ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of --	)	
	)	
East Coast Repair & Fabrication, LLC	)	ASBCA Nos. 60036, 60988
	)	
Under Contract No. N50054-13-C-1306	)	

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OPINION BY ADMINISTRATIVE JUDGE O'SULLIVAN

East Coast Repair & Fabrication, LLC (ECR) appeals a deemed denial of its claim for costs of disruption, acceleration, and growth work arising from its performance of a contract to extend the service life of the USS HURRICANE, a patrol coastal class (PC class) naval vessel. We have jurisdiction under the Contract Disputes Act of 1978, 41 U.S.C. §§ 7101-7109. Both entitlement and quantum are before us. Because we find that ECR has not proven entitlement, we deny the appeal.

FINDINGS OF FACT

1. On June 22, 2012, the Navy issued a solicitation seeking contractors to perform Dry Docking Phased Maintenance Availability of the USS HURRICANE (R4, tab 4). At the time, the Navy had finished or was in the process of conducting availabilities for the repair/service life extension of PC class vessels USS TEMPEST, USS THUNDERBOLT, and USS SQUALL (tr. 3/48). PC class vessels are fast gunboats with a top speed of roughly 35 knots (tr. 3/49). The purpose of the availabilities was to extend the service life of the vessels prior to sending them to the Persian Gulf to protect aircraft carriers in the region (tr. 3/49).

2. ECR was an experienced contractor, having performed similar availabilities on the USS THUNDERBOLT and the USS TEMPEST (tr. 1/44).

3. The technical requirements of the work to be accomplished under the contract were contained in Section J, primarily in Specification Package No. 505-12 (SSP 505-12). (R4, tab 4 at GOV000255, tab 145) SSP 505-12 set forth individual work items relating to particular aspects of the work, of which Work Item No. 110-11-001 was by far the largest. Work Item No. 110-11-001, also called the "steel item" or the "structural steel work," governed structural repairs throughout the ship. (R4, tab 145 at GOV0062588) This work involved removing government designated deflected structural steel,[1] or plate, and replacing it with newly fabricated steel. (R4, tab 145; tr. 1-91 (Rivera), tr. 3-51 (Adams)). The steel item incorporated by reference 51 items including NAVSEA Standard Items, NAVSEA drawings, and a planning memorandum developed by Navy engineers prior to issuance of the solicitation. (R4, tab 848 at GOV0181172-74; tr. 2/195-96, 2/239, 3/28; R4, tab 147)

4. Before the solicitation was issued, a team of Navy personnel conducted structural inspections of the USS HURRICANE to define the scope of the repairs that would be needed. These inspections were of every piece of steel, each plate, and each longitudinal, bracket, and girder that was not hidden behind interferences, to record the extent of deflection or other damage (tr. 3/50-51). The team had with them a survey booklet based on the NAVSEA drawings for the ship, and as they measured areas of the hull and support structure in need of repair they would mark the corresponding drawings accordingly. The survey sheets with the marked-up drawings were then given to the Navy's in-service engineering agent to be incorporated into the planning memorandum referenced in the contract specifications. (Tr. 3/51-52)

5. Not all of the steel to be repaired or replaced was designated in the planning memorandum. Certain areas of the vessel, those hidden behind interferences such as insulation, bunks, lockers, freezers, and ventilation, could not be inspected until the availability had begun and the interferences were removed. Once interferences were removed, the Phase III inspection would occur and additional steel plate and other structures would be designated for replacement. The planning memorandum estimated that, on top of the steel it had designated for replacement, an additional 870 square feet of steel would be identified in the Phase III inspection. (R4, tab 147 at GOV0174139)

6. At the time the solicitation was issued, Work Item No. 110-11-001 called for the removal and replacement of a maximum of 33,172 square feet of steel plate and

[1] Deflected steel or plate is steel that has been damaged and becomes warped and out of plane. Deflected steel is no longer able to withstand the forces that it could when it was "flat and fair." (Tr. 3/51)

261 linear feet of flat bar. (R4, tab 848 at GOV0181175-76) Potential offerors submitted questions about the amount of steel called for in the specifications. One offeror pointed out that the estimated rough square footage of the complete exterior ship's hull and deck was less than 11,000 square feet. (R4, tab 2 at GOV000134) On July 19, 2012, after continued questions about the amount of steel called for, the Navy issued Amendment 10 to the solicitation containing Errata 10 to Work Item No. 110-11-001, reducing the maximum total square feet of steel to be replaced to 10,749 (excluding flat bar). (R4, tab 15 at GOV000344, tab 855 at GOV0181489)

7. Amendment 12 to the solicitation, issued July 26, 2012, contained answers to additional questions from offerors. Of interest are the following:

> Q.2. Structural repair items. There is an excessive amount of "Special" structural Steel required by Item 110-11-001 as stated in question #04. It is also noted that the Hull/Tank/void repair items also require a considerable amount of "Special" structural steel.
>
> a) Since the steel is special and LLTM, is the steel included in 110-11-001 intended to be utilized for the other steel repairs items? NOTE: (Steel replacements in the repair items can only be identified after the required inspections. Orders for additional steel could delay the contract date.)
>
> b) Since the steel requirements of 110-11-001 are extensive will the Government expect a labor credit for unused quantities?
>
> c) Would the Government want the unused steel turned in at the end of the contract?
>
> A.2.
> a) Yes.
> b) Yes.
> c) Yes.

(R4, tab 17 at GOV000354)

8. The Navy opened discussions with offerors on August 7, 2012. It continued to issue changes to SSP 505-12 during discussions. (R4, tabs 18-19) Errata 27 was the last one issued before submission of final proposal revisions. Errata 27 revised Work Item No. 110-11-001 to identify a maximum total of 5044 square feet of steel plate to be removed and replaced, along with 461 linear feet of flat bar. (R4, tab 145 at GOV0062592) As had predecessor versions of this work item, the revised item specified the new steel to be bought to perform the specified replacements. (*Id.*

at GOV0062593) The new total was 5150 square feet of plate and 461 linear feet of flat bar (*id.*).

9. On February 12, 2013, the Navy awarded Contract No. N50054-13-C-1306, a firm fixed-price contract (the contract), to ECR for a total evaluated price of $14,239,409 (R4, tab 3). As revised by Modification No. P0004 on March 13, 2013, the contract's period of performance began on March 27, 2013. (R4, tab 35) The first major phase of performance was the removal of interferences in preparation for the Phase III inspection (tr. 1/185). Orlando Rosenbaum, a project manager for ECR who worked on the HURRICANE as a ship superintendent, testified that interferences were removed starting all the way forward of the vessel and then moving aft through the crew quarters (removing, among other equipment, lockers, lights and ventilation) and the galley (removing mess decks, tables, freezer, etc.). The majority of the work was between the second deck and the lower parts of the vessel, where the tanks and voids were, and where the frames were approximately two feet apart, requiring tight maneuvering. (Tr. 1/188-91)

10. Once all interferences were removed, the Phase III inspection took place. The purpose of this inspection, conducted jointly by ECR and the Navy from April 17 through April 25, 2013, was to examine the steel hidden behind the interferences to find deflected steel not already listed in the planning memorandum. (Tr. 3/68-69; R4, tab 723) ECR submitted Condition Found Report (CFR) No. 358 to the Navy on May 10, 2013. In it, ECR reported that it "found the following frames, girders, shell plate and main deck to be deflected throughout the ship. –Frames = 278 –Girders = 267 –Shell plate = 354 –Main deck = 208 –TOTAL = 1107 Behind lagging and interferences –Frames =572." These numbers total to 1679 square feet of steel. ECR then subtracted the government's Phase III estimate of 870 square feet to arrive at 809 square feet of "growth work." ECR recommended that the government issue a Request for Contract Change (RCC) to "compensate the contractor for labor and material above the square footage listed . . . for a total of an additional 809 square feet. Schedule impact/delay will be determined upon issu[ance] of RCC." The materials listed as needed were 4.0 millimeter (mm) plate, 5.1 mm plate, and ¼ inch plate. ECR's cost proposal was $2,960,763. (R4, tabs 141-48)

11. Following receipt of CFR 358, a Navy team consisting of Teana Smith, the Navy's project manager, John Ludovici, the Navy shipbuilding specialist assigned to the structural steel item No. 110-11-001, and Horace Aaron Adams, the naval architect assigned to the Navy's internal engineering team, reviewed the submission against the contract specifications. Mr. Adams calculated the total square footage of steel required to be replaced under the 110-11-001 Work Item No. using the NAVSEA drawings, the AutoCAD program, and a workbook that he kept as the availability progressed in which he had calculated the square footage of each area of steel to be replaced and tracked each replacement that was complete. (Tr. 2/244, 3/25-27, 3/93-94) Specifically, Mr. Adams

calculated the square footage identified in the planning memorandum 390-211 to be 2,335, to which he added the 1,679 square feet identified in the Phase III inspection, to reach a total of 4,014 square feet of steel to be replaced. The Navy therefore concluded that the 809 square feet of steel identified in the Phase III inspection above and beyond the 870 square foot estimate for Phase III was not "growth work" because it fell within the overall 5,044 maximum square feet set forth in Work Item No. 110-11-001, leaving a 1,030 square foot margin remaining. This conclusion was conveyed to ECR on May 17, 2013, and followed up by an email from Ms. Smith to ECR on May 21, 2013 which contained Mr. Adams's calculations. (R4, tabs 141-48, 705; tr. 2/244, 248-50, 3/94)

12. Shortly following Ms. Smith's May 21, 2013 email, ECR notified the Navy that it was running low on steel (tr. 2/30-31; 2/260). On May 30, 2013, ECR ordered additional 4.0 mm and 6.0 mm steel plate from Dent Steel Services in England (tr. 2/110-11; R4, tab 141-61). On June 15, 2013, ECR notified the Navy via CFR 533 that it had run out of 4.0 mm and 6.0 mm steel plate and that the estimated schedule impact, due to the expected delivery date and the need to prepare and fabricate the additional steel, was eight weeks (R4, tabs 141-42). The new steel was delivered to ECR approximately nine days later, on June 24, 2013, and after preparation and fabrication was ready for use on or about July 5, 2013. (R4, tab 141 at GOV001124; tr. 2/160-62)

13. On June 27, 2013, ECR provided the Navy with an estimate of the cost of the steel shortage, which totaled $504,788, and was based on labor disruption during the period of time that ECR was out of 4.0 mm and 6.0 mm steel (R4, tabs 141-64).

14. On or about June 28, 2013, the Navy unilaterally issued Modification No. P00015 to compensate ECR for the cost of the additional steel and the labor required to prepare it for use, including overhead and profit, in the amount of $24,173 (R4, tabs 141-65). Ms. Smith, the Navy's project manager, testified that the purpose of the modification was to avoid delay and compensate ECR for the steel it had already ordered, and that it did not reflect any agreement on the part of the Navy that the quantity of steel originally specified in the contract was insufficient to complete the work (tr. 2/260-61). The Navy declined to compensate ECR for claimed delay and disruption and also declined to grant a contract extension (R4, tab 141-65 at GOV001724).

15. ECR completed its work satisfactorily and delivered the USS HURRICANE on time (R4, tabs 141-81 at GOV001921).

16. On September 10, 2014, ECR submitted a Request for Equitable Adjustment (REA) in the amount of $1,709,933 as compensation for the following costs which ECR claimed it incurred as a result of running out of steel:

Direct steel cost	$8,942[2]
Disruption	$1,261,248
Acceleration	$68,957
Subcontract/rental	$315,311
Subtotal	$1,654,458
REA Preparation	$55,475
TOTAL	$1,709,933

ECR did not claim days of delay in the REA due to the fact that the Navy had granted a total of 44 days' contract extension due to other causes, which ECR considered to be concurrent delays. (R4, tab 141 at GOV001131, GOV001151)

17. On June 22, 2015, after several requests for a final decision on its claim, ECR appealed the deemed denial of its claim to this Board. Its appeal was docketed as ASBCA No. 60036. (Bd. corr. ltr. dtd. June 22, 2015)

18. While ASBCA No. 60036 was pending, ECR submitted a Supplemental REA dated January 5, 2016 directly to counsel for the Navy with a copy to the contracting officer. ECR's Supplemental REA requested an additional $1,064,627.82 for the claimed cost of replacing an additional 809 square feet of steel above and beyond the 5,044 square feet of steel replacement specified in the contract. ECR calculated this supplemental amount by multiplying a forward pricing labor rate of $48.72 per hour by an estimated average time of 27 hours to replace one square foot of steel to come up with a cost of $1315.98 to replace one square foot of steel, which it then multiplied times the claimed 809 additional square feet of steel for a total supplemental claim amount of $1,064,627.82. (R4, tab 151 at GOV0179568)[3] ECR certified this supplemental claim notwithstanding its position that it need not do so since it was merely supplementing the previously submitted claim (*id.* at GOV0179560-61).[4]

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[2] ECR took the position that Modification No. 15 did not fully reimburse it for direct steel costs.

[3] These numbers are taken directly from ECR's supplemental claim. We note that the actual arithmetical product of the stated multipliers differs slightly from that set forth in the claim document.

[4] ECR later noticed an appeal involving the supplemental claim to the Board. This appeal was docketed as ASBCA No. 60988. In its brief, the Navy has mentioned potential jurisdictional issues with respect to this appeal (failure to submit the claim to a contracting officer for decision), which we need not address in light of our disposition of the matter.

19. The Defense Contract Audit Agency (DCAA) conducted an audit of ECR's overall claim and concluded that ECR had not sufficiently substantiated that the costs it claimed were allocable to the HURRICANE contract. DCAA also noted that while ECR's accounting records showed a loss of $2,538,311 on Work Item No. 110-11-001, there was significant profit on other work items and ECR's overall contract loss was only $188,643. (R4, tab 159 at 17, 18; tr. 4/19)

How much steel did the contract require to be replaced?

20. As summarized above, the structural steel work item (No. 110-11-001) provided for up to 5,044 square feet of steel to be replaced. The only steel identified to be replaced under this work item at the time of contract award consisted of 2,335 square feet identified in the planning memorandum, plus an estimate of an additional 870 square feet following the Phase III inspection, after interferences were removed (3,205 square feet total). (Findings 8, 11) Thus, the 5,044 square feet in Work Item No. 110-11-001 included a margin of 1,839 square feet in order to account for the possibility that additional damaged steel would need to be replaced (tr. 3/70-72). The Phase III inspection identified an additional 1,679 square feet to be replaced (809 square feet more than estimated) which, when added to the 2,335 square feet in the planning memorandum, totaled 4,014 square feet of steel to be replaced under this work item (finding 11). A margin of 1,030 square feet still remained under Work Item No. 110-11-001 after the Phase III inspection.

21. The specifications contained numerous other work items, many of which also required steel replacement. Work Item No. 110-11-002 required the removal of up to 20 square feet of hull plating as well as each longitudinal, frame, stiffener, gusset and bracket in the way of and extending 12 inches beyond hull plating removals, and replacement with new material (R4, tab 145 at GOV0062601). Work Item No. 123-11-001 required, *inter alia*, the removal of 200 square feet of deteriorated and buckled plating as well as 8 striker plates and replacement with new material (*id.* at GOV0062609). Work Item No. No. 123-14-002 required the removal and replacement with new material of up to 50 linear feet of stiffeners and 10 square feet of plating (*id.* at GOV0062614-62615).

22. Work Item No. 123-16-001 required that the following material be removed and replaced with new material as summarized below:

> 3.2.2—30 square feet of deteriorated plating, including each longitudinal, stiffener, gusset and bracket in the way of and extending 12 inches beyond plating removal
>
> 3.2.3—20 linear feet of structural stiffeners

3.2.4—15 linear feet of splits, cracks and broken welds

3.2.6—15 square feet of grating panels

3.2.7—10 square feet of welded sheathing

3.2.8—15 square feet of portable sheathing

(R4, tab 145 at GOV0062619-62620) Work Item No. 123-17-002 required the removal and replacement with new material of 60 square feet of deteriorated and buckled plating including interfering materials (*id.* at GOV0062624). Work Item No. 123-19-002 required the removal of 10 square feet of buckled or deteriorated plating, including interfering materials, and each longitudinal, frame, stiffener, gusset and bracket in the way of and extending 12 inches beyond the plating removal, and replacement with new material (*id.* at GOV0062627-62628).

23. Work Item No. No. 123-19-004 required the removal of 10 linear feet of buckled or deteriorated T-bar, 40 square feet of plating, and 30 linear feet of damaged shell and longitudinal structures, and replacement with new material (R4, tab 145 at GOV0062632-62633). Work Item No. No. 163-11-001 required the removal of 40 square feet of deteriorated plating and its replacement with new material (*id.* at GOV0062644).

24. None of the above work items except No. 110-11-001 specified how much new material to buy to accomplish the work item. Work Item No. 110-11-001 was unique in that regard. It was also quite explicit that the new material to be bought was for the accomplishment of that work item:

> 3.6 Install new material *in place of that removed in 3.2* [section 3.2 of 110-11-001] in accordance with 2.3 and 2.54 through 2.35 . . . *using the following new material*:
>
> | TOTAL QUANTITY REQUIRED | NAME OF PART |
> |---|---|
> | 16 Sheets | 5FT X 10FT X 5.1 MM plate |
> | 29 Sheets | 5FT X 10FT X 4.6 MM plate |
> | 45 Sheets | 5FT X 10FT X 4.0 MM plate |
> | 7 Sheets | 5FT X 10FT X 6.0 MM plate |
> | 3 Sheets | 5FT X 10FT X 6.35 MM plate |
> | 3 Sheets | 5FT X 10FT X 10 MM plate |

461 LFT 2IN X 6.1MM Flat Bar

(R4, tab 145 at GOV0062593; emphasis added)

25. We conclude that the contract called for up to 5,044 square feet of steel plating and 461 linear feet of flat bar to be replaced under Work Item No. 110-11-001 and also additional square feet of steel plating and linear feet of steel under other work items.

How much steel did ECR replace?

26. Mr. Daniel Stranigan, who was employed as supervisor of ECR's engineering department and who helped manage its fabrication shop, testified to his calculations of the amount of steel that ECR fabricated for installation on the HURRICANE. In preparation for the fabrication of the new steel, Mr. Stranigan reviewed the drawings in the contract specifications (in the planning memorandum), ordered any additional drawings that he might need, and visited the ship to check the drawings against the actual dimensions (tr. 1/99-101). He then used a "nesting program" to fit the various pieces within the dimensions of the steel plates to create a new set of fabrication drawings (or "work packages") for the fabrication shop to use in cutting the replacement steel (tr. 1/102-04).

27. At a point approximately two years before trial, more than a year after the availability of the HURRICANE had concluded with its delivery to the Navy, Mr. Stranigan was asked by ECR's owner, Mr. Jorge Rivera, to calculate the original square footage of steel designated in the contract for replacement and the growth work square footage (tr. 1/154). He consulted the contract specifications (specifically the drawings in the planning memorandum) and his work packages, and concluded in written notes that the original square footage designated by the contract "from bow to stern [for] all transverse frames and longT girders" was 2,317 square feet and that there had been 616 square feet of growth work "for all frames and longT girders" for a total of 2,933 square feet of steel installed. These numbers do not include "deck repairs and shell plating." (Tr. 1/154-55; R4, tab 513) Mr. Stranigan did not keep track of the steel that was actually installed on the ship vs. fabricated and did not know if ECR otherwise tracked the steel actually installed (tr. 1/153-54).

28. Mr. Adams, the naval architect assigned to the Navy's engineering team for the HURRICANE availability, kept a survey book or workbook in which he kept track of what had been cut and replaced on the ship (tr. 3/87; R4, tab 326). He used the workbook primarily for engineering purposes, since the engineering team needed to make decisions based on a knowledge of what work was yet to be done, what work was in process, and what work had been accomplished at any one point in time (tr. 3/88-89). The workbook contained AutoCAD drawings of each piece slated to be replaced, along with its square footage generated by the AutoCAD program (tr. 3/90-91).

29. Mr. Adams used this workbook to help the Navy formulate its response to ECR's CFR 358 in May of 2013 (finding 11; tr. 3/94-95) For his testimony, he created an Excel spreadsheet (R4, tab 640) which recreated his calculations from 2013, and then checked his data against quality assurance (QA) tickets for the structural steel Work Item No. 110-11-001. There were four QA tickets generated at the time of contract performance for each item that had been fully accomplished, and by checking his calculations against the QA tickets he could be sure that each piece he was counting had in fact been worked and completed (tr. 3/103). Using this method, he calculated that ECR had replaced 3,682.15 square feet of steel (3307.72 square feet of plate and 374.43 linear feet of flat bar) in performing Work Item No. 110-11-001 (R4, tab 640).

30. Mr. Stranigan did some calculations of his own annotating Mr. Adams's spreadsheet (tr. 1/142-45; R4, tab 671). He testified that the total number of square feet of steel fabricated by his shop for installation on the HURRICANE was 5109.75, for all web frames, main deck, and shell plate, "everything involved" including stiffeners, but excluding temporary access openings. (Tr. 1/145) Ultimately, ECR contends that it replaced a total of 6021.75 square feet of steel on the HURRICANE: 5109.75 square feet under Work Item No. 110-11-001, 677 square feet for other work items in the specifications, and 235 square feet for temporary access openings.

31. Temporary access openings (TAOs) were cut by the contractor in the hull of the ship to help the contractor perform work in a confined area. The contract provided that permission from the Navy was required to cut TAOs, which were to be "re-installed" when they had served their purpose. (Tr. 3/79-82) The contract did not require that new steel be used to replace a TAO, but ECR chose to use 235 square feet of new steel to close TAOs. While ECR included these pieces in their calculation of steel replaced, Mr. Adams did not include them because they were not required by the contract and instead were a function of how ECR chose to do the work. (Tr. 3/86-87, 3/103-04)

32. Aside from the TAOs, there is more than one possible explanation for the differences between ECR's numbers and Mr. Adams's numbers. The difference may be partially explained by the fact that not every piece of steel fabricated by ECR was necessarily installed on the ship. While Mr. Stranigan seemed sure that he had not included any pieces that had been "de-scoped,"[5] Mr. Adams in his testimony pointed out particular pieces included in Mr. Stranigan's calculations for which he was unable to find QA tickets, indicating that the piece had not in fact been replaced (tr. 3/107-09).

33. Another potential explanation lies in the fact that the contract specifications, particularly section 3.2 of Work Item No. 110-11-001, required ECR to

[5] "De-scoped" means the Navy slated the piece as not for repair in the current availability (tr. 3/109).

only replace certain designated pieces or those pieces authorized by the "Supervisor."[6] (R4, tab 145 at GOV0062591) Mr. Stranigan thought that perhaps Mr. Adams had only included steel plate, and not any of the stiffeners, brackets, or similar structural pieces which he thought amounted to about 25 to 30 percent more than Mr. Adams's numbers (tr. 1/150). Mr. Adams testified that he included such structural pieces in his numbers only if they were located behind hull plating, since the contract did not require the replacement of such pieces in other locations (tr. 3/55-56, 3/115). For instance, the contract did not call for replacement of secondary structure pieces such as brackets, collars, gussets, and rider plates, other than those behind hull plating. (R4, tab 145 at GOV0062592, section 3.2.12) If ECR chose to replace secondary structure pieces other than those behind hull plating with new steel *without* first obtaining authorization, those square footages would be included in Mr. Stranigan's calculations but not Mr. Adams's.

34. Yet another possible explanation stems from the fact that no matter how economically the parts to be fabricated are nested on a plate of steel, there will be steel left over after the parts are cut, commonly referred to as "droppage" or "wastage." Mr. Stranigan testified that he prefers to work with 8'x 20' sheets rather than the 5' x 10' sheets specified by the Navy, because "those are usually tight nests. You can fit just about any piece in there" whereas with the 5' x 10' sheets, "parts are so big that they don't fit . . . so you have to put a lot of butts and seams in it, break it up into little pieces." (Tr. 1/102, 104) The actual wastage rate ECR experienced on the HURRICANE is not clearly established. In its REA, ECR stated that the normal rate would be on the order of 20 percent, but that on the HURRICANE it experienced a rate closer to 40 percent (R4, tab 141 at GOV001118). It stated to the contrary in its Proof of Costs supplement dated May 10, 2017, that "virtually all droppage of steel plate after cutting was consumed." (R4, tab 153 at GOV0179580) Mr. Adams testified that at a meeting with ECR in May of 2013, he explained to ECR how he was calculating his square footage numbers and was told that their numbers included the area of the steel plate surrounding the part that was cut. Based on that information, he calculated a wastage rate of 40 percent. (Tr. 3/110-11) We do not find the evidence sufficient to make a finding regarding ECR's droppage/wastage rate on the HURRICANE, or whether ECR was including steel droppage in its calculations of square feet of steel installed.

35. Mr. Adams testified to the amount of steel replaced by ECR under Work Item No. 110-11-001 based on contemporaneous records—his workbook, and the QA tickets that were generated under Work Item No. 110-11-001 as work progressed. Mr. Stranigan's testimony was based on the amount of new steel fabricated by ECR. We find Mr. Adams's testimony more probative of the amount of steel ECR was required to and did replace under Work Item No. 110-11-001. Therefore, we conclude that ECR

[6] The "Supervisor" as referenced in section 3.2 of 110-11-001 is the Navy Mid-Atlantic Regional Maintenance Center, or MARMC (tr. 3/28).

was required to and did replace 3,682.15 square feet of steel in performing Work Item No. 110-11-001. ECR may have replaced more steel than that in practice, but it has not established that it was required by the contract to do so.

DISCUSSION

To receive an equitable adjustment from the government, a contractor must show three necessary elements—liability, causation, and resultant injury. *Servidone Const. Corp. v. United States*, 931 F2d 860,861 (Fed. Cir. 1991), citing *Wunderlich Contracting Co. v. United States*, 351 F.2d 956, 968, 173 Ct. Cl. 180 (1965); *Craft Cooling, Inc.*, ASBCA Nos. 52494, 54127, 06-1 BCA ¶ 33,268 at 164,875.

Contentions of the Parties

ECR contends that: (1) the contract specified a quantity of steel to be purchased which was insufficient for the work required by the contract; (2) the need to order more steel caused ECR to incur the unanticipated costs of procuring additional steel, disrupted ECR's work, and required acceleration to meet the contract schedule; and (3) ECR was required to replace 809 more square feet of steel than specified in the contract and is entitled to the cost of that additional work. ECR takes the position that the Navy has already conceded entitlement on the first issue by issuing Modification No. P00015 to compensate it for the additional steel it ordered. (App. reply br. at 1-3) On the third issue, ECR relies on purported Navy admissions that the claimed 809 square feet of steel was "additional growth work," and adds that Mr. Adams's testimony that he did not include in his calculations certain steel pieces means that the Navy has presented no credible evidence that the 809 square feet fell within the 5,044 allowed by the contract (app. reply br. at 9).

The Navy contends that the "additional 809 square feet of steel" was not "growth work" but fell within the ample margin provided by the 5,044 square feet of replacement specified in Work Item No. 110-11-001 (gov't br. at 3-5). When the additional 1,679 square feet identified for replacement as a result of the Phase III inspection is added to the 2,335 square feet identified for replacement in the planning memorandum, the total is still only 4,014 square feet—1,030 square feet short of the maximum 5,044 (*id.* at 4). Thus, the Navy concludes that the steel specified to be bought by the contract (5150 square feet) was sufficient for the required work.

In its reply brief, ECR points to the Navy's changing estimates of the amount of steel to be replaced during the solicitation process to argue that the 5,044 square feet contained in Work Item No. 110-11-001 was too low an estimate and that the Navy's evidence of the actual square footage replaced is unreliable. (App. reply br. at 5-9) ECR repeats its argument that the amount of steel specified in Work Item No. 110-11-001 was inadequate for the amount of steel that had to be replaced. ECR further argues that the

Navy, in questions and answers during the solicitation period, directed that the steel procured under Work Item No. 110-11-001 was to be used for all steel repair items, requiring ECR to use the steel specified to be bought under Work Item No. 110-11-001 (5150 square feet of plate and 461 linear feet of flat bar) for all work items, exacerbating the steel shortage under the contract. (*Id.* at 14-16)

The Navy in its reply brief reiterates that the 809 square feet ECR claims as additional work was well within the Navy's estimate and the amount of square feet provided for in the contract as awarded (gov't reply br. at 1-5). The Navy also asserts that ECR used more steel than required by the contract by replacing pieces without obtaining authorization, has failed to prove that it used the steel bought under Work Item No. 110-11-001 for other work items, and intentionally underbid the contract (*id.* at 9-11).

Did ECR in fact experience a shortage of steel caused by the Navy?

There is some disagreement among the parties as to whether there was a steel shortage, but it seems clear that ECR began running out of steel plate relatively early in the availability due to some cause, or it would not have taken the initiative to order more. The more pertinent question, in our view, is whether ECR has shown that the steel shortage was the fault of the Navy.

In addressing this latter question, we turn first to ECR's contention that the steel specified to be bought under Work Item No. 110-11-001 was inadequate due in part to the alleged Navy direction to use that steel for all other work items as well. ECR relies for this proposition on the Navy's answers to bidders questions contained in Amendment 12 to the solicitation, which are reproduced above in finding 7. ECR states that, as a result of the Navy's answer, it removed all steel material and labor hours from other work items and included them under Work Item No. 110-11-001 when it submitted its bid (tr. 1/65-66; tr. 5/11). ECR's William Wren, Director of Shipbuilding Operations, testified in its rebuttal case to the fact that ECR did, in fact, pull all steel work (both labor and materials) out of the other work items and place the work in Work Item No. 110-11-001. As part of his testimony, ECR produced "demonstrative exhibits" that Mr. Wren had printed off his computer the day before by accessing ECR's management system (tr. 5/33-34). The Navy objected to the exhibits on the ground that it had requested but had not received the records in discovery. The Board allowed Mr. Wren's testimony but later, after briefing by the parties and with their consent, excluded the exhibits from the record. (Bd. corr. Order dtd. September 8, 2017)

The Navy responds that ECR has presented no contemporaneous evidence that would support its assertion that it moved all steel material and labor to the structural steel work item and states that, to the contrary, ECR separately priced and was paid

separately for the other work items involving steel replacement. The Navy also states it was not informed that ECR utilized steel bought under Work Item No. 110-11-001 for other work items until ECR filed its Proof of Cost Supplement II two months before trial. (Gov't reply br. at 46-47; response to appellant's proposed findings of fact (AFF) 88)

The relevant question, we think, is whether the Navy either directed ECR to do all the steel replacement work in the contract with the 5150 square feet of plate and 461 linear feet of flat bar that was specified for purchase under Work Item No. 110-11-001, or represented to ECR that the steel bought under Work Item No. 110-11-001 was sufficient to do all the steel work under the contract, as ECR alleges (app. reply br. at 14-16).

We conclude that the Navy did neither. We start with the plain language of the contract regarding the steel specified for purchase in Work Item No. 110-11-001. As noted in finding 24, section 3.6 of Work Item No. 110-11-001 expressly stated that the contractor was to replace the steel required to be removed in section 3.2 *of that same work item* with the specified new material. In other words, the new material specified for purchase in section 3.6 of the structural steel work item was to be used to perform the steel replacements specified in section 3.2 of that same work item, up to 5,044 square feet. There is no mention of using that steel for any other work item. Meanwhile, many other work items also called for replacement of damaged steel plate with new material in much smaller amounts than the structural steel item, but did not specify the new material to be bought, leaving that decision to the judgment of the contractor. (Findings 21-23)

We do not find that Mr. Wren's testimony or the questions and answers in Amendment 12 to the solicitation alter our conclusion in any way. What ECR apparently fails to take into account is that at the time the question was submitted (July 11, 2012) Work Item No. 110-11-001 called for the replacement of up to 33,172 square feet of steel (finding 6). At the time the Navy issued its answer in Amendment 12, Work Item No. 110-11-001 as changed by Amendment 10, Errata 10, (and prior to its final revision in Errata 27) called for the replacement of up to 10,749 square feet of steel (excluding flat bar), using the following new material:

37 Sheets 5FT X 10FT X 5.1 MM plate
55 Sheets 5FT X 10FT X 4.6 MM plate
84 Sheets 5FT X 10FT X 4.0 MM plate
33 Sheets 5FT X 10FT X 6.0 MM plate
6 Sheets 5FT X 10FT X 6.35 MM plate
2 Sheets 5FT X 10FT X 10 MM plate

(R4, tab 855 at GOV0181490) Thus, at the time Amendment 12 was issued, Work Item No. 110-11-001 called for the purchase of a total of 10,850 square feet of steel plate. It may be that the Navy thought that 10,850 square feet of steel plate would provide enough of a margin to be able to use the steel for Hull/Tank/void repairs as well. But we cannot accept ECR's invitation to stretch this question and answer into either a Navy representation that 5150 square feet of steel plate bought pursuant to the final version of Work Item No. 110-11-001 was sufficient for all steel replacement under the contract, or a direction to use that steel for all steel work required by the contract.

Even if we accept that ECR moved all the steel work into Work Item No. 110-11-001 (a finding which we do not make), we do not agree that this action was required by the contract or directed by the Navy. Indeed, given the fact that ECR was an experienced contractor (finding 2), we have difficulty reconciling its position in this appeal, that 5150 square feet of plate was insufficient to replace 5,044 square feet of steel under Work Item No. 110-11-001, with its representation that it believed the Navy had directed that *all* contract steel replacement be done with the 5150 square feet of steel plate purchased under Work Item No. 110-11-001. At the very least, a prudent contractor in ECR's position would have sought clarification if it believed this was the Navy's intent, but there is no evidence that ECR did so.

We conclude that the steel bought under Work Item No. 110-11-001 was meant to be used for replacement of damaged steel only under that work item, not other work items. Thus, the question is whether ECR has otherwise proven that the Navy is at fault for any steel shortage experienced by ECR. ECR complains that the 5150 square feet of steel specified to be bought under Work Item No. 110-11-001 was insufficient to accomplish the work required by this work item. While ECR has offered proof of the amount of steel it fabricated for the contract, it did not keep track of the amount of steel actually installed on the HURRICANE. And while ECR asserts that the Navy's calculations fail to take into account many pieces that were fabricated and installed by ECR, to include new steel for TAOs and support pieces such as stiffeners and brackets, ECR has not established that those uses (other than for support pieces located behind hull plating) were authorized by the Navy or otherwise required by the contract. Thus, ECR has not met its burden to show that the Navy specified an insufficient amount of steel to be bought under Work Item No. 110-11-001.

Was there 809 square feet of "growth work"?

With respect to the alleged 809 square feet of "growth work," ECR has not offered any evidence that the Phase III inspection identified any amount of damaged steel for replacement in excess of the 5,044 already allowed for in Work Item No. 110-11-001. Instead, it contents itself with arguing that the Navy "admitted" that the 809 square feet was "additional growth," which the Navy most assuredly has not, and attacking the

sufficiency of the Navy's evidence that the 809 square feet was included within Work Item No. 110-11-001's 5,044 square feet. (App. br. at 9) Even if one considers the testimony of ECR's witnesses that ECR replaced a total of 6,021.75 square feet of steel performing the contract, that total includes all the work items, not just Work Item No. 110-11-001, as well as some pieces that were either de-scoped or that were not authorized or designated to be replaced. Therefore, it is of little probative value on the issue of whether there was growth work in excess of 5,044 square feet on Work Item No. 110-11-001. We conclude that ECR's asserted "growth work" was included within the 5,044 square foot maximum of Work Item No. 110-11-001, still leaving a margin of 1,030 square feet (finding 20).

We do not address all of the parties' arguments herein, but we have considered them in rendering our decision. ECR's two motions for partial summary judgment dated July 8, 2016, that were deferred until after the hearing are hereby dismissed as moot.

CONCLUSION

ECR has failed to meet its burden of proof on entitlement. The appeals are denied.

Dated: April 15, 2020

LYNDA T. OSULLIVAN
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

RICHARD SHACKLEFORD
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

I concur

OWEN WILSON
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA Nos. 60036, 60988, Appeals of East Coast Repair & Fabrication, LLC, rendered in conformance with the Board's Charter.

Dated: April 15, 2020

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