 (Ct. Cl. 1971); *NASH AND CIBINIC*, FEDERAL PROCUREMENT LAW (2d ed. 1969) at 564. Moreover, the government presented no evidence to the Board that it incurred any costs of significance associated with its review of Meltech's submittals on these issues.

Accordingly, the government has failed to carry its burden of establishing that it is due a deductive credit for receiving day room shelving and cabinetry composed of plastic laminate while the RFP/Design Criteria call for the same materials and quality.[5]

[5] This is a perfect example of a dispute that should have been resolved at the lowest possible level. Ultimately, the USACE obtained exactly what it contracted for: materials which include "plastic laminate." Instead, in the government's pursuit of litigating a credit in the unsubstantiated amount of $16,447, it spent significantly more money and resources than the requested credit. The parties engaged in nine days of trial, which the Day Room Shelving appeal was part of,

States Roofing Corp., ASBCA No. 55507, 09-1 BCA ¶ 34,094 at 168,573, citing *Nager Elec. Co. v. United States*, 194 Ct. Cl. at 853; *see also Valley Asphalt Corp.*, ASBCA No. 17595, 74-2 BCA ¶ 10,680 at 50,770 (although the runway was built to the wrong elevation, only nominal price reduction allowed because no loss in value to the government). "The requirement that a contractor claimant must shoulder the burden of establishing the fundamental facts of liability, causation and resultant injury relating to a claim for which it sees recovery applies with equal efficacy to claims brought by the government." *Fru-Con Const. Corp.*, ASBCA Nos. 53544, 53794, 05-1 BCA ¶ 32,936 at 163,165 (citing *Roberts v. United States*, 357 F.2d 938, 949 (Ct. Cl. 1966)).

CONCLUSION

The appeal docketed as ASBCA No. 61766 (emergency lighting) is denied. The appeals docketed as ASBCA No. 61767 (heat trace) and ASBCA No. 61872 (day room shelving) are sustained and are returned to the parties for a determination of quantum.

Dated: July 16, 2025

STEPHANIE CATES-HARMAN
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

OWEN C. WILSON
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

I concur

MICHAEL N. O'CONNELL
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

nearly ten pages in the post-hearing briefs and other supporting documents were filed. Cooler heads should have prevailed, as this issue could have been better resolved during *the give and take* that typically occurs by experienced contracting officers and contractors.

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA Nos. 61766, 61767, 61872, Appeals of Meltech Corporation, Inc., rendered in conformance with the Board's Charter.

Dated: July 16, 2025

PAULLA K. GATES-LEWIS
Recorder, Armed Services
Board of Contract Appeals