

GRUNLEY CONSTRUCTION COMPANY, INC.,
Appellant

v.

ARCHITECT OF THE CAPITOL,
Respondent

CAB No. 2007-3

Appearance for the Appellant:

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Office of the Architect of the Capitol

Board Judges:

Sharon L. Larkin (Presiding)
David A. Ashen
Frank Maguire

DECISION

Grunley Construction Company, Inc., appeals the final decision of the contracting officer of the Architect of the Capitol (AOC) under contract No. AOC-0400062, denying Grunley's request for an equitable adjustment of \$757,657 for costs incurred to fabricate and install replacement windows in the United States Supreme Court (USSC). Grunley asserts that its window subcontractor, Masonry Arts, Inc. (MAI), was required to redesign certain windows and window trim after it encountered unanticipated conditions

at the site. Grunley asserts entitlement to relief under multiple theories: (1) Types I and II differing site conditions; (2) defective specifications; (3) misrepresentation; and (4) superior knowledge.

This appeal has been fully developed. The parties have engaged in extensive discovery, jointly prepared a Rule 4 file, presented evidence at trial, and fully briefed their respective arguments. The Board has carefully considered all of the evidence and arguments before it and finds in favor of AOC. For the reasons stated below, the Board denies Grunley's appeal.¹

BACKGROUND

The USSC Modernization Project and Window Requirements

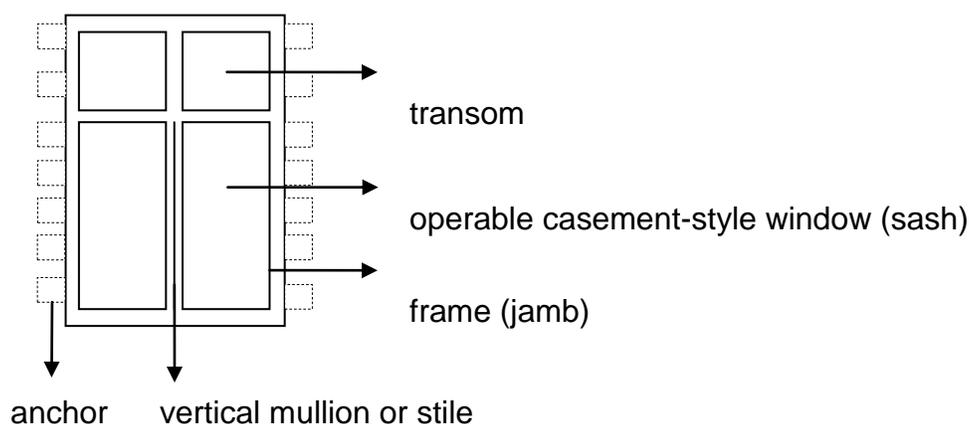
The USSC is a historic building that was built in the early 1930s and designed by renowned architect Cass Gilbert. In the late 1990s, the USSC in conjunction with AOC determined to modernize and upgrade the USSC to address both functional and security needs. By 2003, the scope of work had been defined to include replacing and/or modernizing various building systems (e.g., mechanical; heating, ventilation, and air conditioning; electrical; plumbing), performing some interior renovation, and refurbishing historic windows. Trial Transcript (Tr.) at 3404; Rule 4 (R4), Tab 1, at 1-2. The window portion of the project involved upgrading three types of windows.² The entire value of the USSC modernization project was estimated to be between \$50 million and \$100 million, with approximately \$3 million apportioned to the windows. R4, Tab 1, at 2; Tr. at 98.

At issue in this case is one portion of the window work involving 70 type T1-1 windows located on the first floor of the USSC. Tr. at 97-98. These historic T1-1 windows are approximately 11 feet tall and over 5 feet wide. They are trapezoidal in shape (approximately 2 inches wider at the bottom than the top) to create an optical illusion that the windows are rectangular when viewed from the street. Tr. at 3461, 4419, 4421. On the inside, however, the window trim is installed to offset the trapezoidal shape--that is, the trim is wider at the top than the bottom, so that the windows appears rectangular when viewed up close by the occupants of each room. Tr. at 4421. As depicted below, the T1-1 windows are operable casement-style windows, with inoperable transom windows at the top, separated by vertical and horizontal mullions or stiles. R4, Tab 18, Dwg A549. The window frame (also called a jamb) and trim are made of bronze and are attached to the surrounding walls by anchors. R4, Tab 15, at 412.

¹ In a related appeal (CAB No. 2010-6), Grunley raised additional claims pertaining to the windows. At the request of the parties, the Board consolidated the appeals for purposes of record development and trial. However, the Board is issuing separate decisions because the parties' avenues of appeal may differ for each case.

² The three window types are referred to as types T1, T2, and T4. See R4, Tab 15, at 410. No work was required under the contract for type T3 windows. Id. Type T1 windows included 70 T1-1 on the first floor and 66 T1-2 windows on the ground floor. Tr. at 97-98.

T1-1 Window



Prior to issuance of the solicitation, AOC retained The Hillier Group³ (an architect and engineering firm) and lead historic preservation architect George Skarmeeas to assist with design issues for the project.⁴ Tr. at 3404; R4, Tab 3, at 49. With regard to the T1-1 windows, the design issue presented was how to increase the capacity of the windows to withstand outside blasts (*i.e.*, explosions) to protect occupants from injury in a way that would preserve the historic architectural integrity of the windows. Tr. at 3410. In furtherance of this objective, in 2002, Hillier removed a single T1-1 window from the USSC and sent it for testing to determine how much blast protection could be achieved if the window was refurbished. Tr. at 3460, 3925. At that time, Hillier personnel noticed that the window was trapezoidal in shape. Tr. at 3461. Hillier personnel were not certain how many of the T1-1 windows were trapezoidal in shape, if any of the other window types were trapezoidal, or whether all of the windows for each type were consistently dimensioned.⁵ Tr. at 3467, 3471. Hillier had not been contracted to, and therefore did not, measure the dimensions of every window in the

³ In 2007, Hillier merged with RMJM Group and is now known as RMJM Hillier. Tr. at 3400.

⁴ AOC also retained Hill International to serve as its construction manager for the project. R4, Tab 3, at 49.

⁵ Although two original shop drawings from the 1930s depicted the T1-1 windows as trapezoidal, these drawings were not stamped by the architect of record at that time (Cass Gilbert), and there were no “as-built” drawings developed during or after the project to depict the final approved and installed windows. R4, Tab 21, Gen. Bronze & Vermont Marble Dwgs; Tr. at 3469, 3649, 4440; see also Tr. at 3407 (“as-built” was not a concept recognized in the 1930s). Hillier’s lead architect, George Skarmeeas, testified that he could not recall whether he or anyone on his team had seen those 1930s shop drawings when developing the window design. Tr. at 3470. Kirk Marchand, a blast engineer retained by AOC to perform a vulnerability assessment of the USSC (which included recommendations for increasing the blast resistance of the T1-1 windows), reviewed the 1930s drawings as they pertained to blast requirements for the windows, but not for geometry or dimensional purposes. Tr. at 3904-05, 3916.

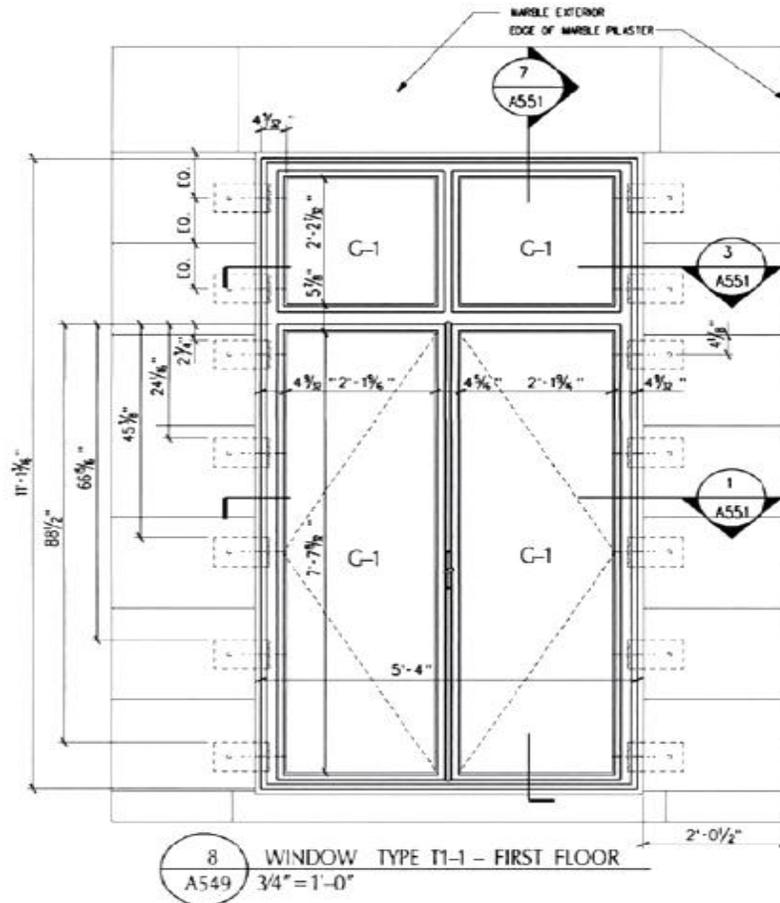
building. Tr. at 3468. Instead, a determination was made to shift the burden of field measuring to the contractor and to include notes on the contract drawings and schedules to warn the contractor that some windows may be tapered. R4, Tab 54, at 739; Tr. at 3467-68, 3543, 3650.

After the testing was completed, Hillier finalized a design to upgrade the T1-1 windows to withstand certain blasts while reusing most of the original window components. See R4, Tab 15, at 410-15; Tab 18, Dwg A551. On or about December 3, 2003, AOC issued the solicitation for the USSC modernization project, which included Hillier's window design. R4, Tab 2, at 4; Tab 15, at 410-15; Tab 18, Dwg A551. As relevant here, the solicitation required the selected contractor to retrofit the existing T1-1 windows by reinforcing the existing window components, providing additional hinges and hinge anchors, providing new glass and glazing stops, and installing the retrofitted windows in the existing window openings. R4, Tab 15, at 410. On February 17, 2004, the solicitation was amended to include option 6, which, if exercised, would permit the contractor to provide new windows in lieu of the retrofit windows, so long as the new windows had the same appearance and performance characteristics (and a few other features) as the retrofit window design.⁶ R4, Tab 11, at 378; AOC Trial Ex. 9, at 1, 11. Price proposals were due on March 31, 2004.⁷ Tr. at 2544.

The solicitation contained an exterior drawing of the T1-1 window, which depicted the exterior shape and measurements of the window as follows:

⁶ The solicitation, which later became the contract, gave AOC the right to exercise option 6 after approval of a mockup window or within 180 days of the contract award, whichever was earlier. R4, Tab 7, at 157; see also R4, Tab 11, at 377.

⁷ Prior to the submission of price proposals, offerors submitted technical proposals, which AOC graded. Grunley's proposal received the highest grade available. Tr. at 2543.



R4, Tab 18, Dwg A549. As detailed above, the string of horizontal measurements below the upper transom adds up to 5 feet 4 inches, which is the same as the lower horizontal measurement. All other window types shown on the drawing (types T1, T2, and T4) were detailed with shapes and measurements depicting rectangles.⁸ Likewise, the window schedules, included in the solicitation, listed rectangular measurements for all window types. R4, Tab 18, Dwg A651. However, both the above drawing and window schedules, as well as other relevant drawings, contained the following conspicuous note to warn contractors as follows:

NOTE: ALL WINDOW DIMENSIONS TO BE FIELD VERIFIED FOR ALL SIDES. SOME WINDOWS MAY BE TAPERED.

E.g., R4, Tab 18, Dwg A549, A651. The drawings did not provide interior window measurements or any measurements of the window trim. The window trim was depicted as essentially the same shape in two cross-sectional details of the window jamb (at the transom and at the operable window), but these details did not provide

⁸ Drawing A549 contained a total of 10 detailed drawings of various window types.

measurements for the trim. R4, Tab 18, Dwg A551. With regard to trim fabrication, the solicitation required the contractor to “match existing window detailing,” but it prohibited the use of exposed fasteners (i.e., screws) unless unavoidable. R4, Tab 15, at 412, 415.

The solicitation contained a number of provisions that addressed the contractor’s obligation to field measure the window details. As discussed above, the drawing note required the contractor to verify the dimensions of all sides of all windows. E.g., R4, Tab 18, Dwg A549. Section 08545 of the solicitation, which included details for upgrading the windows, required the contractor to “[v]erify window openings by field measurements before fabrication and indicate [the] measurements on Shop Drawings.” R4, Tab 15, at 412. Section 01700 of the project specifications, titled Execution Requirements, required “field measurements as required to fit the Work properly.” R4, Tab 10, at 312. This provision cautioned the contractor to “[r]echeck measurements before installing each product,” and, “[w]here portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication.” Id. Section 01310 of the project specifications, titled Project Management, stated that the contractor “will be responsible for the correctness of all measurements” in laying out the work, and that the contractor will be responsible for any error or omission that “might otherwise have been avoided.” Id. at 226. Section 01310 (Project Management) and Section 01700 (Execution Requirements) both specifically prohibited the scaling of drawings to determine dimensions. Id. at 226, 312.

The solicitation also included a number of clauses, terms, and conditions typical in government construction contracts. For example, the solicitation included the standard site investigations clause contained in Federal Acquisition Regulation (FAR) § 52.236-3 (Apr. 1984), as well as the differing site conditions clause contained in FAR § 52.236-2 (Apr. 1984).⁹ R4, Tab 7, at 148-49. The solicitation also included standard disputes and changes clauses. Id. at 128, 151.

Pre-Proposal Activities

Grunley--a general contractor with over 50 years of experience in performing new construction and renovation work in historic government buildings--decided to submit an offer in response to the solicitation. Complaint ¶ 1; Tr. at 2543 (Grunley’s president states that historic restoration is “right in our wheelhouse”), 2908 (Grunley’s president states that the company has the “edge” over competitors as it relates to windows). Although Grunley had advised AOC that it had experience with monumental window

⁹ The differing site conditions clause, FAR § 52.236-2 (Apr. 1984), distinguishes between two types of differing site conditions: (1) subsurface or latent physical conditions at the site which differ materially from those indicated in the contract (Type I differing site condition), or (2) an unknown physical condition at the site, of an unusual nature, which differs materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract (Type II differing site condition). R4, Tab 7, at 148.

restoration, R4, Tab 4, at 104, Grunley decided to subcontract the window work to a specialty window manufacturing company. Tr. at 2918. Grunley solicited proposals from multiple window manufacturers, including MAI. Tr. at 216. At the time of the project, MAI had a division called Physical Security that specialized in glass and glazing systems. Tr. at 1700.

Due to security concerns, offerors and potential subcontractors were limited as to which documents they could copy and remove from the site to prepare their proposals. The window specifications and drawings were among the documents that could not be removed, so offerors and their potential subcontractors were required to review these documents on site. R4, Tab 3, at 89; Tr. at 226. AOC scheduled rotating shifts for offerors and their potential subcontractors to review the restricted documents. Tr. at 227, 2554-55.

The solicitation invited potential offerors and their subcontractors to attend a pre-proposal conference on December 11, 2003, and a site visit on December 13, 2003. R4, Tab 2, at 4. Grunley's president, lead estimator, and other Grunley representatives attended both events, but MAI representatives did not attend either event. Tr. at 110-11, 115, 309, 2545; R4, Tab 3 at 35, 37, 41, 55-56. The site visit included a tour of the USSC, including rooms that contained T1-1 windows. The attendees were shown at least one T1-1 window that was fully assembled, and at least one T1-1 window with the trim and surrounding materials partially removed and placed on the floor nearby so that the contractors could view the materials and the conditions in the walls. Tr. at 122, 127, 131, 134, 2778-83. Although AOC did not limit the time for the site visit, the offerors spent somewhere between "a few minutes" and "a 30-minute period" inspecting the windows. Tr. at 131, 2551-52.

The solicitation advised offerors that, in addition to the scheduled site visit, individual walk-throughs of the USSC could be arranged upon request, and no time limit was imposed on these visits. R4, Tab 3, at 57; Tr. at 2732. Grunley representatives scheduled several individual visits to further investigate various aspects of the job and to measure aspects of the work that Grunley would self-perform. Tr. at 313, 2894. For example, Grunley's lead estimator (Thomas Walker) took measurements of the areas surrounding the T1-1 windows that Grunley would have to demolish and restore because the contract did not provide dimensions for these areas. Tr. at 306-07, 310, 312-13, 2894. However, Grunley never intended to take, and did not take, any measurements of the windows or the trim because this work was being subcontracted out, and Grunley believed that the subcontractor was responsible for measuring its own work. Tr. at 301-02, 313-14, 317, 1199.

Prior to submitting a proposal, MAI representatives visited the site once for a "short site visit" and spent a "couple of hours" in the trailer reviewing documents. Tr. at 1723-26; see also Tr. at 2602 (Grunley's president recalled MAI visiting the trailer only once); Tr. at 2733 (the AOC construction manager who facilitated the site visits could not remember MAI). MAI's lead estimator (Kenneth Hayes, who was also MAI's executive vice president) recalled that he viewed the windows from the street, but he did not recall going inside to look at the windows. Tr. at 1721-22, 1724, 1778. This same witness testified that he thought that two other MAI employees "probably walked through the

building.” Tr. at 1725. MAI’s blast consultant testified that he made a “cursory walk around the building” prior to submitting a “drafting engineering proposal” to MAI. Tr. at 1454-55. No other MAI or Grunley witnesses could explain what, if any, investigation MAI completed of the windows from the inside of the building prior to submitting a proposal.

Prior to submitting a proposal, neither Grunley nor MAI asked any questions about the note on multiple drawings and schedules referring to tapered windows. Tr. at 2971-72, 3543-44, 3553-54, 3632.

On March 31, 2004, MAI submitted a proposal to Grunley to retrofit the windows or provide new windows if option 6 were exercised by AOC. MAI’s proposal to Grunley excluded all field measurements from MAI’s scope of work. R4, Tab 91, at 1182. That same day, Grunley submitted to AOC a fixed-price proposal for the entire USSC modernization project, including the window work, in the amount of \$74,550,000. R4, Tab 7, at 113. This price included a budgeted amount of \$3,000,000 for the window work (to include retrofitted T1-1 windows) and a deduction in price of \$329,000 if option 6 were exercised for new T1-1 and other blast resistant windows in lieu of retrofitted windows. R4, Tab 7, at 113-15; Tab 122, at 1373.

Post-Award Events Prior to the Exercise of Option 6

AOC awarded a fixed-price contract to Grunley for \$74,550,000 on April 30, 2004. R4, Tab 6, at 107. The contract made binding the provisions, specifications, and drawings set forth in the solicitation and discussed above. See R4, Tab 6, at 107; Tab 7, at 109. On May 20, 2004, Grunley issued MAI a letter of intent to execute a subcontract for the window work.¹⁰ R4, Tab 113, at 1292. On May 25, 2004, AOC issued Grunley a notice to proceed. R4, Tab 109, at 1282.

Soon after the contract was executed, Grunley and MAI took the position that the retrofit design for the T1-1 windows did not meet the blast requirements specified in the contract. In addition, MAI preferred to provide new windows, rather than retrofit windows, because manufacturing new windows provided MAI with greater control over the materials, fabrication, quality, and schedule. Tr. at 1737-38, 1828-29, 5966. Throughout the entire contract, neither MAI nor Grunley undertook any effort to retrofit the windows as contemplated by the base contract; all efforts were focused on redesigning and fabricating new T1-1 windows. See, e.g., Tr. at 1534, 1749, 1755-56, 2458; R4, Tab 108, at 1281. In June and July of 2004, AOC directed Grunley (who in turn directed MAI) to proceed with a mockup of a new window so that the government could evaluate whether to exercise option 6.¹¹ R4, Tab 111, at 1289; Tab 119, at 1365.

¹⁰ For reasons not relevant to this decision, MAI did not sign a subcontract with Grunley until a year later, in May 2005. The signed subcontract priced the base work at \$3,000,000, with a deduction in price of \$331,000 if AOC exercised option 6, and included field measurements in MAI’s scope of work. R4, Tab 192, at 2023-24.

¹¹ Under the contract, a mockup window was required for AOC’s approval prior to AOC exercising the option. R4, Tab 11, at 378.

By October 2004, Grunley and MAI were provided the T1-1 window from the USSC that previously had been blast tested. Tr. at 1452, 2832. The firms discovered that this window was trapezoidal in shape, which led them to suspect that other T1-1 windows might be tapered as well. R4, Tab 130, at 1424-25; Tr. at 1454, 2831-33. An MAI representative was sent to the site to investigate, he confirmed that all of the T1-1 window openings appeared trapezoidal in shape, and he reported back that “[o]nce you know this you can clearly see it from the exterior of the building.” R4, Tab 132, at 1431. The MAI representative recommended that the dimensions of all of the window openings be verified. Id.

In December 2004, MAI submitted proposed shop drawings for new T1-1 windows, depicting a trapezoidal window and stating that exterior “DIMENSIONS [ARE] BASED ON MEASURING [THE] ACTUAL FRAME PROVIDED” to MAI in October. R4, Tab 154, at 1616. This submittal was returned by AOC as “very incomplete.” R4, Tab 171, at 1760. MAI’s second submission of shop drawings, in early March 2005, continued to show overall exterior dimensions based on the actual frame MAI had in its possession. E.g., R4, Tab 173, at 1826. MAI’s drawings did not contain interior trim measurements, stating instead that “NEW INTERIOR PROFILES MATCH EXISTING HISTORIC PROFILES AS CLOSE AS POSSIBLE.” E.g., id. at 1827-32; Tr. at 1093. On March 14, 2005, AOC approved these drawings for construction of the mockup window. R4, Tab 177, at 1891.

On May 2, 2005, Grunley submitted a mockup window to AOC for approval. R4, Tab 185, at 1973. The mockup was a smaller version of the actual window and did not depict the trim. AOC Trial Exh. 1. AOC approved the mockup on May 31, 2005. R4, Tab 197, at 2048.

By May 2005, neither Grunley nor MAI had field verified the T1-1 window measurements. R4, Tab 189, at 2014; Tr. at 1199, 1202. MAI asserted that it was entitled to additional compensation because the firm had not anticipated tapered windows and had excluded field measuring from its draft subcontract (which, at this point, still had not been signed). R4, Tab 189, at 2014; Tab 180, at 1933. Grunley, however, refused to submit a change order proposal to AOC because the note on the drawings advised that some windows may be tapered and that window dimensions needed to be field verified. R4, Tab 180, at 1933. On May 17, 2005, MAI and Grunley executed a subcontract which included a requirement that MAI perform “field measurements for your work.”¹² R4, Tab 192, at 2023.

In June 2005 (8 months after MAI first discovered the trapezoidal shape of the T1-1 windows), MAI field measured the window openings from the outside. Tr. at 1202, 2839, 2857-58; R4, Tab 216, at 2113; Tab 217, at 2119. By this time, Grunley had control over the northwest quadrant of the USSC, where approximately half of the T1-1 windows were located, so both Grunley and MAI had interior access to the windows in this quadrant. Tr. at 1203; see R4, Tab 18, Dwg A651. No efforts were made to measure or examine the interior trim surrounding the windows. Tr. at 3073-74.

¹² The subcontract also contained other changes to the terms initially proposed by MAI prior to contract award. R4, Tab 192, at 2022-24.

On June 9, 2005, AOC's project manager (James Yellman) sent a letter to Grunley's senior project manager (Robert Reeve), informing Grunley that AOC had elected to exercise option 6 for new windows in lieu of retrofit windows.¹³ R4, Tab 211, at 2099. Thereafter, AOC provided Grunley with "Modification 90" for execution. The modification stated that "THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Supplementary Conditions, Article 9, OPTIONS" and that the purpose of the modification was to "exercise Option 6" of the contract. R4, Tab 279, at 2355-56. The modification contained the following release language:

Contractor's statement of release

In consideration of the modification(s) agreed to herein as complete equitable adjustment, the contractor hereby releases the Government from any and all liability for all costs, both direct and indirect, under this contract for further equitable adjustments for work covered under this Modification.

Id. at 2356. Mr. Reeve, the authorized representative for Grunley, signed the modification without reserving any claims on September 26, 2005. Id. at 2355. AOC's contracting officer signed the modification 2 days later, on September 28, 2005. Id.

Post-Award Events After the Exercise of Option 6

In November 2005, MAI submitted its final shop drawings for the T1-1 windows to AOC for approval. R4, Tab 310, at 2534. The drawings contained measurements and notations showing the T1-1 windows to be trapezoidal in shape. Id. at 2535. The drawings contained cross-sectional details of the window frame at the upper transom and lower operable window. Id. at 2542, 2544. These frame details showed cross-sectional representations of the trim shape, but provided no measurements for the trim. Id. Instead, the details contained notes stating: "NEW INTERIOR PROFILES MATCH EXISTING HISTORIC PROFILES AS CLOSE AS POSSIBLE." Id. The drawings showed the trim as being an integral part of the frame without the need for exposed fasteners. Id. AOC approved the shop drawings "As Noted" on December 5, 2005.¹⁴ Id. at 2534.

By early August 2006, MAI completed construction of a full-size T1-1 mockup window, which was required prior to the construction and installation of the actual windows in order to verify performance and aesthetic requirements.¹⁵ See R4, Tab 15, at 411; Tab 421, at 3031-33. Immediately upon installation, MAI and Grunley representatives noticed that, at the top of the window, the trim did not line up properly with the

¹³ At this point, more than 180 days had passed since contract award, so AOC no longer had a unilateral right to exercise the option.

¹⁴ The notation required anchor testing, which was completed on March 2, 2006. R4, Tab 352, at 2701-41.

¹⁵ According to MAI, at the time it submitted the mockup window, it had fully or partially manufactured 14 T1-1 windows. Tr. at 2174, 2489-90.

surrounding conditions.¹⁶ Tr. at 692-94. The contractors quickly determined from looking at the original windows that the vertical trim pieces were supposed to be wider at the top and narrower at the bottom to make the trapezoidal shape of the windows appear rectangular from the inside. Tr. at 696-98; R4, Tab 504, at 3509. Specifically, there was supposed to be approximately a 1-inch difference in the width of the trim, on each side of the window, over the span of the approximately 11-foot height of the window. Tr. at 698. However, MAI cut the trim pieces the same width throughout so that the windows appeared trapezoidal from the inside as well as from the outside. Tr. at 1676-78. Until this problem was discovered, neither MAI nor Grunley had ever measured the trim of the existing T1-1 windows. Tr. at 694, 2222, 2488-89; R4, Tab 453, at 3177.

MAI proposed to replace the trim with surface-mounted trim (as opposed to trim that was integral to the frame) using exposed fasteners. Tr. at 2439; R4, Tabs 423-25. AOC rejected this proposed solution because exposed fasteners were not unavoidable, since MAI's window design included hidden fasteners. Tr. at 852, 2484; R4, Tab 431, at 3074. In addition, both MAI and AOC recognized that exposed fasteners could become dangerous projectiles if dislodged during a blast event. Tr. at 1697-98, 3071-72, 3076; R4, Tab 453, at 3176.

Through September 2006, MAI continued to advocate for surface-mounted trim with exposed fasteners, and AOC continued to reject this approach. R4, Tab 444, at 3129-35; Tab 451, at 3173; Tab 453, at 3175-77. In a meeting held on October 3, 2006, MAI and Grunley representatives acknowledged that they had not measured the interior details of the windows. R4, Tab 453, at 3177. As a result of the meeting, the parties agreed on a "[d]imensioning protocol" that required the contractors to measure all window areas. R4, Tab 454, at 3181; Tab 458, at 3198-99. On October 4, 2006, MAI took the necessary measurements. R4, Tab 461, at 3221-23. Thereafter, MAI partially remanufactured 14 windows with correctly sized trim, and the windows were installed without the use of exposed fasteners. Tr. at 2174-75, 2440, 2486, 2489-90; R4, Tab 505, at 3518.

On October 6, 2006, Grunley sent a letter to AOC, asserting that the firm was entitled to additional compensation for remedial work relating to the trim. R4, Tab 459, at 3201-03. In support of its position, Grunley included letters from MAI to Grunley dated September 20 and 21, 2006. Id. at 3204-16. The crux of the contractors' contentions was that the actual shape of the trim was a differing site condition; that the contract documents were defective because they did not show that the outside of the windows was trapezoidal while the inside was rectangular; that AOC's refusal to allow field-applied trim with exposed fasteners was inconsistent with the contract and how the original 1930s windows were manufactured; and that manufacturing new trim as an integral part of the window with hidden fasteners was impractical. Id. at 3201-11.

¹⁶ In addition, there were other flaws and defects in the construction of the T1-1 window, including gaps, scrapes, and protruding screws. R4, Tab 421, at 3032; Tab 437, at 3091-94.

On October 10, 2006, AOC's contracting officer responded, denying the existence of differing site conditions and defective specifications. The contracting officer asserted that the problem with the trim was the result of Grunley's failure to take dimensions as required by the contract. The contracting officer also contended that MAI's approach of using exposed fasteners to field apply trim was prohibited under the contract, and it was not impractical since MAI had already accomplished the required approach. The contracting officer advised Grunley to follow the disputes clause of the contract if it wished to further challenge AOC's findings. R4, Tab 464, at 3237-39.

On November 17, 2006, Grunley submitted a 1-page request for a contracting officer's final decision, which was returned for insufficient information and lack of certification. R4, Tab 496, at 3461; Tab 499, at 3469. On December 28, 2006, Grunley resubmitted its request for a contracting officer's final decision, along with a detailed letter from MAI in support of the claim. R4, Tab 504, at 3507-16. Grunley asserted entitlement to \$160,406 for remedial work related to the trim under three theories: differing site conditions, defective specifications, and superior knowledge. Id. at 3513; see also R4, Tab 496, at 3461. On February 9, 2007, Grunley modified its claim to increase the quantum by \$595,251. R4, Tab 508, at 3530. The initially claimed amount (\$160,406) was for work related to 14 T1-1 windows that were fully or partially manufactured at the time the problem was discovered; the subsequently claimed amount (\$595,251) included remedial trim work for 56 additional T1-1 windows. R4, Tab 504, at 3514; Tab 508, at 3535. The total claimed amount was \$755,657.¹⁷ R4, Tab 509, at 3538.

On March 8, 2007, AOC's contracting officer issued a final decision denying Grunley's claim. R4, Tab 509, at 3537-44. That decision is the subject of this appeal before the Board.

¹⁷ Grunley's claim to the contracting officer also included work associated with providing two different windows and trim--one for stone and wood openings, and another for plaster openings. R4, Tab 504, at 3514; Tab 508, at 3535. The contracting officer's final decision denied this aspect of the claim. R4, Tab 509, at 3542-43. Grunley did not appeal this portion of the decision in its complaint or amended complaint filed with the Board, and it did not provide argument on the issue in its post-trial briefs (although Grunley's attorney did make passing reference to the claim in the pre-trial brief and during the trial, Grunley Pre-Trial Brief, at 3, 24, 31, 42; Tr. at 2176-77). In any event, we find that the contracting officer properly denied this aspect of Grunley's claim because various notes on the contract drawings and details advised that there were some differences in window construction for stone, wood, and plaster openings. See, e.g., R4, Tab 18, Dwg A551.

ANALYSIS

Grunley contends that both the trapezoidal shape of the windows and the varying vertical dimensions of the trim constitute Types I and II differing site conditions. Grunley further asserts that the contract documents were defective in that they did not accurately depict the shape or dimensions of the windows or the trim. Grunley also asserts that AOC either misrepresented or withheld superior knowledge concerning these matters.¹⁸

AOC denies the existence of differing site conditions and defective specifications, and it argues that it neither misrepresented the conditions nor withheld information from Grunley and MAI. AOC argues that Grunley's troubles were the result of Grunley's failure to make reasonable inquiries prior to proposal submission when presented with warnings that some windows may be tapered, as well as Grunley's failure to measure the trim prior to fabrication when the contract documents provided no trim measurements whatsoever.¹⁹

Trapezoidal Shape of the Window

1. Type I Differing Site Condition

Grunley contends that the trapezoidal shape of the windows constitutes a Type I differing site condition because the contract drawings affirmatively listed dimensions that indicated that the T1-1 windows were rectangular in shape. To prevail on a claim

¹⁸ Grunley's request for a contracting officer's final decision and its complaint before the Board focused primarily on issues concerning the trim. During the course of this appeal, it became clear that Grunley was also asserting separate legal claims concerning the trapezoidal shape of the windows. Both issues--window shape and window trim--arise from the same operative facts and, therefore, are jurisdictionally proper before the Board. Inventory Discount Printers, GAO CAB No. 2008-2, 2009 WL 6615014, at *1 (GAOCAB Apr. 20, 2009). In addition, Grunley and AOC provided evidence on both issues at trial, and they provided arguments in their pre- and post-trial briefs, thereby impliedly consenting to the Board's consideration of both issues. Pursuant to Rule 5(d) of the Board's Rules of Procedure and Rule 15(b)(2) of the Federal Rules of Civil Procedure, we deem the pleadings to conform to the evidence.

¹⁹ AOC contends that Grunley's claims arising prior to the execution of modification 90 (specifically, those claims relating to the trapezoidal shape of the windows) are barred by the clear and unambiguous release in modification 90. See Bell BCI Co. v. United States, 570 F.3d 1337, 1341 (Fed. Cir. 2009). Grunley objects to the Board's consideration of the release in connection with this appeal because the contracting officer did not assert the release as a defense in her final decision, AOC failed to plead the release as an affirmative defense in its answer, and AOC never raised the release as a defense to this appeal until questioned by the Board about the release after the trial concluded. We need not resolve the issue of whether the release in modification 90 bars Grunley from prevailing on its appeal here because we deny the appeal on other grounds.

for a Type I differing site condition, Grunley must prove, by a preponderance of the evidence, that: (1) the contract documents indicate the site conditions which form the basis of the claim; (2) the contractor reasonably interpreted the contract documents and reasonably relied on the indicated site conditions; (3) the site conditions actually encountered differed materially from those indicated in the contract; (4) the site conditions encountered were not reasonably foreseeable from all the information available at the time of proposal submission; and (5) the contractor suffered damages as a result of the materially different site conditions. Renda Marine, Inc. v. United States, 509 F.3d 1372, 1376 (Fed. Cir. 2007); Randa/Madison JV III, ASBCA No. 49452, Aug. 27, 1999, 99-2 BCA ¶ 30,553 at 150,877. Grunley has not proven the required elements by a preponderance of the evidence.

As noted above, the drawings and schedules that contained window dimensions gave clear warnings that “SOME WINDOWS MAY BE TAPERED.” E.g., R4, Tab 18, Dwg A549, A651. This note put Grunley on notice, prior to submitting its proposal, that the windows might not be rectangular in shape. At a minimum, Grunley should have inquired about the obvious conflict between the dimensions provided and the note that indicated that some windows may be tapered, which it failed to do. When a contractor fails to make reasonable inquiries about a patent ambiguity or conflict in the specifications prior to proposal submission, it cannot prevail based on its interpretation of the contract in a subsequent action against the government. NVT Techs. Inc. v. United States, 370 F.3d 1153, 1162 (Fed. Cir. 2004); Interstate Gen. Gov’t Contractors, Inc. v. Stone, 980 F.2d 1433, 1435 (Fed. Cir. 1992).

Grunley argues that the note on the drawings and schedules was “woefully inadequate” and misleading because the note did not convey that “all” of the T1-1 windows were tapered, only that “some” windows may be tapered. Grunley Post-Trial Brief (Jan. 26, 2012) at 36. However, the note was placed on drawings and schedules that depicted several types of windows (not just T1-1 windows) and thus the representation that “some” of the depicted windows may be tapered was accurate. Furthermore, there is no evidence that AOC was aware, prior to contract award, that every T1-1 window was tapered. As AOC’s lead architect, George Skarmeas, testified, he and his team were aware that at least one of the windows was tapered, but they did not measure, and were not required to measure, each and every window. Tr. at 3467, 3471. Instead, AOC reasonably determined to shift the burden of field measuring to the contractor, and stated so in the solicitation along with providing a warning that some windows may be tapered.²⁰ While it is true that the contract required field measurements prior to fabrication, not prior to submitting an offer, this post-award duty to measure does not relieve the contractor of its burden to inquire about obvious conflicts or ambiguities in the solicitation’s drawings prior to submitting an offer. Advance Contractors, Inc., ENGBCA No. PCC-66, 92-1 BCA ¶ 24,666 at 123,074-75.

²⁰ To the extent that Grunley objects to AOC’s shifting the burden of field measuring to the contractor, it should have protested this term of the solicitation prior to submitting its offer. See Blue & Gold Fleet L.P. v. United States, 492 F.3d 1308, 1314 (Fed. Cir. 2007); 4 C.F.R. § 21.2(a)(1) (2012).

Grunley also contends that the note warning of tapered windows reasonably could not be construed to apply to T1-1 windows because the dimensions listed for those windows “mathematically mandate” the windows to be rectangular. Grunley Post-Trial Brief (Jan. 26, 2012) at 16. Grunley witnesses testified that the note could only apply to the T1-4 or T3-10 windows because the left stile depicted on the drawing details for those windows was wider at the bottom than the top. Tr. at 234-36, 680-81. However, another Grunley witness testified that the width of the stile does not necessarily indicate a trapezoidal or tapered shape of the overall window because no variation in the overall horizontal measurements from top to bottom was shown on the drawings. Tr. at 2097. We find the testimony of the latter witness to be more credible and accurate, given that there is no evidence in the record that the T1-4 or T3-10 windows were in fact tapered, or that Grunley based its proposal on these windows being tapered. Furthermore, the contract did not contemplate the performance of any work for the T3 windows, see R4, Tab 15, at 410, so the note requiring that window dimensions be field verified would be nonsensical if intended to apply to the T3 windows.

In sum, we do not find Grunley’s interpretation of the contract documents or reliance on the drawing dimensions for the T1-1 windows to be reasonable in the face of the clear warning that some windows may be tapered. Because of this warning, we find that the actual condition of the T1-1 windows was reasonably foreseeable and not materially different from what was stated in the contract documents. The fact that Grunley, while preparing its proposal, chose to ignore the warning about tapered windows does not render the trapezoidal shape of the windows a Type I differing site condition.

2. Type II Differing Site Condition

Grunley next contends that the trapezoidal shape of the windows constitutes a Type II differing site condition. To prevail on this claim, Grunley must prove that the physical condition was both unusual and unknown. Randa/Madison JV III, supra, at 150,878. An unusual condition is one that differs materially from that ordinarily encountered and generally recognized as inhering in the work of the character provided for in the contract. Id. An unknown condition is one that could not have been reasonably anticipated from a site inspection, a review of the contract documents, or the contractor’s general experience prior to submitting its proposal. Fru-Con Const. Corp. v. United States, 44 Fed. Cl. 298, 311 (1999). Merely being unaware of an unusual condition does not, alone, constitute a Type II differing site condition. See Lathan Co., Inc. v. United States, 20 Cl. Ct. 122, 128 (1990).

Grunley argues that trapezoidal windows are unusual and not inhering in historic renovation work. In support of this argument, multiple Grunley witnesses testified that they had not seen or worked with trapezoidal windows before. Tr. at 326, 702. AOC’s expert witnesses on historic renovation projects similarly testified that they had not seen trapezoidal windows before. Tr. at 4553, 6080, 6084. AOC’s lead architect and expert witnesses conceded that trapezoidal windows are uncommon, although they contended that non-rectangular and varying shaped windows should be expected in historic buildings. Tr. at 3461-62, 4553, 6080-84; R4, Tab 529, at 4191; Tab 535, at 4311-13. Two MAI witnesses testified that they had built tapered or trapezoidal windows in the past, although one witness explained that the windows were few in number and not

installed in the entire project (as is the case here) and the other witness explained that the trapezoidal windows previously built were in a curtain wall and not a historic building. Tr. at 1778-79, 2207-12. Based on the totality of the evidence, we find that trapezoidal windows are an unusual condition.

Nevertheless, the trapezoidal shape of the T1-1 windows was knowable in that the shape could have been reasonably anticipated from the contract documents and a reasonable site inspection. As discussed above, the note on the applicable drawings and schedules put Grunley and MAI on sufficient notice that some windows may be tapered. In the face of this clear warning, neither Grunley nor MAI asked any questions to clarify which windows were tapered. The shape of the windows was not hidden, but was observable from the street by anyone looking closely.²¹ Tr. at 4462-63; R4, Tab 535, 4312-13. Although Grunley points out that the very purpose of the trapezoidal shape was to “trick the eye” of the casual observer, Grunley Post-Trial Brief (Jan. 26, 2012) at 6, neither Grunley nor MAI should have been casual observers of the windows, especially when faced with a note that conspicuously warned that some windows may be tapered. Although Grunley witnesses remain steadfast that the shape of the windows is only observable once you know that the windows are trapezoidal, e.g., Tr. at 2834, 4960, we find that the note adequately placed Grunley and MAI on notice to look for tapered windows during their pre-proposal site visits, which they did not do.

Grunley contends that it and MAI conducted a reasonable pre-proposal site inspection given that access to the site was limited, offerors and their subcontractors were only permitted to review drawings and specifications in a trailer (they were not permitted to remove documents off site), and the window work was only a small percentage of the overall contract. Furthermore, Grunley argues, the site investigations clause of the contract required only “a simple walk through of the entire project site.” Grunley Post-Trial Brief (June 18, 2012) at 4.

The site investigations clause of the contract, however, required more than a simple walk through; it required Grunley to take all “steps reasonably necessary to ascertain the nature and location of the work.” R4, Tab 7, at 149. Here, Grunley and MAI were not limited as to the number of pre-proposal site visits they could make, or the length of time they could spend on a visit, and neither firm was ever denied access to the site. There is also no evidence in the record that Grunley ever complained that it had insufficient access to the documents or the site. In fact, Grunley was permitted to take detailed measurements when it wanted to, including of areas that were of relatively low overall contract value, such as areas near the windows that were to be demolished. Grunley simply chose to concentrate its efforts during the site investigation on areas it was responsible for, while largely ignoring the portions of the work that its subcontractors were to perform.

MAI, which was performing the window work, failed to conduct any meaningful site investigation whatsoever--the evidence shows that MAI did not attend the scheduled site visit and spent only a “couple of hours” reviewing the contract drawings and

²¹ Indeed, when the parties took the Board on a pre-trial site visit of the USSC, the shape of the windows from the surrounding grounds was reasonably noticeable.

specifications prior to submitting a proposal. Tr. at 1726; R4, Tab 3, at 35, 37, 41, 55-56. At some point prior to submitting a proposal, only one person from MAI and a blast consultant made a cursory walk around the building, and two other MAI employees “probably” walked through the inside of the building. Tr. at 1454-55, 1721-25, 1778. Under these circumstances, we cannot conclude that the site investigation conducted by Grunley or MAI was reasonable.

In sum, Grunley’s claim that the trapezoidal shape of the T1-1 windows constitutes a Type II differing site condition fails because the window shape was something that could reasonably have been anticipated from the contract documents and a reasonable site investigation.

3. Defective Specifications, Misrepresentation, and Superior Knowledge

Grunley’s defective specifications and misrepresentation arguments are variations of its differing site condition arguments, and they center around Grunley’s belief that the dimensions on the drawings misrepresented the shape of the T1-1 windows and created defective specifications. However, as discussed above, the note warning that some windows may be tapered was reasonably accurate and specific, given the information known to AOC prior to contract award. Where a contract’s notes and provisions adequately warn the contractor of conditions and require it to verify measurements, as is the case here, the contract specifications are not defective. Consolidated Constr., Inc., GSBGA No. 8871, 88-2 BCA ¶ 20,811, aff’d 889 F.2d 1101 (Fed. Cir. 1989) (failure to heed duty to verify measurements precludes equitable adjustment); Wiggins Electric Co., Inc., DOTCAB No. 1102, 80-2 BCA ¶ 14,758 at 72,854 (note adequately warned contractor to measure).

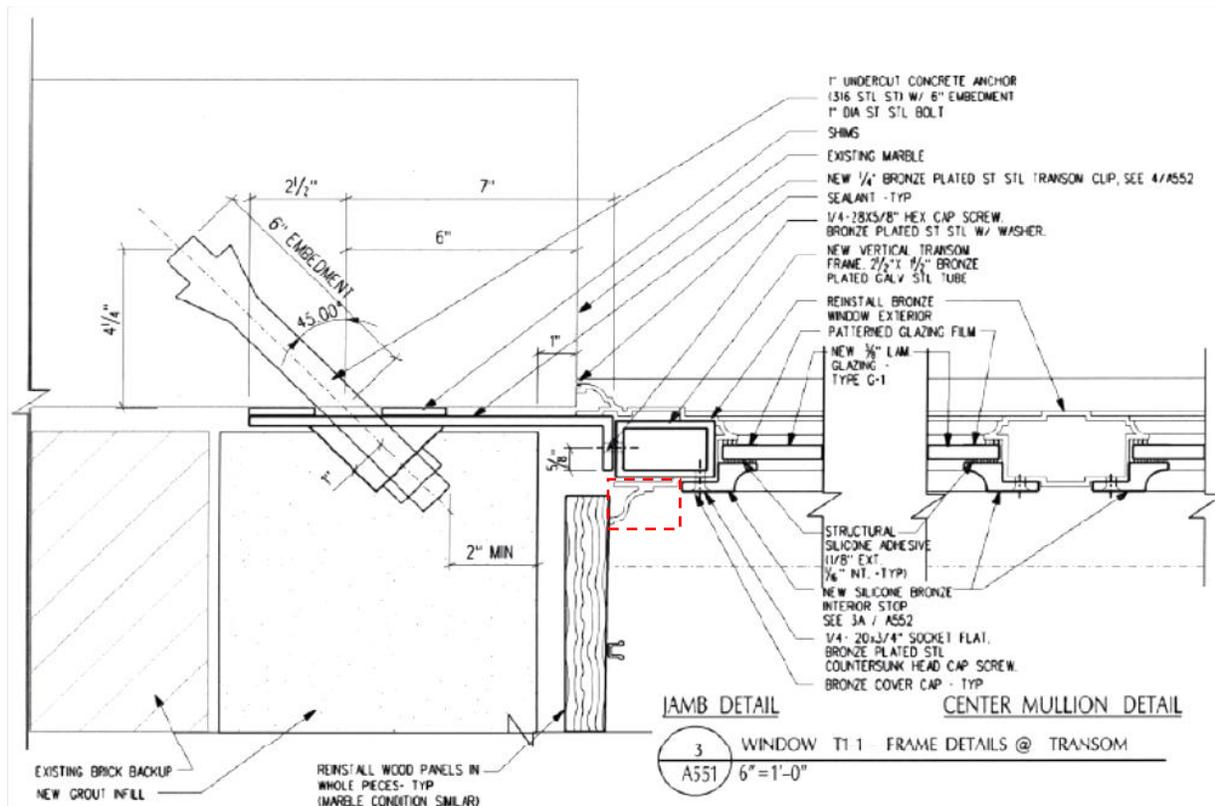
Grunley also claims that AOC withheld its superior knowledge of the 1930s shop drawings, which showed that the T1-1 windows were trapezoidal. To prevail on a claim for superior knowledge, Grunley must show that: (1) it undertook to perform without vital knowledge of a fact that affects performance costs or direction; (2) the government was aware that the contractor had no knowledge of and had no reason to obtain such information; (3) any contract specification supplied misled the contractor or did not put it on notice to inquire; and (4) the government failed to provide the relevant information. AT&T Commc’ns, Inc. v. Perry, 296 F.3d 1307, 1312 (Fed. Cir. 2002); Resource Conservation Group, LLC v. United States, 96 Fed. Cl. 457, 466 (2011). Here, too, Grunley’s claim fails because the note on the contract drawings and schedules adequately warned that some windows may be tapered and therefore put Grunley on notice to inquire which windows were tapered, or to verify the measurements. Given that the 1930s drawings were not “as-built” drawings, but were only two proposed shop drawings without any approval stamp of the architect of record at that time, AOC was reasonably uncertain as to the accuracy of the drawings. R4, Tab 21, Gen. Bronze & Vermont Marble Dwg’s; Tr. at 3469, 3649, 4440. Under the circumstances, we find no basis to conclude that AOC breached its duty to disclose superior knowledge to Grunley.

Window Trim Dimensions

1. Type I Differing Site Condition

Grunley contends that the variation in trim width for the T1-1 windows (i.e., the trim was wider at the top than the bottom in order to make the trapezoidal windows appear rectangular on the interior) constitutes a Type I differing site condition. In support of this claim, Grunley argues that two details on the drawings depicted the T1-1 window trim as being the same width from top to bottom, and that the actual conditions were materially different from what was depicted and were not reasonably foreseeable.

The two details at the center of this dispute are depicted below as cross-sections of the upper transom and lower operable window jamb. The cross-sectional details are taken from jamb locations that are approximately 4 to 5 feet apart along the 11-foot vertical frame of the T1-1 window. The window trim in each detail is highlighted by a dotted-line box to the right of the wood panel.²²



²² The dotted-line box does not appear on the contract drawings, but was added by the Board in this decision to help illustrate the contested issue.

basis of the contractor's proposal, then reliance is absent and a Type I differing site condition claim necessarily fails. Peter Kiewit Sons' Co./J.F. Shea Co., ENGBCA No. 4861, 85-2 BCA ¶ 18,082 at 90,775. Here, the basis of Grunley's claim is its post-award assumption that the window trim was uniform, which it determined by superimposing or scaling the details after the contract was executed. See Tr. at 159. Grunley has not shown that a condition indicated in the contract formed the basis of its proposal. Accordingly, Grunley's differing site condition claim fails. Peter Kiewit Sons' Co./J.F. Shea Co., supra, at 90,775.

Grunley's Type I differing site condition claim also fails because the firm's interpretation that the contract details could be used to ascertain trim width was unreasonable. To determine what is reasonably indicated by the contract, the contractor must examine the contract documents in their entirety, including all specifications and provisions that may impose on the contractor a duty to measure. McDevitt Mech. Contractors, Inc. v. United States, 21 Cl. Ct. 616, 619-20 (1990). Where a contractor is responsible for verifying measurements and fails to do so, the risk of a differing site condition falls on the contractor. See W.M. Schlosser Co. v. United States, 767 F.2d 870, 873 (Fed. Cir. 1985); McDevitt Mech. Contractors, Inc., 21 Cl. Ct. at 619-20; see also Eraklidis v. Widnall, No. 94-1141, 1994 U.S.App.LEXIS 30467, at *3 (Fed. Cir. Oct. 31, 1994) (nonprecedential opinion).

Here, the contract and drawing details omitted any measurements of the window trim. Instead, the contract required Grunley to verify dimensions before fabrication where portions of the work were indicated to fit to other construction, and to recheck those measurements prior to fabrication. R4, Tab 10, at 312. Furthermore, Grunley was responsible for the correctness of all measurements, as well as for any error or omissions that might otherwise have been avoided by measuring prior to laying out the work. Id. at 226. In addition, in at least two places, the contract expressly prohibited Grunley from scaling drawings to determine dimensions.²⁴ Id. at 226, 312. Also, Grunley included in MAI's subcontract a provision that required MAI to field measure its work.²⁵ R4, Tab 192, at 2023.

The evidence shows that neither MAI nor Grunley took any trim measurements prior to fabricating and installing the first T1-1 window. Instead, MAI manufactured the window trim based solely on measurements provided to it by MAI's blast consultant who determined the measurements from scaling the drawing details. Tr. at 1669-70, 2429. Given that Grunley's contract with AOC prohibited scaling of the drawings to determine dimensions, and both the prime contract and MAI's subcontract imposed on the firms a duty to physically measure the trim prior to fabrication, R4, Tab 10, at 226, 312;

²⁴ We reject Grunley's contention that the scaling prohibitions do not apply to the interpretation of window drawings. The contract language, "Drawings will not be scaled to determine dimensions," clearly states otherwise. R4, Tab 10, at 226; see also id. at 312 ("Do not scale Drawings to obtain required dimensions").

²⁵ Although MAI excluded field measurements from its proposal to Grunley, it nonetheless agreed to field measure its work when it executed the subcontract. R4, Tab 192, at 2023.

Tab 192, at 2023, we cannot find Grunley's or MAI's post-award reliance on the contract drawings to determine trim measurements through scaling to be reasonable. See W.M. Schlosser Co., 767 F.2d at 873; McDevitt Mech. Contractors, Inc., 21 Cl. Ct. at 619-20.

Grunley offers a number of defenses to measuring the trim. It asserts that the contract only required it to field measure the exterior window openings, and that industry practice does not require contractors to measure the interior trim because trim usually runs parallel to the window frames. Grunley Post-Trial Brief (Jan. 26, 2012) at 45-47; R4, Tab 528, at 4165. We are not persuaded by these arguments. While the drawing note and section 08545 of the contract required Grunley to field verify window openings, these provisions cannot reasonably be read to mean that any other measurement requirements in the contract could be ignored. As noted above, Grunley had an obligation to verify dimensions where work was indicated to fit together and to ensure the correctness of all measurements prior to laying out the work, which included taking trim measurements before installing the windows. Indeed, Grunley even required MAI (in its subcontract) to field measure its work without limiting such measurements to only the outside window openings.

Furthermore, Grunley witnesses did not cite any support for their claim that industry standards permit contractors to not take trim and interior window measurements. The only industry standard offered into the record requires that field measurements of the window openings include both interior and exterior measurements, something that was not done here. AOC Trial Exh. 5, AAMA Standard Practice for the Installation of Windows and Doors in Commercial Buildings (1st Ed. 2008), at 11-2. This standard also cautions that the trim "must take into consideration the amount of overlap on both the window and the existing condition." Id. at 11-8. Finally, multiple witnesses, including expert witnesses, testified that measuring interior details is critical, particularly in an old and historic building where dimensions are not listed on the contract documents.²⁶ Tr. at 3474, 3484, 3493, 4161, 4424, 4427-28, 4459, 4564, 4592; R4, Tab 529, at 4194. Indeed, a basic tenet of construction is to "measure twice, cut once." R4, Tab 535, at 4313. Yet, Grunley and MAI did not measure the trim at all, despite the fact that they each had a contractual duty to measure, had access to the site for more than 2 years prior to installing the windows, and Grunley's contract prohibited scaling of the drawings to determine dimensions. We find inexcusable the firms' failure to measure a necessary component of the windows prior to installation.²⁷

²⁶ In fact, prior to proposal submission, Grunley's lead estimator took measurements of interior details affecting demolition where dimensions were omitted from the contract.

²⁷ Grunley asserts that AOC should have directed Grunley to measure the interior since AOC was aware that the contractors were only measuring the exterior of the windows. Grunley Post-Trial Brief (Jan. 26, 2012) at 45, 47. However, we fail to see how AOC is responsible for Grunley's measurement errors. Furthermore, when AOC directed Grunley to measure the interior trim after the problem with the trim was discovered, Grunley claimed that this was a change to the contract--a claim which we address later in this decision.

In conclusion, we deny Grunley's claim that the variation in trim width constitutes a Type I differing site condition. Grunley has not shown that its proposal was based on the analysis of the contract details presented at trial, or that its interpretation of the contract details was reasonable in light of other contractual provisions. Grunley and MAI failed to measure the trim and this failure, not a differing site condition, was the cause of their harm.²⁸

2. Type II Differing Site Condition

Grunley contends that the variation in trim width encountered for the T1-1 windows is both an unusual and unknown condition.

Grunley and MAI witnesses testified that they had not previously encountered situations where the trim width was varied to offset the shape of the window, and thus the condition here was unusual. Tr. at 702, 2107-08, 2437. One of AOC's expert witnesses confirmed that the window trim manufactured for the USSC was unusual due to the trapezoidal shape of the window, but he had seen "many jobs" where trim was used to offset dimensional differences between the interior and exterior. Tr. at 6084, 6086; see also Tr. at 4423 (another AOC expert witness testified that dimensional differences occur "all the time"). Grunley, MAI, and AOC witnesses testified that they all were "surprised" to find that MAI's trim on the first manufactured window did not fit because nobody noticed, prior to installation, that the trim width on the existing windows varied from top to bottom of the frame. Tr. at 1234-35, 1647, 2438, 3349-50, 3784, 4289. However, as AOC witnesses explained, they did not closely examine the windows, as they expected a window manufacturer would do prior to fabrication. Tr. at 3351, 3784-85. MAI and Grunley had been on site for approximately 2 years prior to installing the first T1-1 window and, in all that time, neither contractor had taken any measurements of the trim. The variation in trim width was obvious on close inspection of the window, even from a few feet away. Tr. at 1235; 4467-70, 4596-97.

Although the above evidence suggests that the variation in trim width was unusual inasmuch as the trapezoidal shape of the windows was unusual, we cannot conclude that the variation in trim width was unknowable. As noted above, the contract documents imposed on Grunley a duty to measure, which neither Grunley nor MAI did prior to fabricating and installing the first T1-1 window. Both firms had ample access to the site to measure the trim, and the window conditions were readily observable had either firm undertaken a thorough investigation of the interior trim conditions at any time

²⁸ In addition to a differing site condition claim, Grunley also asserts that the drawings were defective because the details do not accurately depict that the trim width varies. We find this argument meritless. The drawings do not make any representation as to trim width, providing only a general depiction of shape. Given Grunley's contractual duty to measure, as well as MAI's subcontractual duty to measure, we do not find that the drawings were defective. Wiggins Electric Co., Inc., supra, at 72,854; Bromley Contracting Co., Inc., GSBICA No. 4224, 75-2 BCA ¶ 11,364, aff'd, 76-1 BCA ¶ 11,734 (appeal denied where contractor scaled drawings in lieu of measuring windows as required by contract). Grunley also contends that AOC had superior knowledge of the window trim, but the evidence does not support this contention.

prior to fabrication. Yet, neither firm closely inspected or measured the existing trim prior to fabrication, instead relying on the scaled dimensions provided by MAI's blast consultant to fabricate new trim. Given that the contract did not contain trim measurements, prohibited scaling of the drawings to determine dimensions, and otherwise imposed on Grunley a duty to measure prior to laying out the work, we find Grunley and MAI's failure to measure the trim prior to fabrication to be unreasonable and the cause of their "surprise" when the new window did not fit. Indeed, even MAI's lead fabricator confirmed that the problem with the trim could have been avoided had MAI or Grunley undertaken any effort to measure the trim prior to fabrication. Tr. at 2222. Where a contractor fails to measure when required, it bears the risk of a differing site condition. See W.M. Schlosser Co., 767 F.2d at 873; McDevitt Mech. Contractors, Inc., 21 Cl. Ct. at 619-20.

In sum, Grunley's claim for a Type II differing site condition fails because the variation in trim dimensions was not unknowable.

3. Additional Trim Arguments

Grunley contends that it is entitled to recover the costs of redesigning and replacing the trim on multiple other grounds. It argues that AOC is liable because AOC had previously approved MAI's shop drawings for the trim, because AOC unreasonably denied a less costly proposed solution to fix the trim, and because AOC directed a change with the dimensioning protocol. None of these arguments have merit.

AOC's approval of MAI's shop drawings does not absolve MAI or Grunley from properly dimensioning the trim. In its shop drawings, MAI depicted the trim without including any dimensions and instead included a note stating that MAI would match the existing interior profiles as close as possible. R4, Tab 310, at 2542, 2544. AOC reasonably interpreted this note to mean that MAI's trim would match the profile, which necessarily includes matching dimensions. Tr. at 3559-60, 3563, 3577-79. The submittal procedures in the contract also required Grunley to verify all dimensions. R4, Tab 11, at 249. AOC's approval of MAI's shop drawings did not authorize MAI to deviate from the existing trim dimensions.

In addition, AOC's refusal to approve MAI's proposed solution to correct the ill-fitting trim was not unreasonable. MAI proposed to correct the trim by field applying new trim with exposed fasteners, which was less costly than remaking the trim with hidden fasteners as originally designed. However, the contract prohibited the use of exposed fasteners unless they were unavoidable.²⁹ R4, Tab 15, at 412. The reason for this prohibition was because exposed fasteners could become projectiles during a blast event and injure occupants of the room.³⁰ Tr. at 1697-98, 3071-76, 3355-56; see R4,

²⁹ Also, MAI's operations manager, DeVane Hocutt, explained during a meeting in October 2006 that field installing trim and concealing the fasteners with plugs "wouldn't work" because the trim was too thin. R4, Tab 453, at 3176.

³⁰ Even MAI's blast consultant admitted that exposed fasteners posed a safety hazard. Tr. at 1697-98.

Tab 453, at 3176. MAI initially designed and fabricated the window without exposed fasteners, thus demonstrating that exposed fasteners were avoidable. AOC reasonably rejected the less costly approach that was inconsistent with the contract and was hazardous.³¹

Finally, AOC did not direct a change by issuing a dimensioning protocol for the trim. In order to show a constructive change, as claimed here, Grunley must show that AOC ordered Grunley to perform work that was not required by the contract. Clark Constr. Group, Inc., GAOCAB No. 2003-1, Nov. 23, 2004, 05-1 BCA ¶ 32,843 at 162,609. As noted above, the contract here required Grunley to measure the trim prior to laying out the work. R4, Tab 10, at 226. Grunley and MAI had been on site since 2004, had not measured the trim prior to installing the first T1-1 window in August 2006, and had made no effort to measure the trim in the 2 months after discovering that the trim did not fit. Tr. at 694, 2222, 2488-89; R4, Tab 453, at 3177. After a meeting in October 2006, AOC provided Grunley with a letter reminding the firm that “comprehensive measurements of all existing windows are required.” R4, Tab 458, at 3198. The letter also contained a number of recommendations, which the letter described as “Dimensioning Protocol.” Id. This protocol, however, was nothing more than common sense guidance that Grunley take measurements, which to that point, Grunley and MAI had not done. The common sense elements of the protocol included such recommendations as: “all windows are to be dimensioned”; “the dimensions are to be tied to either fixed elements or control lines [if possible] to be able to gauge what adjustments were made in the field originally and what variations may exist”; the dimensions “should” be documented; and photographs “should” be taken. Id. at 3198-99. Simply following common sense recommendations to complete an obligation to measure that existed under the contract does not elevate the recommendations to a compensable change. Clark Constr. Group, Inc., supra, at 162,609. Grunley has not demonstrated that any of the items constituted changes under the contract.

In sum, Grunley’s various arguments do not entitle it to relief.

³¹ Grunley asserts that field installing replacement trim with exposed fasteners was permitted under the contract, which generally required Grunley to “replicate existing windows exactly.” R4, Tab 15, at 413. Since the original 1930s windows were installed with field-applied trim and exposed fasteners, Grunley argues, it was permitted to use the same approach to match the windows “exactly.” This general contract provision requiring exact matching does not negate the specific prohibition against using exposed fasteners. See North Star Alaska Housing Corp. v. United States, 30 Fed. Cl. 259, 268 (1993); United Pac. Ins. Co. v. United States, 204 Ct. Cl. 686, 694 (1974). Rather, contract provisions must be read harmoniously so as to give reasonable meaning to all provisions and avoid conflict or surplusage in the provisions. Allied Tech. Group Inc. v. United States, 649 F.3d 1320, 1328 (Fed. Cir. 2011); Lockheed Martin IR Imaging Sys., Inc. v. West, 108 F.3d 319, 322 (Fed. Cir. 1997).

CONCLUSION

Based on the forgoing, Grunley's appeal is denied in its entirety.

November 26, 2012



Sharon L. Larkin, Presiding Judge

We concur:



David A. Ashen, Vice-Chairman



Frank Maguire, Judge