



UNITED STATES
CIVILIAN BOARD OF CONTRACT APPEALS

**THIS OPINION WAS INITIALLY ISSUED UNDER PROTECTIVE ORDER AND
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GRANTED IN PART: November 13, 2019

CBCA 5168, 6298

AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.,

Appellant,

v.

DEPARTMENT OF THE INTERIOR,

Respondent.

Chad V. Theriot and William E. Underwood of Jones Walker LLP, Atlanta, GA,
counsel for Appellant.

Colleen M. Burnidge and Amy M. Siadak, Office of the Solicitor, Department of the
Interior, Lakewood, CO, counsel for Respondent.

Before Board Judges **SOMERS** (Chair), **VERGILIO**, and **CHADWICK**.

CHADWICK, Board Judge.

This construction case is before the Board for decision after a six-day hearing in May 2019. The contractor, known during the project as Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec), performed repair and restoration work for the National Park Service (NPS) at the historic prison on Alcatraz Island in San Francisco Bay. Amec finished seventeen months late, incurring \$511,000 in withheld liquidated damages. It now seeks approximately \$15.7 million under a task order with a fixed price of about \$4 million. Amec also disputes a government claim for about \$150,000.

We cannot trace responsibility to the Park Service for any of the costs or most of the time that Amec claims. Crucially, we see no basis to hold the agency liable for the difficulty that Amec's original subcontractor had in meeting the project requirements, and no evidence that the agency caused Amec to terminate the subcontract for default, as Amec alleges. Once we exclude from recovery the costs and time attributable to Amec's bad experience with its subcontractor, it becomes impracticable on this record to estimate what the project probably would have cost or how long it probably would have taken absent those problems.

At the heart of the case is a unilateral modification that addressed a structural issue discovered during demolition. The dispute about the modification is not about liability as such. The agency admits responsibility for the change and acknowledges its significance. The dispute centers on the price. Although we find that the change caused some measurable delay, Amec does not prove that it incurred costs specifically to perform the modified work that exceeded what Amec was paid for that work in the modification price. The agency, for its part, does not persuade us that changes of the work resulted in overpayments to Amec.

We award Amec \$130,000 plus statutory interest and deny the government claim.

Background

Except as specifically noted, the facts summarized here are not genuinely disputed. We reserve most of our inferences and analysis for the discussion section.

I. Preaward Events

Events before the task order was awarded are ultimately irrelevant to our decision, but we start with them for context. The Park Service began generally planning for this Alcatraz Prison project in 1997, when it retained a civil engineering firm to assess the condition of the prison's central cellhouse. The agency could not afford the repairs that the firm recommended at that time. In 2009, the Park Service tasked the same firm, using the same individual engineer (later the engineer of record), to revive the repair project by delivering schematic drawings, specifications, and a study of the expected costs. In the course of preparing those deliverables, the engineer recommended that the Park Service consider funding the work that became the subject of this case.

Specifically, the engineer warned the agency in an April 2010 letter that the metal beams supporting the cellhouse in the structure known as the Citadel "ha[d] been slowly deteriorating for decades" and that the agency should initiate a project to repair or replace the beams, or should at least begin collecting data "to detect significant structural changes before critical loss of strength occurs." To briefly orient the reader (Alcatraz maps and plans

are on the Internet), the original Citadel was a barracks at the island's highest elevation. The prison cellhouse was built in the early twentieth century on the Citadel's foundation, which the Park Service still calls "the Citadel." The cellhouse above the Citadel consists of four cellblocks (hallways), designated the A, B, C, and D blocks, in order from east to west. The B and C blocks are longer than the others. The A, B, and C blocks each contain two facing rows of cells. The D block has one row. Beside the cellhouse is a shower room, which the Park Service uses as a foyer for tours of the prison.

In 2010, the engineer took photographs to document the condition of the support beams running the lengths of the cellblocks. Those photographs and other observations by the engineer seemed to suggest that the deterioration was worse under the A and D blocks than under the B and C blocks. In places beneath the A and D blocks, corrosion had caused the beams to bend, which had severely degraded the concrete that encased the beams, to the extent that the concrete had fallen completely off in some areas and daylight was visible through at least one stretch of concrete beneath a beam. The concrete encasing the B and C block support beams, by contrast, had significant lateral cracks but did not show signs of the same structural problems.

In late 2010, the engineer oversaw further investigation of the condition of the support beams. This included cutting exploratory holes, approximately two feet in diameter, in the concrete casing. The investigation revealed that the beams running under the A and D blocks were steel, while those under the B and C blocks were cast iron. For his own notes of the investigation, the engineer made non-scale field drawings of the openings. His drawings depicted fractures in the beams at five of the six openings in the B and C blocks. His drawing of an opening under the B block showed a horizontal fracture in the iron beam that appeared to separate the vertical segment of the I-shaped beam from its base, or lower "flange." The engineer testified at the hearing that, given the relatively good condition of the concrete on the B and C block beams, he did not suspect that any of those beams had lengthy cracks or were structurally compromised. The engineer did not provide his field drawings to the Park Service. There is no evidence that he spoke to anyone at the Park Service about particular fractures in the beams, but no one who testified remembers specifically. The exploratory openings were patched following the investigation.

At the engineer's recommendation, the Park Service developed a plan to fully replace the steel beams under the A and D blocks and to patch and repair the cast iron beams under the B and C blocks, including by installing cathodic corrosion protection. Over time, the engineer prepared for the Park Service a series of increasingly detailed and specific cost estimates for this project, sometimes combined with other proposed items of work. In preliminary estimates prepared before 2011, he included a "degradation factor" indicating that the condition of the prison would probably continue to deteriorate, and the repair and

replacement costs would probably increase, the longer the Park Service waited to perform the work. In the final, or “class A” estimate, delivered in March 2011, the engineer did not include a degradation adjustment to the projected costs. He testified at the hearing that when “construction was now imminent . . . to continue to add [adjustment] factors, whether it’s [for] inflation or degradation . . . doesn’t make sense because we’re going to construction.”

In June 2011, the Park Service issued the solicitation for the beam repair and replacement project, combined with repairs of the shower room, as a notice of a proposed task order under a Department of the Interior multiple-award task order contract (MATOC) for construction services. Amec, one of the MATOC holders, attended a site visit in July 2011 and submitted its final bid in September 2011.

II. Award and Notices to Proceed

The Park Service awarded task order P11PD20278 to Amec on September 26, 2011, at a fixed price of \$3,613,617. The parties do not cite and we do not see in the task order a concise description of the scope of work. In general, the task order listed quantities of multiple types of work in the Citadel and in the shower room, priced in various units, ranging from one repair for a lump sum, to up to 200 linear feet of another type of work, to up to 800 square feet of miscellaneous soffit patching. The task order contained the clauses commonly found in government construction contracts, and other provisions, which we discuss below as relevant to the case. The period of performance was 365 calendar days, beginning no more than fifteen days after receipt of a notice to proceed.

Upon award of the order, Amec began negotiating a subcontract for most of the work with Spectrum Services Group, Inc. (SSG), a small business. SSG, in turn, did not plan to self-perform most of the work, other than demolition. SSG eventually entered into a second-tier subcontract with Shared Systems Technology Inc.–Pullman (Pullman), a larger construction firm, although this arrangement was not finalized until March 2012.

On October 17, 2011, the Park Service issued a limited notice to proceed with submittals and related “administrative” matters. The parties agree that this did not start the clock for completion. The agency issued the formal notice to proceed on February 2, 2012. Amec mobilized immediately. The completion date was January 31, 2013.

III. Performance with Spectrum Services Group, Inc. as Subcontractor

A. Shoring Submittals

The parties agree that events between award and late July 2012 used up much of the float (non-critical days) in the original schedule, which the Park Service approved in March 2012. Because no one argues that events before July 2012 extended the project's critical path to completion, we need not synopsize that period or assign blame for consuming the float. We focus on one controversy that arose in that period because it continued after July 2012, bears on Amec's delay claim, and exemplifies tensions that arose between Amec and SSG.

Amec and SSG had trouble preparing for submission to the Park Service, among other things, the plans required by the task order for temporarily shoring the cellhouse during the beam work. Amec and SSG signed their subcontract on November 28, 2011, forty-one days after the "administrative notice to proceed." Amec expected SSG to draft submittals. SSG said it did not have enough information to prepare shoring submittals and would need data from the Park Service. When Amec sued SSG under the subcontract in federal court in August 2013, Amec alleged that "despite daily communication between AMEC and SSG . . . after signing the Subcontract, all but the simplest of requirements were not performed by SSG. . . . It became clear that SSG was not equipped to properly prepare [preconstruction] documents[] and did not have the required knowledge to adequately do so." Contemporaneously, in May 2012, Amec emailed SSG that, "[r]egarding the shoring plan and design, it is important that SSG realizes and accepts it is responsible for . . . both the plan and the design, including all necessary testing, surveying, or data collection."¹ Eight days later, Amec wrote to SSG, "SSG holds the responsibility for gaining the information to complete the calculations and design for the shoring plan and refused to do so despite repeated written and verbal communications, due to cost concerns."

We resume the story in late July 2012. Amec did not plan to shore the B or C cellblocks, where the cast iron beams were to be repaired but not replaced. The Park Service concurred. The agency approved Amec's submittal for shoring under the A block effective July 25, 2012. The agency did not approve Amec's submittals for the D block or the shower room shoring for forty-seven more days. Amec's next-to-last submissions of the D block and shower room shoring information occurred on August 3. The Park Service rejected the shower room shoring submittal immediately because no plans were attached. It rejected the D block submittal on August 13, stating that the plans were incomplete. Amec alleged in its

¹ The shoring specification stated, among other things, "The Contractor shall be responsible for the design of the shoring system" and "[shall] perform field surveys as needed to determine in place loads and load paths."

later suit against SSG, “By August 2012, the necessary submittals still had not been completed by SSG. As a result, AMEC sent its own senior project manager to SSG’s office for two weeks to assist SSG in developing task scheduling, the material submittal process, and overall compliance to the project requirements[.]” (In a 2013 letter to the Park Service, Amec said its manager spent “three full weeks” with SSG at this time.) On August 16, Amec asked the Park Service for data on the mass that solar panels on the roof of the cellhouse transmitted to the building, to complete the shower room shoring plan. The agency provided the requested data on August 24. On August 30 (a Thursday), Amec resubmitted the D block and shower room shoring plans, which were approved on Monday, September 10.

B. First Schedule Revision

On August 9, 2012, during the back-and-forth about the D block and shower room shoring submittals, the contracting officer accepted a revised baseline project schedule. This schedule was outdated when it was approved, as it showed the milestone of approval of shoring submittals occurring on July 29. This new schedule showed completion on January 22, 2013, nine days early. One of several changes in methods that Amec adopted to recover time under this schedule was to install the shoring under the A and D blocks all at once, rather than in alternating sections (or “leapfrog” fashion), as SSG had originally planned. Also in August 2012, Amec and SSG were working on a proposal to vary the specified concrete mix, to allow 3/8-inch aggregate instead of the specified 3/4-inch aggregate. SSG believed that concrete with smaller aggregate would be easier to pump into the work areas. Amec submitted a final concrete mix design on August 30, and the Park Service approved the submittal for both sizes of aggregate on October 1.

On September 19, 2012, the contracting officer issued a “letter of concern” to Amec. She wrote that the project was twenty-two days behind schedule and asked Amec to submit within five days “a recovery plan [with] schedule update and time loading clearly indicating how the accepted [August 9] baseline schedule will be achieved.” Amec provided a preliminary response on September 21, conferred with SSG, and provided a formal recovery plan on October 9. In a two-page September 25 letter to SSG about the need for corrective action, Amec stated that “SSG’s lack of schedule progress has been documented in previous weekly status reports, meetings and other communications to SSG.” Amec also complained, among other things, that SSG’s responses to three agency requests for price proposals for modifications “have been completely unacceptable including significant tardiness” and “have resulted in such a response from our review that Amec cannot submit [them] to the NPS in good faith. . . . The change order process is not a mechanism to recover or alter . . . past financial performance[.]” Amec concluded its September 25 letter to SSG, “The time to plan, communicate and execute the project cannot be delayed further.”

C. Second Schedule Revision

The recovery plan that Amec submitted on October 9, 2012, included a second revised schedule, showing timely completion by January 31, 2013. Among the changes in methods to recover time under this second revised schedule were increasing the on-site workforce from about twenty people to about thirty-five, extending the workweek from four days of ten hours each to five days of ten hours, and working under the A and D blocks simultaneously.

Amec's October 9 recovery plan, drafted by SSG, marked the first time that Amec seemed to suggest in writing that the Park Service was responsible for project delay. The last paragraph of the narrative referred to "past and current delays caused by . . . shoring design approval [by] Amec and NPS." By letter of October 17, the contracting officer took issue with that language. In a response two days later, Amec walked the comment back. While maintaining that the engineer of record "withheld" certain "calculations that would have been helpful" in designing shoring, Amec acknowledged that "field measurements, testing, and calculations should have been done independently[, to] include[] the necessary load requirements." Amec added, "It should be noted that SSG continues to maintain . . . to the contrary . . . and [SSG] stated [as much] in response to this comment by Amec."

On October 29, 2012, the contracting officer agreed to Amec's recovery plan and the second revised baseline schedule, subject to a minor condition. By this time, however, the parties knew that conditions uncovered in the B and C block beams would require a significant modification of the task order.

D. History of Unilateral Modification 1

The problem had emerged in late August 2012. Initial demolition of the concrete around the beams in the Citadel revealed that the cast iron beams under the B and C cellblocks were in worse condition than was expected, as they had long, lateral cracks that, it was gradually found, had caused their lower flanges to separate from the vertical sections of the beams. Amec installed temporary shoring under the B and C block beams in August and asked the Park Service for direction in September. The agency sent Amec sketches of a new, more extensive repair procedure for the B and C block beams on September 26. On October 3, the agency requested a price proposal.

Amec's initial response, on October 10, was to object to the Park Service's solution. Amec raised concerns about "ease of constructability, relying on the cast iron sections for support, interaction of the iron and [newly installed] reinforced concrete beams under load, as well as the appearance of the proposed galvanic plates" to be installed for corrosion protection. (An Amec witness testified at the hearing that the agency's approach "wouldn't

even remotely work” and could not have been warranted by Amec, but Amec did not write that in 2012.) Amec suggested two alternative approaches: either removing and replacing the iron beams, “similar to the work being done in cell blocks A and D,” or a “metal-lock procedure” to stabilize the beams in place. The parties exchanged correspondence about the scope of this change, and about the price of the change, for several months.

On December 18, 2012, the contracting officer formally directed Amec to proceed with repair work on the beams under the B and C blocks in accordance with revised drawings issued by the agency, adding that she would either bilaterally or unilaterally modify the task order to price the change within thirty days. Three weeks later, on January 13, 2013, after a meeting with Amec, the contracting officer sent further revised plans for the changed work, incorporating an idea raised by Amec to remove the lower flanges of the cast iron beams. The parties did not succeed in negotiating either a price or a time extension for the change necessitated by the cracked iron beams. Amec submitted a proposed modification price of \$661,936 on January 25 and requested a three-month extension. Amec did not submit a written analysis of the effect of the change on the project’s critical path.

On January 29, 2013, the contracting officer priced the change by issuing unilateral modification 1 in the net amount of \$265,703.61 with no additional time.² She established a price of \$291,043.61 for the modified work on the B and C block beams but offset that amount with credits for other changes. Modification 1 stated that repairs of the B and C block beams “shall be completed as per” five listed drawings.³ The contracting officer based the price increase on an internal agency estimate that the modified repairs would entail about \$100,000 in added labor costs and about \$102,000 for materials, including rebar, plus markups. Amec wrote to the contracting officer on January 30 that it would “proceed with the work” but would “submit a Request for Equitable Adjustment (REA) . . . for schedule impact and for cost impact above the amount of \$265,703.61 that results from the Unilateral Changes.” On January 31, the agency approved a submittal for shoring in the B and C blocks necessitated by the modified work.

² The parties call the modified repairs of the B and C block beams “RFP 4 work” because the change originated with request for price proposal 4. We refer instead to modification 1, which incorporated the change in the task order.

³ Given how Amec tracked and presented its costs, discussed below, we need not describe the modified repairs in detail. In general, as further clarified through requests for information after the issuance of modification 1, the work involved exposing the cast iron beams, removing their lower flanges, constructing “sister beams” of rebar beside the original beams, then reinstalling concrete.

E. Events Leading to Subcontract Termination

Also in late January 2013, SSG asked Amec for an extension of 150 days under its subcontract. Amec responded to SSG in mid-February that SSG had not provided “adequate substantiation for the request,” which would need to include a “complete and thorough . . . examination of the project schedule . . . clearly detailing any negative impacts claimed . . . [A]ny delays caused by SSG must be reflected as well. . . . Failure to provide sufficient substantiation precludes any reasonable review by AMEC or NPS for any additional period of performance.” Amec’s task order stated that “[e]ach Time Impact Analysis shall include a Fragmentary Network (Fragnet)” projecting the impact of changed work or conditions. The January 31 project meeting minutes contain a cryptic statement that Amec had asked that the Park Service “not add time to the [pending] unilateral mod [1] so it could be used as additional leverage during negotiations . . . and must come to an agreement or LD [presumably, liquidated damages] will kick in.” This sentence, which Amec disavows, remained in the minutes throughout the project.

Effective February 1, 2013, the contracting officer assessed liquidated damages under the task order of \$1000 per day past the completion date.

The January 2013 unilateral modification exacerbated tensions between Amec and SSG. By 2013, SSG had abandoned the five-day workweeks promised in the October 2012 recovery schedule and had resumed four-day weeks. On January 31, Amec directed SSG to go back to five days, but SSG refused. SSG began demolition associated with the work on the B and C block beams on February 20, 2013, but on March 29, SSG told its second-tier subcontractor, Pullman, “not to move forward on any additional work outside your base bid contracted work,” including measuring and cutting rebar for the modified B and C block work, “until SSG and AMEC ha[ve] come to agreement on terms.” In the same period, SSG and Pullman were blaming each other for project delays and inefficiency. On April 17, SSG sent Pullman a cure notice charging that Pullman “continues to adversely affect the . . . schedule . . . by repeated failures to show up to work unless it has exclusive access to the worksite” and demanding that Pullman replace its project superintendent with a “qualified superintendent.” Five days later, Pullman responded that “the job has been shut down due to the fact that SSG will not allow our Site Superintendent on site.” SSG and Pullman seem to have worked out these differences by the end of April 2013.

Disagreements between Amec and SSG continued. SSG insisted that Amec should pay SSG what the modified B and C block beam work was actually costing SSG, and not merely SSG’s share of the price of unilateral modification 1. SSG also continued to press Amec for more time. On April 29, 2013, Amec wrote to SSG, among other things, that “Amec has not received a schedule analysis or any . . . documentation that would support

SSG's position that a Period of Performance extension is warranted," and that "SSG is obligated to promptly proceed to perform the change(s) in the Work" notwithstanding the price dispute. The same day, SSG sent Amec an updated project schedule showing completion on July 10, 2013, with no analysis of the causes of delay. (Amec attached this schedule to a pay application in early May 2013 and now cites it as containing the first fragnet that Amec provided to the Park Service showing the time impact of modification 1.) On May 2, SSG stopped performing modification 1 work altogether.⁴ SSG's project manager testified that SSG stopped the work because SSG was "not getting paid" by Amec and "cash was tight." On May 13, Pullman asked SSG for authorization to bring a third-tier rebar vendor to the site to take measurements for the B and C block repairs, but the SSG representative emailed Pullman that he was "speaking with [SSG's] contract manager" and to "please hold tight while we try and work out the specifics."

On May 23, 2013, Amec wrote to SSG about the schedule that SSG had provided on April 29. Amec wrote, among other things, "The SSG letter and schedule currently do not show which days are 'delay days' or how those days are determined. Please explain how the schedule indicates the delays to your work, the source of those delays, and which party is responsible for the alleged delays."

On June 6, 2013, the contracting officer issued another letter of concern, stating, among other things, that "AMEC is breaching the contract by refusing to continue to work" on modification 1 and that "[a]ny breach of contract shall prove grounds for contract default proceedings." In a two-page response on June 14, Amec denied there was "a basis to allege AMEC has breached its contract" and maintained that "AMEC was not able to meet the originally scheduled completion date because of the NPS's multiple, significant changes to the scope of work." Amec added that it had "temporarily suspended" the modified repair work in the B and C blocks "because there were outstanding issues associated with unresolved" information requests. Amec also asserted that the Park Service was not "appropriately fund[ing] its changes." Amec promised "to proceed with the directed work until completion" but "reserve[d] all its rights under the contract."

Six days later, on June 20, Amec terminated SSG's subcontract for default. In its four-page termination letter, Amec stated twice that SSG's material breaches of the subcontract were "too numerous to list." Amec listed eight "major categories" of breach. Among these was SSG's "refusal" to perform on schedule, "an ongoing concern of AMEC and its Client, the National Park Service. The inability of SSG to provide sufficient forces

⁴ Amec dates SSG's work stoppage to May 6, a Monday. Emails between SSG and its surety on Friday, May 3, show that SSG had already stopped authorizing Pullman to perform modification 1 work.

from its own resources and to direct SSG's lower tier subcontractor has caused irreparable damage to the Schedule and jeopardized the timely completion of the Project." Amec also complained that "[w]ork under the change in site conditions was not initiated after resolutions of [information requests] on May 31, 2013." (A reference to ordering "reinforcement steel," or rebar, confirms that this complaint was about modification 1 work.) Amec said it "regret[ted]" that the action was "necessary" but said it had "no choice but to terminate SSG for cause and complete the Contract by other means." Of significance to this case, Amec's letter did not state or imply that the Park Service caused the termination.

IV. Transition to Western Waterproofing, Inc. as Subcontractor

On June 24, 2013, Amec sent the Park Service another recovery plan. Amec explained to the agency that it had terminated SSG's subcontract "primarily" because "SSG would not subcontract with Pullman to complete the Changed work . . . and SSG is not approved by the NPS as qualified to perform the remaining work." Again, Amec did not allege Park Service involvement in the termination. Amec said it was "working directly with Pullman as the preferred subcontractor to step in and finish the work with the least possible disruption to the Project." This did not go smoothly. When Amec could not promptly negotiate a subcontract with Pullman, it sent letters to SSG's surety on July 2 and July 18 asking the surety to move the project forward. SSG's surety wrote to Pullman in early August that the surety was taking SSG's place as Amec's subcontractor and that Pullman should resume work. Pullman continued to negotiate for better terms.

On September 11, 2013, with no work occurring, the contracting officer issued a show-cause letter, warning Amec that "the Government is considering terminating the [task order] for default" and demanding a response within ten days.

Two days later, on September 13, SSG's surety entered into a second-tier subcontract with SSG to at least restart the work. SSG remobilized on September 19, billing its surety on a time and materials basis.

On the day that SSG remobilized, September 19, Amec responded to the September 11 show-cause letter. Amec wrote, among other things, that "after AMEC determined that SSG and its management were not going to progress work and would serve as a disruption on the project, we proactively terminated their subcontract for default." Amec urged the agency not to terminate, stating, among other things, that "lack of funding and the delay in the schedule due to . . . changes have significantly impacted the project and are certainly factors that were beyond Amec's control." Amec wrote that "one of . . . two [potential] subcontractors is expected to mobilize the week of September 30, 2013," to complete the job. By letter of October 17, 2013 (after a government shutdown), the contracting officer disputed several of

Amec's assertions about responsibility for the project's problems but closed out the show-cause letter, stating that "the Government is optimistic that this project will succeed and the construction [will be] completed."

Base work and modified work remained. In the September 11 show-cause letter, the contracting officer wrote that "progress meeting the base portion of the contract is 87%" and work under modifications was between twenty-five and fifty percent complete. In its September 19 response, Amec described the project as "delayed at approximately over 85% complete" and did not dispute the contracting officer's completion percentages.

At the end of September 2013, Amec chose a new subcontractor to complete the project. In its 291-page post-hearing brief, Amec mentions the replacement subcontractor, Western Waterproofing, Inc. (Western), several times (never by its full name) but Amec does not explain exactly what Western agreed to do, or how Amec knows what portion of Western's billings were "directly related to the performance of changed work" rather than base work. The agency points to some evidence that SSG's second-tier subcontract with SSG's surety and Western's subcontract contained some of the same items of work. Adding to the complications in this record, Western briefly engaged a second-tier subcontractor, Tom Lewis Restoration and Consulting, whose full corporate name similarly does not appear and whose exact scope of work is not explained in Amec's brief. Western also entered into a second-tier subcontract with Pullman, which used a third-tier subcontractor, Electrotech, for work related to corrosion protection. No one from Western testified in this case.

V. Project Completion with Western

Amec went on to achieve substantial completion in June 2014. We are at a loss to determine exactly who performed what work, when. Apparently, Amec lacks contemporaneous project records to make such a showing. In the claim it submitted to the agency in 2015, Amec alleged that SSG's uncompleted work had "minor defects" and that Amec "was forced to pay for . . . corrective work under Western's subcontract." Amec devotes twenty-six pages of its post-hearing brief to "Amec's damages related to Western's performance of [modification 1] work." Amec repeatedly asserts that Western was performing "primarily" or "a significant amount of" modification 1 work at certain times. As support, Amec almost exclusively cites demonstrative exhibits or hearing testimony in which Amec's representatives made similar assertions. Amec rarely cites project records.

Amec states that between October 2013 and January 2, 2014, Western invoiced Amec \$20,440, "primarily" for "necessary additional demolition work for [modification 1]." Amec's best evidence of the nature of this work seems to be the description in Western's December 2013 invoice: "December Billings for Lewis Restoration + Citadel demo." Amec

does not describe any modified work from January 3 to February 3. Regarding the eighty-five days from February 4 through April 29, 2014, Amec states that “Western was unable to segregate its costs across separate[] scopes of work because of the accelerative environment and because . . . [Amec knew that] separately tracking costs takes additional hours and decreases productivity.” Amec cites here testimony of its administrative project manager, who said in part, “[Amec] wanted the [cost] tracking to be done by [Western] in detail, and [Western] refused to do it. . . . We were over a barrel. We had to get the project finished.” For the sixty days from April 29 to substantial completion on June 27, 2014, Amec states that “[t]he only work performed by Western . . . was in the Citadel and the overwhelming majority was [modification 1 work],” but Amec cites no evidence for the second statement.

Amec states that after January 2, 2014, Western invoiced Amec on a time and materials basis. “As a result,” Amec writes, Amec’s project superintendent “had to work with” Amec’s experts “to allocate those costs to various scopes of work, including [modification 1].” We are troubled by how Amec presented this retrospective allocation at the hearing. The superintendent testified that he communicated with Amec’s experts “[f]or about a week,” forwarding project status reports, a contemporaneous spreadsheet of time and materials, meeting minutes, and other documents, “to allocate what was being performed in scope versus what was being performed out of scope.” This description of the review effort was arguably ambiguous, as Amec does not allege “out of scope” work under modification 1. It claims costs of formally modified work. The superintendent did not testify at the hearing about why anyone allocated any particular labor to particular requirements. Indeed, when shown a schedule of Amec’s allocations of Western’s billings, the superintendent said he had not seen the document and did not help to prepare it. Respondent’s counsel had no reason to cross-examine him about any specific allocation. Later, however, an expert for Amec testified that he had “worked with [the superintendent], who was intimately familiar with [Western’s] work activities . . . to . . . allocate the hours [from February to April 2014] between base contract work and [modification 1] work.” The expert adopted what he said were the *superintendent’s* allocations of labor hours as a basis for his expert testimony. As a result of this vague and possibly conflicting testimony, the Board is left with no explanation of the allocations and no basis to assess whether the allocations seem reasonable.⁵

The agency focuses on the procurement of rebar for modification 1 work in 2014. Amec told the Park Service in a January 9, 2014, meeting that it “expect[ed]” Western to have a vendor “under contract soon for the rebar shop drawings and fabrication.” A second-

⁵ A similar thing happened in the testimony of the expert who supported Pullman’s claim against SSG. That expert testified that she based some estimates on “discussions with” Pullman’s project manager, who did not testify about any specific numbers they discussed.

tier subcontractor took measurements at the site for rebar on January 14. After two rejected submittals, the agency approved Amec's rebar shop drawings on February 27. Rebar was delivered in stages between March 13 and March 20. A second-tier subcontractor began installing it on April 2. Western began pouring concrete for the B and C block repairs on April 10, one day after the agency accepted beneficial occupancy of the shower room.

The agency acknowledged substantial completion as of June 27, 2014. No one explained why the agency withheld \$511,000 in liquidated damages for 512 days of delay.

VI. The Claims and Appeals

In March 2015, Amec requested an equitable price adjustment of \$12,723,467, including the liquidated damages, and an extension covering the entire period of delay.⁶ Amec certified the REA as a claim in August 2015. Two central contentions of the claim were that the Park Service undercompensated Amec under modification 1 and that Amec "was ultimately forced by the NPS to terminate SSG . . . which required that AMEC Foster Wheeler find another subcontractor to complete SSG's (and Pullman's) scope of work." Amec's theories of recovery included constructive change, defective specifications, and breach of the implied duty of good faith and fair dealing, although the claim did not specify which agency actions allegedly breached that duty.

The contracting officer denied the claim in December 2015. Amec filed a timely appeal in February 2016 (CBCA 5168). Amec's complaint contained six counts, divided, confusingly, into "Pullman's claim," "Spectrum's claim," and "Amec's claim."⁷ Counts one and two alleged "compensable change" and breach of the implied duty of good faith and fair dealing "on behalf of Pullman." Counts three and four alleged the same theories "on behalf of" SSG. Counts five and six asserted the same theories under Amec's name.

During discovery, Amec decided to allege alternative grounds for largely overlapping relief. In August 2018, Amec submitted a new certified claim to the contracting officer for \$13,236,781. The theories of this claim were that the Park Service breached the task order

⁶ Amec alleged 521 days of compensable delay in the REA and in the complaints filed in both of these appeals. It now claims 450 days.

⁷ This is confusing because a "claim" under a government contract must be by "one of the contracting parties." 48 CFR 2.101 (2015); *see also Erickson Air Crane Co. v. United States*, 731 F.2d 810, 813 (Fed. Cir. 1984) (briefs that gave only "lip service to the rule that the subcontractors had no privity of contract with the government" were "confusing and difficult for the court to follow").

by withholding superior knowledge before award about the condition of the beams supporting the B and C blocks and by negligently preparing the project cost estimate by omitting the “degradation factor,” and that the agency breached a “pre-award duty of good faith and fair dealing” by those same actions.

The contracting officer denied this second claim in October 2018. In another letter the same day, he asserted a government claim for a net amount of \$118,506.47, consisting mainly of a credit for the deletion, in modification 1, of cathodic protection from the originally awarded B and C block beam repairs. In its appeal from both 2018 decisions (CBCA 6298), Amec abandoned the “pre-award duty” theory by filing an amended complaint adding only superior knowledge and “negligent preparation of estimate” counts. The Board denied a motion by the respondent, the Park Service’s parent agency, to dismiss those two counts from CBCA 6298 as time barred and for failure to state a claim for relief. *Amec Foster Wheeler Environment & Infrastructure, Inc. v. Department of the Interior*, CBCA 5168, et al., 19-1 BCA ¶ 37,272.

VII. The Litigated Claims

The parties included more than 3000 exhibits in the appeal file. The Board received testimony from twenty-four people, including ten live witnesses for each side at the hearing. Each party presented four expert witnesses. Notably, two of the experts in Amec’s case expressed no views on compensation owed to Amec. Constance Riedinger of Riedinger Consulting was examined by a lawyer retained by SSG and supported only an SSG claim against Amec. Denise Martini of Exponent was examined by a lawyer retained by Pullman and limited her opinions to amounts that Pullman alleges SSG owes to Pullman.

A. Delay Contentions

The parties agree in large part on the project’s critical path. They agree in part that certain events caused critical path delay. They disagree about who was responsible for those delaying events. Both parties identify the critical path using Amec’s first revised baseline schedule, approved in August 2012.⁸ They broadly agree that delays were caused by the need to address the cracks in the B and C block beams via what became modification 1, and by the transition from SSG to Western as Amec’s subcontractor. Amec assigns responsibility to the Park Service for other added time. It blames the agency for delayed approval of shoring submittals, for the fact that SSG stopped work in May 2013, and for an alleged shortage of qualified workers during Western’s time on the project. Amec also argues that the Park

⁸ The experts who discussed SSG’s and Pullman’s delay claims did not use this updated schedule. We do not rely on their delay opinions in any respect.

Service caused forty days of project delay by telling Amec to prioritize completing work in the shower room over completing modification 1 work. The agency, for its part, says Amec was responsible for delaying demolition in 2012 and modification 1 work in 2014.

Amec's schedule expert, Neil Gaudion of FTI Consulting, testified that the critical path of Amec's first revised schedule, showing completion in January 2013, ran through the repairs in the shower room. He concluded that soon after the cracks were discovered in the B and C block beams in August 2012, the critical path shifted to that area of work, which later became modification 1 work, and it stayed there for the rest of the project. However, he considered approval of all shoring submittals a critical milestone and assigned the Park Service responsibility for forty-four days of delay between the approval date in Amec's schedule, July 29, 2012, and the approval of the D block shoring submittal on September 10.

Mr. Gaudion next identified 162 days of critical path delay associated with the unforeseen B and C block conditions and repair work, from September 11, 2012, to February 20, 2013, when work under modification 1 began. Of those 162 days, Mr. Gaudion opined that Amec was responsible for forty-three days, associated with submitting price proposals in October and November 2012, while the agency was responsible for 119 days.

Mr. Gaudion identified four other critical path delays, totaling 312 days. These were: (1) forty-five days for SSG's work stoppage under modification 1 before Amec terminated the subcontract on June 20, 2013; (2) fifty-five days from October 10 to December 4, 2013, when Western, according to Amec, could not find enough qualified laborers to start work under modification 1; (3) forty days from December 26, 2013, to February 4, 2014, when Amec diverted resources to the shower room and performed no modification 1 work; and (4) 172 days of extended work in the B and C blocks, as compared to the duration in the 2012 as-planned schedule. Mr. Gaudion deemed the agency responsible for 293 of those 312 days and Amec responsible for nineteen days, due to Western's inefficiencies. In all, Mr. Gaudion testified to 450 days of compensable delay and no excusable but non-compensable days.

The agency's schedule expert, Joseph Andres of LitCon Group, supported 145 days of excusable delay and no compensable delay. He attributed to Amec a twenty-eight-day delay in the start of demolition in the B and C blocks, from the scheduled date of July 25, 2012, to August 22, due to a delay in lead abatement, a precursor activity.⁹ This implies that the cracks in the B and C block beams could have been found earlier. Mr. Andres next

⁹ Our summary of Mr. Andres's opinions is subject to the caveat we raise three paragraphs below that, by "delay," he seems to mean here not critical path delay, but something like "gross delay" or potential delay, which must be offset in each period by the amount of any schedule float that was available in that period.

identified 186 days of delay from the discovery of the cracks on August 28, 2012, to the start of work under modification 1 on February 20, 2013. Of those 186 days, he assigned the Park Service responsibility for 105 days and Amec seventy-one days, for preparing price proposals too slowly and for not starting the changed work immediately upon receipt of modification 1 and the approved shoring plan for the B and C blocks in early February 2013.

Mr. Andres agreed with Mr. Gaudion that SSG's departure and the transition to Western delayed the project. He assigned Amec responsibility for 214 continuous days of delay from May 2, 2013, when SSG stopped work on modification 1, to December 2, when Western began modification 1 work. Around early 2014, Mr. Andres's view of the critical path diverges from Mr. Gaudion's. Mr. Andres assigned Amec responsibility for ninety-seven days of delay running from December 26, 2013, when Amec began working in the shower room rather than on modification 1, until April 2, 2014, when rebar installation for the modification 1 work began. (Mr. Gaudion put the end of the delay that began on December 26, which he blamed on the agency, at February 4.) Mr. Andres concluded from project correspondence that SSG had been expected to coordinate with Pullman to prepare rebar shop drawings and should have ordered the rebar in 2013, which would have saved Amec the lead time for the drawings and ordering in 2014.

Mr. Andres concluded that Amec spent 187 days on modification 1 work. He deemed this to represent a "net added duration" of 115 days, because Amec's August 2012 baseline schedule showed repairs of the B and C block beams lasting seventy-two days. He assigned the agency responsibility for ninety of the 115 "added" days. He testified that his firm "just looked at" schedules prepared during the failed negotiations of modification 1 and "kind of made a reasonable call" as to how long "everyone was thinking [the changed work] was going to take at the time. It seemed . . . everyone was kind of triangulating on 90 days Honestly, I don't know how anyone could estimate at this point how long it really should have taken, but that was in our estimation a reliable number [in early 2013]."

We find Mr. Andres's summary of his delay conclusions confusing. He added up the days of "delay" that he attributed to each party (435 days to Amec and 195 days to the agency), which were 630 days in total. He then subtracted from each party's total days of "delay" what he called the total "float" for the affected days under Amec's first revised baseline schedule (subtracting sixty-eight days from Amec's total and fifty days from the agency's total), resulting in bottom lines that sum to the total days of project delay, 512. Because work with float is not on the critical path to begin with,¹⁰ it would make more sense to distinguish "float" from "delay" within each affected time period, rather than in one subtraction at the end of the analysis. This wrinkle in Mr. Andres's approach was not

¹⁰ *E.g., Haney v. United States*, 676 F.2d 584, 595 (Ct. Cl. 1982).

clarified at the hearing or in the agency’s post-hearing brief, which cites all 630 days of “delay” he found without specifying how or why the “float” got backed out of the 630 days.

Mr. Andres opined that none of the 145 days of delay for which he assigned responsibility to the agency were compensable. Acknowledging that, in this respect, his opinion involves “one of the most contested issues in forensic schedule analysis,” Mr. Andres testified that all 145 days were “concurrent” with delays caused by Amec, in that, “but for the delays” due to modification 1, the work in “the shower room would have delayed this project” because the shower room repairs, although not on the critical path, were “near-concurrent” with modification 1 work until Amec turned the shower room over to the agency and restarted the modified work in early April 2014.

B. Quantum Contentions

1. Amec’s Claims

In a required prehearing quantum schedule, Amec divided its claimed dollar amounts, before interest, into (1) “direct damages” totaling \$3,330,341; (2) an “[SSG] REA” totaling \$6,390,533; (3) “contract administration and REA preparation costs” of \$566,058; (4) \$885,656 for “extended general conditions”; (5) markups on project costs of three percent for overhead and four percent for profit; and (6) release of \$450,000 in liquidated damages, for a total of \$12,342,035. Amec subdivided the “SSG REA” as follows:

Pre-termination costs	\$2,622,662
Post-termination costs	\$426,535
Post-termination (senior management)	\$133,559
Surety costs	\$1,227,904
SSG REA preparation costs	\$185,640
Pullman REA	\$1,418,366
Markup on Pullman REA	\$375,867

In its post-hearing brief, Amec rearranged its itemization. The figures in Amec’s brief are difficult to track to its prehearing statement. All of the amounts itemized in the brief are now called “direct damages” to Amec. The reference to SSG’s REA is gone. Amec seeks a total of \$8,284,223, including delay costs and remission of liquidated damages, for the change under modification 1; \$2,707,859 for the “forced termination” of SSG; and \$4,705,310 in “efficiency and productivity damages,” for an apparent grand total before interest of \$15,697,392. This represents an increase of more than \$3.3 million from Amec’s

prehearing statement, assuming none of the subcategories overlap.¹¹ Of note, Amec's post-hearing itemization includes "extended general conditions and delay costs" of \$665,226 and \$338,000 (338 days) of improperly assessed liquidated damages caused by modification 1. Amec itemizes another \$220,430 of "general conditions" and \$112,000 (112 days) of liquidated damages associated with the termination of SSG, making its total delay claim 450 days, matching Mr. Gaudion's total.

Amec emphasizes repeatedly that the appeal file contains "actual, unchallenged invoices" as proof of incurred costs. That is substantially true. There is far less evidence of proximate causation, linking the incurred costs to changes of the work under the task order.

2. The Government Claim

The agency asserts two credits, offset by two upward price adjustments. We can disregard the price increases calculated by the contracting officer as they are not claims. The agency seeks \$129,307.96 for deleting cathodic protection of the cast iron beams in modification 1 and \$21,525.85 for a later change to modification 1 that allowed Amec to leave the lower flanges of those beams intact inside walls. Both dollar amounts are based on estimates prepared for the contracting officer for price negotiations.

Discussion

I. Nature of the Case

We have jurisdiction under the Contract Disputes Act, 41 U.S.C. §§ 7101–7109 (2012), to decide Amec's timely appeals from the contracting officer's December 2015 decision and from the two decisions issued in October 2018. The theories that Amec raises in its second appeal, however, do not affect our decision. Amec alleges there that the Park Service breached a duty to Amec by withholding superior knowledge about the cracks in the B and C block beams and by not telling bidders about the "degradation factor" that the agency's engineer used when preparing preliminary cost estimates. Even if we found merit in one or both of those allegations, Amec did not present a quantum case that could support an award of breach damages specifically for the agency's conduct prior to award.

¹¹ The Board ordered that only "documentation of costs or damages" that Amec cited in its prehearing statement would "be admitted in evidence." The agency did not object to any evidence on that basis. Amec does not specifically explain what new evidence supports its post-hearing quantum increase.

Amec seems to suggest at times that it would not have bid on this project, or that it would have bid a higher price, had it known what it alleges the agency knew. Amec's project superintendent testified that the change addressed in modification 1 was "completely avoidable" and "caused the project to fail before it even started." Amec did not offer evidence of an alternative bid price. Nor did Amec make a case for disgorgement of restitution "to restore [the agency] to the position it would have been in had there never been a contract to breach." *California Federal Bank, FSB v. United States*, 245 F.3d 1342, 1350 (Fed. Cir. 2001); see *Land Grantors in Henderson, Union, & Webster Counties v. United States*, 81 Fed. Cl. 580, 609–11 (2008). Instead, Amec relies on the same quantum evidence in the second appeal (CBCA 6298) as in the first appeal (CBCA 5168)—evidence intended to show that the Park Service should pay Amec more for changes of the task order.

As summarized in its post-hearing brief, Amec seeks an award based on "(i) the actual costs incurred to do . . . additional work, (ii) inefficiencies resulting from resequencing work after construction began, (iii) an ever-changing work force . . . , and (iv) an increase in Amec's overhead/general conditions to manage the [work]." Amec's case for recovery thus stands or falls on whether Amec can establish that the Park Service changed the task order and did not pay Amec enough for the changes. Whether the agency knew, or should have known, or should have warned Amec about project conditions makes no difference now, because Amec offered no separate method to calculate breach damages for a lack of warning. Cf. *AT&T Communications, Inc. v. Perry*, 296 F.3d 1307, 1312 (Fed. Cir. 2002) (the contractor sought "partial restitution" under a superior knowledge theory); *Womack v. United States*, 389 F.2d 793, 802 (Ct. Cl. 1968) (considering but denying "the equitable relief of reformation" for a negligent estimate); *Fairfax Opportunities Unltd.*, AGBCA 96-178-1, 98-1 BCA ¶ 29,556, at 146,526 (finding that, under a requirements contract, "the . . . fair[est] and [most] accurate measure of recovery" for a negligent estimate was "to reprice the unit price based upon the estimate the Government should have provided").

This means that we can fully address Amec's case by addressing the claims presented in the first appeal for the costs and duration of modified work and allegedly changed work. It does not matter whether we treat the dollars and days that Amec seeks as an equitable adjustment or as breach damages. Either way, they are exactly the same costs and time, and we would use the same standards of proof. See *Nager Electric Co. v. United States*, 442 F.2d 936, 946 (Ct. Cl. 1971) ("Equitable adjustments in this context are simply corrective measures utilized to keep a contractor whole when the Government modifies a contract."); *Willems Industries, Inc. v. United States*, 295 F.2d 822, 831 (Ct. Cl. 1961) (noting breach damages must be proven "with sufficient certainty so that the determination of the amount . . . will be more than mere speculation"); *Misleading Specifications: What's In a Name?*, 33 Nash & Cibinic Rep. ¶ 18 (2018). We need not adjudicate Amec's breach theories of superior knowledge or negligent estimation. This is a changes case. The agency's preaward knowledge is irrelevant to the case as litigated.

Two changes to the project dominate Amec's briefing: (1) modification 1 and (2) the replacement of SSG with Western. Amec says the Park Service is responsible for both circumstances. The agency accepts liability for the change addressed in modification 1 but it challenges Amec's cost and delay evidence. The agency accepts no responsibility for SSG's performance issues or for the decisions to terminate SSG's subcontract and to bring on Western. We find Amec responsible for the problems for which Amec blamed SSG during the project, leading up to and including the termination for default. This conclusion, in turn, gravely undermines the evidence that Amec cites in seeking additional time and money for performing modification 1 and alleged constructive changes.

II. Responsibility for Terminating the Subcontract

Amec does not allege that a contracting officer directed it to terminate SSG's subcontract. Instead, Amec writes that the Park Service "placed an enormous amount of pressure on Amec to terminate SSG" and that the "severe underfunding and refusal to grant any additional time to perform [modification 1] contributed to the termination of SSG." The strongest evidence against faulting the agency for the termination of the subcontract is "the dog that didn't bark." *See, e.g., Johnson v. Wells Fargo Bank, N.A.*, 744 F.3d 539, 543 n.6 (8th Cir. 2014) (citing Arthur Conan Doyle, "Silver Blaze," in *The Complete Sherlock Holmes* (1938)). Amec was a diligent and assertive correspondent with the contracting officers and with SSG. The appeal file is replete with its letters and emails. Yet we see no contemporaneous document in which Amec cited agency "pressure" as the reason it continually complained about SSG's performance and then terminated the subcontract.¹²

On the one occasion, before the issuance of modification 1, that Amec passed along a suggestion by SSG that the agency had delayed the project, Amec promptly disavowed the comment when the contracting officer objected. Amec pointed the finger at SSG for not timely finishing the shoring submittals "independently." Amec asserts that it experienced "pressure" when it received "numerous Letters of Concern both immediately before and after the period of performance expired" on January 31, 2013. Amec does not argue, much less show, that the letters of concern were unjustified or unfair. When Amec received the letters, it was expressing substantially the same concerns about delay to SSG in similar terms.

¹² Amec cites evidence that agency personnel asked Amec in 2012 how it planned to deal with the problems Amec was having getting SSG to perform. We have not summarized that evidence because those inquiries were reasonable, were not "pressure," and obviously did not create pressure because Amec did not terminate SSG's subcontract for several more months.

Amec argues that “[b]y not granting days in Unilateral Mod No. 1, NPS accelerated Amec and increased the pressure on SSG in an already difficult environment.” That is not what Amec was saying at the time. Two weeks after it received modification 1, Amec advised SSG that SSG had “[f]ail[ed] to provide sufficient substantiation” for “reasonable review by AMEC or NPS for any additional period of performance.” Amec told SSG again two months later, in April 2013, that Amec had “not received a schedule analysis or any . . . documentation that would support SSG’s position that a Period of Performance extension is warranted.” Amec repeated this advice in late May 2013. We see no reason to doubt what Amec was telling SSG. Amec never sent the agency a time impact analysis to justify an extension during SSG’s time on the project. Amec did not even submit a schedule containing a fragnet showing the impact of modification 1 on the critical path until May 2013, by which time SSG had already unilaterally stopped working on modification 1. The Park Service did not constructively accelerate the project during SSG’s performance, as Amec did not submit “a timely and sufficient request for an extension” during that period. *Fraser Construction Co. v. United States*, 384 F.3d 1354, 1361 (Fed. Cir. 2004).

Amec adds that “severe underfunding” of modification 1 “also played a significant role in forcing the termination of SSG.” Again, we see no evidence that Amec told either the Park Service or SSG this at the time. Amec sent SSG a four-page termination letter in June 2013 citing eight “major categories” of “breach” and expressing “regret[]” that termination was “necessary” without once suggesting that the price dispute about modification 1 was “forcing” Amec to act. Likewise, in its September 2013 response to the agency’s show-cause letter, when it had every incentive to argue against termination for default, Amec argued that “lack of funding” had “significantly impacted the project” and was “beyond Amec’s control,” but it did not assert for the record that the price of modification 1 had compelled Amec to terminate SSG’s subcontract. Quite the opposite, Amec praised itself to the agency for “proactively terminat[ing]” the subcontract of “disrupti[ve]” SSG.

While disputes between Amec and SSG about modification 1 affected their relationship, we see no basis to find that the unilateral pricing of modification 1 caused or “forced” Amec to terminate SSG’s subcontract for default, or even that the termination solved a business problem that modification 1 created. Amec knew it was obligated to proceed with modification 1 and to seek any additional compensation later. *E.g., Discount Co. v. United States*, 554 F.2d 435, 440 (Ct. Cl. 1977). Amec’s administrative project manager testified that Amec did not like this and believed the agency was “using [Amec] as the bank to fund the rest of the work.” He added that, although the agency paid all of Amec’s invoices for modification 1 work, “we [at Amec] don’t have a deposit box where we can get money for specific projects,” and Amec intended to stop paying SSG for the modified work once the costs of the work exceeded the modification price. *Terminating* could not have been a solution to Amec’s funding problem. Immediately after the termination, Amec promised

the agency that it would complete the job with another subcontractor. Amec paid Western to finish the modified work. Amec did not stop funding that work.

Our finding that the Park Service did not cause Amec to terminate SSG's subcontract eliminates some categories of relief from the case entirely. The agency is not liable for any of the \$2.7 million that Amec seeks for "forced termination," for any delay resulting from the termination, for "surety costs," or for any other added costs that Amec incurred by completing the project with Western rather than with SSG. Those unrecoverable categories are substantial, and Amec did not offer an alternative method to calculate a quantum if we rejected its forced termination theory. Like a predecessor board, this "Board is not disposed to search the voluminous record in this case and do counsel's work for them." *Coffey Construction Co., VABCA 3432R, et al.*, 1993 WL 218210 (June 16, 1993). We nonetheless proceed to address the relief that Amec seeks in its post-hearing brief under the headings of delay, unpaid modification 1 costs, and loss of efficiency and productivity.

III. Delay

We begin with delay. Amec "has the burden of proving the extent of the delay, that the delay was proximately caused by government action, and that the delay harmed [Amec]." *Wilner v. United States*, 24 F.3d 1397, 1401 (Fed. Cir. 1994) (en banc). Only delay of activities on a project's critical path results in overall delay. See *Affiliated Western, Inc. v. Department of Veterans Affairs*, CBCA 4078, 17-1 BCA ¶ 36,808, at 179,403. The parties nominally agree that, starting in late August 2012, the critical path ran through the work items affected by modification 1. Experts for both sides, however, assigned responsibility to the other party for delay predating the discovery of the cracks in late August 2012. Amec's expert blamed the agency for a delay starting on July 29 in the approval of shoring submittals, while the agency's expert faulted Amec for a delay in lead abatement starting on July 25. We find that no events affecting the B or C block work before the discovery of the cracks on August 28 can be considered to have affected the as-built critical path, as that area of work shifted onto the as-built critical path only on August 28.

From August 28, 2012, forward, Amec proves thirteen days of excusable delay and 117 compensable days. Our breakdown is as follows. Under the principle that "all delay due to defective or erroneous Government specifications [is] *per se* unreasonable," *Chaney & James Construction Co. v. United States*, 421 F.2d 728, 732 (Ct. Cl. 1970), we agree with Amec's expert that the agency caused most of the delay from August 28 until Amec could have started work under modification 1. We deduct, as that expert did, forty-three days

caused by Amec’s slow turnaround of price proposals.¹³ We agree with the agency, however, that Amec did not prove it could not have started the modified work on February 4, 2013, rather than on February 20.¹⁴ We attribute a sixteen-day delay to Amec. We agree with Amec’s expert that review of shoring submittals caused delay—but unlike him, we find *Amec* responsible for the delay in submittal approval until September 10, 2012. Amec argues at length that the task order left the shoring unspecified and that the agency could have provided useful load data sooner. Amec does not refute what Amec itself told SSG in 2012—that under the plain terms of the shoring specification, the contractor was “responsible for . . . both the plan and the design, including all necessary testing, surveying, [and] data collection.” Amec caused concurrent delay by not gathering the necessary data for the shoring submittals.¹⁵ From August 28, 2012, until February 20, 2013, we find 117 days of agency delay, fifty-nine days of contractor delay, and thirteen days of concurrent delay.

We reject the agency’s contention that all of the agency-caused delay was offset by concurrent, contractor-caused delay. We recognize that “the exact definition of concurrent delay is not readily apparent from its use in contract law.” *George Sollitt Construction Co. v. United States*, 64 Fed. Cl. 229, 238 n.8 (2005). We do not doubt that the agency’s expert relied on one possible definition in opining that “near-critical” work in the shower room was “concurrent” with the modification 1 work until April 2014 and would have delayed the project if modification 1 had not. The problem we see with that approach is that the alternative delay did not materialize. To analyze delay claims in a manageable fashion, we focus on the fact that “only construction work on the critical path ha[s] an impact upon the time in which the project [i]s completed.” *Mega Construction Co. v. United States*, 29 Fed. Cl. 396, 425 (1993), *quoted in Affiliated Western*, 17-1 BCA at 179,403. The parties agree that the shower room repairs were not critical after August 2012. That work thus did not result in delay. We limit our analysis to the critical path delay that happened.

We cannot allot responsibility for the remainder of the delay, from February 20, 2013, until project acceptance on June 27, 2014. Amec’s subcontractors were performing modification 1 work at the beginning and at the end of this 492-day period, but we see no

¹³ The agency’s expert said Amec caused fifty-five days of delay during the modification negotiations, but he tended to rely on deadlines set by the contracting officer without citing evidence that those deadlines were necessarily reasonable.

¹⁴ Amec says “SSG procured shoring” after February 4 but it cites no evidence.

¹⁵ Amec argues that it “reasonably construed the language of the [shoring] specification.” We agree. The interpretation that Amec now puts forward is SSG’s interpretation, not Amec’s.

basis in the record to determine how much time modification 1 should have added to the project, had the modified work been done promptly and in sequence, rather than with the repeated stopping and starting that resulted from Amec's dealings with SSG and Western.

Neither party offered us a "clean," original schedule of the modification 1 work with logic ties. This is presumably because SSG, which generated the schedules for Amec, did not build a fragnet for modification 1 into a schedule update until around the time that SSG stopped performing the modified work in May 2013, which was ten weeks after the work had started and seven weeks before Amec terminated SSG's subcontract.

Lacking a contemporaneous baseline schedule of the tasks required by modification 1, both sides' experts estimated the time impact by comparing the actual, as-built duration of the modified work with the planned duration of the *unmodified* work in the B and C blocks in the August 2012 schedule. Although both experts made adjustments, this approach is only a minor variation on the disfavored "total time" methodology using "the difference in time between the planned completion date and the actual completion date." *Turner Construction Co. v. Smithsonian Institution*, CBCA 2862, et al., 17-1 BCA ¶ 36,739, at 179,082; see also *Cogefar-Impresit U.S.A., Inc.*, DOT BCA 2721, 97-2 BCA ¶ 29,188, at 145,202 ("[A] schedule must reflect actual performance to be a reliable basis for evaluating delay."). The experts' approach is arguably less helpful than a typical "total time" analysis, in that, here, the as-built work was not simply "impacted as-planned" work,¹⁶ it was formally modified work that happened to be in the same location. We agree with the agency's expert that without evidence of an original plan for the work under modification 1, we "don't know how anyone could estimate at this point how long [that work] really should have taken." We suppose it would have taken longer than the repairs in the B and C blocks under the task order as awarded, but how much longer, we could only speculate.

This weakness in Amec's proof of delay due to performing modification 1 becomes fatal given that we find Amec responsible for all of the events that Amec says delayed the modified work. Amec's schedule expert deemed the Park Service responsible for SSG's work stoppage in May and June 2013.¹⁷ We disagree. Amec was the contractor. As far as the agency was concerned, the stoppage was Amec's, not SSG's. Amec focuses on SSG's

¹⁶ See, e.g., *Craft Machine Works, Inc.*, ASBCA 47227, 97-1 BCA ¶ 28,651.

¹⁷ Although Amec told the agency in June 2013 that it had "suspended" work in the B and C blocks due to outstanding information requests, Amec's expert disagreed. He testified that "the records . . . show that SSG did not perform [modification 1] work because of [SSG's] concern about being paid for the work and the impasse with the Park Service" about a "time extension. . . . So, to me, that's what this delay is."

financial condition but it makes no serious argument that Amec had a right to halt work under a government contract or that the agency's conduct was so oppressive that Amec was under duress and should be excused from its duty to proceed. *See, e.g., Rumsfeld v. Freedom NY, Inc.*, 329 F.3d 1320, 1329–30 (Fed. Cir. 2003) (listing the elements of duress). Amec's expert also blamed the agency for Western's alleged inability to hire enough laborers when mobilizing in the fall of 2013. We disagree. We have not discussed Western's labor situation and are not sure that the evidence supports a labor shortage as the cause of this delay, but this ultimately does not matter, as we do not hold the agency responsible for the fact that Western replaced SSG and was hiring in late 2013 in the first place.

We further find, agreeing with the agency's expert, that a failure to order rebar in 2013 delayed the modification 1 work from December 26, 2013, to April 2, 2014. Amec says it was informally directed to focus on the shower room for part of this delay period, until February 4, and an Amec witness testified that no one could measure for rebar in the B or C blocks until the concrete was demolished. We need not resolve the first contention because the record does not support the second one. SSG and Pullman corresponded about Pullman's desire to measure for the rebar in March and May 2013. Amec specifically criticized SSG in its June 2013 termination letter for not getting rebar ordered after the "change in site conditions." We see no one saying in 2013 that it was impossible to take the measurements. Procuring rebar in 2014 delayed the project.¹⁸

In all, we find Amec responsible for at least 311 days of delay of work on modification 1 (May 2 to December 2, 2013—the days between when SSG stopped work on modification 1 and Western started—and December 26, 2013, to April 2, 2014), but we cannot conclude that all of the *other* days of modification 1 work must have been necessary to complete that work. The record gives us grave doubt that the modified work proceeded in anything like an efficient manner. SSG worked on modification 1 for Amec from February to May 2013, then stopped. We have quoted correspondence from that time in which SSG and Pullman accused each other of delaying the project. In its June 2013 termination letter, Amec wrote that SSG's "inability . . . to provide sufficient . . . resources and to direct" Pullman had "caused irreparable damage to the Schedule." Western apparently resumed the work in December 2013, stopped, then restarted and completed the modified work in April, May, and June 2014. Quoting a witness, Amec emphasizes in its post-hearing brief that "Western had limited time to become familiar with the Project and its complexity

¹⁸ Amec cites no evidence of direction to finish the shower room at the cost of project delay. It cites testimony that the agency was interested in the shower room, and an assertion Amec made in March 2014 that it had "sacrificed the schedule to get the shower room completed, but there is no benefit since the LDs will not stop." Whatever the nature of the discussions about the shower room, they were not a primary cause of delay.

before mobilizing [in late 2013], which caused Western to learn the Project ‘on the fly.’” We lack confidence that Western found all of the job in good order when it took over for a subcontractor that had received a four-page termination letter six months earlier. Over a period of sixteen months, the modified work consumed about six months. The agency is responsible for issuing modification 1 but not for the erratic way the work progressed.

Either as relief for breach or as an equitable adjustment, Amec would be entitled to an extension for the delay “proximately caused” by modification 1 without fault on Amec’s side. *Wilner*, 24 F.3d at 1401. Lacking a reliable time projection at the outset, and considering all of the contractor-caused disruption we describe above, we cannot estimate a reasonable extension by “more than mere speculation.” *Willems Industries*, 295 F.2d at 831. Although the agency, relying on its expert, volunteers ninety days as a fair ex ante estimate of the duration of modification 1 work, we do not consider that a weighty admission, as the agency also argues that none of the delay is compensable. The agency admits no compensable delay, and we cannot make an award for delay caused by performing modification 1 without evidence in the record to support such a finding.¹⁹

Amec proves entitlement to remission of \$130,000 in liquidated damages for 117 days of compensable delay and thirteen days of excusable delay. We can award no costs of delay. We cannot award Amec its extended general conditions costs because Amec does not cite actual costs. Its expert derived a daily rate from labor rates in the task order. “I’m using contract rates because that’s what the parties have agreed,” he testified, adding that “outside of the general conditions, [the quantum is] all based on actual costs and invoices and the like.” He said an alternative approach would have been to start with Amec’s labor costs and “load those with the appropriate overheads and profit to come up with a similar . . . number.” The alternative approach would have been correct. The approach used was not. “[A]n equitable adjustment of the contract price . . . compensate[s] for the *actual cost* of performing the extra work.” *ACM Construction & Marine Group, Inc. v. Department of Transportation*, CBCA 2245, et al., 14-1 BCA ¶ 35,537, at 174,156 (emphasis added). Similarly, expectancy damages are the “costs . . . actually caused by the breach.” *Energy Northwest v. United States*, 641 F.3d 1300, 1305–06 (Fed. Cir. 2011). A monetary claim for delay is a cost claim, not a repricing claim. *E.g.*, *Yates-Desbuild Joint Venture v. Department of State*, CBCA 3350, et al., 17-1 BCA ¶ 36,870; John Cibinic, Jr., James F. Nagle & Ralph C. Nash, Jr., *Administration of Government Contracts* 640–44 (5th ed. 2016). We must see evidence of general conditions costs to award them. *E.g.*, *Turner Construction*, 17-1 BCA at 179,066–68. Amec likewise does not cite actual bonding costs for the extension period.

¹⁹ Amec quotes the words “jury” and “verdict” twice each in its post-hearing brief, in two quotations of Board decisions, but it does not argue for jury-verdict relief.

All of the compensable delay that we can quantify occurred while SSG was under subcontract to Amec.²⁰ Amec discusses SSG's extended general conditions costs in a convoluted fashion. It cites a cost report about which no one testified, which seems to show that SSG incurred general conditions costs of about \$1453 per day in 2012 and that the rate rose by forty-five percent, to \$2641 per day, in 2013. Amec offers no explanation for the sharp increase. To quantify SSG's delay costs, Amec focuses on four periods or "subperiods" totaling 170 days. Amec seeks to apply SSG's lower daily rate for the first two intervals, in 2012, and the higher rate for the second two, in 2013. That is not how such calculations work. Claimants can recover extended general conditions costs when compensable delay causes them to remain on a project longer than planned. The general conditions costs caused by the delay are the company's average daily rate for the entire job multiplied by the days of delay. *E.g., Bell BCI Co. v. United States*, 81 Fed. Cl. 617, 641 (2008), *vacated in non-relevant part and remanded*, 570 F.3d 1337 (Fed. Cir. 2009); *Turner Construction*, 17-1 BCA at 179,087 n.20. Strictly speaking, SSG did not incur *extended* general conditions costs in 2012. SSG would have been on the project until 2013 even with no delay. It would make no sense to use only SSG's reported 2013 daily rate, however. Among other things, we cannot conclude that the higher rate accurately captures the daily cost of delay. We might be able to run the numbers to reconstruct a weighted daily rate for 117 days of compensable delay, but given the thinness of the support for SSG's general conditions costs and the unexplained, wide variance in the reported costs over time, we would essentially be speculating about the proper rate. We will not do so.

Amec also seeks, as delay costs allegedly owed to SSG, \$186,598 for "extraordinary management time," \$189,786 for "extended project management," \$145,460 for "extraordinary senior management time," and \$133,559 for "senior management time" after the termination. Amec presents none of these figures as functions of added days. Instead, they are essentially amounts by which SSG overran its bid estimates. Amec does not explain, among other things, on what basis Amec could owe such sums to SSG, how the days of compensable delay proximately caused the overruns, or why we should not conclude that the price of modification 1 compensated SSG for at least some of its management costs.

Elsewhere in its brief, Amec asserts in a short paragraph that modification 1 resulted in "\$366,233 [in] extended general conditions [costs] incurred by Pullman." Amec cites no evidence that Amec owes its subcontractor, SSG, such an amount, or that SSG owes the amount to Pullman as a proximate result of the 117 days of compensable delay.

In sum, Amec recovers some liquidated damages but no delay costs.

²⁰ An extension of 117 days would make the completion date May 28, 2013, twenty-three days before Amec terminated SSG's subcontract.

IV. Additional Compensation for Modification 1

We turn to unpaid costs of modification 1. The unilateral issuance of modification 1 entitles Amec to a price adjustment equal to any excess of (1) the reasonable costs, with reasonable markups, that the modification added to Amec's project costs over (2) the approximately \$291,000 that Amec was paid for the modified work. *See Nu-Way Concrete Co. v. Department of Homeland Security*, CBCA 1411, 11-1 BCA ¶ 34,636, at 170,698 (2010); *Energy Northwest*, 641 F.3d at 1305–06 (explicating an equivalent, “but-for” measure of breach damages). For reasons we have given, Amec cannot recover any costs attributable to SSG's performance problems or to SSG's departure and its replacement by Western. The modification did not cause those costs. This leaves us fundamentally needing to know what the modified work reasonably should have cost Amec using its original subcontractor. Amec does not demonstrate that amount.

Amec's briefing mixes delay costs with performance costs as such. Of the nine subcategories of costs that Amec itemizes as “Amec's [modification 1] costs incurred by SSG,” at least four are time-related.²¹ We addressed time-related costs above. In addition, Amec seeks \$72,730 for SSG's “senior management costs” which “were not invoiced to Amec at the time they were incurred, but are nonetheless owed to SSG.” Again, we do not know what Amec means. It cites no evidence that it owes SSG anything for unbilled home office expenses, much less that it owes SSG such money because of modification 1.

Amec seeks \$47,219.41 for “additional shoring costs incurred by SSG.” Amec cites a document supporting that dollar figure, but the costs start in 2012, before the agency imposed any new shoring requirements, and Amec does not show by how much, if at all, the total exceeds what the agency paid for shoring under the task order as modified. Amec also seeks on SSG's behalf “a markup of Pullman's REA [submitted to SSG] in the amount of \$128,687,” which Amec says is “a prorated portion of the total markup allocated to [modification 1] damages.” SSG never progressed past demolition in performing modification 1. We agree with the agency that Amec did not prove that Pullman performed any modification 1 work as a second-tier subcontractor to SSG.²² We have no basis to include any Pullman charges to SSG, or markups on such costs, in the costs of performing the work required by modification 1. Amec seeks profit for SSG on SSG's modification 1

²¹ These are the costs of SSG's extended general conditions, extended “project management,” “acceleration,” and extended Pullman labor. We consider acceleration costs time-related here because recovery would depend on entitlement to an extension.

²² Pullman's project manager testified in a deposition in the appeal file that Pullman performed no work for SSG required by modification 1.

costs, but the price of modification 1 included some profit, and we cannot determine SSG's unpaid costs. Amec further seeks \$88,871 that Pullman invoiced SSG for "designing and preparing to install the cathodic protection" that was later deleted from the B and C block repair work. Amec argues that it should recover this amount because "this de-scoping never should have happened." The deleted work was part of the original task order requirements. The cost of that work is not a cost of performing modification 1. It would be double recovery for Amec to be paid for it twice. At most, the cost of the work on cathodic protection could affect the amount of any credit due the agency for deleting the requirement, which we address below. We award no costs discussed in this paragraph.

We turn to the costs that Amec itemizes as costs it incurred when Western was performing modification 1 work. Again, Amec includes time-related amounts for extended general conditions and liquidated damages, which we address elsewhere. We also consider to be at least partly time-related the \$304,054 that Amec seeks as "additional Western labor costs" over SSG's subcontract labor rates. As discussed above, we do not fault the agency for the fact that Western replaced SSG and was on the project from late 2013 to mid-2014. The modification itself did not cause any labor premium experienced by Western.

Amec presents other costs allegedly incurred by Western to perform the modified work (1) relying in substantial part on the troubling labor allocations we discussed above and (2) as if the agency paid Amec nothing for the change, when, in fact, it paid Amec more than \$290,000. To take an example of the second issue, Amec notes that Western paid two rebar vendors a total of \$41,334. Amec argues, "NPS is responsible for these costs." We do not question the agency's responsibility in general. Nor does the agency. The price of modification 1 included rebar. Amec does not explain whether it spent more on rebar than the amount the agency paid for rebar in the modification price, or if so, why it spent more. One might argue (although Amec does not expressly argue this) that to calculate a price adjustment, we should simply sum the costs allocable to modification 1 and then deduct the price of the modification, but if we did that, we would lose sight of any basis to determine whether particular costs were reasonably incurred within the scope of the modified task order. In any event, the non-labor costs itemized by Amec for Western's time on the project are far less than what the agency paid Amec to perform modification 1. We see no basis to award any such costs under a theory that Amec was not paid for them.

The real driver of Amec's claim under modification 1 is Western's labor. Here, we lack any visibility. As an initial point, we reemphasize that even if we could identify every dollar that Amec paid Western for labor to perform modification 1, that is not the measure of recovery. The measure is what the modified work reasonably should have cost Amec, beyond the probable cost of the awarded work in the B and C blocks, absent all of the disruption on the contractor's side, minus the price paid under the modification. It might have been possible to work backward from Western's costs to estimate what the modified

work would have cost if performed promptly and efficiently upon the issuance of the modification, but Amec offers no such analysis. In any event, we cannot determine as a starting point how much Amec paid Western for labor to complete modification 1.

When Western mobilized in late 2013, thirteen percent of the original task order work remained. We are cited no evidence showing whether, at that time, the parties expected the base work to require more than, less than, or about the same amount of labor as would the half to three-quarters of the modified work that remained to be done.²³ Amec offers no reliable estimate of what it paid Western for modified work versus base work. We have a blizzard of invoices but only assertions that we should allocate the invoiced costs to certain work. Amec argues that the \$20,440 invoiced by a second-tier subcontractor for “Citadel demo” in December 2013 was “primarily” related to modification 1. Even that assertion implies that the invoice probably covered some base work. After this, the evidence only gets murkier. Ultimately, as discussed above, Amec offers only bare expert opinion to explain its allocation of \$1.7 million of Western’s billings under the time and materials subcontract to modification 1 work. The purpose of expert testimony is to “help the trier of fact to understand the evidence or to determine a fact in issue.” *Suffolk Construction Co. v. General Services Administration*, CBCA 2953, et al., 17-1 BCA ¶ 36,717, at 178,798 (quoting Fed. R. Evid. 702(a)). “Expert testimony is useful as a guide to interpreting . . . facts, but it is not a substitute for them.” *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 242 (1993); accord *Ericsson Inc. v. Intellectual Ventures I LLC*, 890 F.3d 1336, 1346 (Fed. Cir. 2018) (“[A]n unsupported opinion is not substantial evidence.”). Amec provides us no evidentiary basis to reach our own conclusions as to how to divide Western’s labor costs between base work and modified work.

Importantly, even absent modification 1, Amec would have been responsible for repairing the B and C block beams. The costs caused by modification 1 are the incremental costs above the costs of the awarded work. In this sense, not all labor in the B and C blocks was “modification 1 work,” since some of it, including some concrete demolition and installation, was required by the original task order. Amec tends to presume that any work by Western in the B or C blocks was for modification 1, but for purposes of quantum, that is not necessarily the case. Even in the period from late April to late June 2014, when all the labor was in the B and C blocks, we cannot tell how much of that work we should consider “modified.” The allocation problem is compounded by the fact that Amec seeks the costs of various “Western inefficiencies.” As explained elsewhere, we find Amec, not the agency, responsible for those inefficiencies.

²³ Very roughly speaking, the parties’ statements in September 2013 that the “progress” on base work was “87%” while the project as a whole was “over 85%” complete would seem to indicate that the remaining work was mostly base work.

Amec argues that it is “not required to prove its damages with hyper-specificity” and that the agency “cannot benefit from its own breach . . . by claiming that Amec has not calculated its damages with perfect mathematical precision.” The evidence of modification 1 labor costs is not in the ballpark of reliability. Amec cites some relevant cases and comes close to arguing—but never quite argues—that we should excuse it from the requirement to prove the actual costs of the change on the grounds that it was infeasible to track the costs contemporaneously. *E.g.*, *Delco Electronics Corp. v. United States*, 17 Cl. Ct. 302, 321 (1989) (“In maintaining cost data, a contractor should segregate costs associated with the change where it is feasible to do so, and especially where the contractor can anticipate submitting a large claim.”). We see no evidence here of inability to segregate costs. An Amec witness testified that Amec asked Western to invoice under a work breakdown but that Western “refused to do it,” and that Amec accepted the rebuff because it was “over a barrel.” We do not hold the agency responsible for Amec’s weak bargaining position.

A separate category of costs associated with modification 1 that Amec might have recovered are the costs of preparing its 2015 REA. *See Yates-Desbuild Joint Venture*, 17-1 BCA at 179,710. A contractor may recover such costs provided it incurred them “for the genuine purpose of materially furthering the negotiation process” and not primarily “to promote the prosecution of a . . . claim against the Government.” *Bill Strong Enterprises, Inc. v. Shannon*, 49 F.3d 1541, 1550 (Fed. Cir. 1995). Amec seeks \$272,139 for “contract administration costs, including REA preparation.” It offers no details in its brief, however, regarding why the costs were incurred, stating only, “These amounts have been allocated to [modification 1] by [Amec’s experts].” Our summary review of the invoices reveals that many of the hours billed by consultants and lawyers are vaguely described or involved disputes with or between subcontractors. In other instances, the subject matter is redacted, suggesting anticipation of litigation. If there is a recoverable amount supported by the invoices, Amec does not explain it, and expert opinion on recoverability is not evidence.

For these reasons, we award Amec no further compensation for unilateral modification 1.

V. Lost Efficiency and Productivity

Amec seeks “efficiency and productivity damages” of \$4,705,310. This figure was not itemized in Amec’s prehearing quantum statement and appears to be substantially new. Amec recovers none of it. Almost \$2 million of this total is said to comprise “the amount paid by Amec to Western for [base] work exceed[ing] SSG’s costs to complete at its time of termination,” and “labor costs beyond SSG’s base scope labor rate.” We have explained why the agency is not liable for such added costs of completing the project with Western.

In addition, Amec itemizes about \$600,000 incurred by SSG “prior to termination in addition to [costs SSG] incurred as a result of [modification 1].”²⁴ First, Amec alleges that “SSG incurred an additional \$36,760.40 in labor hour costs due to [a] defective concrete mix design.” No one testified that the concrete specification was “defective” or unworkable, and there is no evidence of a defect.²⁵ Amec proposed a deviation from the specification, which was eventually approved. The agency could instead have insisted on “strict compliance” with the task order. *Nu-Way Concrete*, 11-1 BCA at 170,696. No additional payment is due.

Next, Amec states that “SSG incurred \$175,421.37” because “specified tools” such as small pneumatic hammers “were ineffective for removal [of concrete] given the existing hardness of the concrete.” No one testified that the specified tools made demolition impracticable, as opposed to difficult. The record suggests that SSG underestimated the difficulty of the project. In any event, no evidence supports the claimed amount. Amec attributes \$90,218.26 of that amount to a thirty percent loss of “efficiency,” for which Amec cites no evidence, only an unsupported estimate by the expert retained by SSG. *See Turner Construction*, 17-1 BCA at 179,081. As support for the remaining \$85,203.11, Amec cites only a schedule of “material costs for small tools and related equipment.” No evidence ties the costs in the schedule to any specific demolition activity or problem.

Amec writes that SSG incurred another \$90,218 in unanticipated costs for “scaffolding for the shower room . . . due to increased inefficiencies.” Amec never describes the scaffolding issue, however. Amec refers to “the personal observations of” SSG’s project manager, but it cites none of his testimony. He did not use the words “scaffold” or “scaffolding” at the hearing. In any case, again, Amec derives the dollar figure from the unsupported thirty percent inefficiency estimate. Amec also seeks \$35,626.67 for SSG’s “extended shoring rental costs.” Given that Amec describes its “inefficiency” quantum as unrelated to modification 1, we see no basis for Amec to recover here any costs caused by “extended” time. We addressed delay costs above. Moreover, Amec volunteered in both of

²⁴ Confusingly, Amec states in a heading that these costs total \$1,996,002, but it itemizes \$599,738.44, stating that the total costs “include, but are not limited to” the itemized amounts. We deal with arguments in the brief. *See Board Rule 23(b)* (48 CFR 6101.23(b) (2018)) (post-hearing briefs “shall cite record evidence for factual statements”). The itemized costs include general conditions and bond, addressed elsewhere in this opinion.

²⁵ Amec’s concrete expert opined that the agency’s comments on Amec’s proposal to substitute smaller aggregate “were ambiguous, leading to extensive correspondence between AMEC and [the engineer of record] to resolve this issue,” which he thought caused delay. The expert did not criticize the specified aggregate size.

its 2012 schedule recovery plans to use additional shoring. We cannot determine from Amec's briefing whether the shoring that Amec promised then is at issue here.

Amec next argues that it "is entitled to \$699,454.35 for the additional costs it owes to Pullman." Amec does not explain why it might owe anything to Pullman, a second-tier subcontractor.²⁶ The expert who discussed Pullman's claim against SSG testified that she "didn't . . . look upstream [past SSG] to determine ultimate causation, and typically, for a second-tier subcontractor, it's not obvious what the cause, the ultimate cause, is for any claim in particular." Amec's breakout of the \$699,454.35 relies solely on her opinions. We have no basis to find that the agency caused Amec, the contractor, to owe Pullman any money. Any agency liability to Amec as a result of costs incurred by Pullman would need to be proved elsewhere within amounts owed by Amec directly to a first-tier subcontractor. See *E.R. Mitchell Construction Co. v. Danzig*, 175 F.3d 1369, 1370 (Fed. Cir. 1999); *Acquest Government Holdings, OPP, LLC v. General Services Administration*, CBCA 413, 08-1 BCA ¶ 33,720, at 166,969 (2007).

Amec seeks another \$360,610 in contract administration and REA preparation costs as inefficiency costs, repeating in this part of its brief that "[t]hese costs have been allocated by" Amec's experts. We deny recovery for the same reasons we denied such costs above.

VI. Government Claim

The agency devotes one page of its 353-page post-hearing brief to the credits it seeks from Amec. It relies on contemporaneous government estimates of the costs of deleted work, memorialized in two, two-page schedules. The person who prepared the cost estimates was unavailable to testify. Lacking both an explanation of the methodology and evidence of the reasonableness of the values in the schedules, we cannot follow the estimates, much less draw conclusions from them. An equally large problem is that the agency seeks to reduce the price of the modified repairs in the B and C blocks, but it does not separately argue that the price of modification 1 was otherwise fully reasonable, and the contracting officer testified that she would have considered negotiating a higher price. The agency does not meet its burden of proof. *E.g., Nager Electric*, 442 F.2d at 946.

VII. Quantum Summary

Amec recovers \$130,000 in liquidated damages. We relieve Amec from the government claim in its entirety.

²⁶ If the statement was a mistake, Amec did not correct it in its reply brief.

Amec makes some arguments that we do not address above because they were not presented in a certified claim, were previously abandoned, lack explication, or have a combination of such flaws. Amec recovers nothing under those miscellaneous theories.²⁷

Decision

The consolidated appeals are **GRANTED IN PART** in the amount of \$130,000 plus interest under 41 U.S.C. § 7109 from August 28, 2015, to the payment date. The Board **GRANTS** the appeal of the government claim.

Kyle Chadwick

KYLE CHADWICK
Board Judge

We concur:

Jeri Kaylene Somers

JERI KAYLENE SOMERS
Board Judge

Joseph A. Vergilio

JOSEPH A. VERGILIO
Board Judge

²⁷ As examples: Arguments in Amec’s brief that the agency violated the Anti-Deficiency Act and that the modified task order was impossible to perform were not raised in a certified claim and are outside our jurisdiction. *K-Con Building Systems, Inc. v. United States*, 778 F.3d 1000, 1005–08 (Fed. Cir. 2015). Allegations that the agency breached the duty of good faith and fair dealing prior to award were abandoned in the amended complaint in CBCA 6298, as noted above. Amec refers to delays that its schedule expert did not find. And Amec seeks some costs with no explanation, e.g., \$30,998 that Amec disallowed from SSG’s invoices and \$13,000 for SSG labor on Pullman’s scope of work.