ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of --	)	
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Lebolo-Watts Constructors 01 JV, LLC	)	ASBCA Nos. 59738, 59909
	)	
Under Contract No. W912DR-11-C-0033	)	

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OPINION BY ADMINISTRATIVE JUDGE PAGE

Lebolo-Watts Constructors 01 JV, LLC (LWJV, appellant, or the contractor) entered into a contract with the United States Army Corps of Engineers, Baltimore District (government, Corps, or district) to replace the Defense Satellite Communications System (DSCS) Operations Center (DSCSOC) at Ft. Meade, Maryland with a new facility.[1] During construction, the government required the contractor to remove certain lengths of flexible metal clad cable (MC cable or MCC) that its subcontractor Worch Electric (Worch, Worch Electric, or subcontractor) had installed in concealed spaces and replace it with electrical metallic tubing (EMT).

[1] This decision resolves ASBCA Nos. 59738 and 59909, which arose from the claim (claim 1 or MCC/EMT claim) dated January 21, 2014 ("Request for Contracting Officer's Final Decision [COFD] for Government Directed Installation of EMT [Conduit] in Lieu of MC Cable for Power Wiring at Concealed Spaces") (R4, tab 42). ASBCA No. 59738 was appealed before the COFD was issued, and related appeal ASBCA No. 59909 was filed after a COFD was rendered. ASBCA Nos. 59739 and 59910 similarly arose from LWJV's March 28, 2014 (claim 2 or the telecom claim (*see* R4, tab 20 at 23-32, tab 41 at 6-7)) and were heard in the same proceeding; these were dismissed as settled for $83,988 of the $579,874 paid by the government (app. br. at 3) in Contract Modification No. P00001 dated March 11, 2015 (R4, tab 40).

Although the government eventually acknowledged there was a changed condition and unilaterally modified the contract to recompense LWJV for an amount the government regarded as reasonable, the contractor appealed to recover the claimed balance. Only quantum is before the Board. We deny the MCC/EMT claim for additional compensation, and regard the amount already paid as excessive.

FINDINGS OF FACT

A. The Government's Request for Proposals (RFP)

1. The government issued RFP No. W912DR-11-R-0011 on November 24, 2010 (R4, tab 2). This procurement for the "Wideband Satellite Communication (SATCOM) Operations Center (WSOC)" would be a design-bid-build effort to replace the current DSCSOC; a 100% set-aside for small business concerns; and awarded on a "best value" basis (*id.* at 3-5).[2]

2. In relevant part, by Amendment No. 0003 to the RFP of December 20, 2010 (R4, tab 6), the government changed contract specification "Section 26 20 00 [Metal Clad Cable], Page 22, Paragraph 3.1.3.2" to state that "Installation shall be limited to single phase branch circuits in concealed spaces unless otherwise noted. All other circuits shall be in EMT or rigid galvanized steel." (*Id.* at 3)

B. The Lebolo-Watts Joint Venture

3. LWJV is a joint venture between Lebolo Construction Management (LCM), a small 8(a) firm certified by the United States Small Business Administration (tr. 2/6), and Watts Constructors, which was then owned by the Weitz Company[3] (tr. 1/28, 31-32). LCM owned 51% of the joint venture. Randy Lebolo is the owner and president of LCM and the joint venture manager for LWJV. (Tr. 2/5-6) John Sloss was brought in by Weitz "as the project manager for the project." He later took on additional duties, including that of quality control (QC) manager. (Tr. 1/28)

C. Contract No. W912DR-11-C-0033

4. On August 8, 2011, LWJV and the government entered into firm-fixed-price (FFP) Contract No. W912DR-11-C-0033 for $18,392,000 (R4, tab 1). Contract line item number (CLIN) 0001 for the WSOC was in the amount of $11,140,000. This task included "All costs in connection with construction of [the WSOC] including utilities to

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[2] Where the parties have affixed pagination, we adopt that reference in lieu of numbers that appear on the original document.

[3] Mr. Sloss worked for the Weitz Company, which is spelled phonetically as "White's" in the transcript (tr. 1/28).

points 5 feet outside the building lines, complete as shown on drawings and specified, but exclusive of work covered under Base Bid Item No. 0003." (R4, tab 1 at 5)

5. Among standard contract clauses from the Federal Acquisition Regulation (FAR) that were incorporated by reference are FAR 52.233-1, DISPUTES (JUL 2002); and FAR 52.243-4, CHANGES (JUN 2007) (R4, tab 2 at 15-16).

6. Also incorporated by reference is Department of Defense FAR Supplement (DFARS) 252.243-7001, PRICING OF CONTRACT MODIFICATIONS (DEC 1991) (R4, tab 2 at 16). This clause provides that "When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR Part 31 and DFARS Part 231, in effect on the date of this contract, apply."

7. Contract specification § 26 20 00, ¶ 3.1.3.2, Metal Clad Cable, calls for the contractor to "[i]nstall in accordance with NFPA [National Fire Protection Association] 70, Type MC cable" (*see* R4, tab 6 at 3, tab 18 at 14). NFPA 70 is also known as the National Electrical Code (NEC) (tr. 2/141). The NFPA "Glossary of Terms" defines "Concealed Spaces" as "[t]hat portion(s) of a building behind walls, over suspended ceilings, in pipe chases, attics, and whose size might normally range from 44.45 mm (1 in.) stud spaces to 2.44 m (8 ft.) interstitial truss spaces and that might contain combustible materials such as building structural members, thermal and/or electrical insulation, and ducting" (R4, tab 18 at 33).

8. The project was a single-story building of roughly 28,000 square feet intended to house, among other things, mechanical rooms, equipment rooms, a combat room, and office space. About 40-50% of the building had raised access floors underneath which wiring and utilities were to be run. Most of the building had a flat roof, although two areas were sloped. The roof above the raised access floors was about 25-28 feet high. (Tr. 3/9-11; *see also* R4, tab 52, contract drawings) The parties disputed whether the contract permitted MCC to be installed in concealed spaces that were below the raised floor and above the acoustic tiled ceiling (ACT) that was over the floor space and under the roof (tr. 2/154).

D. Worch Electric's Subcontract with LWJV

9. Initially, LWJV subcontracted with 1st Electric, Inc. for the work that was later performed by Worch Electric (R4, tab 46). 1st Electric's bid was for $3,790,000 plus 1.2% bond (R4, tab 45 at 12). As appellant provided no bid sheets or other credible documentation of 1st Electric's bid, we are unable to reliably discern the manner in which it constructed its bid, discrete cost elements, or how it intended to prosecute the work. We are unable to draw any conclusions or parallels between 1st Electric's bid and LWJV's subsequent bid from and contract with Worch Electric.

10. After 1st Electric was unable to secure bonding (tr. 1/30-31), LWJV obtained a proposal from Worch Electric (R4, tab 47) to do the indoor portion of the work for $3,738,000 plus bond at 2% (*id.* at 5-6). Mr. Christian Worch is an experienced electrical contractor who serves as president of Worch Electric and was the company's chief operating officer for the subcontract with LWJV. Mr. Worch joined Worch Electric, which was started by his father Mr. Denny Worch, after graduating from college and working for Dynalectric and James Electric. Christian Worch is not a union electrician, although Denny Worch is.[4] (Tr. 1/122-24)

11. Patrick McCarty prepared Worch Electric's estimate for LWJV (R4, tab 48). Mr. Worch said that he and Denny Worch checked Mr. McCarty's takeoff sheets (tr. 1/124-28). According to Christian Worch, the takeoffs show an estimated 49,000-50,000 linear feet (LF) of MCC for the job, of which 40,000 LF were to be installed above the suspended ACT and below the concrete floor (tr. 2/27-28).

12. Although the contract with the government established an FFP for LWJV to perform CLIN 1 (R4, tab 1 at 4), and Worch Electric provided takeoff sheets from its estimate (R4, tabs 47-48), neither the contractor nor its electrical subcontractor identified the amount included in its respective bid and estimate for the disputed installation of MCC. We accept appellant's assertion that Worch Electric intended to use significant amounts of 12-2 MCC on this project (tr. 1/129-30), but cannot ascertain from the record how much of this material or its cost was anticipated by 1st Electric in LWJV's bid, or in the contract between LWJV and Worch, for the disputed work in concealed spaces.

13. We decline to accept appellant's assertion that the joint venture, whose bid would have included costs from 1st Electric and not Worch, "submitted its bid based on using MC cable in 'concealed spaces' for single phase branch and telecommunications circuits above the 23 to 25 foot high suspended ceilings and below a three foot elevated raised flooring" (app. br. at 8, appellant's proposed findings of fact, ¶ 24 (citing tr. 1/128-31)). Appellant cited no documentation to support these assertions, and Mr. Worch's generalized testimony is insufficient on this point. We note that LWJV subcontracted with Worch for this electrical work on May 22, 2012 (R4, tab 49 at 41), nearly nine months after LWJV contracted with the government (R4, tab 1 at 1).

14. While appellant later criticized the independent government estimates (IGEs) for the cost of claimed work for, among other alleged deficiencies, not considering that there were "381 single phase branch circuits" and that ceiling heights were "28-30 [feet]" (*see, e.g.*, app. br. at 21, ¶ 88), there is no contemporaneous

[4] References to "Mr. Worch" are to Mr. Christian Worch unless otherwise specified.

documentation that Worch Electric's submission to LWJV priced the job taking into account these considerations and we decline to find that it did so.

E. The Relative Properties of MCC and EMT

15. The relative properties of MCC and EMT are important to this dispute. According to appellant, MCC is a flexible, metal clad cable that contains three or more wires depending upon configuration. MCC, which comes in rolls of 1,000 feet, contains wire, whereas EMT does not. For example, 12-2 MCC "carries three conductors in it. There's a power feed, a neutral and a ground." The "12" refers to the thickness of the wire; the lower the number the thicker the wire, hence #10 wire has a thicker gauge than #12 wire whereas #18 wire is thinner. (Tr. 1/130-33)

16. The purpose of the wiring in question, whether contained within the MCC or routed through EMT, is to carry electrical power from a source to a designated point or receptacle (tr. 1/135-40). Appellant contends that the "single phase branch circuits at issue powered lighting and electrical outlets for equipment, as well as security, cameras, cards [sic] readers, etc." (app. reply br. at 17, appellant's counter-statement of facts (ACSOF) ¶ 59 (citing tr. 1/139-40, 3/312, 324)).

17. The flexibility of MCC makes it easier to cut and install than the more rigid EMT. MCC can be bent more readily than EMT, which appellant said could not be installed with more than three 90-degree bends without putting a junction box within. (App. br. at 11, ¶¶ 38-40 (citing tr. 1/80, 130-33)) MCC can be connected in a "daisy chain" fashion from fixture-to-fixture (tr. 1/165). However, the ability to easily hang MCC from various supports can result in a disorderly installation. The government was also concerned that the wall penetrations made by Worch Electric to install MCC could result in sound leakage. This was a problem, as the facility was meant to be capable of being upgraded to a Sensitive Compartmentalized Information Facility. (Tr. 2/142-45)

18. By contrast, EMT is "basically a conduit" that allows various types of cable or wiring to be installed inside the tubing and has the advantage of accommodating more wires than MCC. EMT requires different supports and more effort to install than MCC, but the finished result is more organized and reduces the amount of separate wiring running through the space. (Tr. 2/145)

F. Contract Performance and the Alleged Costs of Changed Work

19. Mr. Worch testified that it was critical in the fall and winter of 2012-2013 for his company to get "our rough-in installation completed above the ceiling and below the floors. So, Lebolo-Watts could do their finish work which meant install ceilings, install raised floors, pedestals, and so forth." (Tr. 2/78) He described a sequence of work that required Worch Electric to "get the overhead work done and out

of the way, and then come back and then do the floor work.... Nobody would start the floor work until all the overhead work was done, meaning mechanical, sprinkler, electrical and a couple of other trades." Mr. Worch said that his company "jumped out ahead and installed all of our branch circuit home runs in areas that were available to us where the ceiling was installed" as well as the "slab where the pedestal floor was going." (Tr. 1/143)

20. In assessing the allegedly changed work and associated costs, we follow the claim's approach of separating the work into three stages: (1) the initial installation of MCC in concealed spaces; (2) the removal of that MCC; and (3) the installation of EMT in lieu of MCC (*see, e.g.*, app. reply br. at 28). Although LWJV asserts that it no longer seeks $115,750 in costs for initially installing MCC because it was paid for this work through progress payments for September and October 2012 (*id.* at 1), this period remains important to the overall MCC/EMT claim. Events of this time are relevant to appellant's decision to install MCC despite government objections. The level and type of effort and alleged actual costs are used by appellant in contesting the reasonableness of the government's use of compiled data from the RSMeans handbook[5] to determine how much (if anything) LWJV is entitled to recover.

G. The Period of Initial Installation of MC Cable in Concealed Spaces

1. Daily Reports from the Government, LWJV, and Worch Electric Regarding the Initial Installation of MC Cable

21. James Neary, a former Navy Seabee and experienced construction representative for the government, was on this job daily as an inspector. He spent 80-90% of his time observing contract performance, prepared the government's daily Quality Assurance Reports (QARs) relating to the work, and reviewed the contractor's daily Quality Control Reports (QCRs). (Tr. 3/6-13) We find him to be a credible witness, particularly with respect to the contractor's execution of the work.

22. The QARs include information on government instructions and contractor responses, and progress of the work (*see, e.g.*, R4, tab 63, QARs from September 1, 2012 - May 4, 2013). QCRs, which were routinely signed by John Sloss as LWJV's "QC Representative" from September 2012 through May 2013, furnish detailed daily information about job progress by LWJV and its subcontractors (tr. 1/97-105; R4, tabs 64-72, especially tab 64 at 46, 49, 52, 54, 59, 62, 66, 70, 72, 77, 80, 83, 86, 94 from September 11 – October 3, 2012, during the time of MCC installation and

[5] This reference is to the publication "RSMeans Building Construction Cost Data 2012, 70th ed." (hereinafter RSMeans). As noted by Mr. Worch regarding his own claim tally using that information, RSMeans "is universally accepted by the [Corps] as labor and costs for installation." (R4, tab 60 at 1)

demolition). The printed government form upon which the QCR is prepared includes the "contractor certification" that "this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above." (R4, tabs 64-72)

23. Among information appended to the QCRs are invoices for materials and equipment, sign-in sheets for meetings, and "Contractor Production Reports" (CPRs) that provided a detailed "Daily Log of Construction." CPRs from Worch Electric for September-October 2012 were signed by Todd Wheeler. (*See, e.g.*, R4, tab 64 at 6, 13, 17, 20, 25, 47, 50, 55, 63, 67, 73, 78, 81, 84, 87, 95, tab 65 at 3, 6, 9, 12, 20, 27, 30, 33, 42, 48, 53, 56, 66, 75, 78, 81, 84, 87, 94)

2. The Parties' September 4, 2012 Preparatory Meeting

24. At a September 4, 2012 preparatory meeting, Mr. Wheeler represented Worch Electric, and Jonathan Rozenblat and Mr. Neary were among government attendees; Christian Worch was not present (R4, tab 64 at 9-10). The parties "reviewed the specifications for the underground electric and happened to read through the same spec section that was for overhead electric which mentioned MC cables." Mr. Rozenblat expressed concern at the meeting over Worch's anticipated use of MCC in areas the government considered to be concealed spaces. (Tr. 2/148) Mr. Wheeler related this to LWJV and Worch in a September 7, 2012 email. Referencing specification § 26 20 00, ¶ 3.1.3.2, he advised that the government is "limiting MC to walls [but] Worch Electric is stating MC can be installed in all areas concealed by ceiling and walls" (tr. 2/149-50; R4, tab 50 at 5-6). We find that appellant knew of the government's disagreement with Worch's planned installation of MCC as of the September 4, 2012 preparatory meeting.

3. Initial Delivery and Installation of MC Cable to the Jobsite

25. According to Mr. Worch, 6,000 LF of MC cable was delivered to the jobsite on September 6, 2012, with another 10,000 LF delivered "another week or two later I believe" (app. reply br. at 10, ACSOF ¶ 24 (citing R4, tab 42 at 245); tr. 1/150, 153; *see also* R4, tab 42 at 158).

4. The Parties' September 10, 2012 Preconstruction Meeting

26. Attendees at a September 10, 2012 preconstruction meeting regarding overhead electric work included Mr. Sloss and Michael Boettcher for LWJV; only Mr. Wheeler was there for Worch Electric. Messrs. Neary and Rozenblat, David Walters, and Imran Kahn represented the government; the latter two are electrical experts from the district's quality management branch. (R4, tab 64 at 27; tr. 2/152)

27. Mr. Sloss included an agenda item about MCC to try to "cover everything that would arise out in the field to the best of our ability at that point in time." He testified that the document at Rule 4, tab 64, page 28, carries his handwritten remark "MC cable allowed." Mr. Sloss said he made this notation because the issue had been raised at the September 4, 2012 "prep meeting [and] there's been [an] issue on other projects with using it.... I put this note in here because it was brought up, and we talked about [how] we had to go back and check on that because it wasn't in the specification itself." (Tr. 1/74-75) We find that Mr. Sloss's notation does not substantiate that the government was in agreement with Worch's installation of MCC in concealed spaces but that LWJV knew of the government's continuing objections to that use. Mr. Sloss's handwritten notes and testimony show that appellant understood that LWJV "needed to create an RFI [Request for Information] to try to get clarification on this" (*id.*).

28. Appellant attempted to buttress its assertion that it "was critical that Worch start work immediately after the Sept 10, 2012 meeting" by testimony from Mr. Sloss. He said that "At this time, the ceilings were very congested with cable trays, duct work, sprinklers, etc." and that "I've never seen so much duct work, so much cooling put in below the floor in my life." Mr. Sloss said he was concerned "because additional duct work, fire, and everything else would be installed after the MC cable." (App. reply br. at 11, ACSOF ¶¶ 29-30 (citing tr. 1/78-79, 82-83, 143)) While this does not establish that it was essential for Worch Electric to install MCC (as opposed to EMT) prior to or immediately following the September 10, 2012 meeting, it does show that the contractor was aware the job required significant installations by other trades into the above-ceiling and below-floor spaces, and of the need to prosecute its work in a coordinated fashion.

29. The timing of the September 10, 2012 meeting does not warrant a determination that it was urgent for Worch Electric to then aggressively install MC cable rather than submit an RFI and await the government's response. There is no proof beyond Mr. Sloss's assertion that a "prepatory [sic] meeting is always held 24 to 48 hours before the work starts" (*see* app. br. at 13, ¶ 47 (citing tr. 1/73)). We find more credible Mr. Neary's testimony that this meeting is to be held within "30 days" before the start of a "definable feature of work," is not a contractual requirement, and the contractor was responsible for scheduling the meeting (tr. 3/124-25).

5. The Contractor's Request for Information No. 0206 and the Government's Response

30. On September 13, 2012, LWJV submitted RFI No. 0206 (RFI-0206) using a standard government form. The contractor sought "confirm[ation] MC Cable can be installed for single phase circuits in areas where concealed by ceilings, floors, or walls where installed by National Electric code article 330 including ACT DROPPED CEILINGS." LWJV warned that "[o]nce the finish of the building is installed (drop

ceiling; raised floor; or drywall) the MEP will be rendered inaccessible without climbing over or removing obstacles and using portable ladders." (R4, tab 13 at 7)

31. The government replied on September 20, 2012, to the RFI. It disagreed with the contractor and said that "ACT Ceilings are not permanently closed up and are considered accessible. Refer to the NFPA 70 handbook for further information. MC cables are not permitted per the specification in accessible spaces." The government limited the use of MCC to "lengths of 3 to 6 feet" that were "within drywall partitions" and said it should be allowed a credit for its use in "recessed lighting in ACT ceilings." (R4, tab 13 at 7-8) Printed in bold and all capital letters on the RFI form is the instruction that contractors are to notify the contracting officer's representative (COR) if it considers the government's response to be a changed condition (*id.* at 7).

32. Worch Electric on September 26, 2012, told LWJV that it disagreed with the government's response to RFI-0206 and denied any credit to the government. Worch provided notice that it would continue installing MCC until notified in writing to perform the work in an alternative manner at an additional cost to the government. (R4, tab 13 at 2) LWJV forwarded this letter to the government on October 1, 2012 (*id.* at 1).

6. Worch Electric's Installation of MC Cable in Concealed Spaces

33. There is controversy over when Worch Electric first installed MCC in concealed spaces, and proof of time devoted to this activity. Appellant says that "[o]n September 3, 2012, LWJV and Worch started installing MC cable in the 'concealed spaces' above the suspended ceilings utilizing rolling scissor lifts for access to the tall ceilings" (compl. ¶ 19; *see also* tr. 1/149). Appellant's brief describes a more preliminary effort: "LWJV and Worch started preparing to install[] MC cable in the 'concealed spaces.'" It also says that the first MC cable was delivered to the site on September 6, 2012. (App. br. at 12, ¶¶ 42, 44)

34. The contractor's QCRs do not support a finding that Worch Electric was engaged in installing MCC as appellant suggests. QCRs for September 4–26, 2012, consistently record that the subcontractor began to install lightning protection and exterior work such as exterior lighting and exterior card readers (R4, tab 64 at 4-75), while QCRs for September 24-26, 2012, added "temporary wiring" to this (*id.* at 76-81). Although MCC installation is not indicated, the QCRs begin to show "inside conduit prep" on September 26, 2012 (*id.* at 82, 84).

35. The work listed by the contractor in its QCRs is consistent with the testimony of Mr. Neary, who said that prior to the September 10, 2012 preconstruction meeting, Worch Electric had done other preparatory work. This included "running conduit for the lightning protection and running conduit for the card readers and the

grounding system right outside the exterior of the building." (Tr. 3/26; *see also* similar description at R4, tab 63 at 6, tab 64 at 4, 6, 11, 13, 15, 17-20)

36. We are persuaded by the QCRs and testimony of Mr. Neary, which is supported by contemporaneous documentation, that Worch had not installed MCC prior to the September 10, 2012 preconstruction meeting, and that the project was then without a complete roof that affected concealed spaces. Nor is there proof Worch had begun installing MCC by September 20, 2012, when the government responded to RFI-0206 by rejecting the use of MCC in concealed spaces. We find there is inadequate proof that Worch Electric installed MCC before September 26, 2012 (R4, tab 64 at 82), and possibly not even by then as the first mention in the QCRs of MCC for Worch is not until October 3, 2012 (R4, tab 65 at 7). We accept the statement of Mr. Neary, who said that the government would not in any event have permitted the contractor to proceed with MCC installation before the end of September 2012, as LWJV had not furnished required information pertaining to safety, the plan of work, and materials to be used. All of these had to be approved by the government before the disputed work was begun. (Tr. 3/33, 36, 41-42; *see also* exs. G-3, -4, -7)

37. By letter dated October 1, 2012, Mr. Sloss forwarded Worch's request of September 26, 2012, that the government reconsider its rejection of MCC in concealed spaces (R4, tab 50 at 10-19).

38. After Worch Electric elected to install MCC contrary to direction, the government on October 15, 2012, issued "QA Deficiency item," No. QA-00016. The problem was described as "MC cable is being installed as home runs and is only allowed as branch circuits. Refer to [RFI-0206] for allowable uses" and its status as "Not Reported Corrected." (R4, tab 63 at 42)

39. On October 17, 2012, COR Oris Clary replied to LWJV's letter of October 1, 2012, and reiterated the government's September 20, 2012 response to RFI-0206. He noted that "[i]n your letter [Worch] continues to state that they are proceeding with the installation of MC Cables per how they feel these definitions are defined, and not how NFPA 70 defines them." COR Clary warned LWJV against continuing this installation, as the government "considers this work as being deficient" and "does not pay for deficient work." He "hereby direct[ed]" the contractor to proceed in accordance with government instructions, and advised that "contract clause 252.243-7002" gave LWJV "the option to submit a Request for Equitable Adjustment [REA] if deemed appropriate." (R4, tab 50 at 43-44)

40. The contractor's QCRs of October 15-18 and 22, 2012, show that Worch was installing branch circuit MCC despite government repeated direction not to do so (R4, tab 65 at 51, 53-54, 56, 59, 61, 64, 66, 73, 75). Worch on October 25, 2012, notified LWJV that it disagreed with the government's interpretation of the contract;

while it agreed to comply, it also reserved the right to request an REA for its increased costs of substituting EMT (R4, tab 42 at 11-12). The QCRs relate that Worch worked on-site on October 23-26, 2012, but do not state that MCC was involved (R4, tab 65 at 76-87). No work was performed October 27-30, 2012 (*id.* at 88-91).

H. Worch Electric's Demolition of MC Cable in Concealed Spaces

41. LWJV's QCR of October 31, 2012, is the first to mention "MC demo" (R4, tab 65 at 92) and that effort is also reported for November 1 and 5, 2012 (R4, tab 66 at 1, 3, 9, 11), but not thereafter. We find there is insufficient proof that Worch engaged in MCC demolition before October 31, 2012, or past November 5, 2012.

42. According to Mr. Worch, his company expended 360 hours demolishing MCC (app. br. at 15-16, ¶ 62 (citing tr. 2/33; R4, tab 43 at 54)). We understand this to mean that appellant seeks to recover only for MCC-related work through October 28, 2012, as no later time sheets were cited. Appellant acknowledges that it received a progress payment for this month (finding 93). We also find that appellant bears responsibility for this expense, as it acted against government direction in installing MC cable in concealed spaces; had it not ignored that instruction, there would have been no need to later demolish it.

I. Worch Electric's Replacement of MC Cable in Concealed Spaces with EMT

43. In addition to labor, LWJV claims extra costs for greater and at times different materials, equipment, and other costs associated with the change from MCC to EMT. These include $142,331.00 in materials; fuel expenses for Mr. Wheeler of $1,297.68 and for Mr. Waltrup of $2,825.65; $1,291.00 for storage rental; and equipment rental of $47,594.58 that includes such items from vendor Sun Belt as lifts (R4, tab 42, ex. G, tab 44 at 2; tr. 2/87). Mr. Worch testified that the costs of EMT installation were approximately three to four times more than for MC cable (ex. A-8 at 3; R4, tab 44 at 8; tr. 2/37-40, 82-87; *see also* app. br. at 5-6 and app. reply br. at 3-4).[6]

44. Worch determined its labor costs by multiplying its asserted 10,583.5 hours of labor at the "Electrician Average" hourly rate of $47.42. It adds to that a total of $236,132 for a "Labor Burden" comprised of "Labor insurance/taxes" at 36.72% ($184,287); "Safety" at 2% ($10,037); "Expendable Tools & Storage" at 5% ($34,308); and "As-Builts" at the price of $5,000. (R4, tab 42 at 345)

45. Although the claim includes summaries of labor hours by pay period (R4, tab 42, ex. A at 54-111), and its statement of "Monetary Quantum" associates 10,583.5

[6] We note that fuel costs were reduced from amounts asserted in the January 21, 2014 claim (*see* finding 68).

labor hours with the "Constructive change for installing [EMT] conduit vs. MC cable in ceilings and below raised floors" at an unburdened "Labor Cost" of $501,870 (R4, tab 42, ex. H at 345-46), LWJV does not clearly segregate its labor costs for installing EMT in its claim from other work (*see* R4, tabs 42, 44 *passim*; *see also* app. br. and app. reply br., *passim*).

46. As to the greater degree of labor needed to install EMT compared to MCC, Worch Electric assessed its workers' relative productivity by dividing the total LF of MCC, and of replacement EMT, installed in concealed spaces by the number of labor hours claimed for each installation. Using this rubric, appellant calculates its installation rate of 12.5 LF/labor hour for MCC (16,000 ÷ 1,200) and the lower rate of 2.88 LF/labor hour for 30,000 LF of EMT (labor hours not specified). (Tr. 2/31-39 referencing R4, tab 42, ex. A at 54)

47. We have expressed reservations over the labor hours alleged by Worch Electric for MCC installation, and now do so regarding its demolition. We further question the wire quantities used as urged by LWJV, as the 16,000 LF supposedly installed prior to demolition is based upon the assertion (without proof) that Worch installed all of the 12-2 MCC for which it was invoiced by its suppliers (*see* R4, tab 42 at 245 indicating shipment of 6,000 LF of 12-2 MCC to Worch Electric at Ft. Meade and tr. 1/153 regarding delivery of an additional 10,000 LF).

48. We find that appellant's proposed installation efficiency rates of 12.5 LF of MCC and 2.88 LF of EMT per labor hour are insufficiently grounded in credible proof to accept. The uncertainty in the numbers assumed in the underlying calculations does not adequately support appellant's contention that the EMT installation was four times (or some other multiplier) more costly than MCC. And, as we have found that LWJV is responsible for the costs of installing and demolishing MCC, we further find that it alone is responsible for the increased expenses in installing EMT that are attributable to the greater difficulty of its having to substitute EMT in a more congested work environment.

J. LWJV's Initial Claim Dated January 21, 2014

49. On January 22, 2014 (R4, tab 42 at 2, 4), the government received Worch's January 21, 2014 request for a COFD (*id.*). The claim was "related to Government directed installation of EMT conduit for Power Wiring in lieu of MC Cable as originally specified," and was certified by Randy Lebolo, the president of "Lebolo Construction Management, Inc." (*id.* at 4). Appellant sought $1,258,798 for "Worch Total Claim"; $107,250 for "Lebolo Watts [home office overhead or HOOH] @ 8.52%"; and $136,605 for "Lebolo Watts Profit @ 10%" for a "Total Claim Amount Submitted" of $1,502,653. LWJV did not seek bonding costs. (*Id.* at 4-6)

50. Appellant apparently attempts to justify a 10% profit rate by noting that "Lebolo Watts was a[n] 8(a) contractor" and "Ms. Grundy recognized the Project was high risk" (app. br. at 26, ¶ 107); however, the latter assertion is inaccurate. In response to the question from appellant's counsel "Wasn't there a very high risk that in 2012, the fall of 2012, the government took the position that [EMT] was required by [the] contract?" Ms. Jo Ann Grundy, Bay Area office engineer, replied "Yes." (Tr. 1/118) We find that her agreement that the government wanted EMT is not shown to be the same thing as categorizing this as a "high risk" contract for purposes of calculating a higher rate of profit.

51. The January 21, 2014 claim had ten attachments (R4, tab 42 at 17-346). Attachment 10 (*id.* at 49-346) is entitled "Monetary Entitlement and Backup." Among these are exhibits A (Timesheets-Craft); B (Timesheets-Supervisor); C (Material Cost); D (Fuel Expense); E (Fuel Expense); F (Storage Rental); and G (Equipment Rental) (*id.* at 53-342).

52. Attachment 10, exhibit H "Monetary Quantum" appears twice in the initial claim (*see, e.g.*, R4, tab 42 at 50-52, 344-46); for consistency, we cite to the latter range. Worch includes a two-page chart containing a "Recapitulation" of costs arising from the "Constructive change for installing EMT conduit vs. MC cable in ceilings and below raised floors." This claim seeks $1,258,798 for material and equipment; storage costs of $221,738.64; and labor costs of $501,870. Worch added to this HOOH at 15% ($145,624) plus 10% profit ($111,645) and 2.5% bond ($30,702). Worch credited the government for $26,420 in work and materials that were eliminated after MCC installation in concealed spaces stopped. (*Id.* at 345-46)

53. Mr. Worch testified regarding the number of labor hours allegedly devoted to MCC and EMT work respectively.[7] Mr. Worch testified that his company spent about 1,281 hours through the week ending October 28, 2012, installing and demolishing MCC, and that the latter took about 360 hours (tr. 2/33).

54. We regard Mr. Worch's testimony and proffered labor summaries as problematic for several reasons. There is inadequate evidence that Mr. Worch had sufficient involvement to support the conclusions appellant urges. He agreed that he was "there probably" at the WSOC work site weekly (tr. 3/320); by contrast, Mr. Neary, who was on-site daily, said that he remembered seeing Mr. Worch "on site less than a handful of times...throughout the project" (tr. 3/23-24). We give greater weight to Mr. Neary's observations.

[7] Appellant subsequently reduced labor costs for supervisors Todd Wheeler by 569 regular and 70 overtime hours, and Steve Waltrup by 36 hours (app. br. at 5).

55. Nor does appellant offer evidence in support of its attempts to buttress Mr. Worch's testimony and proffered labor summaries by asserting that "Christian Worch and Andrea Gaitan periodically checked the accuracy of the field reporting of manhours and material to the cost codes" (app. br. at 6, ¶ 7). Although Mr. Wheeler was said to have been at WSOC for Worch Electric on a daily basis (tr. 2/113-14) and regularly signed the CPRs reporting the company's progress (*see, e.g.*, R4, tabs 64-65, *passim*), neither he nor Ms. Gaitan testified, offered an affidavit or declaration, or other proof. We find appellant's labor compilations of limited probative value as there is insufficient evidence to support their accuracy or show by whom these were prepared or when or what supporting documentation was used.

K. The Initial Independent Government Estimate of July 11, 2014

56. The government's Pre-Negotiation Objective Memorandum (POM) of December 2, 2014, details the claim background and the government's analyses, and compiles key documents used by the government in negotiations (R4, tab 34). The POM shows the government found merit to the MCC/EMT claim because the specifications did not exclude MCC in concealed spaces, and concluded that the contractor was entitled to reasonable costs. It noted that the government had prepared an initial IGE on July 11, 2014, held an interim scoping meeting with LWJV, and later revised the IGE as additional information became available.[8] (*Id.* at 2-5) The POM was prepared by Ms. Grundy and was reviewed by, among others, Ms. Christanne E. Haught, chief, office engineering, and CO Gary A. Faykes (*id.* at 13-14; tr. 3/219-21).

57. Ms. Grundy, who has a degree in biology with minors in chemistry and geography, has experience in the private sector as well as local, state, and federal governments with civil works and environmental projects. As office engineer, she evaluates and negotiates REAs then executes contract modifications. She was a member of the Technical Review Board that evaluated proposals for this contract, and was involved in a similar project at Ft. Detrick, Maryland. (Tr. 3/214-21)

58. Mr. In Soo Park, an electrical engineer in the Bay Area office, was tasked by Ms. Haught with preparing an IGE for LWJV's claim. Mr. Park has two degrees in electrical engineering and a general master electrician license. He ran an electrical business from 1986 to 2004, then went to work for the government. Mr. Park served as a resident engineer in Iraq for four years and worked on such projects as a natural gas power plant that provided electricity to about 400,000 people, including electrical

[8] The government prepared separate IGEs for the MCC/EMT claim underlying ASBCA Nos. 59738, 59909 and the "telecom claim" that was the basis for ASBCA Nos. 59739, 59910. As stated in footnote 1, the appeals arising from the latter claim, which was also discussed in the POM, were dismissed as settled by Mod. No. P00001.

transmission and distribution lines. He has been a technical expert on electrical matters on several complex contracts. (Tr. 3/165-71)

59. Mr. Park's initial IGE, dated July 11, 2014, and approved July 22, 2014, is included in the POM (R4, tab 34 at 40-64). For the MCC/EMT claim, he reviewed single phase circuits, then measured the wire needed from "last device to all the way back to the panel" (tr. 3/173-79). Mr. Park did not estimate costs by counting the number of circuits, as appellant says it did (tr. 3/287-88).

60. As shown on his worksheet, summary sheet, and reference materials appended to the POM, Mr. Park prepared separate estimates for the use of MCC and EMT in the controverted areas. Referencing contract requirements, he determined the total amounts and types of materials and equipment needed, then calculated a price for each using data from, among other sources, the 2012 RSMeans estimating handbook. (Tr. 3/173-79; *see also* R4, tab 34 at 40-64) Mr. Park's worksheet summarizes the information he reviewed in evaluating the claim, which included the installation and demolition of MCC and substitution using EMT (R4, tab 34 at 42-64; tr. 3/175-76).

61. The IGE's remarks state that "Common line items such as receptacles, lights, and common fittings and materials are not included in this estimate. This IGE should cover MC only work vs. MC & EMT combined work." (R4, tab 34 at 40) Mr. Park estimated the respective labor costs for these installations, again referencing RSMeans data. His worksheet shows that he multiplied typical labor rates by the weighted guidelines of 0.00727 for installing #12 wire for conduit and 0.03137 for installing MCC, but used the higher multiplier of 0.062 in pricing the more labor-intensive EMT. Mr. Park added the cost of "fittings and hangers for 50% of EMT." (*Id.* at 41-42) He explained that RSMeans labor factors included aspects of working with these materials from delivery to installation (tr. 3/177). Mr. Park added percentages for overhead, bond, and profit to subtotals for labor, materials, and equipment to arrive at totals for both approaches (tr. 3/173-85; *see also* R4, tab 34 at 40-64).

62. Mr. Park calculated that it should have cost $305,208 to perform the controverted work using EMT, but just $153,944 to have used only MCC above the ceilings and below raised access floors. He subtracted the cost of installing MCC only from that of using EMT, and determined that appellant's cost of complying with the government-ordered change should have been $151,264. (R4, tab 34 at 40; tr. 3/183)

63. After LWJV provided the government with an alternative cost proposal based upon RSMeans data for comparison purposes with the IGE (tr. 3/224-25; R4, tab 34 at 3-4, 73-75), the parties held a scoping meeting on August 12, 2014, to discuss the significant differences between the MCC/EMT claim, the contractor's alternative estimate using RSMeans factors, and the IGE. Ms. Grundy and Messrs. Neary, Park,

and Rozenblat represented the government. Messrs. Christian Worch and Denny Worch attended on behalf of appellant, while Messrs. Lebolo, Shane Bauer, Boettcher, and Chuck Conway participated by telephone. (R4, tab 34 at 3)

64. The government challenged Worch's labor and material costs as too high. Among questioned costs was $64,085.26 for rental equipment, especially charges for lifts and ladders that were also needed for unchanged work (tr. 3/227-29; R4, tab 34 at 75, tab 42 at 300-42).

L. The Parties' Scoping Meeting of August 12, 2014

65. Mr. Park said that he learned at the scoping meeting that Worch Electric had installed about 30% of the MCC in concealed spaces before having to demolish, then replace it, with EMT. He located additional single phase circuits running to mechanical equipment that were affected by the change, and got additional information regarding work in concealed spaces which included high ceilings and pedestal floors. (Tr. 3/186-88; R4, tab 34 at 4)

66. Mr. Worch responded to government questions regarding the type and quantity of materials used. According to the POM, he "explained that 380 single phase branch circuits were counted and 100 [LF] were estimated per circuit resulting in 38,000 LF of wire and 28,500 LF [of EMT] per home run, not counting the peripheral" installations. Mr. Worch said that the company installed MCC for "approximately six weeks, which included running it within the walls, running home runs, and some ceiling work." He advised that "it took about 200 hours [and] 3 weeks" to remove MCC from concealed spaces, and "that construction of the raised floor in the equipment room began at the end of February and was complete by the end of April 2013." Mr. Worch estimated "that it took about 3.5 months to install the EMT in the ceiling," which was "completed in early May" after being interrupted by work on the raised floor installation, which was on the critical path. He said that, absent the government-directed change, the work would have been completed by the end of December 2012. (R4, tab 34 at 4)

67. Although the MCC/EMT claim and IGE calculated the cost of the changed work by totaling requirements for materials, equipment, and labor then adding markups, these were formulated using different assumptions and came to different totals (tr. 3/186-87). At the conclusion of the meeting, the contractor agreed to revisit its claim and the government to reevaluate the IGE (tr. 3/229).

M. Appellant's Revised Claim of August 14, 2014

68. On August 14, 2014, Mr. Worch emailed a revised claim to Ms. Grundy. Two items were included: the first was the "MC change order" which gave "the

breakdowns of the materials and associated costs and labor provided [using RS] Means." The second was "the Recapitulation sheets from the claim" that Mr. Worch revised by "deleting the MC cable portion and altering some of the other expenses based on the dates of the claim." He summarized the revisions as: "tak[ing] out all the MC cable that was originally in the change, that included material cost and labor [but] add[ing] some back in for Fixture whips, 5,000 ft." He said that he revised exhibits to attachment 10 of the claim as follows: Exhibits A Timesheets-Craft and C Material Cost were broken down into "material used on this change and the material cost and labor hours [that] were extended using [RS] Means"; "maintain[ing] the MC credit of what was not installed either above [the] ceiling or below [the] raised floor"; and "add[ing] some time not captured to rework what...was already done in" September and October 2012 "to correct due to the change in scope and installation methods [which] has nothing to do with the demo of the MC cable in the ceiling." Exhibit B Timesheets – Supervisor was changed to include only "Steve Waltrup's hours [for] the time associated with the change after the stop work order was issued (10/21/12-5/5/13)." Worch halved the amount sought for fuel for Mr. Wheeler in exhibit D Fuel Expense. Costs for rental containers in exhibit F Storage Rental and exhibit G Equipment Rental were adjusted to "reflect those months only after the stop work order was issued [from] (11/12-5/13)." (R4, tab 28[9] at 1, *see also* at 3-7)

69. According to Mr. Worch, after these changes were made, he estimated the contractor incurred $1,149,509 in additional expenses and 9,526 labor hours by using RSMeans data. Mr. Worch said the company had spent $1,161,160, worked 10,125 more hours, "install[ed] a ton of MC cable above the ceiling prior to the stop work order," and was seeking its "actual costs" that had "caused great financial strain" on the company. (R4, tab 28 at 1-2)

70. Mr. Worch testified that there was "Not a chance" the claim could accurately be calculated using data from RSMeans, although he had attempted to do so to allow a better comparison with the government's IGE. Mr. Worch explained that RSMeans did not accurately capture the subcontractor's costs because this was rework and not an initial installation. Because other trades had begun work before EMT was substituted, there was other "work that was in our way, [and] EMT has to be supported" differently than MCC. "We can't support it from duct work; we can't support it from any other supporting equipment from any other entity." (Tr. 1/166) To install the separate EMT supports, Worch Electric had to get a "person up in between this duct work somehow, some way with man lifts, scissor lifts, figure out the best routes to take our conduits" (tr. 1/167). He said this rework using rigid EMT required more time, labor, and equipment than installing MCC, and Worch Electric "got behind" in "trying to fit [the EMT] in around everybody else[]" while working in a "congested" area (tr. 1/168-69).

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[9] The material in Rule 4, tab 28, also appears at Rule 4, tab 59, albeit in a different font.

71. Mr. Worch pursued the point with Ms. Grundy in a letter of August 20, 2014, that his company was entitled to recover its "actual costs" rather than an RSMeans estimate. He said that the claim was supported with "100+ sheets of labor timesheets and actual material invoices" which reflected "actual out of pocket costs incurred," and noted that Worch Electric is "a small business electrical contractor." (R4, tab 29)

72. The criticism leveled by appellant against the government's use of RSMeans to evaluate quantum is grounded in the contractor's position that substituting EMT for previously-installed MCC in areas where other installations had been or were taking place was far more difficult than is shown in a calculation of what it would cost to install EMT at the outset (*see, e.g.*, tr. 1/166-68; *also* app. br. at 22-23). LWJV did not fault RSMeans as inaccurate for initial installation of either MCC or EMT or as a standard industry estimating tool. We find the government's use of RSMeans as a basis for calculating the IGEs, government settlement offer, and subsequent equitable adjustment was reasonable.

N. The Revised Independent Government Estimate of September 30, 2014

73. Taking into account additional information from appellant, Mr. Park revised the initial IGE (tr. 3/187-88; *see also* R4, tab 34 at 80-93). The revised IGE of September 30, 2014, which is summarized in a table of the same date, determined that the contractor was entitled to recover $324,786 and that the "Estimated time is increased by 2000 hours for the single phase circuits" (R4, tab 34 at 81). The table categorized costs for materials, rental equipment, labor, and markups for LWJV and Worch Electric (R4, tab 34 at 81, *see also* at 82-93 for supplemental calculations and quantities).

74. In separate columns, the revised IGE for the MCC/EMT claim compares quantities identified in the initial IGE for work attributed to the change with those that would have been necessary without the change (R4, tab 34 at 44-45, 49-50, 81, 85). It estimated that the cost of using MCC was $163,944 and using MCC followed by EMT to be $488,730; the difference between these was $324,786 (*id.* at 81). The revised IGE added 123 receptacles (*id.* at 88) and took into account the cost of demolishing the MCC. Mr. Park doubled his labor estimate to account for work in areas with ceilings higher than 15 feet, and continued to base the government estimate on data derived from RSMeans (tr. 3/179-89). We find that Mr. Park, an experienced electrical engineer and former owner of an electrical company, acceptably prepared the revised IGE using professional judgment, information obtained from the contractor and contract requirements, and properly relied upon data from the RSMeans estimating handbook.

75. On October 2, 2014, Ms. Grundy advised Mr. Worch that she was "continuing to write the POM and analyze costs" and that the revised IGE was being routed internally for signature. She said the government was working toward "reach[ing] a settlement on the EMT vs. MC Cable claims." (R4, tab 30)

76. Mr. Worch's email of October 17, 2014, criticized the revised IGE. He emphasized the "considerable difference" in installing MCC and replacing it with EMT, and provided a "Recapitulation" comparing the installation of 1,000 LF of EMT and 1,000 LF of "12/2 mc cable." (R4, tab 60 at 1) He maintained that it is "about 2.62x more in cost and labor" to install EMT than MCC, and "[t]his doesn't even take into account the high ceilings, demo, rework and so forth" (*id.*).

77. On October 21, 2014, Mr. Worch expressed frustration over the lack of a response from the CO, and advised that the contractor intended to appeal the claim on a "deemed denial" basis if the government did not timely respond (R4, tab 31).

78. On November 20, 2014, Ms. Grundy emailed Mr. Lebolo that the MCC/EMT claim had "been determined to be valid" and that the POM was under higher level review (R4, tab 32). The government issued the POM on December 2, 2014, in preparation for final negotiations (R4, tab 34).

79. In addition to recounting the parties' exchanges regarding the claim, the POM includes the government's proposed amount and justification for settlement. It provides a tabular breakdown of cost elements for Worch Electric for "Part A: EMT in Lieu of MC Cable for Receptacles, Lights and Mechanical Equipment" as well as costs for LWJV. Information for these cost elements is listed side-by-side for the IGE, the "Contractor's Proposal," and the "Government Objective" or target settlement amount. Reference notes for the "Cost Analysis Discussion" explain government choices for particular amounts over those claimed. This included overhead, profit, and bond of 10%, 9.63%, and 2% respectively for Worch Electric, and HOOH/G&A, profit/fee and bond of 8.52%, 7.38%, and 1% for LWJV as the prime contractor. With markups added, the table summarizes amounts for the MCC/EMT claim as $1,494,514; the IGE as $369,278; and the government's settlement objective as $478,037. (R4, tab 34 at 5-6) This amount exceeded the revised IGE, as the government wished to settle (tr. 3/227).

O. The Parties' Negotiations of January 8, 2015

80. After the government did not issue a COFD, appellant appealed to the Board on December 12, 2014. As detailed in the government's Price Negotiation Memorandum (PNM) of March 3, 2015, the parties had met on January 8, 2015. Attendees included Messrs. Lebolo, Bauer, and Conway for LWJV and Messrs. Christian and Denny Worch on behalf of Worch Electric. Ms. Haught,

Ms. Grundy, and Messrs. Park and Neary represented the government. (R4, tab 39 at 1-3)

81. Ms. Grundy's comparison of the MCC/EMT claim and the revised IGE showed considerable price disparity. She felt the claim lacked a discernible breakdown of change-related labor, material, and equipment, even though attachments included a large number of invoices ("100 or more...pages of material invoices with several items on each") and time sheets ("there were like 88 time sheets"). Unable to "decipher in the claim how they arrived at their material costs and their labor hours," Ms. Grundy was concerned that LWJV may have included unrelated expenses in the claim. (Tr. 3/220-22)

82. The parties conducted detailed discussions of disparities between the MCC/EMT claim and IGEs, and the government increased its settlement offer to a total of $579,874 for both the MCC/EMT claim (ASBCA Nos. 59738, 59909) and the telecom claim (ASBCA Nos. 59739, 59910). This included 7.38% profit for the prime contractor, which was calculated using weighted guidelines. (R4, tab 39 at 6) Ms. Grundy also testified that, in an attempt to settle the claim and as part of the unilateral modification later issued by the government, she had increased certain amounts for labor, materials, and equipment above those stated in the POM. Among other things, she added costs for higher ceilings, rental equipment, "layout, demo, engineering and drafting [plus] overtime, rework of MCC that appellant needed to tear out, and foremen costs of Waltrup and Wheeler" and MCC work including demolition. (Tr. 3/234-49; *see also* R4, tab 34 at 3-5, 13, tabs 36-39; ex. G-17)

P. The Contracting Officer's Final Decision and the Unilateral Contract Modification No. P00001

83. After LWJV rejected the government's settlement offer, the government issued unilateral contract Modification No. P00001 (Mod. P00001) on March 11, 2015, which increased the contract price by $579,874 for the "REA – EMT in lieu of MC Cable" (R4, tab 40). Ms. Grundy testified regarding the cost elements and amounts allowed for each that were used by the government in developing its offer of $579,874 to appellant, which included $425,538.59 for the MCC/EMT claim underlying ASBCA Nos. 59738 and 59909. In an attempt to settle, the government in Mod. P00001 upwardly revised certain costs beyond the previous IGEs. This included money for material, equipment, labor, supervision, and other costs as discussed in the POM, PNM, and IGEs. The government allowed LWJV a 10% overhead, as previously used in the contractor's other proposals; relied on profit guidelines to

calculate a 9.63% profit; and gave Worch Electric the 2% bond that was requested in the claim. (Ex. G-17; R4, tab 39 at 6; tr. 3/251-61)[10]

84. On the same date as the contract modification, CO Faykes on March 11, 2015, issued a COFD on LWJV's claim (R4, tab 41). He determined that the contractor had demonstrated that the government constructively changed the contract by requiring the replacement of MCC with EMT in concealable spaces and that LWJV had incurred additional costs. CO Faykes found claim documentation to be "deficient because it does not segregate costs due to the constructive change, it does not show that the installation of MC cable aligns with the time periods claimed, and it includes costs that Worch would have incurred had there not been a constructive change." He criticized LWJV for failing to submit proof of reasonable actual costs and not "connect[ing] the time period in which its claimed costs were incurred to its initial installation of MC cable or its replacement of MC cable with EMT conduit." (*Id.* at 11-12) In the final decision, CO Faykes compensated LWJV a total of $579,864 for the MCC/EMT and telecom claims. He relied upon information developed by Ms. Grundy in the POM and PNM and Mr. Park in the IGEs (*id.* at 7-12) that included costs for MCC as well as EMT (*see* findings 73-74, 79, 83 n.10).

85. Among other things, Mod. P00001 (R4, tab 40) included costs for 28,600 LF of EMT and 100,000 LF of wire (tr. 3/248). It provided compensation for 600 junction boxes; the IGE had included 455 whereas appellant had sought 800 (tr. 3/243, 256). The modification allowed 368 hours for Mr. Waltrup (tr. 3/256). It disallowed certain fuel costs, as Worch's supervisors Messrs. Wheeler and Waltrup were determined to have also engaged in non-change related work on-site (tr. 3/257). Mod. P00001 decreased the costs of rental equipment, as that too was needed for work unrelated to the change to EMT (*id.*). Worch Electric was allowed a 10% overhead instead of the 15% requested, as the lower figure had been used in prior claims and the

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[10] We note minor disparities in sums, depending upon the document cited and as espoused by the proponent. Mod. P00001 stated that the equitable adjustment was for $579,874 (R4, tab 40), the same amount cited by LWJV (*see, e.g.*, app. br. at 3) and the government (*see, e.g.*, gov't br. at 39). This is $10 more than stated in the COFD (R4, tab 41 at 1, 12). In addition, there is another $10 discrepancy in the amount paid for the telecom claim, which is no longer at issue but figures into the parties' calculations of the amount in controversy. According to the government, it paid $83,998 on the telecom claim (*see, e.g.*, gov't br. at 1) and appellant says it was $83,988 (*see, e.g.*, app. br. at 3). For purposes of consistency in the decision (if not in the record or the parties' briefs), and because the differences are *de minimus*, we adopt $579,874 as the amount of the overall equitable adjustment; $83,988 as the amount for which the telecom claim was settled; and find that the government paid $495,886 toward the MCC/EMT claims, which is the difference between these two amounts.

higher amount was not adequately documented. The government used weighted guidelines in determining this amount. (Tr. 3/258-59; *see also* R4, tab 34 at 10) Mod. P00001 gave LWJV an overhead rate of 8.52%, as requested in the claim. Worch Electric was allowed a 2% bond, and no bond was permitted for LWJV as this was not included in the claim. (Tr. 3/258-59; *see also* R4, tab 42 at 345-46)

Q. Appellant's Revised Claim Submission Dated January 8, 2016

86. Appellant revised the MCC/EMT claim days prior to the hearing; according to the later-updated Rule 4 file index, it was prepared on January 8, 2016 (R4, tab 44).[11] Following the government's objections and at the direction of the Board, LWJV furnished a "Summary of Changes in Tab 44, Claim No. 1" dated February 1, 2016 (*id.* at 7-9).

87. In exhibit H of the January 8, 2016 claim revision, LWJV decreased its labor hours from 10,583.5 to 9,944.5, and lowered its material costs from $221,738.64 to $195,338.53 (R4, tab 44 at 9). Worch says that it cut labor costs and reduced the fuel expenses for Messrs. Wheeler and Waltrup because these "were associated with other contract installation" between September 3, 2012 and May 5, 2013. Worch also decreased costs for general materials and lift rentals. (*Id.* at 8 (citing R4, tab 42, attach. 10, exs. A-F))

88. With the addition of mark-ups and other costs, the amount now claimed by Worch was revised from $1,288,798 to $1,165,667. This is a net decrease for Worch of $123,131, although the amount of the overall claim increased due to higher markups for LWJV. (R4, tab 44 at 3-4, 10) Worch Electric applies the same markups there (*id.*) as it did in its initial claim (R4, tab 42 at 345), although greater overall markups are used when the burden for LWJV is added. This includes LWJV's request for an 18.03% overhead, and the addition of a .5% bond. (R4, tab 44 at 10) As in the original exhibit H (R4, tab 42 at 345-46), Worch's requested HOOH is shown as 15% and profit as 10% (R4, tab 44 at 3).

89. Despite select decreases by Worch Electric, the "Monetary Claim Recap for Claim No. 1" (the MCC/EMT claim) increased the overall claim as follows:

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[11] In a separate and unpublished evidentiary ruling, the Board denied the government's motion to strike this revision to appellant's claim. This document was sent via email to the government at 4:58 p.m. on the last day of discovery and was not identified in the index or elsewhere in the submission as a revised claim. The Board expressed concern but denied the motion, and gave the government the opportunity to postpone the hearing and leeway in examining witnesses on this change.

A. WORCH TOTAL CLAIM	$1,165,667.00
B. LEBOLO WATTS HOOH @ 18.03%	$ 210,169.76
Subtotal:	$1,375,836.76
C. LEBOLO WATTS PROFIT @ 10%	$ 137,583.68
D. SUBTOTAL	$1,513,420.44
E. BOND @ .5%	$ 7,567.00
F. TOTAL	$1,520,987.44

(R4, tab 44 at 10)

90. Worch sought to justify the higher markups by saying that "the constructive change required capital of approximately $1 million to finance the direct costs, which was not available to Worch Electric [so] it had to seek bank financing, assistance from the payment bond surety for unpaid material supplies, and unpaid union benefits." The company said it was "forced...into involuntary bankruptcy" by the "electrical union" but that action was dismissed after the government unilaterally paid $579,874[12] on the MCC/EMT and telecom claims. The subcontractor said that its financial problems caused its bonding company to raise its rates to 2.5% and be "restrictive in issuing new bonds, which, in turn, led to a huge reduction of revenues in the years of 2014 and 2015, and a higher G&A rate on direct costs to 15%." (R4, tab 44 at 9)

91. Mr. Lebolo testified regarding various overhead rates sought in the claim (tr. 2/16-17), and appellant offered a trial exhibit to support its alleged 18.03% overhead (ex. A-10). Mr. Lebolo also testified that, as an 8(a) small business contractor, he felt that his company was entitled to a 10% profit rate (tr. 2/9).

R. Post-Hearing Revisions to Appellant's Claim

92. Appellant's initial post-hearing brief states that it seeks "$1,025,011.44," the difference between the $1,520,987.44 sought in appellant's January 21, 2014 submission and the "$495,875" it was previously paid through Mod. P00001 (app. br. at 3; *see also* gov't br. at 1 n.3).[13]

93. LWJV's reply brief further lessened the MCC/EMT claim by $115,750 after acknowledging the contractor had received government progress payments for September and October 2012 which included MCC work (app. reply br. at 1, 6-7). Taking into account the $115,750 credited by appellant in its reply brief against the MC cable/EMT claim found at Rule 4, tab 44, LWJV now calculates its claim as follows:

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[12] (*See* finding 83 n.10)

[13] (*See* finding 83 n.10)

Worch Total Cost	$899,001
CREDIT FOR SEPT/OCT 2012	- 115,750
Subtotal	$ 783,251
Home Office Overhead	134,850
Subtotal	$ 918,101
Profit	91,810
Subtotal	$1,009,911
Bond 2.5%	25,24[8]
Total Worch Claim	*$1,035,159*
[LWJV] HOOH @18.03%	186,639
Subtotal	$1,221,798
[LWJV] Profit @ 10%	122,180
Subtotal	$1,343,978
[LWJV] Bond @ .5%	6,720
Total	*$1,350,698*[14]

(App. reply br. at 7-8) (Italics and underlining added) Appellant says it now seeks "a total award of $854,822" plus interest under the Contract Disputes Act of 1978 (CDA), 41 U.S.C. § 7109 (*id.* at 31).

S. Summary of Claim Decreases

94. LWJV also acknowledges that it has received payment on this claim under Mod. P00001 and that this amount should be deducted from its claim (app. reply br. at 31). We agree with that reduction, and apply that deduction to the claim as adjusted by the markups allowed by the COFD in the modification and as detailed in the POM and PNM (R4, tab 34 at 5-6, tabs 40-41), with one exception. As appellant further reduces bond for LWJV in its reply brief to 0.5% (app. reply br. at 8), we use that figure in our calculations and otherwise agree with the government's markups:

Worch Total Cost	$899,001.00
CREDIT FOR SEPT/OCT 2012	-115,750.00
Subtotal	$783,251.00
Overhead @ 10%	78,325.10
Subtotal	$ 861,576.10
Profit @ 9.63%	82,969.78
Subtotal	$ 944,545.88
Bond @ 2%	18,890.92
Total Worch Claim	*$ 963,436.80*
[LWJV] HOOH @ 8.52%	82,084.82

[14] Appellant does not state the percentages used in its calculation for overhead or profit for Worch Electric.

Subtotal	$1,045,521.62
[LWJV] Profit @ 7.38%	77,159.50
Subtotal	$1,122,681.12
[LWJV] Bond @ .5%	5,613.41
Total	*$1,128,294.53*

95. From this recalculation of the claim using the government's markups, we deduct the $495,886 which LWJV was previously paid under Mod. P00001 (finding 83 n.10). We calculate appellant's adjusted claim, taking into account the revisions made by appellant in Rule 4, tab 44, its initial and reply briefs and using markups recognized by the government except for the lowered bond for LWJV stated by appellant (*see* findings 93-94) as follows: $1,128,294.53 - 495,886.00 = $632,408.53.[15]

DECISION

A. *The Claim before the Board*

LWJV's claim of January 21, 2014 (R4, tab 42) sought $1,502,653 for the "Government Directed Use of Metal Clad Cable" on behalf of its electrical subcontractor Worch Electric, Inc. (*id.* at 4-5). Mr. Worch stated that his company "reasonably interpreted [the contract] that installation of MC Cable, limited to single phase branch circuits, [was] allowed to be installed in concealed spaces including above the suspended acoustical ceilings and below elevated access flooring." The subcontractor disagreed with government direction to use EMT in these areas. It provided notice that Worch would "continue[] proceeding with the planned and bid installation of MC Cable until notified in writing to install this work in an alternative manner," which "would be at additional cost to the [government]." (*Id.* at 11-12)

On October 25, 2012, Worch Electric informed LWJV of its "continuing disagreement" with the manner in which the government interpreted the contract, "but agreed to comply with the [government's] directive to remove and replace the installed MC Cable." Worch "reserved rights to submit a Request for Equitable Adjustment for both time and money for all costs and time impacts thereof." (R4, tab 42 at 12) The MCC/EMT claim includes costs for "(i) prepatory [sic] work and the installation of MC Cable in concealed spaces above the ceilings for lighting and power from September 6, 2012 through October 21, 2012; (ii) the costs of removing all of the MC Cable installed during that period; [and] (iii) installing rigid EMT in lieu of MC Cable above the ceilings and below the pedestal floor" (app. br. at 3-4).

The government initially disagreed that the specifications permitted the use of MCC in concealed spaces, but reconsidered after EMT was substituted by the

[15] (*See* finding 83 n.10)

contractor. Although the COFD of March 11, 2015, found that the government's direction created a changed condition and that LWJV was entitled to recover, the CO took exception to the sum claimed. Also on the same date, the government compensated the contractor with $495,886 for the MCC/EMT claim in unilateral Mod. P00001. (Findings 83 n.10, 84-85)

LWJV appeals to obtain the difference between the amounts it claimed and as paid by the government (finding 95), and timely proceeds before the Board under the Disputes clause. "When a CO unilaterally directs changes, parties often will negotiate quantum, *i.e.*, equitable adjustments in contract price, sign a modification or modifications altering the contract price with respect to the changes upon which they agree, and resolve any remaining 'quantum' issues under the Disputes clause." *CTA Inc.*, ASBCA No. 47062, 00-2 BCA ¶ 30,947 at 152,760 (citing JOHN CIBINIC, JR. & RALPH C. NASH, JR., ADMINISTRATION OF GOVERNMENT CONTRACTS 408 (3rd ed. 1995); *Bechtel Nat'l, Inc.*, NASA BCA No. 1186-7, 90-1 BCA ¶ 22,549 at 113,161-62).

To recover on the remaining quantum, "appellant must prove that it is entitled to a greater equitable adjustment than [was] awarded by the contracting officer." The CO's prior determination of merit does not guarantee the contractor will obtain the additional amount it seeks. *Lovering-Johnson, Inc.*, ASBCA No. 53902, 06-1 BCA ¶ 33,126 at 164,172 (citing *Lemar Constr. Co.*, ASBCA Nos. 31161, 31719, 88-1 BCA ¶ 20,429 at 103,333) (no entitlement where contractor failed to prove equitable adjustment unilaterally awarded by the CO was inadequate); *Zinger Constr. Co.*, ASBCA Nos. 28788, 32424, 87-3 BCA ¶ 20,196 at 102,286-87, 102,290-92 (no proof that appellant is entitled to a further equitable adjustment for various changes and differing site conditions than unilaterally awarded by government); *see also Lectro Magnetics, Inc.*, ASBCA No. 15971, 73-2 BCA ¶ 10,112 at 47,512 (no proof that substituted pump cost more or took longer to install than pre-change pump).

B. *De Novo Review*

Appeals before the ASBCA are *de novo* proceedings. *See* 41 U.S.C. § 7104(b)(4). "[W]hen suit is brought following a contracting officer's decision, the findings of fact in that decision are not binding upon the parties and are not entitled to any deference. The contractor has the burden of proving the fundamental facts of liability and damages de novo." The Board has "the power to reduce the contracting officer's award." *Wilner v. United States*, 24 F.3d 1397, 1401 (Fed. Cir. 1994). This is because the CDA provides that a COFD is no longer final if appealed. According to 41 U.S.C. § 7103(g), the decision is "final and conclusive and is not subject to review by any forum, tribunal, or Federal Government agency, unless an appeal or action is timely commenced as authorized in this chapter" (underlining added).

Once the contractor appeals under the CDA, the Board "can, with respect to a contracting officer's decision that has been appealed to it, reduce as well as increase the award made by that contracting officer." *Assurance Co. v. United States*, 813 F.2d 1202, 1206 (Fed. Cir. 1987), *accord Wilner*, 24 F.3d at 1401.[16] The Board will reduce an amount of money (or days of delay) found owing by the CO where the contractor fails to prove government liability, causation, or injury as required by *Servidone Constr. Corp. v. United States*, 931 F.2d 860, 861 (Fed. Cir. 1991). Consonant with this is a deduction from the claim where, as here, after putting the COFD into play, appellant withdraws claimed costs for which it was compensated by a related equitable adjustment (*see* findings 86-88).

After ASBCA No. 59738 was filed on the basis of a deemed denial, the CO issued a COFD and granted an equitable adjustment which LWJV challenges in ASBCA No. 59909 as insufficient (*see, e.g.*, compl. ¶¶ 33, 35-36 ("The Basis for Appealing the Contracting Officer's Final Decision"). Thus, the Board is not bound by the COFD and Mod. P00001 of March 11, 2015, which gave LWJV a total of $579,874 and effectuated the equitable adjustment through the modification. This sum included $83,988 for the telecom claim, and allowed $495,886 for the MCC/EMT claim that is the subject of ASBCA Nos. 59738 and 59909.[17] According to appellant, it remains entitled to "the amount of $1,350,698, minus the $495,8[8]6 that [LWJV] was already paid [by Mod. P00001], for a total award of $854,822" plus interest as allowed by the CDA, 41 U.S.C. § 7109 (app. reply br. at 31).[18]

The government disagrees, and contends that LWJV "has not demonstrated with credible evidence that the costs it is seeking represent the actual costs of the additional work Appellant performed as a result of the constructive change." It

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[16] As our appellate court has explained, the COFD does not "constitute[] a strong presumption or an evidentiary admission of the extent of the government's liability, albeit subject to rebuttal." *England v. Sherman R. Smoot Corp.*, 388 F.3d 844, 855 (Fed. Cir. 2004) (citing *Wilner*, 24 F.3d at 1403). This decision struck down the so-called "*McMullan* presumption" that a CO's determination which found the government responsible for at least a portion of delay alleged by the contractor created a rebuttable presumption during a subsequent proceeding. The Court made clear that the rule expressed in *J.D. Hedin Constr. Co. v. United States*, 347 F.2d 235 (Ct. Cl. 1965), was overruled by *Wilner*. *Smoot*, 388 F.3d at 854-55. The result under *Assurance*, *Wilner*, and *Smoot* is the same: appealing the COFD or the modification effectuating the equitable adjustment of time or money vitiates the findings of the CO and the remedy granted in reliance thereon, leaving resolution of the claim to the tribunal.

[17] (*See* n.1)

[18] (*See* finding 83 n.10)

maintains that "[m]any of Appellant's claimed costs are captured in the contract price or are otherwise not the result of the constructive change." (Gov't br. at 2)

While LWJV's original claim sought, among other things, costs associated with installation and demolition of MCC, LWJV was paid for this work under routine contract progress payments. We note that LWJV later agreed, and withdrew these costs from the claim (finding 93) as well as other costs it discovered were not associated with the claim (findings 85-88). But, this occurred after the contractor had received an equitable adjustment under Mod. P00001 that included both the previously-paid MCC costs and those that should not have been billed to the claim (findings 73-85). We take into consideration whether there has been overpayment in determining quantum.

C. Requirement of a Causal Relationship between the Claim and the Constructive Change to the Contract

"A constructive change takes place when a contractor performs work beyond the contract requirements, without a formal change order under the Changes clause, due either to an informal order from, or through the fault of, the government." *M.A. Mortenson Co.*, ASBCA No. 53229, 05-1 BCA ¶ 32,837 at 162,469-70 (citing *Ets-Hokin Corp. v. United States*, 420 F.2d 716, 720 (Ct. Cl. 1970)). As the government stipulated that it constructively changed the contract by requiring LWJV to replace MCC in concealed spaces with EMT (tr. 2/128-29; *see also* finding 84), we turn to whether appellant has met its burden to prove that its claimed costs were reasonable, allowable, and allocable to the claim.

Recovery for a changed condition is contingent on the CO having enlarged:

> [T]he contractor's performance requirements...and [the] extra work is not volunteered but results from direction of the government's officer. *Len Co. & Assocs. v. United States*, 385 F.2d 438, 443 (Ct. Cl. 1967).... The measure of such an adjustment is the difference between the reasonable cost of performing without the change and the reasonable cost of performing with the change. *Celesco Industries, Inc.*, ASBCA No. 22251, 79-1 BCA ¶ 13,604 at 66,683; *accord Sauer, Inc. v. Danzig*, 224 F.3d 1340, 1348 (Fed. Cir. 2000). Because an equitable adjustment is to safeguard against increased costs engendered by modifications, it must be closely related to (and contingent on) the altered position in which the contractor finds itself by reason of performing the "changed" work. *Nager Electric Co. v. United States*,

> 442 F.2d 936, 946 (Ct. Cl. 1971); *Bruce Constr. Corp. v. United States*, 324 F.2d 516, 518 (Ct. Cl. 1963).

Atherton Constr., Inc., ASBCA No. 56040, 08-2 BCA ¶ 34,011 at 168,191 (underlining added).

Contract clause FAR 52.243-4, CHANGES (JUN 2007) (finding 5), provides in relevant part that:

> If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing.

The causal relationship between the change imposed by the government and the damages sought by appellant is an essential link. "[C]ausation is, to a certain extent, conceptually akin to the concept of allocability." *Delco Electronics Corp. v. United States*, 17 Cl. Ct. 302, 320 (1989). Appellant "must establish both the reasonableness of the costs claimed and their causal connection to the event on which the claim is based. *Delco*, 17 Cl. Ct. at 319 (citing *S.W. Electronics & Mfg. Corp.*, ASBCA Nos. 20698, 20860, 77-2 BCA ¶ 12,631 at 61,218, *aff'd*, 655 F.2d 1078 (1981)).

The "causation requirement is similar to that recognized under the well settled law of damages: 'Recoverable damages cannot be proved by a naked claim for a return of costs even when they are verified. The costs must be tied in to fault on [the government's] part.'" *Stewart & Stevenson Services, Inc.*, ASBCA No. 43631, 98-1 BCA ¶ 29,653 at 146,925 (citing *River Construction Corp. v. United States*, 159 Ct. Cl. 254, 270 (1962)).

D. Analysis of LWJV's Quantum Appeals in ASBCA Nos. 59738 and 59909

As analyzing LWJV's quantum claim is a fact-intensive determination, we adopt the claim's approach of looking separately at the phases of installing MCC; demolishing MCC; and substituting EMT in concealed spaces (*see, e.g.*, finding 20). Although LWJV has now abandoned $115,750 for MCC-related labor in September and October 2012 (finding 93), these events and their sequence are critical to determining whether the government is liable for particular costs. It does not follow automatically that simply because the government changed the contract by rejecting MCC that LWJV is entitled to costs associated with its use. Rather, the appropriate question is whether the government is responsible for costs arising from LWJV's

unilateral decision to install MCC (contrary to government direction) and the consequences thereof, which extend to greater costs for the late-substitution of EMT. This means that LWJV must not only prove that it incurred additional costs, but that the government put it in the "altered position" of deciding to use MCC in concealed spaces against clear government direction that makes these recoverable. This inquiry goes beyond what is allowable per the contract specifications, and looks at how the contractor chose to prosecute the work.

The contractor should be properly paid where it deserves compensation; not paid where it is not entitled to recover; and not paid repeatedly for the same effort. Each of these situations is of concern in the instant appeals. "As in other civil actions, the standard used to determine whether the burden has been met is the 'preponderance of the evidence test.'" *Delco*, 17 Cl. Ct. at 319 (citations omitted). In short, and remembering that this is a *de novo* review of the CO's actions, we query whether appellant has proven by a preponderance of the evidence that it is due the quantum claimed as well as that paid in the equitable adjustment. We conclude that appellant has not met its burden.

1. Claimed Costs for Installation and Demolition of MCC

The timeline of events is straightforward and unpropitious for appellant's purposes. The record shows that LWJV: (1) knew by the September 4, 2012 preparatory meeting of the government's disagreement with the contractor's planned use of MCC and was again told of this in the preconstruction meeting of September 10, 2012; (2) submitted RFI-0206 on September 13, 2012, to which the government replied on September 20, 2012 and rejected the use of MCC in concealed spaces; and, (3) nonetheless began installing MCC against this direction on or about September 26, 2012. (Findings 24-36)

LWJV persisted with this course while it asked the government to reconsider on October 1 and despite receiving a notice of deficiency regarding its use of MCC on October 15, 2012. Notwithstanding the CO's reaffirmation on October 17 of the government's negative September 20 response to RFI-0206, the QCRs show that Worch continued to work using MCC through October 22, 2012, and told the government on October 25 that it intended to submit an REA for the change to EMT. (*See* findings 24-42) LWJV justifies its moving forward with MCC by pointing to project time constraints and of its increasing need to accommodate other trades in the shared workspace. The contractor was well aware of the increased difficulties that would ensue in installing wiring, conduit, and other items in concealed spaces if it pushed forward with MCC and the government did not back down on its direction to use EMT instead (findings 28-30).

LWJV bore on with MCC in the belief that its interpretation of the contract was correct. In the end, the government agreed that it was, but that does not warrant compensation to the contractor for its noncompliance with consistent and timely government direction to use EMT. Appellant failed to prove that it was necessary for Worch Electric to begin installing MCC (instead of EMT, which it knew the government insisted upon) when and as it did, or that it was placed in the position of having to do so by the government. The government did not cause LWJV to incur costs for installing MC cable, which it later had to demolish. We find that appellant is responsible for the costs that flowed from LWJV's choice of how it would pursue the work and deny that portion of the claim.

As noted in section B, *supra*, evaluating quantum means determining fair compensation. We are presented here with the circumstance where appellant repeatedly has been paid for MCC-related expenses, which we find were the contractor's responsibility. LWJV was paid for MCC installation and demolition through progress payments for September and October 2012 (finding 93) then compensated again for this by the CO as part of the equitable adjustment (findings 73-79, 82-85). LWJV recognized (after obtaining payment for the equitable adjustment) that it should not have included these costs in its claim because it had already received these payments and has now withdrawn them from its claim albeit from the remaining amount sought and not acknowledging that these were part of the equitable adjustment (finding 93). As discussed in section E, *infra*, we deduct this amount from the equitable adjustment because the contractor was not entitled to this recovery.

2. Claimed Costs for Substituting EMT for MCC in Concealed Spaces

While the government agrees that it constructively changed the contract and that LWJV should recover for being required to install EMT in lieu of MCC in concealed spaces, it regards the March 11, 2015 equitable adjustment as just (gov't br. at 39-43). As the contractor is responsible for unilaterally choosing to use MCC, which it had to demolish before substituting EMT at a later and more costly stage in the project (*see* § D.1, *infra*), we find that it is also responsible for the increased difficulty of the last task (*see* findings 15-19, 43-48). Appellant bears the additional costs of this "altered position," which it could have avoided by not installing MCC, complying with the government's contemporaneous direction, and filing an REA or claim as the remedy for such disagreements contemplated in the contract (*see* findings 5-6). We accept appellant's assertions that when LWJV finally yielded to government direction, substituting EMT was harder and more expensive than it would have been had Worch installed it to begin with. By that time, there were numerous other trades at work in the area, and other construction features had been or were being put in place in the same confined spaces. (Findings 43-48, 69-72)

3. Approaches to Determining Quantum

While we agree with the parties that LWJV is entitled to recover "something" for the cost of installing EMT, the question is, how much, particularly where the contractor exacerbated the costs? What is the most rational approach to fairly compensate LWJV under these circumstances?

The parties' briefs discuss (or at least suggest) three common approaches to quantum. These are: (a) the "total cost" method, in which the contractor is paid the difference between what it bid and costs attributable to the change (*see* app. br. at 6-8, ¶¶ 5, 11-18, 24); (b) the recovery of "actual" costs, which is urged by the contractor (app. br. at 26-33); and (c) as proposed by the government, the use of an independent estimate of appropriate costs that adopts standard industry data and was augmented based on further contractor information and in an attempt to settle (gov't br. at 7-9, 28-29, 40-41, 102, ¶¶ 409-96, 518-50). The Board considered each of these, and also assessed whether it could independently ascertain quantum based on the record before us. We evaluate each method below.[19]

a. The "Total Cost" Method

We need not spend much time on this approach, as LWJV does not clearly rely on the "total cost" method. Claims based upon "total costs" are "looked upon with disfavor and recovery on that basis is sharply restricted since they call upon one party to indemnify the other." *Batteast Constr. Co.*, ASBCA Nos. 35818, 36609, 92-1 BCA ¶ 24,697 at 123,215 (citing *S.W. Electronics & Mfg. Corp. v. United States*, 655 F.2d 1078, 1086 (Ct. Cl. 1981)).

> The Court of Claims has established four criteria against which to measure total cost claims, all of which must be demonstrated before a total cost recovery will be allowed...(1) the nature of the particular losses make it impossible or highly impracticable to determine them with a reasonable degree of accuracy; (2) the plaintiff's bid or

[19] The Board reviewed the record to determine whether it could independently ascertain more fair compensation for appellant apart from the approaches presented by the parties. Significant effort was expended attempting to correlate time sheets, invoices, QARs, QCRs, and other project correspondence with LWJV's assertions, but this was not productive as these neither consistently nor fully corroborated the amount claimed (*see, e.g.*, findings 33-36, 40-41, 46-48, 54-55). The Board declines to sift further through too-often inconsistent documents to attempt to develop a more just remedy than that developed by the government.

> estimate was realistic; (3) its actual costs were reasonable; and (4) it was not responsible for the added expenses.

Batteast, 92-1 BCA ¶ 24,697 at 123,215 (citing *WRB Corp. v. United States*, 183 Ct. Cl. 409, 426 (1968)). None of these criteria were proven here.

Rather, appellant seems to put the underpinnings of the total cost method forward by providing information on bids from 1st Electric and Worch Electric to install MCC in concealed spaces (app. br. at 6-8, ¶¶ 5, 11-18, 24) and LWJV's alleged "actual" costs. This is of limited value in ascertaining the difference between what this work was anticipated to cost at bid (or even the reasonableness of LWJV's "actual costs") using MCC as opposed to EMT (findings 9-14), if indeed either was its purpose. This FFP contract does not have a separate price for the questioned installation in concealed spaces, and it is not broken out in LWJV's bid. 1st Electric, its anticipated electrical subcontractor, was not able to do the work and so its data lacks relevance and foundation (*see* finding 9). Nor is Worch Electric's post-bid estimate for the work using MCC helpful for assessing quantum. Although we accept that it shows that Worch Electric intended to use MCC, it does not indicate that Worch priced the job on the basis of there being 381 single-branch circuits, which is one of its significant criticisms of the IGEs (findings 11-14). Based on the record before us, the "total cost" method is of no utility here.

b. The "Actual Cost" Approach

LWJV contends that, because an admitted constructive change by the government has taken place, it is entitled to recover its "actual" or demonstrable costs. Appellant cites FAR 31.201-3 for the proposition that "[a] cost is reasonable" when "it does not exceed that which would be incurred by a prudent person in the conduct of competitive business." The contractor maintains that its "actual" costs for substituting EMT, compiled from project records, are reasonable and recoverable. It contends that these are more reliable than the IGEs prepared by the government, which were calculated using information from the contract and rates from the RSMeans estimating handbook. (App. br. at 26-27)

The government challenges LWJV's alleged "actual" costs as inadequately supported by the record taken as a whole. It points to instances in which charges for purported work do not match what is shown by other project documents. For example, LWJV relies upon time sheets (especially for Worch Electric) as proof of certain work being done at particular times, but these are sometimes at odds with what is shown in other documentation, including QCRs and QARs. The government also asserts that Mr. Worch's allegations regarding the extent and nature of his company's work and labor records are not well-founded on his personal knowledge, and rejects his criticism

of the government's use of RSMeans to estimate the cost of substituting EMT as opposed to installing it in the first place. (Gov't br. at 21-35)

We agree with the government that LWJV has not demonstrated that it is entitled to recover the amount urged as its "actual expenses," nor do we find these reasonable or necessarily allocable. To the extent that information on the bids of 1st Electric and Worch Electric are offered in support of the reasonableness of the contractor's alleged "actual" costs, we find these unhelpful (*see* findings 9-14).

Problematically for appellant, its unreconciled assertions regarding its "actual" costs do not consistently comport with the contractor's QCRs or other parts of the record (*see, e.g.*, findings 43-48 (the Board rejects LWJV's purported "efficiency rates" for the supposed greater ease of handling MCC versus EMT), findings 54-55 (rejecting as insufficient Mr. Worch's evidence of labor expended and appellant's failure to call other witnesses whom it characterizes in its post-hearing brief as familiar with the work in progress and time sheets), findings 68-72 (rejecting LWJV's calculations (including the relative LF/hour "efficiency rates") posited for working with MCC and EMT)). As LWJV bears the burden of proving its claim by a preponderance of the evidence, it is appellant's duty to respond to credible government challenges to key assertions and it has not adequately done so.

c. The Government's Two Independent Estimates, Settlement Offer, and Equitable Adjustment

At the heart of the equitable adjustment paid by the government in Mod. P00001 are figures from the two IGEs, which were later augmented as part of a settlement offer, then given to the contractor by the government as an equitable adjustment in satisfaction of the claim (findings 56-85). Although our ultimate focus is on the equitable adjustment, that payment was largely predicated upon the government's use of RSMeans in calculating the IGEs. The equitable adjustment subsumes both of these and additional amounts allowed by the government to promote settlement and in accordance with professional judgment following negotiations and additional information provided by appellant.

Appellant objects to the government's use of RSMeans in preparing the IGEs as underestimating its costs, particularly regarding EMT. The contractor says this rubric "fail[s] to reflect the following actual adverse working conditions that Worch Electric was required to overcome" in substituting EMT for MCC in concealed spaces (app. br. at 25). To buttress its position, Worch Electric created an alternative analysis of its claim using RSMeans; that amount too was higher than the IGEs (*id.*; tr. 1/166-68).

We are not persuaded that the use of RSMeans led to the government's misestimating the work or underestimating the hardship costs of substituting EMT

(finding 72). We accept RSMeans as a recognized industry measure, and the most reasonable approach here for the government's estimations of costs for installing EMT, particularly where appellant's proffered "actual" costs were questionable. Further, the government did not rely on RSMeans alone, and exercised professional judgment in formulating and revising the IGEs, settlement offer, and COFD upon which the equitable adjustment was based (findings 56-64, 72-79, 83-85).

We find that the equitable adjustment fairly (even overly-generously) compensated LWJV for installing EMT (*see* findings 42, 48, which find LWJV responsible on its choice to install MCC and the consequences thereof). To the extent (if indeed at all) that the government's use of RSMeans reflected only costs for an initial installation of EMT and not the more complex substitution carried out by LWJV, this does not diminish the handbook's utility as a sound basis for ascertaining quantum.

We recognize that an IGE is by definition an estimate, but find the government's efforts reasoned and more credible than LWJV's proffered "actuals." While actual costs are generally preferred, estimates can be used where the former have not been well-proven and there is a sound basis for finding the estimate more acceptable. "The determination of equitable adjustment is not an exact science; where responsibility for damage is clear, it is not essential that the damage amount be ascertainable with absolute or mathematical precision." *BAE Systems San Francisco Ship Repair*, ASBCA No. 58810, 16-1 BCA ¶ 36,404 at 177,503-04 (citing *Electronic & Missile Facilities, Inc. v. United States*, 416 F.2d 1345, 1358 (Ct. Cl. 1969)). In any event, it was appellant's decision to use MCC in the face of government objection that delayed EMT installation and caused the latter to take place under more difficult circumstances. The resulting extra costs are attributable to the contractor (finding 48; *see also* § B.1, *supra*).

E. *Evaluating the Contractor's Decreases to the MCC EMT Claim Following the Equitable Adjustment*

Bearing in mind that LWJV was given an equitable adjustment on the MCC/EMT claim of $495,886 by the COFD and Mod. P00001 of March 11, 2015, for MCC and EMT-related work (findings 83-85), and that we are not constrained by the CO's decision to do so (*see* § B), we evaluate the impact of appellant's subsequent reductions to the claim after it was paid.

After realizing that it erroneously included certain costs that were not allocable to the claim, the contractor changed the overall amount sought (finding 94). These reductions are found in LWJV's revised claim of January 8, 2016, which eliminated (among other things) supervisory labor and fuel expenses for Messrs. Wheeler and Waltrup, and fuel expenses for Mr. Wheeler, which were associated with unrelated contract work and other material and equipment costs (findings 87-88). Appellant's 2017

post-hearing briefs (*see, e.g.*, app. reply br. at 1) removed an additional $115,750 for MCC-associated labor charges from September and October 2012, and acknowledged that LWJV was compensated for this work prior to claim submission through routine progress payments in 2012 (*id.*; *see also* findings 83-88).

Prior to withdrawing the claimed amounts, LWJV was paid for these as part of the equitable adjustment. The government allowed these originally-claimed cost categories as part of the IGEs, government settlement offer and COFD, and the CO compensated LWJV for these in Mod. P00001 (findings 73-85). We rely upon the contractor's quantification of its decreases to its claim. We deduct this amount from the equitable adjustment LWJV received on the MCC/EMT claim that underlies the subject appeals (findings 94-95), as these should not have been allowed by the CO.

This has been a difficult decision; it has a harsh result for the contractor, which assumed that risk by appealing the COFD and contesting Mod. P00001 and thus exposing the equitable adjustment to re-evaluation. We have determined that LWJV is not entitled to recover claimed costs associated with the installation and demolition of MCC (*see* § D.1, *supra*). While we agree that appellant is entitled to some costs related to substituting EMT, this does not include expenses arising from the greater difficulty of that installation at a later stage of construction (*see* § D.2). In assessing quantum for this, the Board considered approaches put forth by the parties (*see* § D.3).

After determining that many of appellant's "actual" costs were unsupported and/or not allocable to the claim, the Board attempted to ascertain whether there was a more reasonable result than the revised IGE relied upon by COFD and Mod. P00001. Due to the lack of correlation of much of the data, we concluded that we could not independently do so and that the RSMeans-based revised IGE was the most rational approach of calculating damage. (*See* n.19)

As discussed in section E, in light of later modifications to its claim, we find LWJV has been overpaid and is entitled to less than it has received. We reduce the amount of the March 11, 2015 equitable adjustment for the MCC/EMT claim of $495,886 by the $123,131 that was withdrawn by the contractor from its claim. The result is as follows:

Equitable adjustment for MCC/EMT claim allowed by the CO in Mod. P00001	$495,886
Less LWJV's decreases of $123,131 (Finding 88)	-123,131
Board-revised equitable adjustment per LWJV's reductions	$372,755

We further find that LWJV is not entitled to any of the additional sums sought in excess of the equitable adjustment granted by the government. We allow LWJV to retain the $372,755 allowed by the government as compensation for installing EMT, which we find includes appropriate markups. However, appellant was overpaid

$123,131 based upon the equitable adjustment already received; we regard this as fair, as the amounts deducted from the equitable adjustment were determined by appellant in its revised claim of January 8, 2016.

CONCLUSION

The appeals are denied.

Dated: November 16, 2018

REBA PAGE
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 C. 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. 59738, 59909, Appeals of Lebolo-Watts Constructors 01 JV, LLC, rendered in conformance with the Board's Charter.

Dated:

JEFFREY D. GARDIN
Recorder, Armed Services
Board of Contract Appeals