

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of -)
)
Hamp's Construction LLC) ASBCA No. 62257
)
Under Contract No. W912P8-12-C-0047)

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OPINION BY ADMINISTRATIVE JUDGE PROUTY

The appeal before us involves an alleged differing site condition: as will be described in far greater detail below, the bank of a drainage canal that appellant, Hamp's Construction LLC (HC), intended to work from in order to complete a project of "armoring" the canal was unstable in some limited locations. It appeared to be dangerous for HC's equipment to operate from and, in fact, on one memorable occasion, one of HC's employees fell into a shallow sinkhole (he was just fine). As a consequence, HC changed its means of construction for some of the work to the more expensive method of working from a barge in the canal, rather than from that particular bank.

HC argued that the unstable canal bank was a Type I differing site condition, in which government contract documents are alleged to have mischaracterized the conditions actually encountered.¹ For the reasons explained below, we conclude that although nothing in the plans and specifications provided with the contract documents would necessarily have alerted HC to the particular problems it encountered, they were not affirmatively misleading since none of the boring logs were located at or near the

¹ HC's complaint also mentioned defective specifications, though without going into any detail in the matter (*see* compl. ¶¶ 10-11, 24). Defective specifications, however, were not argued by HC in its post-hearing brief (*see generally* app. br.).

area where the problems arose and a reasonable contractor could not take them to be representative of the conditions at that portion of the site, which were plainly different than the conditions elsewhere. Accordingly, though we may be quite sympathetic to HC, the evidence does not support finding a Type I differing site condition and the appeal must be denied.

FINDINGS OF FACT

I. Events Leading to the Contract Award

A. Overview

One of the many flood control projects overseen by the United States Army Corps of Engineers (the Corps) in recent years in Southeast Louisiana² was one to improve Trapp Canal in Jefferson Parish (the project). The design study performed for the Corps prior to the solicitation for the project recommended the improvements be made to the canal because its earthen banks were continuously eroding, increasing the canal's width (and presumably making it shallower) and causing it to encroach the servitude areas on both sides of the canal. Adding more dirt to the canal banks was expected do little to solve the problem since "the canal banks would keep sloughing." (App. supp. R4, tab 7 at 1729³) In broad terms, the project envisioned: 1) dredging the pre-existing canal channel to a set, lower depth; 2) emplacing "riprap"⁴ on the canal floor and up its banks until it reached approximately the water level where a

² Post-Hurricane Katrina, as might be expected, the Corps secured funding for a significant number of projects to improve storm water drainage under the auspices of what is commonly referred to as the "SELA Act," which was the Southeast Louisiana Urban Flood Damage Reduction Project (*see tr. 3/71, 99-101*).

³ The Bates numbered pages of HC's supplement to the Rule 4 file are six digits long, beginning with zeroes, while the Bates numbered pages of the government's Rule 4 file are labelled GOV, followed by six digits starting with zeroes. For convenience, we delete the unnecessary preceding zeroes; hence, for example, for HC's supplement to the Rule 4 file, a page numbered 000056 will be replaced with 56, while, for the government, Bates number GOV000071 is replaced with GOV 71.

⁴ Riprap is large stone, typically greater than 12 inches in diameter and weighing several hundred pounds, that is used as a stabilizer to prevent water erosion (*tr. 2/181*).

vinyl sheet pile⁵ border was to be emplaced⁶; and 3) placing smaller stone (referred to as “57 stone”) along the upper canal bank which would then be covered in concrete. (Tr. 1/43, 156; *see also* R4, tabs 5A at GOV 71, 5B at GOV 649)

B. The Solicitation and Its Salient Terms

The solicitation for the project was issued by the Corps on July 12, 2012 (R4, tab 5A at GOV 70). As originally issued, Special Work Requirement 25 of the solicitation, *inter alia*, forbade the use of barges on the canal (R4, tab 5A at GOV 169). This section was included by the designer of record for the Corps as a matter of course because Jefferson Parish (which sponsored the project and hired the designer (*see* tr. 3/70)) had a default prohibition against the use of barges in its canals due to concerns that, in a narrower canal, a barge might break loose and block it (tr. 3/97). This was essentially boilerplate language, and did not necessarily reflect a determination that the use of barges was unnecessary for a particular project (tr. 3/98-99). After inquiries about the use of barges were submitted as part of the solicitation process, the Corps issued an amendment to the solicitation rescinding the prohibition against their use (tr. 3/99; R4, tab 3 at GOV 50). Thus, the August 3, 2012 amendment to the solicitation effecting this change, provided in part, “The canal work may have to be performed using a floating platform, barge and/or other specialized equipment” (R4, tab 3 at GOV 49-50).

The solicitation incorporated by reference the standard Federal Acquisition Regulation (FAR) clauses regarding differing site conditions, FAR 52.236-2, Differing Site Conditions, APR 1984, and site inspections, FAR 52.236-3, Site Investigation and Conditions Affecting the Work, APR 1984 (*see* R4, tab 5A at GOV 118). It also included 10 boring logs taken at various places on the canal in 2008 (*see* R4, tab 5B at GOV 697-706) and several cross-sections of the canal as it was to be built (*see* R4, tab 5B at GOV 682-93; tr. 2/152). Eight of the borings were performed on the east side of the canal, with only two performed on the west side – and those two on the northern portion of the canal (app. supp. R4, tab 44 at 2854; *see also* Dem. ex. 3⁷), a fact which will turn out to be quite important as we discuss later. The cross-sections

⁵ Vinyl sheet pile is similar to the steel version the reader may have seen in other construction projects. It is a rigid, undulated sheet of material that may be driven into the earth and used as a wall to act as a form for concrete. (Tr. 1/44-45)

⁶ The water level of a drainage canal like the Trapp Canal, of course, is not constant. The location of the vinyl sheet pile border, where the riprap stopped, was defined by the contract’s specifications (tr. 1/43).

⁷ “Dem. Ex. 3” refers to a demonstrative exhibit admitted during the hearing in this matter.

reflected the topographic conditions of the canal, but did not provide any geotechnical information (tr. 3/15-16).

Another set of borings was taken in 2000 but not included or directly referenced in the solicitation (*see generally* R4, tab 5A; tr. 2/205-07). Nor did the solicitation include the geotechnical investigation performed by the Corps' geotechnical contractor, PSI (tr. 2/127). On the other hand, it included the full text of a FAR clause, as modified by the Corps, inviting potential bidders to seek additional information held by the Corps. The material portion of that clause read:

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys and borings. Field notes, graphic boring logs, field and laboratory test results, and other data on which this information is based are available at U.S. Army Engineer District, New Orleans, Corps of Engineers, Attn: Contracting Officer, CEMVN-ED, P.O. Box 60267, New Orleans, Louisiana 70160-0267, and access thereto may be had upon request.

(R4, tab 5A at GOV 131) Had additional information been requested by a contractor pursuant to this clause, it appears that the additional boring logs and the geotechnical investigation performed by PSI would have been provided (tr. 3/77-78). In any event, additional geotechnical information was apparently not requested by any potential contractor during the bidding process (tr. 3/76).

C. Preparation of the Bid by HC's Subcontractor Cheniere

Though the contract at issue here is between the Corps and HC, as is often the case, the company that did most of the work here was a subcontractor (*see generally* tr. 2/68). That subcontractor was Cheniere Construction (Cheniere), and, as will be seen, Cheniere (known at the time of bidding as Great Southern Dredging) performed the pre-bid site inspection and assembled the bid on HC's behalf.

Great Southern Dredging was a company that had been formed by Ms. Amanda Phillips, a Professional Engineer (tr. 1/13), around 2007 (tr. 1/15-16).⁸ It changed its name to Cheniere around 2014 (tr. 1/18). For convenience, we will refer

⁸ Ms. Phillips's testimony did not specify exactly when she formed Great Southern Dredging, but she testified that she had worked for the State of Louisiana as a Coastal Engineer for about four years, starting in 2003, after which she formed her company (tr. 1/15-16).

to it as Cheniere throughout. At the time it was working on preparing the bid for the project, it had between 50 and 75 employees (tr.1/23).

Sometime in the early summer or late spring of 2012, the Corps advertised the project and Ms. Phillips began work preparing for a bid on it. Although she played a significant role in reviewing plans and specifications and setting up a computer program that would produce the numbers for the estimate (*see* tr. 1/22-25), the principal Cheniere employee working on the bid was Mr. Jens Lorenz⁹ (tr. 1/24). It was Mr. Lorenz who performed the in-depth review of the plans and specifications for Cheniere and calculated material takeoffs (tr. 1/24-25; *see also* tr. 2/40). Mr. Lorenz also performed two pre-bid site inspections of the Trapp Canal (tr. 1/25-26, 40-41) and testified that he looked at the boring logs, but saw nothing of concern in them (tr. 2/58). We will return to Mr. Lorenz's site visits later in this opinion.

Mr. Lorenz also reached out to Mr. Charles Hampton, the owner of HC, to determine whether HC would like to be involved in the project (tr. 2/40). At this point in time, HC and Cheniere had a relationship where they would bid and perform projects together (tr. 1/27). In any event, though the bid was prepared by Cheniere (*see* app. supp. R4, tab 21 at 2567-69) the bid was submitted by HC with Cheniere as its subcontractor (tr. 1/26-27). HC's primary role in contract performance would be running the dump trucks that would be used in removing the sediment dredged from the canal (tr. 2/68). There was no evidence presented that HC performed its own site visits prior to contract award.

The contract, in the amount of \$14,680,647, was awarded to HC on September 4, 2012 (R4, tab 5).

II. Contract Performance

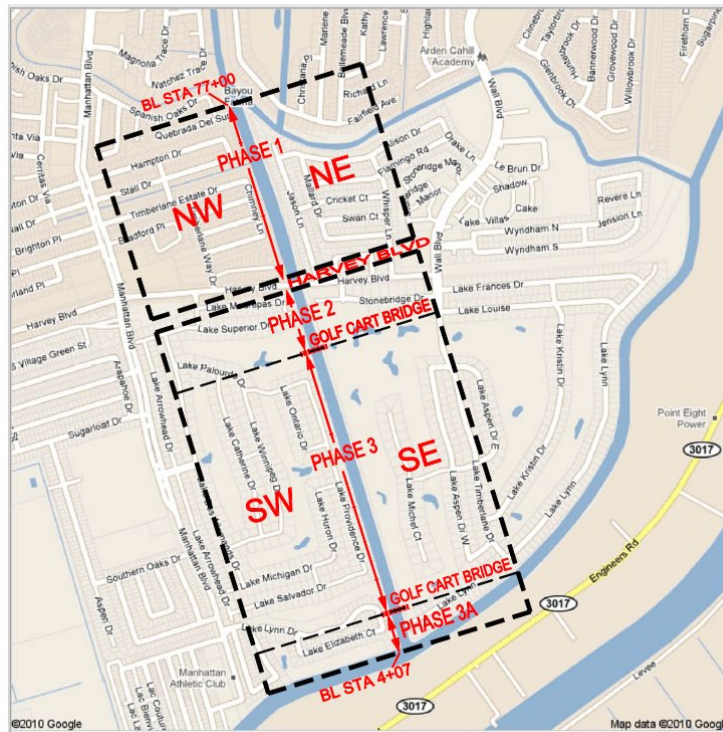
On September 19, 2012, the contracting officer (CO) issued a notice to proceed to HC (R4, tab 10). Shortly thereafter, work began, which we describe here in broad terms.

As may be seen in the map below, which is a reproduction of Demonstrative Exhibit 1 from the hearing, a local road, Harvey Boulevard, bridges the Trapp Canal about a third of the way down from the northern end of the project. Thus, the canal and the bridge together divide the canal banks into four sectors: a (roughly) northeast

⁹ HC did not seek to qualify Mr. Lorenz as an expert at the hearing, but he has significant contracting experience: he possesses a Master's Degree in Civil Engineering; is a licensed Professional Engineer; and has been working as a construction estimator and project manager in the New Orleans area since the 1960s (tr. 2/28-33).

sector; a northwest sector; a southeast sector; and a southwest sector. The northern sectors are about half as long as the southern ones. Two small wooden bridges, for use by golf carts, cross the Trapp Canal south of Harvey Boulevard (tr. 1/31).

1. BASE WITH ORIENTATION



Access to the banks of the canal for construction was to be obtained at the location of the Harvey Boulevard crossing and the plan was for the work to begin on the northern sectors and, once those were completed, to move to the sectors south of Harvey Boulevard.¹⁰

The means of construction chosen by HC involved placing barges with excavators in the canal from which they would dredge the canal to the contractually-required depth (tr. 1/42). HC would then place the vinyl sheet pile border sections at the appropriate locations, and then place the riprap (from the barge)

¹⁰ The contract did not permit HC to perform work south of Harvey Boulevard for the first eight months of construction (see R4, tab 5A at GOV 169), effectively requiring HC to begin its work north of Harvey Boulevard (tr. 1/28-39). This requirement was apparently imposed because of issues related to the government’s obtaining access to private property in the southern portion of the canal (tr. 1/38).

on the canal-side of the sheet pile border and the 57 stone on the shore side of that border at the same time (*see* tr. 1/42) so that neither could push the sheet pile border away from its emplaced location (tr. 1/49). After placement of the stone on both sides was complete, concrete was poured over the 57 stone on the shore side of the border to make a smooth bank, and then any protruding portion of the vinyl sheet pile border was cut away (tr. 1/44-45).

As planned and initially executed, the excavator from the barge placed the dredging spoil onto dump trucks on the canal bank to be hauled away and disposed of. The excavator on the barge also obtained the riprap for emplacement on the canal side of the border from trucks that hauled it to the canal bank where the barge was working. The 57 stone on the bank side of the border was driven there by trucks and emplaced by equipment on the bank (tr. 1/48-49).

No apparent problems with the site were encountered by HC when it performed work in the first phases of the project (tr. 1/67). In late May 2013, when HC began to prepare for the phase covering the southern regions, however, it discovered that part of the bank of the southwest quadrant had recently collapsed by several inches (app. supp. R4, tab 28 at 2610; tr. 1/67-68, 71). This first¹¹ depression in the bank was ultimately measured to have the dimensions of approximately 100-200 feet¹² by 25 feet (tr. 1/71). This gave HC reason to be concerned that the bank would not support operations by its loaded trucks (tr. 1/71-72) and at a point north of the first golf cart bridge, HC's excavator operator reported that it was uncomfortable moving its equipment further south on that bank (tr. 1/89).

¹¹ Though it was the first discovered depression, the government makes the point that it was referred to as "depression 5" in the maps provided at the hearing (gov't br. at 6, n. 23). Ms. Phillips initially testified that "depression 1" on the map was the first discovered (*see* tr. 1/69) but backed off from that because the map depicted depression 5 as being the largest and she believed the first one discovered was the largest (tr. 1/71; *see also* tr. 1/73 (first depression discovered was the largest)). Considering how small "depression 1" is on other maps produced here (*see* R4, tab 22 at GOV 1499), we believe it more probable than not that Ms. Phillips's initial testimony on the matter was a simple mistake and basically recognized as such by her later on. This is not a critical issue.

¹² Ms. Phillips testified that it was 200 feet in length (tr. 1/71; 6/10-11 (rebuttal testimony in which she testified it may have been 200-300 feet in length)), but the near contemporaneous email she sent to the Corps stated that it was approximately 100 feet in length (app. supp. R4, tab 28 at 2610). We suspect the contemporaneous statement was more accurate than Ms. Phillips's memory almost 10 years later (to be clear, though, we do not doubt that Ms. Phillips testified to the best of her ability), but the difference in the two lengths is not material to the dispute before us in any event.

As detailed later herein, HC brought this to the attention of the Corps, (tr. 1/67, 81; app. supp. R4, tab 28 at 2610), but the Corps essentially responded that it was HC's problem (tr. 1/82-83). Four other areas of failure were subsequently pointed out by HC (*see* R4, tab 22 at GOV 1497). In the end, HC decided that it would be unsafe to operate loaded construction trucks on the southwest bank and that all the bank-side work would need to be accomplished largely through the use of equipment operating from the barges¹³ (tr. 1/91). This was far more inefficient than the original plan, required the double-handling of material, and cost HC extra time¹⁴ (tr. 1/94, 106-13).

HC offered Mr. William Connole as an expert in construction estimating, delay and disruption, scheduling, and constructability (tr. 2/176). He has a lifetime of experience in the area (*see* tr. 2/162-76) and, without objection, we admitted him as an expert in these fields (tr. 2/178). Mr. Connole performed a careful analysis, which struck the Board as reasonable, and concluded that the problems with bank stability and the need to change the means of construction delayed completion of the project by approximately 239 days (tr. 2/220-36). We need not go into further detail about this subject because the government does not appear to challenge Mr. Connole's conclusions regarding the amount of delay.

III. The Site Conditions Encountered During Performance

There is some dispute over just how bad things were at the southwest bank of the canal. As we will explain below, we find that, though the extent of the problems encountered may have been somewhat exaggerated by HC, they were real enough to preclude HC from performing its work on the southwest canal bank in the manner it had wished.

A. Photographs Discussed at the Hearing

During her testimony at the hearing, Ms. Phillips was shown a number of photographs and asked to describe them to give the Board a flavor of the conditions of the southwest bank (*see generally* tr. 1/99-102, 114-17, 123-35).

Photos of the first depression encountered by HC show the slumping that Ms. Phillips described in her testimony going back towards the property line and

¹³ After stone was placed on the southwest bank, it was apparently stable enough for some equipment to be placed on it (tr. 1/176).

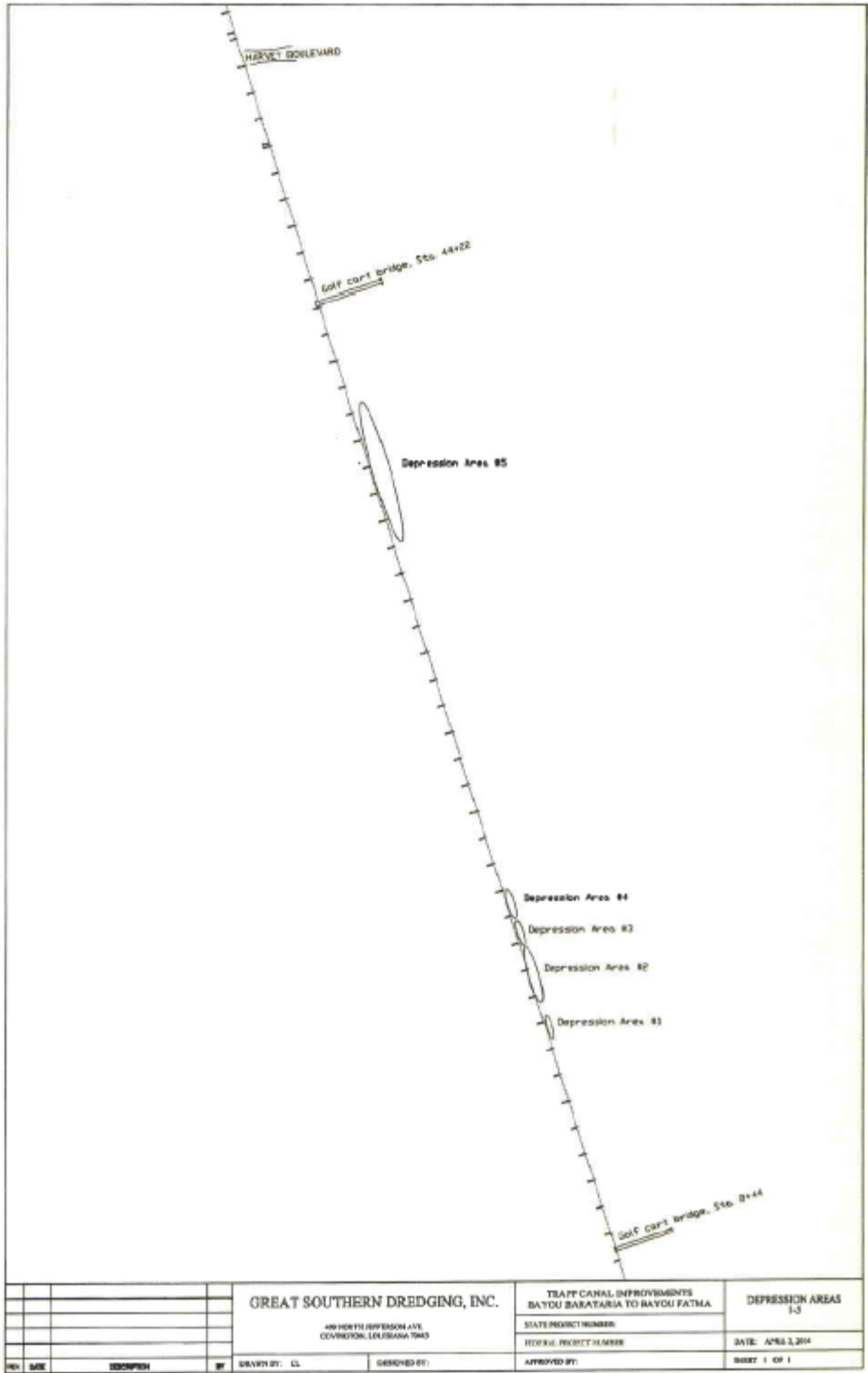
¹⁴ In theory, HC may have been able to perform its work from the banks if it had laid an extensive amount of wooden mats over the area with depressions, but this was considered even less economical than working from the barge (tr. 2/233-34).

perhaps several inches to nearly a foot in depth at points (*see* app. supp. R4, tab 37 at 2752-56). Ms. Phillips also discussed another photograph displaying what she characterized as a bank failure in an area where construction was going on. In this photograph, a clear line showing a discontinuity in the bank, perhaps a few dozen feet long, is visible. Also visible is a mound, which Ms. Phillips characterized as soil that had slumped off of the bank, perhaps a dozen feet wide. (*See* app. supp. R4, tab 54 at 12587; tr.1/99-102)

Other photos that Ms. Phillips perused at the hearing, showed that the bank of the canal had eroded backwards in places, though it is impossible to make an estimate of just how far the erosion cut into the bank or the full extent of the areas of the erosion (*see* tr. 1/127-28 (discussing app. supp. R4, tab 40 at 2774), 1/130-32 (discussing app. supp. R4, tab 40 at 2768)). Notably, these photographs appear to us to depict sloughing of the bank into the canal at the edges, but not the kind of depression discussed earlier. Indeed, in separate testimony, HC's Mr. Lorenz described a different photograph with what appears to us to be similar drop-offs at the water's edge to be typical bank erosion, but not a bank failure as the term was being used in the hearing (*see* tr. 2/54-55 (discussing photograph at app. supp. R4, tab 20 at 2534)).

B. HC's 2014 Surveys

HC surveyed the southwest bank of the canal in 2013 and 2014 and noted the areas in which it found depressions. It labelled five of them and depicted them on a map it sent to the Corps with a letter dated April 4, 2014 (*see* R4, tab 22 at GOV 1497-98 (letter), GOV 1499 (map)). We reproduce the map below:



(R4, tab 22 at GOV 1499)

As one can see, “Depression Area #5” on the map (which we have already noted was the first depression reported by HC) is about the same length as the other four depressions combined. The record includes no subsequent surveys¹⁵ or indications of other depressions.

C. The Sinkholes

Two relatively small sinkholes were encountered at the site in 2015.¹⁶ The first was encountered on April 22, 2015 by a HC employee who was using a “weed whacker” to trim some vegetation on the southwest bank when the grass collapsed underneath him and he found himself in a hole several feet deep (tr. 1/97; R4, tab 29 at GOV 1580). HC’s expert witness, Dr. Berkley Traughber (whom we will discuss in the next section of this decision), inspected it two days later and described it as four to five feet deep and more than six feet wide. Though it would have spanned the width of the tracks of a typical concrete truck, according to Dr. Traughber, HC was able to expose and backfill it in short order on April 24, 2015. (R4, tab 29 at GOV 1580) We have reviewed photographs of it that HC placed in the record, and though the photos do not have any helpful items for scale purposes, looking at the wood stake, grass, and gravel does give a sense of its size and (even accounting for the fact that it may have been larger under the surface) it is not particularly big and Dr. Traughber’s description of it appears to be, if not slightly exaggerated, on the large side (*see app. supp. R4, tab 42*).

We know even less about a second sinkhole discovered by HC. Its only discussion in the record consists of three photographs contained in tab 45 of HC’s supplement to the Rule 4 file, which is labelled as “12.10.15 Hamp’s Construction Sink Hole #3 Photos.”¹⁷ Those photographs depict what may be a hole at the surface, perhaps three to four feet wide and spanned by what appears to be a wooden pallet, likely a “crane mat” (*see tr. 1/114-15* (discussing a similar photograph – perhaps of the

¹⁵ HC’s expert’s report, dated May 20, 2015, reproduces this April 2014 survey (R4, tab 29 at GOV 1608).

¹⁶ HC’s brief states that “sinkholes” were found in June 2013 (app. br. at 14, ¶ 58 (citing tr. 1/67)), but that allegation is not supported by the testimony cited, which referred to the first depression encountered by HC (*see tr. 1/67*).

¹⁷ HC’s labelling the photographs as “Sink Hole #3” begs the question of whether there was a separate sinkhole number 2. There is a similar picture in a different part of the record depicting a crane mat over a hole (*see app. supp. R4, tab 54 at 12600*) and it appears similar enough in size and appearance for us to conclude that this is more likely than not the same location as “sink hole #3.” Otherwise, there is no evidence of a third sinkhole, whatsoever, in the record, despite our search for it. If items are buried in the record and not pointed out by the parties, the Board cannot be expected to find them.

same location, in which the wooden pallet is referred to as a “crane mat”). Judging by the grass growing through the pallet slats, it may have been there for some time. (See app. supp. R4, tab 45). We know nothing further about this sinkhole (or if it really is a “sinkhole” as geologists might define that term, for that matter).

D. Dr. Traughber’s Investigation

In December 2014, almost a year and a half after encountering the first depression in the canal bank, HC hired Dr. Traughber to investigate the site conditions so that he could render an opinion whether the west bank of the Trapp Canal was suitable for on-bank construction (R4, tab 29 at GOV 1572).

Dr. Traughber was recognized by the Board, without objection, as an expert witness in the field of geotechnical engineering (tr. 1/187-88; Traughber Dep. at 12 (reflecting the request that he be recognized as an expert in the field of geotechnical engineering)).¹⁸ He holds a doctorate in Civil Engineering (which he received 50 years ago, in 1974); is a registered Professional Engineer; briefly taught the subject at the University of New Orleans; has been involved in geotechnical engineering in the Southeast since the 1970s; and has been recognized by other courts as an expert in the field of geotechnical engineering (R4, tab 29 at 1573; Traughber Dep. at 6-12).

As part of his investigation, Dr. Traughber caused three pits to be dug on the southwest bank of the canal to examine the soils, in which he found a bit of silty soil amongst the clays (R4, tab 29 at GOV 1574-75). According to Dr. Traughber, silty soils are at greater risk of “sapping” (*id.* at GOV 1575-76). As explained by Dr. Traughber, sapping occurs when a layer of easily erodible material, such as silt, lies between layers of soil not as subject to erosion, such as clay. If the silt layer has an unobstructed path to the canal, the water can essentially rinse it away, leaving a void between the clay layers, ultimately leading to those layers collapsing together and dropping the bank: a bank collapse. (Traughber Dep. at 17-18)

In any event, HC decided to have a contractor drill some additional boreholes (primarily on the southwest bank of the canal) for further investigation, even though Dr. Traughber recommended against it because of his concerns that the bank would collapse under the weight of the drill gear (R4, tab 29 at GOV 1579-81).

¹⁸ “Traughber Dep. at ___” refers to a page of the transcript of a video deposition of Dr. Traughber taken on November 17, 2022. Dr. Traughber did not testify to the Board in person; instead, due to illness, a video of his deposition was played during the hearing and the transcript of that deposition is admitted as if it were his testimony (*see* tr. 1/9-12, 186 (discussing use of deposition transcript)).

In June 2015, HC's drilling contractor, Gulf Shores Construction Services (Gulf Shores), in fact drilled 15 holes at the site – 14 on the west bank and one on the eastern bank (R4, tab 33 at GOV 1638-39). They were apparently able to do so without incident as none was reported by Dr. Traughber (*see* R4, tab 33). As may be seen on Demonstrative Exhibit 2, the borings were not evenly spaced on the west bank, but were at a higher concentration at the locations that HC had identified as depressions (Dem. ex. 2).

Dr. Traughber characterized the results of these tests as showing voids in the soil which could lead to bank collapse and rendered operating on the southwest bank unsafe (R4, tab 33 at GOV 1638-44). In particular, almost all of the boreholes had significant areas in which there was no sample recovery (*see* R4, tab 33 at GOV 1641-42), and Dr. Traughber, in his supplemental report, had this to say about such “no recovery zones”:

Where “No Recovery Zones” are shown on the soil stratification symbols and descriptions, this means that the sampling tube encountered voids, slurry-filled voids or soils with such high water contents such as to be so close to being liquefied that samples could not be retrieved

(R4, tab 33 at GOV 1640)

Dr. Traughber also expressed concern about “rod drops” during the drilling, which he considered to be evidence of voids being encountered (*see* Traughber Dep. at 28-29). A rod drop is basically a case where the rod shoving a sample casing down a prepared hole encounters no resistance (*see* Traughber Dep. at 28; tr. 5/74 (similar explanation by the government's expert, Mr. Templeton)). That, to Dr. Traughber, was conclusive evidence of voids (Traughber Dep. at 29).

Another matter that Dr. Traughber found conclusive was the existence of the sinkhole(s). These, to him, were part and parcel with the voids caused by sapping (*see* R4, tab 29 at GOV 1580-81) He ended his first report by stating that sinkholes do not require complex interpretation because “they are empirical real-world evidence of instability. Sinkholes do not lie.” (*Id.* at GOV 1582)

Notwithstanding his concern about voids and sinkholes, Dr. Traughber does not appear to have identified problems at the surface of the southwest bank beyond those identified by HC earlier and discussed above.

E. The Government's Expert, Mr. Templeton

Dr. Traugher's conclusion that there was sapping in the southwest bank of the Trapp Canal is not completely disputed by the government's expert, but he argues that it was exaggerated by Dr. Traugher (*see generally* tr. 5/79-80, 113-17). As will be seen, Mr. Templeton has a point.¹⁹

Mr. Alexis Edgar ("Eddie") Templeton, the government's expert witness, possesses a Bachelors of Science degree in Civil Engineering and a Master's in Geotechnical Engineering, which he was awarded in 1984. He spent nine years working for the Corps; worked for a private company designing structures over soft ground; and has worked for a geotechnical engineering consulting firm, Burns Cooley Dennis, Inc., since 1991. He is currently president of the company (which he became in 2017), but he remains a practicing geotechnical engineer who manages projects and writes geotechnical reports. His company performs geotechnical studies with its own drill rigs and laboratories and Mr. Templeton supervises eight other geotechnical engineers. He has authored technical papers about slope stability and settlement and co-authored a design guide for the Corps regarding deep soil mixing to support floodwalls and levees. He has been admitted as a testifying expert in the past, and, without objection, we admitted him as an expert in the field of geotechnical engineering for this appeal. (Tr. 5/36-41)

Mr. Templeton began by giving his explanation of sapping. It was similar to Dr. Traugher's, except that he was available for questions in a way that Dr. Traugher was not, and he explained that, at some point, when there were voids caused by sapping, the voids would, naturally, collapse and basically end the sapping event (*see* tr. 5/48-52). Sapping, Mr. Templeton explained, is the cause of most failures of earthen dams and levees, and has therefore been subject to a great deal of study (tr. 5/54).

With respect to his testimony about the Trapp Canal, first, Mr. Templeton looked for direct evidence of sapping at the site and found it lacking. To be sure, there can be sapping without such evidence, but for widespread sapping, one would expect to see reports of such things as water flowing out of the bank, soil eroding from the bank, and deltas of soil forming from bank erosion, but that kind of evidence just wasn't there – or at least it wasn't discussed in any of the evidence provided by HC

¹⁹ HC submitted an expert rebuttal report by Mr. Connole, challenging some portions of Mr. Templeton's report (*see* app. supp. R4, tab 62). The government objected to its introduction, based upon its being beyond Mr. Connole's proffered expertise (tr. 5/81). We have reviewed this four-page document and despite our respect for Mr. Connole, even if we were to admit it, do not find it particularly helpful to resolving the issues in contention in this matter.

and Dr. Traughber. If sapping were as widespread as Dr. Traughber reported, Mr. Templeton testified, such evidence would be expected. (Tr. 5/59-63)

Mr. Templeton then reviewed the boring samples that Dr. Traughber had evaluated, and which formed much of his basis for concluding that there was widespread sapping at the site. There were 53 of them. Applying guidelines developed by the intensive study of sapping by the Corps and the Bureau of Reclamation, Mr. Templeton found that only 10 of the 53²⁰ samples examined by Dr. Traughber fell into the category of having low resistance to internal erosion, and of those 10, only two had enough permeability that he would expect the flow would cause sapping to progress back into the bank. (Tr. 5/52-54; *see also* R4, tab 67 at GOV 2922 (Templeton expert report)). This is not, to us, “widespread.”

Mr. Templeton also criticized Dr. Traughber for making too much of the “no recovery zones” of the borings that Gulf Shores had conducted on HC’s behalf. The method used by Gulf Shores to recover the material was sub-optimal and one in which such “no recovery zones” did not have such a strong meaning. This is a gross oversimplification, but the method used by Gulf Shores was akin to shoving a very long cookie-cutter into the soil, pulling it out, and hoping that all of the soil would adhere to the sides of the cookie-cutter. It actually works – and works well – in some instances, but is a poor approach in areas under the water table. (Tr. 5/70-73) By contrast, the method used by the Corps for the samples taken in 2008 uses a combination of suction and drilling fluid to prevent the looser soils from falling out of the sample tube (tr. 5/71-72).²¹ Mr. Templeton also pointed out an inconsistency where Dr. Traughber would diagnose voids in locations where there was no sample recovery and also in locations where there was a rod-drop and those locations were not the same (tr. 5/74-75). Moreover, Mr. Templeton considered the number of rod drops for the amount of drilling to be “very few” (*id.*).

What we find most telling, as far as interpreting the extent of the voids goes, was Mr. Templeton’s testimony about how easy it was for Gulf Shores to re-fill the boreholes. When a contractor creates a borehole, it is subsequently required to seal it by filling it with a slurry of cement, bentonite and water. If the hole runs into a significant void, it will take much more of that slurry to accomplish that task. Indeed,

²⁰ The 53 sample figure may seem inconsistent with the 15 borings taken by Gulf Shores as discussed above, but we suspect there are multiple samples per boring.

²¹ Mr. Connole, though not qualified as a geotechnical expert, made a point in his testimony similar to Dr. Traughber’s: that the Gulf Shores boring logs had large amounts of voids in them whereas the boring logs provided with the contract had none (*see* tr. 2/211). But given the very different methods used for the sampling, we cannot ascribe to it the significance that HC does.

if the voids run to the canal bank, you would expect to see some of that slurry being poured down the boring hole exiting into the canal from the bank. But that was not seen here and the holes were filled with a minimum of slurry – just one drum of such “grout” each. That, to Mr. Templeton is strong evidence that, though there may certainly have been voids, their extent was limited. (Tr. 5/66-67) We find this evidence persuasive, and complementary to Mr. Templeton’s other testimony calling into question Dr. Traugher’s more expansive conclusions.

The last subject that Mr. Templeton addressed was the matter of sinkholes. Though Dr. Traugher may have stated that “sinkholes do not lie” (*see* R4, tab 29 at GOV 1582), they can mislead because it turns out that there is more than one way to make a sinkhole. To be sure, sapping will do it, but so too, will rotting organic material, like a tree stump; buried drainage pipes with a separation that permits them to carry off surrounding soil; or nutria activity (nutria are particularly large rats that are common to Southeast Louisiana). (Tr. 5/68-70)

We do not know what caused the one small, shallow sinkhole that was well-identified in this case. For example, HC presented some evidence which indicated that nutria were not observed at the Trapp Canal site during the construction (*see, e.g.*, tr. 6/5-10). But, of course, the sinkhole may have long pre-dated the work on the site. At the end of the day, there are multiple potential causes for that sinkhole – including sapping – but the sinkhole does not radically alter our conclusion: there may well have been sapping under the southwest bank, but the evidence does not support a finding that it was quite so widespread as Dr. Traugher argues.

To be sure, as HC now argues (*see app. reply br. at 16 (citing tr. 5/155)*), Mr. Templeton agreed that it was appropriate for HC to halt its work on the southwest canal bank. But the context of that statement is different than HC now argues: Mr. Templeton basically stated that, given their geotechnical expert’s telling them not to work on the bank, it was reasonable for them to follow his advice (*see tr. 5/155; see also tr. 5/151*) Saying that it is reasonable for a contractor to follow an expert’s advice is not the same thing as saying that the expert was correct in the first instance.

F. Our Conclusions

There were real problems on the southwest bank of the Trapp Canal – in particular, the first area identified by HC in 2013, which included a depression that reasonably called into question the safety of operating vehicles in that area. Since HC had every incentive to operate as planned on the bank here, we find it more likely than not that it exercised its judgment reasonably to find this portion of the bank to be in a condition preventing heavy equipment from operating on it. Since HC’s construction plans, as discussed above, generally envisioned that equipment driving through that

area on the way from the entrance at Harvey Boulevard, it undoubtedly had a large and deleterious impact on HC's construction plans.

On the other hand, we do not find conditions on the southwest bank to be as bleak as Dr. Traugher and HC now paint them. Many of the photographs supposedly demonstrating bank failures convey the kind of sloughing that was the very reason for the project and which Mr. Lorenz had photographed without much comment earlier. We do not doubt that more than one depression existed after performance began, but the evidence is that the others were not that extensive and even the dramatic instance of the HC employee falling, uninjured, into a relatively shallow sinkhole does not radically change our view of the landscape: repairing that one sinkhole appears to have been a straightforward job. And perhaps there were one or two other such sinkholes (perhaps) that were easily straddled by crane mats. Moreover, the ability of Gulf Shores to drill 14 boreholes concentrated in the areas where HC had identified depressions – and to do so without any apparent difficulty – underscores the fact that the problems on the bank, though real, were not so extensive or widespread as HC now argues.

IV. The Conditions Presented Before the Bid

A. The Contract Documents, Including the Borings, Included With the Solicitation (and Those – Sort of – Referenced by It)

As those familiar with Type I differing site conditions know (and we will discuss in far greater detail in a later portion of this decision), a matter of great importance in such cases is what the contract represents to potential bidders. HC now argues that it had no way of knowing what the conditions in the southwest bank were because the Corps did not tell it in the borings or elsewhere (*see, e.g.*, app. br. at 22²²). But this position has changed over time and it is actually far more complicated. At various times, in fact, HC and Dr. Traugher argued that the borings included in the contract documents actually indicated a dangerous site condition in the southwest bank.

1. The Boring Logs and Cross-Sections Included With the Solicitation

As noted above, the solicitation included 10 logs of borings taken at the project site in 2008 (*see* R4, tab 5B at GOV 697-706). As Dr. Traugher noted, eight of the borings were taken on the east side of the canal, while only two were on the west side – and the far northern end of the west side at that (R4, tab 33 at GOV 1645). In his supplemental report, he makes the following statement, apparently intended to be damning to the Corps: “The Corps did not present any boring log information in the

²² HC's opening brief does not include page numbers, but we have counted the pages.

Contract Documents for the west side canal region for which the Contractor alleges that unsafe conditions exist for land-based construction operations” (*id.* (emphasis in the original)). The reader should bookmark this quotation because we will be returning to it. Mr. Connole made a similar point in his testimony, stating that none of the contract borings were located in the areas of the bank failures and that there was no geotechnical information provided for that area (tr. 2/203-04).

In any event, no witness directly contradicted Dr. Traughber’s allegation that the boring logs provided no warning of the conditions encountered on the southwest bank. No witness except for Dr. Traughber, that is. In his original report, he wrote about one of the two borings on the west bank, WB-1:

It should also be noted that Boring Log WB-1 indicates a soil natural moisture content of 486% at a depth of about 10.5 feet. This means that there is nearly five (5) times as much water by weight than soil solids . . . This extremely high water content indicates a soil void filled with a thin slurry. Other similar high water content soil samples [amongst the boring logs], albeit not as high as that in Boring Log WB-1, also indicate what are essentially voids filled with thicker viscous slurries.

(R4, tab 29 at GOV 1577)

Indeed, log WB-1 does reflect, as Dr. Traughber wrote, a moisture content percentage of 486% at around the 10.5 foot mark (*see* R4, tab 5B at GOV 705). Dr. Traughber again referred to log WB-1 in his supplemental report as confirming the sapping progression he saw elsewhere (R4, tab 33 at GOV 1646-47). Moreover, WB-2 has a section with a moisture content nearly as high, peaking at 327% near the eight-foot mark (R4, tab 5B at GOV 706), while EB-3 (on the east bank) also has the similarly high moisture content of 290% near the 12.5 foot mark (R4, tab 5B at GOV 699). We also note in our review of the boring logs provided with the solicitation that substantially all of them depicted silt and sand lenses²³ intruding into the clays in the first 20 feet or so of excavation (*see* R4, tab 5B at GOV 697-706) and that several depicted a sandy layer greater than a foot thick between two clay layers (*id.* at GOV 700 (EB-4); *id.* at GOV 702 (portraying a two and a half foot thick layer of “silty to clayey sand” between two clay layers at around the 15 foot mark in EB-6); *id.* at GOV 704 (two foot layer of “silty sand” between two clay layers at the 10.5 foot

²³ There is some dispute between the experts about what to make of the “lenses” of silt in the boring logs that were included with the solicitation (*see* R4, tab 67 at GOV 2925), but the interpretation of that term is not particularly material to our findings.

mark for boring EB-8)), which is important because silt layers between clayey layers are the conditions necessary for sapping as Dr. Traugher described.

HC also had something to say about the conditions reflected in the solicitation's borings at the time that it encountered the first depression. In a June 5, 2013 letter to the Corps about the conditions on the southwest bank, Mr. Hampton wrote:

Hamp's has reviewed the boring information in the area closest to the failure, along with the cross sectional area of the stone that is to be placed. Based on this review, we do not believe the final cross sections of limestone will provide enough weight to offset the static weight of a loaded dump truck.

(R4, tab 14 at GOV 860) The letter goes into further detail about safety concerns regarding the limited right of way on the bank and the possibility of a bank failure (*id.*). The letter goes into no further detail, however, about what HC saw in the solicitation's boring logs that gave it cause for concern at this point in time. Though it is certainly possible that HC's allegation about information in the boring logs was an improvidently made "throw-away" argument early in the dispute, we conclude that the letter is evidence that, early in the game, a closer, post-award review of the boring logs gave HC cause for concern about its intended method of construction.

The solicitation included cross-sections of the canal as well, which the government argues showed steep drop-offs which should have alerted HC to the sloughing issues (gov't br. at 33-34). We have reviewed the cross-sections (*see* R4, tab 5B at GOV 682-93) and agree that, if they are examined closely enough, the reader can discern a relatively steep drop off in the western banks compared to the bank on the eastern side²⁴ (*see, e.g.*, R4, tab 5B at GOV 684). This demonstrates to us that the contract plans and specifications plainly indicated that morphology on the two sides of the canal was not at all the same.²⁵

²⁴ This may be a bit difficult to interpret when the reader first examines these depictions. The giveaway is the starkly different quantities of riprap that are needed on each side to create the same smooth slope, with the western side almost always (though with a few exceptions) needing far more (*see* R4, tab 5B at GOV 682-93).

²⁵ Dr. Traugher's supplemental expert report explained why this might be the case, noting that drainage canals often follow ancient natural drainage courses in which silty deposits may predominate on one side. That is what he suspected was the case at the Trapp Canal. (R4, tab 33 at GOV 1653-54)

2. The Borings Taken in 2000 That Were Not Provided in the Solicitation

A final note is that there was a set of borings taken of the project area in 2000 that was in the possession of the Corps, but not provided with the solicitation to potential bidders. This set of eight borings was not as detailed as the borings actually provided with the solicitation. (Tr. 2/62-65; *see also* R4, tab 55 (the actual borings from 2000)) As noted above, data of this sort would have been provided to any bidder who requested it under the solicitation's physical data clause, but nobody availed themselves of it. Moreover, neither party has argued that these borings would have provided any data not already provided in the borings provided with the solicitation, and Dr. Traugher, Mr. Lorenz, and Mr. Connole, on behalf of HC, have testified that they would have made no difference (Traugher Dep. 26; tr. 2/63-64, 208).

B. The Site Visit (What Was Seen and What Should Have Been)

Though Mr. Lorenz visited the site twice prior to HC's submission of its bid and did not see the same sort of bank collapse that manifested itself during contract performance, the southwest bank of the canal was not, actually, quite as pristine as HC now alleges.

1. Pre-Award Site Visits

As noted earlier, Mr. Lorenz visited the Trapp Canal twice before HC submitted its bid on the project (*see* tr. 2/40-41). During his first visit, he drove his SUV through open gates from Harvey Boulevard and covered the entire western side of the canal and the northeast quadrant, but did not have access to the southeast quadrant (tr. 2/41-42, 79). During his second visit, Mr. Lorenz wanted to pay more attention to the southern part of the canal for purposes of seeing whether there was room to turn dump trucks and he wound up walking on the side that he did not see on his first visit (tr. 2/79-80); he was also interested in issues involving space under the bridges (tr. 2/42-43). Although the testimony is a little ambiguous, this appears to indicate that he did not perform an extensive investigation of the southwest quadrant on this visit, but, rather looked at the area he had missed his first time around and the area under the bridges.

Besides the photographs that we will discuss immediately below, there was no testimony of any notes taken by Mr. Lorenz. Nor was there any indication that slope stability issues were, at that time, a significant concern. He did not measure the width of the banks (tr. 2/89) and remembered them as being wider than they actually were at their narrowest points (*see* tr. 2/109-10 (testimony had been that the bank had a minimum of 20 feet of width, but, when shown the cross-sections, Mr. Lorenz agreed the width was 10 or 15 feet at points)). Indeed, because Mr. Lorenz had observed Jefferson Parish maintaining the canal banks with heavy equipment over the years, he

was not particularly concerned that there would be a problem with slope stability (tr. 2/96-98). Mr. Lorenz, in fact, considered slope stability to be “the engineer’s job” (tr. 2/98) and not something that was his concern as the estimator (tr. 2/99).

In any event, Mr. Lorenz testified that he observed no evidence of slope stability problems or collapse during his visits and that the erosion that he did observe was typical of a canal bank and nothing that gave him any cause for concern (tr. 2/54-55).

Ms. Phillips also testified that she had been on site shortly after the bid, but prior to the award and that she saw nothing indicating to her that there would be a problem of the sort that they were to encounter (tr. 1/63-65).

At the hearing, Corps employee Jennifer Wedge was asked what she observed about the banks of the Trapp Canal pre-bid. She stated that she had visited the project site pre-bid and walked along the eastern side of the canal and observed what was “typical [of a] Jefferson Parish earthen canal[,]” by which she meant that it was experiencing erosion with sloughing on the slope at the water’s edge. (Tr. 3/80-81) Though HC makes the point that Ms. Wedge did not see any sinkholes or significant failures during her pre-bid visit (*see* app. reply br. at 13-14 (citing tr. 3/86)), it is also worth noting that she was not on the southwestern bank of the canal (tr. 3/81), where the problems occurred.

2. The Photographic Evidence on the Ground

Mr. Lorenz took a number of photographs of the canal site when he made his pre-bid site visits (tr. 2/44). Forty of the site photos²⁶ may be found in tab 20 of HC’s supplement to the Rule 4 file. Many of these were shown during the hearing (*see, e.g.*, tr. 1/50-64, 2/44-58). Although Mr. Lorenz testified that they did not show any indications of imminent bank collapse (tr. 2/54), after our own careful examination of the photographs, we are not so sanguine. The pre-bid photograph at Bates No. 2542, which is a bit of a distance from depression 5, but includes it, indicates a canal bank that is not smooth, but shows evidence of past sloughing. Indeed, it does not appear much qualitatively different than the photo of depression 5 that HC provided to the government after its discovery, except that much of the grass is dead in the later photograph after there had been equipment rolling over it (*compare* app. supp. R4, tab 20 at 2542, *with* app. supp. R4, tab 37 at 2755). Another pre-bid photograph of the area near the future site of depression 5 is at Bates No. 2539. It, too, undulates and has a “stair step” pattern, and looks very much like the depressions as represented in later

²⁶ There was no testimony whether these were *all* of the photos taken by Mr. Lorenz, or just a subset of them. Since a number of the photos have no apparent bearing on the dispute before us, we suspect that this is all of them.

photographs. (*See* app. supp. R4, tab 20 at 2539) Indeed, this is consistent with Dr. Traugher's first expert report which contained his observation of "the classic failure configuration of the banks" on the western bank, which he considered to be pre-depression evidence of sapping (R4, tab 29 at GOV 1576).²⁷

Based upon our review of all of the pre-bid photographs in the record, we conclude that, though the particular depressions encountered by HC when it began performance might not have been present or fully developed pre-bid, the morphology of the southwest bank of the site was consistent with an area in which there was sloughing of the banks and depressions could form.²⁸

3. The Google Earth Photographs

At trial, the government introduced a number of photographs taken from the Google Earth product, which were satellite photographs of the Trapp Canal (*see* tr. 3/185-205).²⁹ The point of the testimony about these photos by Corps witness, Matthew Bowman, was to demonstrate that slope failures on the Trapp Canal had been beginning prior to the bid for the contract (*see* tr. 3/190, 5/108-11). Later in this decision, we will explain the legal reasons that we will not admit this evidence, but to do that we make relevant factual findings. First, Mr. Bowman, who struck us as a competent individual, was not an expert on geotechnical matters (tr. 3/203) and had

²⁷ Mr. Connole testified that the "angled stair-step" pattern shown in the cross-sections did not reflect a failure mechanism at work (tr. 3/58), but that testimony was of a summary nature without explanation. This statement, then, does not change our view of the evidence.

²⁸ One argument that HC makes against the government's making similar observations in its brief is that the government's own expert did not see anything in the pre-bid photographs that indicated such problems, so any interpretation of the photos otherwise is mistaken (app. reply br. at 13 (citing tr. 5/129 (testimony of Mr. Templeton))). Mr. Templeton, however, did not go so far as to say that HC's pre-bid photographs showed no sign of bank failure; rather, what he said, during a somewhat confusing colloquy during cross-examination, was that he did not recall if the pre-bid photographs of the southwest bank reflected slope failures and he agreed that he saw no "representation or notation of the slope stability failures or sinkholes pre-bid" (tr. 5/129), which is not at all the same thing. Indeed, Mr. Templeton made clear (consistent with his other testimony) that there was evidence of past slope stability problems ("wasting") on the southwest bank, but it was the location of the particular slope failures which occurred during construction which he was agreeing was not evident (tr. 5/166-68).

²⁹ They had been part of the government's last supplement to the Rule 4 file and were not objected to at the time it was submitted (*see* tr. 3/185, 187-88).

no specialized training in the use of the Google Earth product (tr. 3/198). The government's expert, Mr. Templeton, discussed the pictures later on in the hearing (tr. 5/107-11), but nowhere in his testimony did he indicate that he had received any training on the product either. Moreover, there was rebuttal testimony from HC's expert, Mr. Connole, that Google Earth images are often stitched-together mosaics (tr. 6/19-21). Mr. Connole also demonstrated that the color of the Google Earth images sometimes appeared to be colorized by either a filter of some sort or perhaps the weather so that an area which appeared green in one image, might appear brown in another without its necessarily being a reflection of a change in the actual color on the ground (tr. 6/27-28).

C. Our Conclusions About Pre-Bid Site Representations in the Contract Documents and From the Visits

Considering all the evidence above we conclude as follows: first, the large slope failure which was the first to be discovered by HC does not appear to have been present at the time that HC investigated the site and there does not appear to be any identified evidence that such a collapse would be seen in the site investigation or contract documents as imminent at any particular location. The relatively small sinkholes that have been identified also do not appear to have been made visible to a pre-bid inspection. On the other hand, a visual inspection of the southwest bank as reflected in the photographic evidence provided indicators that it was the kind of place that such slope failures could happen and had happened in the past. Though Mr. Lorenz testified that he did not see much evidence of slope stability problems on the west bank, the simple fact is that he was not looking for that particular problem, having previously concluded that HC would be able to operate from the top of the canal just like he'd seen Jefferson Parish do on multiple occasions throughout the years.

The contract documents, via the cross-sections were another indicator of potential problems, plainly disclosing that the western bank of the canal was in worse shape than the eastern side.

Finally, though we do not think that every void reflected in a borehole necessarily implied that slope instability would necessarily follow, if we were to follow Dr. Traugher's lead on this, it would be very hard not to see such voids in the two borings taken on the western side of the canal and provided with the contract documents. They would indicate the possibility of real problems, just as HC, itself, stated in its June 2013 letter to the Corps (but never again) when it identified the first slope failure.³⁰ We should also note here that, though we do not doubt the testimony

³⁰ Mr. Templeton, as HC argues, testified under cross examination that nothing in the contract plans and specifications would have warned HC of the kinds of

that HC looked at the boring logs prior to bid, we do not believe they were given anything more than perfunctory attention: no testimony provided by HC discussed what they actually saw on the logs and that June 2013 letter informing the Corps of the first slope failure is written as if the contractor only recently took a close look at the logs and discovered underlying problems. Indeed, Mr. Templeton's testimony is that a reasonable contractor would generally base its slope stability determinations on its visits to the site, rather than the boreholes³¹ (tr. 5/122), which is consistent with his expert report, in which he expressed real doubt that a contractor would have looked at even the boring logs taken by HC and concluded that there was a problem (R4, tab 67 at GOV 2928) and is, frankly, consistent with Mr. Lorenz's testimony as well.

Taken as a whole, even if we do not find that the pre-bid evidence (meaning, both the contractual documents and what a reasonable contractor would have observed in a pre-bid inspection) put HC on notice of exactly what was to occur, we do find that it would have made clear to a reasonable contractor that conditions on the west bank of the Trapp Canal were not the same, and were substantially worse, than those on its east bank. Thus, we find that, since the boring logs provided with the contract documents were from a materially different part of the Trapp Canal than where the failures occurred, they would not constitute representations of the geotechnical conditions in the locations where the failures actually manifested themselves.

V. HC's Claim

HC made clear early and often that it was concerned about the state of the southwest bank of the canal. This began with the June 5, 2013 letter in which HC first notified the Corps of the slope failure on the southwest bank (*see* R4, tab 14) and included several updates such as one submitted on April 4, 2014 advising the Corps of four additional failures on the southwest bank (*see* R4, tab 22 at GOV 1497). In 2014, HC sought guidance from the government about how to proceed (*see* R4, tabs 24, 26) and the government responded by stating that HC was not encountering a differing site condition (*see* R4, tabs 25, 27). In May 2015, HC forwarded Dr. Traughber's first expert report to the Corps and requested a meeting (*see* R4, tab 30). That meeting was held on June 23, 2015, but didn't resolve anything (*see* R4, tab 32). Further correspondence (*see, e.g.*, R4, tabs 33-34, 36, 41-42, 44-45) and another meeting (*see* R4, tab 40) followed.

problems it encountered (app. reply br. at 1 (citing tr. 5/124)). That was, indeed, his testimony, but recall that Mr. Templeton's general testimony, discussed above, was that he did not consider sapping to be significant.

³¹ Though, to be clear, Mr. Templeton also testified that the contractor should consider all information available to it, not just a visual inspection (tr. 5/162).

On November 6, 2018, HC submitted to the Corps a document it entitled as a request for equitable adjustment (the REA). The REA requested \$3,948,833 and an extension of 237³² calendar days to complete the project. Its basis for these requests was that it had encountered “differing site conditions and defective specifications on the west bank of Trapp Canal, south of Harvey Blvd.” (R4, tab 52 at GOV 1780) The narrative text of the REA (the document itself, including attachments, was 631 pages long (*see* R4, tab 52)) ended with a request for a meeting and a statement that the request was made in good faith and that the supporting documentation was true and correct to the best of Mr. Hampton’s knowledge (R4, tab 52 at GOV 1784).

The CO denied the REA in a letter dated March 1, 2019 (R4, tab 53).

On April 18, 2019, HC sent a letter to the CO requesting that the REA be converted to a claim pursuant to the Contract Disputes Act (CDA). In the letter, Mr. Hampton executed the more detailed CDA certification language and explicitly requested a CO’s final decision. (R4, tab 54)

On August 30, 2019, the CO issued a written decision denying HC’s claim (R4, tab 2). HC submitted a timely appeal to the Board thereafter.

VI. A Digression About the Project Design/Slope Stability

HC produced evidence that although the Corps’ design contractors had performed slope stability analyses of how stable the project would be after construction was completed (*see, e.g.*, tr. 5/148), they had not performed slope stability calculations for the circumstances during construction (*see, e.g.*, tr. 2/131-35 (testimony of Mr. Shah, the project designer), 5/148-49). Various witnesses opined whether this should have been done, with some testifying that calculating stability of the slope during construction was within the ambit of the contractor’s responsibilities since only the contractor would know exactly what equipment was being used (*see* tr. 5/154-55 (Templeton testimony), 2/137 (Shah testimony)). Dr. Traughber, for example, wrote that the design for the Trapp Canal improvements was “excellent,” except that consideration should have been given to the instability involved in working from the top bank during the construction phase (R4, tab 29 at GOV 1579). In the end, as will be seen, this testimony was a needless detour, having nothing to do with the differing site condition assertion we are presented with today and not being utilized to present a defective specification cause of action.

³² This is slightly different than the 239 calendar days set forth in Mr. Connole’s testimony, but that difference is immaterial to our decision.

DECISION

I. Preliminaries: Evidentiary Decisions

Two evidentiary issues are before us to address before we turn to the merits of HC's claim(s): first, whether to accept Mr. Connole's expert rebuttal report on geotechnical matters; second, whether to consider the Google Earth images.

A. Mr. Connole's Geotechnical Rebuttal Report

At the end of the day, the government's motion to preclude this document is essentially moot: Mr. Connole provided little testimony on geotechnical matters and the report, itself, was not cited in either of HC's briefs. To be sure, we do not have a hard and fast rule that we will not consider documents not cited by the briefs (it is our view that we have the unfettered discretion to review anything within the Rule 4 file as supplemented, but not the impracticable obligation to search its entirety for evidence that the parties did not deign to bring to our attention), but the posture of this matter has made it less salient. Similarly, as we noted above, we did review the document and conclude that it does not affect any of our factual determinations on issues material to this decision. Hence, we deny the government's motion, but only because it is unnecessary to consider whether to exclude that report.

B. The Google Earth Images

The Google Earth images present a somewhat more difficult problem. We begin by noting that the Board's Rules do not compel us to follow the Federal Rules of Evidence. Board Rule 10(c) provides in part:

The parties may offer such evidence as they deem appropriate and as would be admissible under the Federal Rules of Evidence or in the sound discretion of the presiding Administrative Judge or examiner. The Federal Rules of Evidence are not binding on the Board but may guide the Board's rulings.

Board Rule 10(c); *see also Laguna Constr. Co.*, ASBCA No. 58324, 14-1 BCA ¶ 35,748 at 174,947. Hearsay, for example, is often admitted at the Board as a matter of judicial discretion so long as it is reliable. *See, e.g., Laguna*, 14-1 BCA ¶ 35,748 at 174,947-48 (citing, *inter alia*, *E.R. McKee v. United States*, 500 F.2d 525, 528 (Ct. Cl. 1974) (noting that "rank hearsay" may provide substantial evidence before a Board of Contract Appeals if "convincing to a reasonable mind"))).

The Google Earth images are not strictly hearsay (though they contain hearsay in the sense that they are labelled regarding the dates they were taken), but our admission of them is governed by similar considerations: do they reliably convey the conditions at the site at the times the photographs were taken? We conclude that, based upon the evidence before us, these photos in this case should not be admitted.

Although we certainly would have preferred if the government witness knew more about the means by which the photographs were taken and the measures that Google uses to ensure that the dates and locations are accurate, the issue which concerned us most was the coloration and the effects of stitching the mosaics. In the instance of the mosaics, we may be inadvertently misled by different lighting conditions on portions of the image taken at different times or dates. In the case of the coloration, it is all too easy to see how we could mistake changes in coloration due to the different filters used and the different lighting conditions for changes to the images caused by a change in the actual topography. For certain purposes, these concerns would be irrelevant, but for the proposed use of the images here, these concerns strike at the core of whether they reliably convey the conditions at the site. These are certainly issues that a competent witness may have addressed for the government, but Mr. Bowman simply did not possess the knowledge necessary to satisfy those concerns. It is a close call, but we deem the Google Earth images to be inadmissible.

II. There Is No Differing Site Condition

Though HC makes a strong case that it was surprised by the particular conditions on the southwest bank and that the depressions at issue only manifested themselves after the bid, it fails in its request for relief because it cannot prove that the government provided misleading information in the contract documents.

A. The Requirements for a Type I Differing Site Condition

As we recently noted in *Amatea/Grimberg JV*, ABSCA No. 60426 *et al.*, 23-1 BCA ¶ 38,366, differing site condition claims are “bread and butter claims in government contracting and the law is correspondingly well-settled.” 23-1 BCA ¶ 38,366 at 186,326. A Type I differing site condition, like the one presented here, has four elements:

- 1) that the contract documents made a representation as to the site condition;
- 2) that the actual site conditions were not reasonably foreseeable to the contractor based upon information available to the contractor outside of the contract documents;

- 3) that the contractor relied upon the contract documents; and
- 4) that the conditions differed materially from those presented in the contract documents.

See Amatea/Grimberg, 23-1 BCA ¶ 38,366 at 186,326-27 (quoting *Int'l Tech. Corp. v. Winter*, 523 F.3d 1341, 1348-49 (Fed. Cir. 2008)).

Other decisions order and phrase the elements slightly differently, *see, e.g., Control, Inc. v. United States*, 294 F.3d 1357, 1362 (Fed. Cir. 2002); *H.B. Mac, Inc. v. United States*, 153 F.3d 1338, 1345 (Fed. Cir. 1998), but they all require the conditions on the site to be different than those represented by the contract documents and for the contractor to have reasonably relied upon the representations in those documents. *Id.*

The element that is salient in our case is the first one: representation of the site conditions in the contract documents. “A contractor is not eligible for an equitable adjustment for a Type I differing site condition unless the contract indicated what that condition would be.” *Control*, 294 F.3d at 1363 (citing *P.J. Maffei Bldg. Wrecking Corp. v. United States*, 732 F.2d 913, 916 (Fed. Cir. 1984)). Here, just because there are boreholes in one location of the site, does not mean that the contractor should take them to be a representation of conditions of the entire site. The Federal Circuit addressed this issue in *H.B. Mac*. In that case, the agency had provided several boring logs of the property in question, but had not taken borings particularly close to the site of some of the work. When the contractor performed work away from the boreholes, it encountered soil different than reflected in the logs that had been provided. 153 F.3d at 1341-42. The court did not find that the boring logs necessarily represented what conditions would be throughout the entire project, but represented what they were, where they were taken and that it was a question of fact whether a reasonable contractor, armed with the knowledge such a contractor was expected to possess, would have relied upon them to extrapolate the subsurface conditions at some distance from where they were taken. *Id.* at 1347-48.

Applying such reasoning recently in *Amatea/Grimberg*, we elaborated for the facts of that case that:

If a reasonable contractor would rely on a single boring at the site of the entrance road to plan exactly how deep the firm soil would be throughout the entirety of that area, then the government would be responsible for any deviation from such reasonable expectations. Conversely, if a reasonable contractor would make only limited presumptions based upon a single boring in a particular

area, the government is not responsible for any unreasonable extrapolations.

23-1 BCA ¶ 38,366 at 186,328.

B. The Contract Included No Subsurface Representations of the Southwest Bank To Be Reasonably Relied Upon by HC

HC's post-hearing brief and reply brief advance no evidence-based argument that the contract misrepresented the conditions on the southwest bank of the canal. Instead, the primary thrust of its briefs is that, "those failures could not have reasonably been ascertained from the contract documents" (app. br. at 22). That is not the complete test for a Type I differing site condition.

This is where Dr. Traughber's statement noted earlier from his supplemental report is so dispositive, and we will repeat it: "The Corps did not present any boring log information in the Contract Documents for the west side canal region for which the Contractor alleges that unsafe conditions exist for land-based construction operations" (R4, tab 33 at GOV 1645 (emphasis in the original)). This goes a very long way towards affirmatively disclaiming a Type I differing site condition on the southwest bank of the Trapp Canal: there was no representation of subsurface conditions there in the contract documents.³³ But it only gets worse for HC the closer we look at the facts.

HC might argue that, notwithstanding Dr. Traughber's statement, the boreholes elsewhere on the project could have been reasonably relied upon by HC to represent the conditions on the southwest bank. This might not be unreasonable if the observable conditions at the locations of those borings appeared to be the same as the observed conditions at the southwest bank or there were some other bases to believe that they would be identical. But it is contrary to our detailed factual findings above, that the conditions on the southwest bank were notably different – and far worse – than those on the eastern side of the canal. This was manifested both in what could be seen during the pre-bid site inspection and by what was reflected in the cross-sections included with the solicitation. It was even clear, if we are to credit Dr. Traughber's report, in one or both of the two boring logs that were taken on the western side of the

³³ HC's brief makes an early statement that "the subsurface representations contained in the solicitation were the same for both banks" (app. br. at 3), but cites no evidence in support of this allegation which is, of course, contrary to the evidentiary findings we made above.

canal,³⁴ which reflected a slurry-filled void. These facts and others detailed above led to our earlier factual determination that the boring logs were from a materially different part of the Trapp Canal than where the failures occurred and thus would not constitute representations of the geotechnical conditions in the locations where the failures actually manifested themselves. HC thus fails in proving a fundamentally necessary element of a Type I differing site condition.

C. Others' Expectations Do Not Meet the Contractual Representation Requirement

Put directly, HC leans hard into the implicit argument that, for various reasons, nobody else expected there to be a problem on the southwest bank and, therefore, it should not have been expected to anticipate it either. It quotes Mr. Templeton's cross examination in which he concedes that there was not much else HC could have done beyond an inspection of the site (app. reply br. at 1); cites other government witnesses who did not observe anything wrong with the southwest bank (app. reply br. at 13-14); references other evidence that the Corps expected that the contractor would work from the top of the bank (app. br. at 4-6); notes that the government estimate anticipated work from the bank in all sectors (including the southwest) (app. br. at 13); and makes the point that the solicitation's original preclusion from using barges in the canal indicated that the government required work from the banks, implicitly representing that such work was possible (app. br. at 23-24).

To be sure, this evidence paints a sympathetic picture of HC, but, for the most part, it does not address the contractual representation element of a Type I differing site condition claim – it merely addresses some of its other elements, such as reasonable unforeseeability. *See, e.g., Comtrol*, 294 F.3d at 1362 (setting forth the requirement that the conditions be reasonably unforeseeable as separate from contractual indications).

The argument that arguably involves representations from the contract documents – the initial prohibition against working from the canal – collapses because the contract was changed prior to bidding to eliminate that preclusion. Indeed, HC disclaims asserting that this original portion of the solicitation constitutes a contractual representation; rather, it now characterizes it as extrinsic evidence of what others thought the conditions would be (app. reply br. at 2-3).

³⁴ To be clear, these were not on the southwest sector of the canal, just the western side. Nevertheless, they were on the relevant side and they indicated what HC's own expert called out as indications of a significant problem.

D. HC Does Not Prove a Type II Differing Site Condition

With respect to differing site conditions, we finally note that, although HC does not argue for a Type II differing site condition and presents no evidence in support of it, we would find it contradicted by the evidence in any event. A Type II differing site condition case requires “unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.” *Int’l Tech Corp. v. Winter*, 523 F.3d 1341, 1348 n.4 (Fed. Cir. 2008) (quoting 48 C.F.R. § 52.236-2(a)³⁵). Moreover, Type II differing site conditions are notoriously more difficult to prove than their Type I counterparts. *See, e.g., Randa/Madison Joint Venture III v. Dahlberg*, 239 F.3d 1264, 1276 (Fed. Cir. 2001); *Charles T. Parker Constr. Co. v. United States*, 433 F.2d 771, 778 (Ct. Cl. 1970) (proving a Type II differing site condition requires meeting a “stiffer test” than a Type I differing site condition because of “the wide variety of materials ordinarily encountered when excavating in the [E]arth’s crust.”).

Here, there was ample evidence that canal bank instability was not uncommon in Southeast Louisiana and that sapping (if that was indeed the cause of the problems at the Trapp Canal) was a well-understood and studied phenomenon. It might not have been anticipated at the site, but it is not of such an unusual nature³⁶ as to meet the Type II test.

And, of course, it bears repeating that HC neither argued for a Type II differing site condition nor produced evidence supporting a finding that it had encountered one.

III. HC Has Not Presented a Defective Specifications Case

HC’s claim and complaint assert that the Corps provided defective specifications, but they do not expound in what way the specifications were defective. Moreover, there is no mention of that theory in HC’s post-hearing briefs. Under these circumstances, we are quite comfortable with considering this cause of action to be waived – especially since we, frankly, do not know what HC would be asserting was a defective specification.

Nevertheless, for the sake of completeness, we note that the two plausible bases for a defective specification claim would fail. First, on occasion, what parties refer to

³⁵ The text of the differing site conditions clause is the same in the contract as was cited in *International Technology Corp.*

³⁶ And here, our discussion above in which we concluded that the conditions of the southwest bank, though poor, were not as bad as HC makes them out to be becomes relevant: this factual conclusion would undercut an attempt to characterize the conditions as meeting the Type II test.

as defective specification cases are really just differing site conditions claims with a different name. *See, e.g., Control*, 294 F.3d at 1357. In those cases, “[w]here the differing sites conditions claim and the defective specifications claim are so intertwined as to constitute a single claim, that claim will be governed by the specific differing site conditions clause and the cases under that clause.” *Id.* at 1362. That may well be what we have here, in which case we will have already addressed the defective specification claim by virtue of our discussion of the differing sites condition claim above.

The only other defective specifications theory we can potentially discern from the case presented by HC (and this requires some squinting) is something involving the fact that the designers had failed to perform an adequate slope stability analysis. But though HC’s counsel certainly made Mr. Shah, the project designer, excessively uncomfortable under examination, we do not see anything in what he did or did not do that could potentially provide an avenue for redress for HC.

Defective specification cases stem from “the implied warranty that satisfactory contract performance will result from adherence to the [contract’s] specifications.” *Essex Electro Eng’rs, Inc. v. Danzig*, 224 F.3d 1283, 1289 (Fed. Cir. 2000). There are generally two types of specifications: design specifications, which tell the contractor in detail how the work is to be performed; and performance specifications, which tell the contractor the end result that is expected and leave it to the contractor to determine the best way to get to the result. *See J.L. Simmons Co. v. United States*, 412 F.2d 1360, 1362 (Ct. Cl. 1969). Generally, only design specifications include the warranty that, if followed, the contractor will obtain a satisfactory result. *Id.* at 1363.

The contentions, such as they are, that the Corps failed in its obligations to HC by not having performed a slope stability analysis of the canal bank during construction, do not make out a defective design specification. The Corps did not direct HC to use any particular means of construction (this is especially so after the Corps removed the prohibition against using barges before the final bid) and did not specify the equipment to be used. There has been no allegation that the end state of the canal was anything but a good design. Indeed, as stated above, Dr. Traugher opined that it was an “excellent” design.

Though, to be clear, the defective design claim has been abandoned, and we do not see a viable claim on this matter in any event.

CONCLUSION

Though HC undoubtedly encountered conditions on the southwest bank of the Trapp Canal that it did not expect and which caused it delays and increased costs, we do not find that it proved a necessary element of a Type I differing site condition, that the conditions found were contrary to the representations in the contract documents – primarily because, as Dr. Traugher stated, there were no representations in those documents for the area where HC encountered its problems. Accordingly, we deny this appeal.

Dated: February 2, 2024



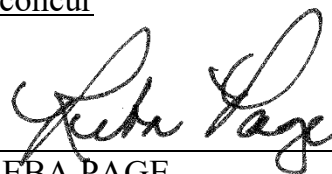
J. REID PROUTY
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I concur



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

I concur



REBA PAGE
Administrative Judge
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 62257, Appeal of Hamp's Construction, LLC, rendered in conformance with the Board's Charter.

Dated: February 2, 2024



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