UNITED STATES
CIVILIAN BOARD OF CONTRACT APPEALS

GRANTED IN PART: April 20, 2007

CBCA 118

FLATHEAD CONTRACTORS, LLC,

Appellant,

v.

DEPARTMENT OF AGRICULTURE,

Respondent.

Mark Mann, Project Manager, Flathead Contractors, LLC, Muskogee, OK, appearing for Appellant.

Mary E. Sajna, Office of the General Counsel, Department of Agriculture, Portland, OR, counsel for Respondent.

Before Board Judges **VERGILIO**, **POLLACK**, and **STEEL**.

Opinion for the Board Judge **POLLACK**. Board Judge **VERGILIO** dissents in part.

POLLACK, Board Judge.

This appeal arises out of Contract No. 50-04R3-4-0002, Touchet Paving/Road 64, between Flathead Contractors, LLC (Flathead or appellant) of Muskogee, Oklahoma, and the Department of Agriculture, Forest Service (FS or Government), Umatilla National Forest, Walla Walla Ranger District, Walla Walla County, Washington. Appellant's claim is for adjustment in the number and unit price for additional stone in the rock retaining wall (a Designed Quantity (DQ) item), for an adjustment in the Grading A material (also a DQ item), and for payment for crushed shoulder rock used on the project.

By decision dated January 25, 2005, the contracting officer (CO) denied appellant's claims for $57,673. Appeal File at 226. The contractor timely appealed. In its complaint, appellant now seeks $52,804. The Department of Agriculture Board of Contract Appeals (AGBCA) docketed the claims for retaining wall rock (also referred to as special rock) and the claim for Grading A material as AGBCA 2005-130-1 and the claim for shoulder rock as AGBCA 2005-131-1. The first two claims involve an interpretation of the DQ clause. The third claim involves a dispute over contract language regarding ownership of crushed rock not used for the purpose intended, in that instance, over who owned rock crushed by appellant which was used by the FS for the road shoulders. The appeals have been redocketed as CBCA 118. In an earlier ruling, the AGBCA denied the Government's motion for summary judgment. *Flathead Contractors*, *LLC*, AGBCA 2005-130-1, et al., 06-1 BCA ¶ 33,174.

The Board has jurisdiction over the timely-filed appeal pursuant to the Contract Disputes Act, 41 U.S.C.A. §§ 601-613 (2006).

Findings of Fact

1. The contract for $2,190,549.17 was awarded to appellant on June 24, 2004, on the basis of a technical proposal and price. It called for reconstruction of 7.23 miles of double-lane road on Forest Road 6400 to the Touchet Corral trailhead/snowpark. It also included the exercised option of reconstructing approximately one-half mile of Forest Road 64-650. Appeal File at 2-5, 96. Approximately one-half mile of the road called for appellant to place retaining rock and Grading A material along the side of the roadway. That represented about 6% of the project's length. Appeal File at 609, 614. Notice to Proceed (NTP) was issued on July 6, 2004. The project was essentially finished on or about October 18 or 19, 2004. Appeal File at 262; Appellant's Supplemental Appeal File (SAF) at 14. Marianne Klinger was the CO at the time the contract was awarded and she stayed in that role until approximately September 14, 2004. Soon thereafter, Carl Culham took over as CO. The contractor was not notified of the change until October 1, 2004. Joseph Acosta was the contracting officer's representative (COR) at the project for the FS. Appeal File at 149-50, 201. Mark Mann ran the project for Flathead, and David Freeman was President of Freeman Construction, the subcontractor which performed the rock wall work. Transcript at 103, 610. All five testified at the hearing.

2. Most of the contract work was priced as unit items. Several unit items were set out as DQs, among which was item 252(01), titled Special Rock Embankment, Retaining Wall, which called for a DQ of 872 cubic yards (cys). Flathead priced the rock at $91 per cy. Appeal File at 2-5. The FS has acknowledged that there was an overrun in the retaining

wall rock, and the FS, in fact, paid for that portion of the overrun quantity that exceeded 115% of the DQ. The CO determined that the payment made was justified under clause 106.4(a)(2) of the contract, on the basis that the overrun was due to an error in the FS original design. The FS limited appellant's compensation to the portion of the overrun that exceeded 115% of the DQ, asserting that the plain language of the clause authorized the CO to pay for only the number of units which exceeded 115% of the DQ. As to units between the specified DQ and 115% of that quantity, any difference was considered the contractor's responsibility and an item that should have been considered as risk in the contractor's proposal. Additionally, the CO determined that reimbursement was limited to payment at the contract unit price, a matter contested by appellant. The parties have agreed that appellant placed 1538 cys for the retaining wall. That figure was reached by calculation, and although some other numbers have been mentioned, the 1538 cys is the agreed figure. In recognizing responsibility, the FS paid the contractor at the contract unit price for 1407 cys (the DQ of 872 cys plus an additional 535 cys as the overrun). The quantity does not include 131 cys, the bridge amount, which is the quantity between 100 and 115% for which appellant has a claim. Appeal File at 145, 223-28; Transcript at 506.

3. In the claim involving Grading A material, proposal item 304(10)A, Crushed Aggregate, Type Sub-Base, Grading A (Grade A rock), the FS used a DQ of 8287 cys, which covered all Grading A rock to be used on the project. Most of the Grading A was to be used as road base rock, with considerably less to be used at the retaining wall. Mr. Culham admitted in both his final decision and at the hearing that the quantity behind the wall may have been omitted by the FS from the DQ set out in the contract. While it appears that the road base quantity remained about what was expected, there was a definite increase in the Grading A needed at the retaining wall. The FS does not dispute that there was an increase; however, it found that any increase was less than 15% of the total DQ for Grading A (8287 cys), and as such the Grading A overrun at the wall had already been compensated fully under (a)(2) of the DQ clause. The clause is set out below at Finding 5. Appeal File at 226; Transcript at 474, 551, 559-60. Appellant did attempt to parse the DQ for Grading A into two items, one for the road use and the other for use at the wall. The contract, however, has but a single item. In addition to the Grading A included in the DQ, the FS added by modification approximately 900 cys of Grading A material, which it identified as a change. The Grading A was used in conjunction with geogrid, which was added for stability. While there was considerable testimony at the hearing regarding the geogrid and the Grading A material used with it, the geogrid operation has little to do with the issues in this claim. That is because the cost of Grading A used with geogrid was compensated through modification. Also, the FS added payment for a separate 92 cys of Grading A, in a modification which was associated with a problem in the crown of the road. Appeal File at 141-44; Transcript at 475.

4. As to the third disputed item, shoulder rock, it was evident to the FS at the outset of the project that the FS had inadvertently omitted a line item for shoulder rock. To remedy that, the parties entered into Modification 2, under which the FS agreed to provide shoulder rock to appellant from a stockpile of FS material located on-site and to compensate appellant for the costs of placement and hauling of that material at $8.15 per cy. The parties did not contemplate at that time using material processed by appellant for shoulder rock. They expected that the on-site material would be used, and if additional material was needed, it would be secured by the FS and the FS would let appellant know the source. Appeal File at 141-44, 163, 167-68.

5. Specification Section 106.4, titled Methods of Measurement, sets out the requirements as to adjustment of DQ items. It provides:

> One of the following methods of measurement for determining final payment is DESIGNATED IN THE SCHEDULE OF ITEMS for each PAY ITEM.
>
> (a) Designed Quantity (DQ). These quantities denote the final number of units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units DESIGNATED IN THE SCHEDULE OF ITEMS may be authorized under any of the following conditions.
>
> (1) Changes in the work authorized by the CO.
>
> (2) A determination by the CO that errors exist in the original design that cause a PAY ITEM quantity to change by 15 percent or more.
>
> (3) A written request submitted to the CO showing evidence of errors in the original design that cause the quantity of a PAY ITEM to change by 15% or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designated quantity is in error.

Appeal File at 282.

6. The standard Changes clause, Federal Acquisition Regulation (FAR) 52.243-4 (Appeal File at 17), was incorporated by reference and contained standard language as to 30- and 20-day notifications. In early documents, appellant referenced the Variation in Estimated

Quantity (VEQ) clause; however, it later dropped its reliance on that clause. Appeal File at 159.

7. Under Section C, DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK, the contract incorporated at C-3 the provisions of Agriculture Acquisition Regulation (AGAR) 452.236-78, Forest Service Standard Specification for Construction of Roads and Bridges (NOV 1996). Appeal File at 5. The following language from that clause is at issue as to the shoulder rock:

> 105.05 Rights in & Use of Materials Found or Produced on the Work
>
> (a) With the written approval of the CO, suitable stone, gravel, sand and other material found in the excavation can be used on the project. Payment will be made both for the excavation of such materials at the corresponding contract unit price and for pay items for which the excavated material is used. Replace, without additional compensation, sufficient suitable materials to complete the portion of the work that was originally contemplated to be constructed with such material.
>
> (b) Materials produced or processed from Government lands in excess of the quantities **required for performance of this contract** are the property of the government. The government is not liable to make reimbursement for the cost of producing these materials.

Appeal File at 283 (emphasis added).

8. Sheet 6 of the drawings had two separate depictions, each of which was noted not to scale. The sheet showed how the wall was to be constructed, including details as to the placement, dimensions, and composition of the rock wall and of the Grading A material to be placed next to the retaining wall rocks. The top depiction is titled RETAINING WALL & WIDE DITCH TYPICAL and the lower is titled RETAINING WALL & SNOWMOBILE TRAIL TYPICAL. The depictions covered the area from station 350+10 to station 378+07. Each shows similar depictions on the left-hand side. At the Wide Ditch, the drawing shows compacted Grading A next to the existing roadway. To the left of that, it shows the retaining wall rock. The Grading A is shown as 2 feet wide and the retaining rock as 2 feet to 3 feet wide. In addition, this portion of the drawing shows 2 rocks at the retaining wall, one on top of the other. The top rock is dimensioned at 2.5 to 3 feet in height. The lower rock, which is shown at a similar size, does not have specific dimensions next to it. At the snowmobile trail depiction, the FS shows on the left-hand side what looks like 3 feet of fill. It is, however, not labeled. The FS shows next to that 2 to 3 feet of Grading A rock and next to

that 2 to 3 feet of retaining wall rock. It again shows 2 rocks with the top rock dimensioned at 2.5 to 3 feet. On the left-hand side of each depiction is the wording Existing Ground Line and to the right of each is a triangle that shows the height at 6 feet and shows a width of 1 foot. Both drawings are labeled as "Typical." Appeal File at 614. Mr. Culham was questioned as to the above-noted triangle, it being described in the exchange as a ramp. He agreed that it was an indicator of what the Government contemplated the height of the wall to be. When asked if that was because it was on a typical profile, he answered that it was the expected height, then noted that the height could have been less. Transcript at 32-33.

9. During the hearing, the FS made reference to several other drawings which showed profiles and which evidently were used in the design process. None of these drawings were provided to proposers prior to award and none of the proposers requested such drawings. Transcript at 320-28.

10. For purposes of organization and readability, the remaining factual findings will first address the retaining rock and the Grade A material dispute and then separately address the facts pertaining to the shoulder rock dispute. Thereafter, the findings address correspondence after the work appears to have been completed. Significant events and correspondence occurred concurrently and letters often addressed all three issues. Nevertheless, a better picture of the dispute can be drawn by first addressing the matters separately.

Rock Wall And Grade A

11. The contract called for a retaining wall and Grading A material to run along the side of the road from the road surface downward to the bottom of the side slope. Cosmetically the retaining wall rock was to look uniform running along the surface level of the road. The height of the wall (number of rocks) was determined by the lay of the land. The lower the land at the bottom of the side slope, the more rock wall would be needed at that location. Transcript at 36-38.

12. Mr. Terry Warhol, Mr. Acosta's direct supervisor, testified as to how the FS came up with the DQ for the retaining wall and as to the FS's original design assumptions. He said the FS had conducted topographic surveys for estimating purposes, then created a typical wall profile or cross-section and based the DQ on that. Transcript at 235-38. When asked about specifics, such as the design calculations for the rock wall, however, he deferred to Ms. Johnson of his office or Mr. Acosta, both of whom he said had more details. Transcript at 267. Mr. Acosta, in his testimony, provided more specifics. He said the DQ was arrived at as the FS took cross-sections from the survey. He said those documents were in an exhibit (what he was referring to were drawings referenced in Finding 9, above, that

were not provided to proposers). He said the FS scaled the vertical wall on the left side of the cross-sections and that told the FS the height it would estimate. He continued that if the vertical height was 2 feet or less the FS did not require a rock wall. Where the wall was 3 feet or higher, the FS required the wall. The FS then identified the stations and calculated the DQ. When specifically questioned by the presiding judge, Mr. Acosta said that he recollected that in the FS design, none of the vertical walls (walls to have retaining rock) exceeded 6 feet and that was reflected in the cross-sections taken by the FS. He confirmed that the FS did not expect the walls to exceed 6 feet and the calculation reflected those anticipated conditions. He was then asked whether there was an error in calculating the DQ using the parameters chosen by the FS. He said there was no error in the calculation. Transcript at 302-08.

13. Testimony from Mr. Acosta confirms that neither he nor the FS expected the walls to exceed 6 feet and that the drawings provided to proposers conformed with that. Mr. Acosta did expect the height of the wall to vary below 6 feet, but did not know at the time of design, the extent to which it would vary. When asked specifically about what was reflected in Sheet 6, he agreed after describing the dimensions of the rock shown on the drawing that he understood that the height of the wall could go from 3 to 6 feet. When asked if the 3 to 6 feet was going to be the variation in the height of the wall, he again said "correct." When asked the same question, albeit somewhat differently, he again acknowledged that he would read the 2.5 to 3 feet dimension next to the top rock to indicate the size of the individual rocks. He did, however, note that the bottom rock did not have a specific dimension, as the FS was keying it so it could be a little higher or taller. Transcript at 297-303. In its brief at page 2, the FS acknowledged that the typical detail describes a wall that ranges from one to 6 feet in height. That fact was also acknowledged by the original CO, Ms. Klinger, who agreed that nothing on the drawing showed the wall being larger than 6 feet. Transcript at 228. There is no indication on the drawing of the wall, designed by the FS, that it would be any higher than that. Appeal File at 614.

14. Where the height of the retaining wall reached and exceeded 8 feet, structural considerations came into play. To deal with that, the FS added the geogrid, which it tied into the rock wall and into the Grading A rock at various levels. Along with the geogrid, the FS increased the width of the Grading A from 2 to 10 feet in specified locations. The parties referred to the method used as a "burrito wrap." As noted previously, the geogrid and Grading A associated with it were dealt with and paid through Modification 1. Thus they are not part of the claim. This claim involves the areas where the wall exceeded 6 feet and no geogrid was used. Appeal File at 141; Transcript at 344-46.

15. Appellant was low proposer on the project. Freeman proposed the rock wall and Grading A as a subcontractor to Flathead. At the time of the proposal, Freeman

understood that the stone wall would be 6 feet tall at its highest. Transcript at 109. When Freeman estimated, it did not figure the rock was going to be 8 feet high, but expected it to be limited to 6 feet. Transcript at 123-24.

16. On July 2, 2004, the parties held a pre-work conference. Appeal File at 149. Issues almost immediately arose regarding rock wall height. Concerns were reflected in letters of July 6, 2004, and July 21, 2004. As of July 21, Freeman was already hauling in rock. Appeal File at 171; Supplemental Appeal File at 2-3.

17. Because the drawings required 2 feet of Grading A to be placed next to retaining rock, increases in the height of the retaining rock resulted in a corresponding increase in Grading A. The FS appreciates that relationship. However, it disagrees with appellant as to the amount of Grading A that was actually used by appellant at the wall (the FS contending that excavated rock from on-site was substituted for Grading A in some locations). This contention as to use of other material was first raised at the hearing and had not previously been an issue. The FS also disagrees with appellant as to whether the overrun (even at the quantity claimed by appellant) qualified as exceeding 15% of the DQ and as to whether the increase was due to a change and not a design error, the later concluded by the FS. Up until the hearing, the CO appeared to agree that appellant had placed a total of 1230 cys of Grading A at the wall. Several numbers were used by the parties during the dispute and at the hearing. The consensus number appears to be 1230, and that will be generally referred to and will be used in our calculations. Moreover, the 1230 cys was in fact reflected in the CO decision as well as in Respondent's Exhibit 2. Appeal File at 226; Transcript at 474-85.

18. At the hearing, appellant provided a quantity for how much Grading A material it placed at the wall. It used a formula, based on the retaining wall quantity. Appellant took 1552 cys of retaining rock (this differed from another number used of 1538 cys) and divided the 1552 cys by 2.5 feet, the width of the rock wall. That gave appellant a surface area of 620.8 yards. Appellant then took the thickness of the Grading A rock, which was shown as 2 feet in width, and multiplied the calculated surface area of 620.8 yards by 2 (feet) to get 1241.6 cys. As Mr. Mann explained, this was an estimate, and he opined that it was very conservative. He estimated that it was likely that more material had been used. The above number of 1241.6 cys was later converted to 1231 cys and then 1230, which is the number generally used by the parties and the quantity we use to represent the amount of material (albeit not necessarily all Grading A) placed next to the wall. Transcript at 654-59.

19. Initially the parties focused the dispute on how the overruns related to section (a)(2) of the DQ clause, the portion requiring that payment would be made only if the overrun exceeded 15% of the DQ. As such, appellant, in initially pursuing its claim, was

essentially reacting to the FS acknowledgment of a design error. In various letters to the FS during the dispute, appellant attempted to establish that it met the 15% threshold for Grading A material that position being based on comparing the quantity of Grading A material placed at the wall with the amount initially estimated as needed for the wall. The Grading A line item which was over 8000 cys, however, included not just wall but also the road base. Given the fact that the DQ in the contract for Grading A was over 8000 cys, we will not here go through the various arguments and testimony from appellant attempting to meet the 15% threshold for Grading A. Transcript at 677-78. Put simply, given the contractually stated DQ for Grading A material, there is no calculation under which appellant can show a 15% overrun of that stated DQ. Appellant's attempt to parse the Grading A, into Grading A for the road and Grading A for the wall, has no contractual or legal basis of support. There was a single Grading A item. We do note, however, as will be evident in our discussion, that qualification for the 15% is not critical to resolution of the Grading A matter, as the DQ clause also allows compensation due to change and we have concluded that the change in the height of the wall triggers that provision and not the error provision relied upon by the FS.

20. As noted above, at the hearing, the FS, for the first time, raised the argument that a significant portion of the 1230 cys of material placed at the wall was from rock excavated on-site and not Grading A. Mr. Culham asserted that 685 cys of non-Grading A material needed to be deducted from 1222 cys (another variation of the 1230). He identified that as a fill from the excavation that had been placed in lieu of Grading A. He opined that appellant placed only 537 cys of Grading A at the wall, and not the overrun of 475 to 500 cys that he said appellant was claiming. Respondent's Exhibit 2; Transcript at 484-85.

21. The FS paid appellant for 9187 cys of Grading A on this contract. The 9187 is composed of the 8287 cys that was set out in the contract as the DQ, plus the additional 900 cys associated with the geogrid change. Respondent's Exhibit 2; Transcript at 478-88, 495-96. There was no specific evidence presented as to how much of the 8287 cys was used at the wall and how much on the roadway, although the vast amount of Grading A material was used for road base. To help put the number into perspective, appellant calculated that the original wall would have required 698 cys. Transcript at 758-60. No one from the FS provided an alternative to that number. It is also noteworthy that Mr. Culham wrote in a letter in January 2005 that in arriving at the 8287 cys set out in the proposed schedule, he believed the FS had failed to include any of the Grade A for the wall. Appeal File at 226; Transcript at 558.

22. To support its contention, the FS presented a spreadsheet analysis of the Grading A item prepared by Mr. Culham. Respondent's Exhibit 2. Mr. Culham derived his analysis by using the superintendent daily job reports. The FS asserted that during performance of the contract, appellant performed some excavation where it had to take out

a corner of the road alignment. Mr. Culham called it a hillside. Respondent's Exhibit 3; Transcript at 479. In lieu of removing that material from the site, the COR agreed that the material could be used behind the retaining wall, as if it were Grading A. According to Mr. Culham, various job logs (Appeal File at 342, 347-48, 353) show the placement and quantity of excavation material used. For example, Appeal File at 342 said, "placed 40 yards of excavation and one load of A behind the special rock wall." Appeal File at 347 says, "placed about 15 yards of special rock wall. We used five loads of rock excavation for fill behind rock wall." Appeal File at 348 says, "load and place 14 loads of rock excavation in the snow park area behind the special rock wall." Appeal File at 353 says, "we hauled 12 dump loads of excavation to backfill the hole to grade." Unlike the others, this log does not reference the retaining wall, although it was included. Mr. Culham then totaled the above logs and came up with 43 loads of the excavated material. Using trucks with a hauling capacity of 20 cys per load, he and the COR came up with 15 cys per load. Those 43 loads, plus the 40 cys from Appeal File at 342, total 685 cys, which Mr. Culham said was equivalent to over half of the quantity of material used at the wall, based on a neat 2-foot wide section. We note, however, that the quantities in the Appeal File at 342, 347-48, and 353 total 32 loads plus an additional 40 cys, or approximately 34 loads, not 43 loads. Further, in addition to the math error, we find nothing in the Appeal File at 353 which puts the material discussed at the retaining wall. Accordingly, the 12 loads in Appeal File at 353 do not appear to be tied to the wall and are deducted from the FS calculation. Therefore, our total shows that appellant used 22 loads of on-site excavated material at the wall, with the remainder, Grading A.

23. Although the FS established that appellant did not solely use Grading A at the wall, it was only under questioning by the presiding judge that Mr. Culham acknowledged that although Government material was used in lieu of some of the Grading A, appellant still had to haul and place that added material. Mr. Culham tried to minimize that effort. He testified that by using FS pit material, appellant had a shorter haul. He said that for some portions of the material, there may have been no haul. He then said that he personally did not know details about the matter, but Mr. Acosta did. Transcript at 498-99. Mr. Acosta, however, never provided any testimony to clarify the matter. Similarly, appellant did not further address this issue. The unit price proposed and paid for Grading A, including the material, was $16.67 per cy. The unit price for crushing Grading A material was $4.85 a ton. When the 1.35 conversion (used to convert tons to cys) is applied, the converted cost comes to $6.54 per cy. The remainder of the unit price covered placement and hauling costs. We recognize that the $16.67 figure was based on the material coming from the crushing site. Respondent's Exhibit 2; Transcript at 478-86, 495-98, 573-74.

24. Mr. Acosta confirmed that the contractor used some excavated material at the wall in lieu of using Grading A. He confirmed that the material came from the same area as noted by Mr. Culham. Mr. Acosta said that once appellant found good rock there, appellant

asked if it could place some of that rock, instead of the crushed rock, behind the wall. Mr. Acosta agreed. While Mr. Acosta confirmed the use of some rock from on-site in lieu of Grading A, he provided no estimate of amount. Transcript at 296.

25. Mr. Mann acknowledged that some on-site rock was used in lieu of the Grading A. He, however, challenged the amount claimed by Mr. Culham. He raised the point that there was nothing in the notes (referring to logs) that indicated that appellant had placed the on-site material in a 2-foot neat line. He also asked Mr. Culham whether the rock from on site could have been used next to the Grading A as fill, and Mr. Culham replied that he presumed that when the logs said appellant placed rock behind the rock wall, that meant in the neat lines. When asked how he could conclude from the notes that some of the material was not used to displace fill, rather than displacing Grading A, Mr. Culham referenced a conversation with Mr. Acosta, apparently in preparing for trial. He said that Mr. Acosta stated that one excavation area was blasted and Mr. Acosta reported that he authorized use of rock from that area in place of Grading A and not as fill anywhere else. Mr. Culham based his judgment on that. Transcript at 570-71. The term "fill" was used loosely by the parties throughout the hearing, and it is not evident at times if it is referring to the Grading A as fill or fill as a separate item.

26. As noted earlier, the focus of the parties initially centered on the application of the error in design portion of the DQ clause, section (a)(2). That focus is reflected in the summary judgment motion filed by the FS and in the January 3, 2006, ruling of the AGBCA on that motion. *Flathead Contractors, LLC*, AGBCA 2005-130-1, et al., 06-1 BCA ¶ 33,174. Section (a)(2) of the DQ clause was the focus of the decision because, at the outset, the FS identified that portion of the DQ clause as the controlling issue and appellant evidently thought it could qualify under the 15% limitation for both the retaining rock and Grading A. Thus, in the motion, the parties focused on section (a)(2). As the claim proceeded at the AGBCA, however, the matter moved to the full meaning and operation of the clause, and more specifically to whether the issues in dispute fall under the change provision, (a)(1), as opposed to the error in design provision, (a)(2). Section (a)(2) triggers the 15% use, while the change provision, (a)(1), does not contain a 15% limitation. Mr. Mann addressed appellant's position on whether the overrun was the result of a change rather than a design error. He considered the change to be having to construct the wall higher than the typical height of no more than 6 feet, the height represented on the typical detail. Appeal File at 614; Transcript at 674-79.

27. Mr. Culham explained the FS reading of the DQ clause and why he believed that the overrun qualified as a design error and not a change. He cited the failure to identify the elevations as the design error and explained that designation on the basis that the wall that was built was the wall that was called for in the contract. He said that he could find no

instance where the design of the placement of the stones as shown on the drawings as typical was changed. He said, "We asked for a rock wall to be a certain height and certain length, and I find nothing in the country [sic] where somebody ordered it to be different than that." Transcript at 80. Mr Acosta differentiated between changes occurring on the alignment and grade of the road, and what happened as to the rock wall. He said that to the extent there was a design error, it would have been failing to identify the grades properly. Transcript at 438. Later, when asked where there was an error versus a design change, he said it was an error in the FS design of the road, stating that the way the FS had the profile and alignment laid, the project was not "fitting in good" with the actual ground conditions, as they were surveyed. Transcript at 308. The presiding judge then asked, "Why isn't that a change in the design?" Mr. Acosta's answer can at best be described as confusing. Later Mr. Acosta tried to differentiate changes and error, by examples, essentially asserting that the wall did not involve change because the wall always remained the same as to the FS intent. He differentiated that from the FS changes as to excavation, saying that those had to be made or the FS could not construct the road. The testimony from Mr. Acosta seemed to conclude that since the contract always called for the rock to be at the height of the road, the fact that the rock got higher because it had to be started at a lower point meant that no change occurred. Transcript at 308-13.

28. At the hearing, there was testimony from both parties as to the significance of the depiction of the retaining wall and Grading A as typical on sheet 6. Mr. Warhol testified that "typical" was not intended to represent a particular point on the wall. Transcript at 235-36. Mr. Acosta said that the drawing described a typical wall and that the FS expected that the height would vary. He said he did not know how much it would vary until he saw the road staked. Transcript at 298. He said none of the FS cross-sections used for the design exceeded 6 feet. Transcript at 307. Ms. Klinger was asked by the presiding judge if the typical dimension showed 6 feet as the maximum, and if the wall was constructed at 8 feet, why that was not a change. She answered that because "it is typical does not mean that it is always going to be 6 feet, sometimes it would be 8 feet and sometimes 4." Transcript at 227-28.

29. The FS raised an issue as to how appellant had prepared its proposal. Mr. Mann acknowledged that he did most of his estimating on the fly and did not visit the site prior to submitting the proposal. He did note that prior to submitting the proposal, he talked to Mr. Freeman and to another gentleman, each of whom visited the project prior to the proposal. Transcript at 735-36. The FS asserted in its brief that appellant knew during the solicitation period that it could not estimate the height of the wall with any kind of precision. In response to that, Mr. Mann testified that the FS showed "typical" for the wall and that was all he could rely on. Transcript at 751. The FS through its inspector, Ms. Marilyn Johnson, made the point that if appellant had scaled the cross-sections, it could have discovered that

the wall would be higher than 6 feet in various locations. Transcript at 317. She also acknowledged, however, that no proposer made a request for cross-sections. Moreover, it was clear that the cross-sections being identified by the FS and referred to by Ms. Johnson were not included as part of the solicitation documents and appellant did not get material of that nature until after award. Transcript at 325-28. Additionally, it is worth noting here, as Mr. Culham pointed out, that the FS uses a DQ item to put everyone on notice that the item is calculated and not measured. Appeal File at 439-40; Transcript at 604. Moreover, the thrust of the clause is to pay, if the quantity overruns because of a change or a miscalculation within the planned and calculated parameters of the project. This is not a claim based on a differing site condition or involving that type of clause.

30. Mr. Freeman testified as to additional costs Freeman incurred, due to having to place rock higher than planned. The costs were reflected in the claim for adjusting the unit price on the rock placement. He acknowledged that he was not on the job each day, but noted that he had a foreman on the project and "had good tabs with the working superintendent there." From time to time he was at the site and did observe construction of part of the wall. He said that once the wall height exceeded 6 feet, it affected how his company could place the rock and required extra time and extra equipment. He explained that two courses of rock could stand on their own without need of support from Grading A, but as rock got higher and he had to place more than two rocks (the drawing showed rocks ranging from 2.5 to 3 feet in height) he had to use Grading A for support during the rock placement operation. In general, he had planned to lay a significant run of stone and then come back to backfill as a separate operation. He had not planned for placing Grading A as support, as the placing of the retaining rock went along. The change in sequence caused Freeman often to lay the stone and then backfill a much smaller segment than planned, which in turn caused Freeman to proceed much slower. He testified that his company could not work in the long runs anticipated and had to place Grading A as a separate operation from the placing of rock. More specifically, he said, for the area that was only going to be two rocks high, he did not figure on backfilling until everything else was brought into play. Because of the need to do both the retaining wall rocks and Grading A at the same time, Mr. Freeman asserted that his company was delayed. In addition he said that it caused him to have to hold some equipment longer than originally planned. Among the items was a rental excavator. Transcript at 106, 111-12, 123-25, 170-78, 189.

31. Mr. Freeman acknowledged that the per unit cost of the rock itself was not affected because of the change in the height of the wall. He said that he had costed his placement by the whole total and thus could not segregate his costs for individual locations. Transcript at 166-67. Because he did not segregate costs, he acknowledged that he could not calculate a measured mile. Transcript at 110-11. Freeman did provide details of overall costs. Appeal File at 375-424. Appeal File at 376 is a summary sheet of Freeman's claimed

costs for the retaining wall overrun. Mr. Freeman was asked at the hearing to attempt to quantify the increase by means of comparison of effort. He first said that because of the change in sequence and putting Grading A behind the retaining wall, as he went along, it would have taken Freeman twice as long to do a 100-foot segment. Later, in response to a similar question, he stated that he would estimate that it took 50% longer to get the placement done than it would have if appellant had performed by placing and hauling as a common operation, the manner he said it had contemplated in pricing the proposal. Transcript at 182-85.

32. The FS disputed the dollar impact claimed by appellant. The FS spent considerable time on the issue of whether appellant's proposal number was reasonable and reflected all costs. The FS claimed appellant's proposed price was too low and did not include everything. If the FS was correct, then too low a proposed price would skew any comparison of actual versus proposal costs in favor of appellant. As part of this discussion, the parties spent considerable time arguing over cost details such as how and where appellant included excise tax in pricing. Generally, most of this evidence cluttered rather than cleared up the record. We chose not to go into a full review of the considerable testimony on many of these cost aspects, nor do we need to make that analysis in order to arrive at a reasonably accurate number. That is because the record provides a reasonably accurate approach to arriving at cost, which would not materially change, even if we resolved the cost details in favor of the FS and found the proposed price was too low.

33. The above said, we make the following observations. In general, the challenges made by the FS to Freeman's proposal do not significantly call into question the reasonableness of the proposal or of the costs expended. Regarding the FS argument that Freeman's cost increases were caused by using an outside contractor for placement work, in lieu of using one of Freeman's own personnel, Mr. Freeman testified otherwise. The FS claimed that Freeman paid the subcontractor $90 per hour as compared to Freeman's estimated cost (in its proposal) of $57.50 per hour for placement. Contrary to that charge, the evidence showed that in making the choice to use an outside operator, Freeman lowered and did not increase its costs. Mr. Freeman testified that in his proposal, the machine alone was $87 an hour to rent. He continued that when he added to that labor and burden, the cost was going to be well over $100 an hour. He said that the $100 an hour did not even take into account the fact that by hiring an experienced operator, Freeman was also avoiding a learning curve. Transcript at 781.

34. As to the FS contention that Freeman did not change his sequence of work, we note that the FS claimed support on the basis of logs that were kept by appellant and found in the Appeal File at 328-54. While the FS cited these logs, it did not point the Board to specific provisions or comments in the logs which support or establish the FS position.

Moreover, the logs do not specify particular locations, do not generally describe the height of the wall being worked, and do not address the relationship between the placing of reported rock and Grading A on any given day. The logs simply do not contradict Mr. Freeman's testimony. In addition, Mr. Mann testified as to how the logs were prepared. He said that Ron Wilson, who prepared the logs, was generally very accurate when keeping track of important entries such as pay items, but assessing how accurate he was on other matters was difficult. Mr. Mann continued that things are estimated on logs and what might appear to someone to be a precise quantity for a certain activity or phase may not tell the whole story. Transcript at 737. Moreover, Mr. Acosta was at the site for most of the rock work and placement of Grading A. Mr. Acosta did not challenge Mr. Freeman's contention that the sequence was changed, nor did Mr. Acosta challenge the method of performance described by Freeman. If Freeman had not proceeded in the manner Mr. Freeman described, we would have expected to hear that from Mr. Acosta.

35. The FS provided at the hearing Respondent's Exhibit 3, which was a document of calculations regarding costs claimed and expended by appellant on the retaining wall operations. Using Respondent's Exhibit 3, the FS in its opening brief at page 14 provided the following. It said that before markup, Freeman had an estimated unit cost of $74.61 per unit (the $82 it proposed to Flathead used that number, plus markups) and had actual costs of $79.97, a difference of $5.36 per cy. Of that difference, the FS says that Freeman mis-estimated material and delivery costs and that resulted in Freeman having to incur an additional actual cost of $2.14 per cy for costs not reflected in the proposal. The FS subtracted the $2.14 from $5.36 and said that left an additional increase in costs, at least partially attributable to the overrun, of $3.22 per cy. The FS also calculated that Freeman's markup in its proposal on its work was 6.5% for overhead and profit. The FS then concluded that even if Freeman had incurred more costs than it proposed, Freeman would be due no more than $3.54 per qualified cy. It is not clear from the brief where the FS secured the figure of $79.97, or how it arrived at its calculations, although the FS cited to Transcript at 513-16 and the exhibit was discussed in the Transcript at 507-30.

36. According to Mr. Freeman, the proposal amount before markup was $74.61, and the actual cost before markup was $84.29. Transcript at 132. Mr. Freeman said the difference in cost between what Freeman proposed and the actual cost was in the equipment, the operators, and the labor to put in the added material. Transcript at 132-33. Freeman testified that excise tax was included in Freeman's overhead and that is how Mr. Freeman's computer program worked. Transcript at 164. As to the FS claim that Freeman was inefficient in its placing and hauling operations, we note the evidence is otherwise. When Mr. Acosta was asked about his observations of the work, he said Flathead had a good contractor or subcontractor who knew what he was doing and had a good system and routine that did not waste a lot of time. Transcript at 295. Finally, the fact that the project, like all

projects, had some hitches does not translate into deductions of recovery. There was no evidence that difficulties were either unusual or excessive. Mr. Freeman testified that when he writes a proposal he includes 15% to 18% for overhead. He, however, provided no historical documents to show that. On further questioning he stated that in estimating he hardly ever estimates below 10% for overhead. Transcript at 787. Near the close of the hearing the FS had Mr. Freeman review some pricing numbers as to the rock wall item. It had him review anticipated costs and tax and then calculated overhead using the difference. Those numbers indicated that he had used a rate of 6.5% for overhead in pricing the rock wall item. Transcript at 787-90.

37. In addition to the comparisons of proposed and actual costs, the FS provided the Board with an alternative calculation in its brief. In this calculation, which again referred to Respondent's Exhibit 3, the FS focused on Freeman's placement costs. Mr. Freeman had testified that the additional material caused his placement costs (labor and material) to increase by about 50%. Transcript at 182-85. The FS said that Freeman's original estimate for labor and equipment to build the wall was $7.09 per linear foot. The FS arrived at that by taking $18,860, which was the hauling and placement costs that Freeman priced to Flathead, and divided that number by 2660 feet, the length of the wall. The FS says that a 50% increase in costs to built the wall would result in a new number of $10.63 a linear foot ($7.09 x 1.5) or a maximum increase of $3.54 per linear foot, attributable to the increased labor/equipment effort for that portion of the wall exceeding 6 feet. The FS then added to that what the agency again claimed was Freeman's 6.5% allowable markup, and concluded that the maximum adjustment was $3.77 a linear foot. The FS then stated that the representation of the as-built rock wall, liberally interpreted, represents approximately 2352 linear feet of wall having heights over 6 feet. The FS then calculated the adjustment (calling it Freeman's best case scenario) as $8867.04.

38. In its briefing, the FS challenged whether Freeman was entitled to any payment from Flathead, relying on the contention that because there was no specific clause in the subcontract between Flathead and Freeman as to adjustments for DQs, Flathead had no obligation to pay Freeman and thus the FS had no liability. Alternatively, the FS in its opening brief, at pages 12-13, pointed to a clause in Freeman's contract that referenced using the VEQ clause for adjustment of unit priced items. Appeal File at 306. The FS reasoned that to the extent Freeman could be paid, it had to be under that clause and therefore, notwithstanding the DQ clause, Freeman could only be paid if it and Flathead could show that the cost increases claimed by Freeman were due solely to the overrun.

39. Mr. Freeman testified as to his understanding of the claim and contract relationship with Flathead. He noted that his expectation here was based on what he characterized as typical between a prime and subcontractor, basing that also on his

experience. He testified that it was his experience that the subcontractor is compensated based on what the owner pays the prime contractor for the claim item. He noted that contracts between subcontractors and primes do not always specifically spell that out. He stated that he expected that if Flathead obtained a unit increase, then Freeman's unit price would be adjusted to whatever quantity was paid for by the FS. It is evident from his testimony that if payment were to be made by the FS under the VEQ clause, then he would have been bound to whatever Flathead received. Conversely, where the variation clause was not operational, such as here, he would recover under whatever contract clause covered Flathead. Transcript at 118-19. During questioning by Mr. Mann, Mr Freeman was directed to paragraph 17 and appendix A of the subcontract, which incorporated various requirements from the prime contract into the subcontract. Appeal File at 304-05. Under Mr. Mann's questioning, Mr. Freeman confirmed that he was referring to those documents when he said he was getting paid under the terms and conditions of the prime contract, with the exception of anything that may differ in his contract. Transcript at 136-37. Mr. Mann testified that if he received additional compensation from the FS for the added costs due to the height change, Flathead would pay it to Freeman. Transcript at 704.

Shoulder Rock

40. The FS acknowledged at the outset of the project that it had omitted a line item for shoulder rock. To remedy it, the FS agreed to provide appellant with processed rock from an on-site Government stockpile. The material in the stockpile, described as scalpings, was to be used for the shoulder. The FS agreed to pay appellant for the hauling and placement of furnished material at an hourly rate, with the placement price to be negotiated. Soon after award, the parties made preliminary estimates as to both the amount of material to be placed and the amount of material they expected to have available at the on-site pile. At the time of the modifications, the parties did not discuss nor did they anticipate using Grading C material for the shoulder. Appeal File at 163; Transcript at 150, 211, 282-84, 384-86. The hauling and placement of the material was subcontracted to Tidewater, the firm that also did the paving. Transcript at 617-18.

41. During the hearing appellant quantified the amount of material in the stockpile as 2500 cys. Appellant did that based on Mr. Mann's measurements. Mr. Mann stated that in July he paced the pile off and measured the height. He said that the task was something he did in his line of work as a surveyor. In describing the 2500 cy figure, he said it was a little bit on the high side. Transcript at 620, 623. Mr. Culham contended that the pile held 3500 cys, not 2500. He did not rely on a visual estimate or on actual measurement to arrive at his number. Rather, he contended that the preliminary estimate in the modification should be taken as a firm amount as to what was in the pile. His expressed rationale was that since the first modification for hauling and placement showed 3500 cys that was the amount in the

pile. Transcript at 629-30. That conclusion ignores testimony from Mr. Mann and Mr. Acosta that the amount shown in the first modification was based on rough estimates. Moreover, the FS ultimately increased the amount of material needed from 3500 to 5300 cys, showing that the estimates were not viewed as firm. In addition, in a memorandum of December 13, 2004, Mr. Culham described the FS pile as insufficient in quantity and of marginal quality. Appeal File at 213, 234; Transcript at 362-63. The parties agree that appellant placed a total of 5300 cys of rock for the shoulder and the material it used was Grading C material that had been produced by appellant's crushing subcontractor, DeAtley. Transcript at 639. The FS has paid appellant for the hauling and placement of the 5300 cys placed, and thus, the dispute before us focuses solely on the value of the material placed.

42. On or about the date of NTP, Mr. Mann and Mr. Acosta discussed the possibility that the FS might not have enough material in the identified pile to meet the needs for shoulder rock. They discussed what would happen if there was not enough. Mr. Acosta testified that he pointed out to appellant that normally on an asphalt project, there is some reject material that has been used for shoulder rock and that he would want to try to use that first. He then acknowledged that on this project, he was not sure that any reject would be available, as he did not know the process as to reject material that appellant was going to use. In fact, he said that Mr. Mann pointed out that it was possible that the process that the crusher used for the asphalt might not yield any leftover reject material. According to Mr. Acosta, at that point, he said, "if we determine that we need more material, we'll make an agreement and crush more. If we run out from our existing pile and we never agree on having you crush anything, then it's going to be at our expense. We're going to have to haul it from Dayton and we're going to pay for it, the Forest Service." Transcript at 284-85, 387-88.

43. On or about July 13, the FS presented appellant with a draft modification addressing the addition of the shoulder rock. Appeal File at 177. Thereafter, the FS provided appellant with Modification 2, which added a new line item, item 304(14), which the FS identified as Government-furnished aggregate. The modification estimated the amount of rock needed at 3500 cys and called for it to come from the on-site pile. The FS agreed to pay the contractor $8.15 per cy for the hauling and placement of the material. Because the material was to be Government-furnished, there was no need for appellant to estimate the cost of processing the material. Prior to the FS entering into Modification 2, the FS prepared a "Justification," dated August 9, 2004. As part of that justification it noted that the shoulder rock was omitted from the schedule of items and also stated that the rock was needed for safety purposes. The modification was dated effective September 14. Later, by Modification 3, the FS increased the amount of shoulder rock by an additional 1800 cys. This brought the total to 5300 cys, again with the FS solely paying for hauling and placement. Appellant declined to sign an accord and satisfaction included with that modification. Appeal File at 142-46, 163, 179, 195-97, 205-06, 284.

44. The initial plan to use the FS on-site pile for shoulder rock did not come to pass. Instead, at the time appellant was ready to proceed with placing material, representatives of appellant raised questions as to the suitability of the on-site material for the intended use. Both Jack Bolman, who ran this part of the operation for Tidewater Construction, and Ronald Borello, who worked for Mr. Bolman, asserted that the pile was not usable. Transcript at 148-50. Both Mr. Borello and Mr. Bolman described the material in the pile as mud. Transcript at 150. The FS in contrast argued the material was suitable for use. It based that contention on the statement by Mr. Acosta that based on his observations from afar and his later sticking a shovel into the top of the pile, it was his opinion that the pile was suitable. He said the existing pile was crushed rock and not what Mr. Borella had described as reject. He acknowledged that he never asked appellant to use the pile, once the Grading C was being used. Transcript at 791-92. It is of note that the pile remained on the site after this project. Despite it being available, the FS provided nothing more than the above statement of Mr. Acosta to support its position. No other witnesses examined the site or provided a corroborating opinion. Transcript at 150-52, 358. While we address the quality of the existing pit, we note that the quality issue has no ultimate bearing on the dollar claim or our decision. That is because, even though appellant has continued to contend that the pile was unsuitable for use, appellant has structured its claim so that the FS is given credit for the material in the on-site pile (2500 cys). Thus, appellant seeks compensation for 2800 cys of material, the difference between the estimated amount in the pile of 2500 cys and the 5300 cys placed.

45. The parties disagree as to what happened at the time of placement and particularly as to when the FS was notified or became aware that appellant was going to use Grading C in lieu of the on-site pile. Mr. Acosta stated that he was not on the site every day but was there often. When he arrived at the site on October 11, appellant was already engaged in placing Grading C as shoulder rock. He said that he was surprised. He said that appellant had proceeded without approval from him and without his prior knowledge. He then explained that it was his intent to first exhaust the government pile. He also said that in a conversation held at that time, where appellant's representative said that the material was too wet, Mr. Acosta told appellant's representative that appellant should have tried the designated pile first. Nevertheless, because appellant was already placing its third truckload of Grading C, and because Mr. Acosta figured the Grading C material belonged to the FS (as excess property), Mr. Acosta decided to let appellant continue with placing the Grading C and not use the on-site pile. Transcript at 286-88. A note to the file from the CO dated December 13, 2004, Appeal File at 213, paints a somewhat different picture. There the CO noted that the existing pile contained less material than needed and was of minimal quality. The CO went on to say that based on the above, the Government agreed to use the surplus material used in crushing operations for asphalt work to be used for shoulder rock. The reference to asphalt work is confusing, given that Grading C material and not asphalt

crushing material was used. Significant in the above, however, is the acknowledgment by the FS that the material in the pile was of minimal quality, which differs from the picture presented by Mr. Acosta, that the material would have been fine. Transcript at 362-65. Also, when Mr. Acosta was testifying as to the above note of the CO, he said that the note was referring to asphalt rock and not the rock placed. It is unexplained why the note would indicate approval or an expectation of using asphalt rock as a substitute, when in fact, at the time the note was written in December 2004, Grading C and only Grading C had been placed. The testimony of Mr. Acosta confused the existing pile, the crushed Grading C rock, and some unidentified and not yet crushed asphalt rock anticipated by the FS. Moreover, as to this anticipated crushed asphalt, Mr. Acosta acknowledged that he really did not know if it would have even been created, since it depended on the process used in crushing. Transcript at 373-87.

46. Witnesses for appellant explained matters differently. Mr. Bolman of Tidewater testified that he first had Ron Borello look at the existing pile and then he himself looked at it. He said it was "scalpings," or " mud." Mr. Bolman said that he then talked to Mr. Acosta and the decision was made to use the base rock (Grading C) instead of the scalpings because of the mud in the scalpings. He said that when he and Mr. Acosta talked, they were on the grade, and Mr. Acosta went up and looked at the pile. Mr. Bolman said that he did not know if Mr. Acosta looked at it before he had. Mr. Bolman said he did know that he and Mr. Borello looked at it and decided that they should do something because the material was not suitable for shoulder rock. He said they or he talked to Mr. Acosta, and as far as he knew, Mr. Acosta made the final decision to use base rock instead of the scalpings. To the best of his recollection, everyone was in agreement. Transcript at 151-52. On further questioning by the FS, he reiterated that the decision not to use the scalpings was made before appellant began to lay the Grading C. He stated, "the decision was made before we started laying shoulder rock to use the grading c or the base rock, whatever you want to call it." When asked who made the decision, Mr. Bolman said it was Mr. Acosta. He said they discussed it and Mr. Acosta gave the "ok" to use it. Transcript at 154.

47. Notwithstanding the above, the record is clear that neither then, nor in subsequent conversations during the placement, did Mr. Mann or any representative of appellant indicate or say to Mr. Acosta or to any FS official that appellant was looking to get paid for the crushing costs of the Grading C that was being placed. The first time that Mr. Acosta knew appellant wanted to get paid for crushing was after the rock had been placed. According to Mr. Acosta, the FS did not know until approximately November 17, 2004 (when appellant first made its demand), that appellant was seeking that additional payment. Appeal File at 204-05, 284; Transcript at 291-93. In summary, Mr. Acosta was aware either prior to or after several loads that appellant was placing Grading C in lieu of what was specified in the modification. He took no steps to stop that operation. His actions were

based on his understanding that there was no cost impact to the FS in using the Grading C. He testified that from both his prior experience and his experience with the specification as to ownership, he thought the material was owned by the Government, and therefore there was no need to contest it when Mr. Borella used it. He did acknowledge that in viewing the material as excess, the situation here was unique because of the quantity involved. Transcript at 352-57.

48. Mr. Culham was aware through conversations with Mr. Acosta that appellant was placing the Grading C. He had replaced Ms. Klinger as the CO and was made aware by Mr. Acosta of the hauling and placement change. Mr. Culham, like Mr. Acosta, also believed that using the Grading C would not result in any additional costs to the FS. He too viewed the material as excess to the production. Transcript at 350-51, 627.

49. As part of its defense, the FS has taken the position that had it been given notice as to appellant's intention to seek compensation for the crushing costs of the Grading C material used, it could have used other material on-site at no cost or secured material from off-site at a considerable savings. The FS also has asserted that it could have used less shoulder rock material than what was used and could have made the shoulder narrower, thereby cutting down the cost. As to the size of the shoulder and the amount of material needed, Mr. Acosta acknowledged that the shoulder rock estimate could vary considerably, just depending on the lay of the land and the road. He called the estimate (the amount of rock estimated as needed for the shoulder) "a shot in the dark." Transcript at 391. Mr. Acosta stated that he figured appellant was going to place a one-half to one foot shoulder. He then noted, however, that because of the lay of the road and the ability to make the shoulders a little bit wider, the width was increased, which required more quantity. Transcript at 390. In other testimony, Mr. Acosta used a different width. At one point he testified that what appellant had placed was more than the one to two feet that would have been sufficient. He further noted that because of the agreed yardage per truck, the FS did not concern itself with specifics as to width and let the material be as it was placed. He provided no quantity difference, but did say that the difference between what was placed and what was needed would have been significant. He also acknowledged, however, that the amount placed did create a safety advantage. Appeal File at 197; Transcript at 390-91, 798.

50. Mr. Culham acknowledged that the FS knew as time went by that the FS would need more material. He also testified that the typical solution would have been to use reject material, citing as a basis the testimony of Mr. Acosta. Transcript at 631. However, while Mr. Acosta spoke of possibly using reject material from the asphalt crushing operation, it was not until almost the close of the hearing when, on recall by the presiding judge, Mr. Acosta stated that he recollected a reject pit on the site of 1000 to 1500 cys. He said it was near or just before the pit. He testified that he did not ask appellant to use it. Transcript at 792-93.

We note that the FS showed no photos or other evidence of this claimed material. Further, since it was not used (if it indeed was there) then it should have still been at the site and logically the FS would have produced a photograph or some evidence of its existence. In addition, even if 1000 to 1500 cys of reject had at one time been available on site, the testimony of Mr. Acosta indicated that all or at least some of it had been used. In relation to the 1000 to 1500 cys referred to above, he said that the material was used a little bit for bedding on the culverts and "around." Finally, even if there were 1000 cys (quality unknown), that would bring the total of potentially available material to 3500 cys (the 2500 cys in the pit and the alleged extra scalpings). Under that scenario the FS would still have had to make up the difference between that sum and the 5300 cys placed. Any difference would have required the use of imported, off-site material. Transcript at 623-24, 792. Finally we note that when he was asked, Mr. Culham could not say how much material was in the alleged available pile. One would expect he would have had some idea, given his claim that appellant's quantity should be lowered as a result. Transcript at 632.

51. In contrast to the vagueness of Mr. Acosta, Mr. Mann testified that there was no reject material of the nature referenced by Mr. Acosta and Mr. Culham. Mr. Mann stated that he specifically asked the crushing subcontractor, DeAtley, and Jack Bolman as to the presence of any material, and as Mr. Mann remembered, he was told that they had knocked down whatever pile was there to level an area, shortly after crushing. Mr. Mann also testified that he was at the site several times and did not remember seeing any pile of scalpings. It is not clear as to the specific time he is referring to, as he also testified that he did recollect DeAtley making scalp from the asphalt rock, but described it as a some small quantity of scalp. In that same vein, he was asked whether he would have remembered if there was a significant pile on site. He confirmed that he likely would have remembered it. In addition, he remembered discussing the possibility of using some scalp and the thought was that the FS should pay for that. He then said that he and Mr. Acosta had agreed that if there was some scalp available, they could use it, and it would be "a buck or two a yard" in cost. This appears to be referring to scalp that might be left over from the asphalt rock, not excess from Grading C. Transcript at 633-36.

52. There is no dispute over the fact that at the time of the crushing, the crushing subcontractor, DeAtley, was not intending to use any of the Grading C it had created for shoulder rock, nor is there any disagreement that DeAtley completed the crushing of Grading C and then demobilized the crusher on August 24, leaving crushed material in place. At the time DeAtley demobilized, the remaining crushed Grading C material was not expected to be needed for the road base for which it was created. According to DeAtley's revised quote to appellant of May 21, 2004, and not including mobilization, DeAtley showed a unit price of $4.85 per ton for the crushing of base Grading C. Appeal File at 300.

53. The FS raised issues as to the value of the crushed portion of the operation, given DeAtley's total production and what appellant paid DeAtley on the contract. The contract between the FS and appellant called for appellant to provide 38,995 tons of Grading C. DeAtley priced crushing of Grading C at $188,980.25. That does not include mobilization, priced separately at $25,000. In Respondent's Exhibit 2, Mr. Culham apportioned 47% or $11,750 as the mobilization applicable to the Grading C crushing. DeAtley actually produced 41,935 tons of Grading C, rather than 38,995 tons needed to meet the DQ in the contract. The FS payment to appellant was based on the contract amount of 38,995 tons. Appeal File at 3. The FS thus contended that if one was attempting to calculate the unit costs for crushing each unit of the Grading C, then at best that should be calculated by taking $188,980 and dividing it by the amount produced, 41,935 tons, and not 38,995 tons, the amount contracted for. Respondent's Exhibit 2; Appeal File at 293, 310; Transcript at 463, 469-73. In responding to the FS position, Mr. Mann explained that he has worked in the past with DeAtley and when pricing with DeAtley (and while it was not expressly shown on this quote), DeAtley figures an additional quantity, usually on a percentage basis, that Mr. Mann described as floor loss. Mr. Mann continued that one knows from proposals with DeAtley that DeAtley was going to crush extra quantities and that was taken into consideration in the proposed pricing. He said that was the case with this contract. Thus, appellant was paying DeAtley for the contract quantity plus the floor loss. Transcript at 622-623, 696-98, 700.

54. Appellant testified as to what it would have cost had Flathead or the FS had to secure material from other than an on-site source, as an alternative to the use of Grading C. Mr. Mann stated that he would have had to supply the material from the town of Dayton. He said that would have entailed at least another hour for a round trip haul. At the time, appellant was paying about $75 an hour for a truck. Transcript at 624-25. Mr. Acosta said that he could not put a cost on purchasing of suitable material for use from Dayton. He did say that hauling from Dayton was probably a double haul from what it would have been from on-site. Transcript at 370-72.

55. Continuing with the costing, Mr. Mann testified that appellant was using 20 cys as the capacity of each truck. If one divides $75 by 20, that yields $3.75 per cubic yard for hauling cost alone. Transcript at 640-41. According to Mr. Mann, had Flathead bought crushed rock at Dayton, that would have cost $6.55 for rock per cy and $3.75 for haul. Transcript at 644. He did not specify what type of rock he was pricing at $6.55. According to Mr. Acosta, Dayton was about 17 miles away from the work site, and if rock from Dayton had been used, the FS would have had to negotiate a price as to material and haul. Mr. Acosta had no estimate for the cost of the material nor did he know what may have been available. Transcript at 370. Turning to using substitute material, the cost would have depended on what was available. Counsel for the FS attempted to shed some additional light

on the costing and referenced a facsimile, Appeal File at 197, which says that shoulder rock is usually reject material from crushing asphalt and has a very low cost. Mr. Mann pointed out that, using as a basis Oregon Department of Transportation (ODOT) contracts, generally reject rock is not expensive. Transcript at 369-72, 718-21.

56. Mr. Mann acknowledged that if he was successful as to the claim for Grading C, he would not pay any awarded money to DeAtley. He stated that he believed that the material belonged to Flathead and that Flathead had taken floor loss into consideration when the job was costed. He did agree that in coming up with a unit price, it would be reasonable to use a different total quantity than the 38,995 tons he had priced to establish the unit price. He noted that although he thought the divisor should be different from the proposal, he did not agree to the 41,000 claimed by the FS, but rather thought the number should be more in the neighborhood of 7 to 8% over the contract quantity. Transcript at 700-03.

Correspondence After Completion of the Work

57. In an e-mail message from Mr. Mann to the COR, dated November 10, 2004, Mr. Mann stated that after reviewing final costs, he knew that Freeman had more costs associated with the wall, than Flathead had been able to pay, pointing out that not only had the quantity overrun, but so too had Freeman's unit costs. Supplemental Appeal File at 39.

58. On November 17, Mr. Mann again wrote to the COR as to the retaining wall and again pointed out that the overrun in the retaining wall quantity had caused Freeman to incur a significant cost impact and that he had discussed this with Ms. Klinger at the time they were negotiating the cost reduction on the excavation and culvert items. Mr. Mann said that after reviewing Flathead's subcontractor's final costs, Flathead was requesting a $15/cy increase for the unit price on the overrun quantity. He said the increase covered Flathead's subcontractor's cost overrun on the additional quantity and did not include additional mark-up on the prime contract. Appeal File at 206-07.

59. Mr. Mann then addressed the shoulder rock. He reviewed his intention to have used the Government-furnished material, which he said he had estimated at 2500 cys. He continued that he understood that due to wet conditions of the material, a decision was made to use the remaining stockpile of Grading C. He said that he recognized that this was done for the benefit of both the Government and the contractor, and accordingly, he believed it was reasonable to recognize that appellant could have used the Government-furnished material up to the quantity available. He then asserted that he believed appellant should recover the material cost on the quantity that exceeded the Government furnished aggregate. He asked for compensation of $6.95/cy in the hauling vehicle for the costs of producing Grading C. Appeal File at 206-07.

60. The COR responded by letter of November 24, 2004. He first addressed the retaining wall and said that since the item was a designed quantity, Section 106.04 of the FS specifications only provides for increases in quantities not in price. He also stated that because there was no change in the type of work, only an increase in materials above 15% is allowed, the contract price remains the same. He pointed out that the total quantity he calculated was 1538 cys, which subtracted 13 cys from his quantities, since the Road 700 junction was not shown. Therefore, he allowed an adjustment of 536 cys, at $91/cy. Appeal File at 208-09.

61. In addition, the COR addressed the shoulder rock:

> Since the work for base and surface had been completed, including item 304(10)C, when the shoulder rock work began, it made sense to use the remaining stockpile grading C first, otherwise the material would just remain as overproduced material in a stockpile as Forest Service property per section 105.05 of the Forest Service specifications. However, there was an overrun in the actual quantities therefore the adjustment is for an additional 1,800 cubic yards at $8.15/cy for a total of $14,670.

Appeal File at 208-09.

62. Flathead wrote back by letter of November 29, 2004. Mr. Mann said he thought the variation in quantities clause applied to the retaining wall rock. He said that the increase in the quantity had a significant cost impact on Flathead's subcontractor and pointed out that one impact was the additional quantity of Grading A required to perform this work, which was not paid under the DQ for that item. He continued that there were also other contributing cost impacts associated with the additional time necessary to complete this work, such as overtime costs associated with the excavation and other work that could not be completed until the wall was constructed, but was necessary to complete the work on schedule. He then concluded, "Clearly I believe there is an equitable adjustment due our subcontractor, over and above the increased quantity that we do agree on." Appeal File at 210-11.

63. Mr. Mann then addressed the shoulder rock. He reiterated that all agreed it was most reasonable to use the remaining Grading C for shoulder rock and again, he believed this was done for the convenience of both the Government and the contractor. He stated that the material was much cleaner than the existing government stockpile of aggregate, which was wet and muddy due to extensive rains. He said the change order modification for shoulder rock was for hauling and placing Government-furnished material and continued,

> I believe we can both recognize that there was not sufficient quantity of government furnished material stockpiled on site, regardless as to whether it was used as shoulder rock or not. In your letter, you refer to Spec Sec 105.05 and note that the unused material would otherwise remain the property of the FS. I believe you are referring specifically to section 105.05(b) which reads as follows:
>
> > (b) Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

Appeal File at 210-11.

64. He then said,

> While I would agree that any unused material would remain the property of the Government and therefore not subject to reimbursement, this refers to materials produced in excess of the quantities required for performance of this contract. Clearly the entire quantity of shoulder rock came from the materials we produced for this contract and used for the performance of this contract. However, a portion of this work could have been performed using the existing Government stockpile and I believe it is reasonable to recognize that quantity as Government furnished. The Government received the benefit of the additional materials we produced for this contract and I believe it is clearly the intent of the Specifications that the contractor should be reimbursed for the cost of producing this material.

Appeal File at 210-11.

65. The COR e-mailed appellant on December 1, in response, and stated that he had discussed the earlier letter with the CO and they agreed that the parties should discuss the issues. Appeal File at 212; Supplemental Appeal File at 41.

66. Thereafter, Mr. Culham prepared a memo to the file dated December 13, 2004, where he addressed both the retaining rock and shoulder rock claims. In that memo he addressed Mr. Mann's contention that the previous CO, Ms. Klinger, had indicated a different approach for overage and price changes. Responding to that, Mr. Culham stated

that he was the CO of record and therefore would make the call on the matter. Appeal File at 213-14.

67. In the same memo, Mr. Culham made a number of points as to the shoulder rock claim. He stated that the original item (evidently referring to Modification 1) called for placement of Government-furnished material and thus the modification price was limited solely to placement costs, with no cost for materials. He acknowledged that the government source was found to contain less than the needed material and was of minimal quality, noting that based on those facts, the Government agreed that surplus material used in crushing operations for the asphalt work would be used for the shoulder rock. Mr. Culham then explained that as the rock was surplus to the crushing operation, it was the Government's property pursuant to the specification for crushing. He said that Mr. Mann's interpretation of the specification was that as the rock was used in the work, the contractor should be paid for it. Mr. Culham then said that pursuant to discussions, he had agreed that if all issues related to the contract were agreed to be satisfied, then the following adjustments would be made under the variation in quantity clause. The FS would pay for 3260 cys at the contract price of $8.15 and 2040 cys at $15.10 ($8.15 plus $6.95 for crushing). He concluded that if that could not be agreed to, he would disallow adjustment for both items (shoulder rock and retaining wall) and let Flathead pursue the claims process. Appeal File at 214.

68. On December 17, Flathead rejected the FS settlement offer. Appeal File at 217. Thereafter, the FS finalized Modification 3 as to those items for which there was agreement. Flathead, when it returned Modification 3, deleted the accord and satisfaction language on the modification, because of its concerns that the additional items might be found to be included in the modification. Appeal File at 253, 255. Modification 3 was dated effective December 15, and signed by the contractor and Government on December 17, 2004. Appeal File at 144, 204-05; Supplemental Appeal File at 36.

69. By letter of January 4, 2005, Flathead asked the CO for a final decision. Appeal File at 217-19. In quantifying the matter, Flathead said that the retaining wall rock exceeded the DQ by 176% and the actual quantity came to 1538 cys, of which the FS agreed to pay only the amount over 115%, and that at the unit price contained in the contract. Mr. Mann said that with the FS paying for the quantity over 115%, the difference was an additional 131 cys, which at $91/cy totaled $11,921. Appellant said it was requesting an additional equitable adjustment for its subcontractor for the quantity over 115%, using the VEQ clause. Appellant also asked for a separate increase in aggregate base Grading A. Appellant then addressed another item and said, on behalf of its subcontractor, it was requesting an adjustment for the increased costs relating to the variation in quantity above 115% of the design quantity. Appellant was doing that under the VEQ clause and claiming $10,674. Appellant then quantified the claim for Grading A, seeking payment for 427 cy at

$16.67 cy, or $7118, and similarly quantified its shoulder rock claim using $8.56/cy, which multiplied by 2800 cys totals $23,968. Appeal File at 218-19.

70. On January 13, Mr. Mann wrote again, saying that he had researched board of contract appeals decisions and discovered that some of his conclusions were not consistent with decisions and amendments. He abandoned the variation in quantities argument and cited a board case, *J&D Services of Northern Minnesota, Inc.*, AGBCA 98-126-1, 99-2 BCA ¶ 30,478, for the proposition that recovery was not limited to that over 15%. He further stated that *J&D* did not support the FS-claimed non-increase in dollars. He asserted that the actual cost was the right adjustment number and said his subcontractor's actual cost was more than $91. He said the increase should apply to the entire quantity of overrun of 666 cys, of which 535 cys had been paid at the original unit price. He adjusted the subcontractor claim for impacts relating to overtime and equipment standby due to increase in wall quantity and additional time to complete the work. He then set out his calculations. Appeal File at 220-22.

71. On January 25, 2005, the CO issued his final decision. He acknowledged the contractor's reliance on *J&D*, but noted that he believed the board had missed an important "clarification" regarding contractor reliance. The CO asserted that there are two bases for reliance, not just one when it comes to a DQ item. He said that when reading the quantity together with the requirement in Section 106.04, it was his view that when appellant entered into the contract to provide Special Rock, appellant had agreed to provide up to 114.9% of the DQ for payment of 100% of the stated DQ of 872 cys, as provided in Section 106.4. He continued that the contractor in formulating a price strategy is left on his or her own to take the 115% proviso into consideration or not, when pricing a contract. Appeal File at 224. He then denied the claim for impact on other work as to 304(10)A, citing *Big Sky Contractors, Inc.*, AGBCA 1999-190-2 (decided under the board's expedited procedure and thus not precedential). He said that a review of contract performance showed that an authorized change did not occur to item 304(10)A and he calculated the overrun at 14.8%. He essentially repeated the position he had taken throughout his time as CO in regard to the shoulder rock claim. Appeal File at 223.

72. On February 1, 2005, appellant responded to the CO decision. The first item it addressed was 304(10)A. As to that item, appellant essentially agreed that if the item was under 115% (as noted above, the CO thought it was 14.8%), then it would not be payable. However, appellant then described an added quantity, which it considered bumped the overrun to over 115%. Appellant then turned to the shoulder rock issue and stated the facts set out by the CO did not represent actual discussions that took place during negotiations of the change order to place the shoulder rock. He attributed the error to the CO's late involvement on the project. He first pointed out that the Chase Mountain Pit was identified

as a government source for rock production, but was not a "designated source," meaning its use was not a contract requirement. He said that he had been told by the COR that the proposed item for shoulder rock had been inadvertently left out of the proposed schedule and the parties would need to negotiate a price for that work. Appellant pointed out that at that time the parties needed to come up with a quantity so appellant could include the aggregate in the final crushing production. At that time the COR said the estimate was 2500 cys and then showed appellant a stockpile of material that had been left from a prior job. The COR informed him that this stockpile would be designated as the Government-furnished material for shoulder rock. Appeal File at 239-41.

73. Appellant continued that at the time Mr. Mann paced off the stockpile, he informed the COR that he did not think the stockpile contained 2500 cys and further that he was not sure that 2500 cys would be sufficient to complete the rock shoulder work. He said that he also discussed using some of the crusher reject, if it would later be acceptable during rock production. Appellant then stated that Mr. Mann and the COR agreed that the quantity would reasonably be around 3500 cys and at the time, it was too early to know if that amount would be sufficient. Appellant then stated, "Still we recognized that the existing stockpile would likely not be sufficient and I mentioned that the crusher reject may be an option, but that I expected the government should pay a reasonable price for the material. We agreed to this option and I was also aware that the government had additional aggregate material near the project." Appellant then went on to say that due to the uncertainty of the quantity required and the difficulty of in-place measurement, appellant submitted a written proposal to haul and place the Government-furnished shoulder rock. Appellant said that Modification 2 was for 3500 cys, which would eventually be less than the final quantity needed, which was approximately 5300 cys. Appellant said that no modification had addressed the 1800 additional cys, although the quantity was agreed to. Appeal File at 239-41.

74. Appellant then addressed some statements the CO made as to the crushing operation, taking exception to the CO's statement that appellant had agreed that ownership of the material (the surplus crushed rock) was acknowledged to be that of the Government, pursuant to § 105.05 of the contract. Appellant said that it did not acknowledge that at the time, since there was no determination that surplus material existed until the work specifying the material was completed. He also emphasized that the wording "required for performance of the contract" was key, noting that when it was eventually determined that there was excess aggregate, that excess aggregate was used for performance of the contract. Additionally, appellant clarified that the position was not new, as appellant's position had always been that costs for crushing rock should be allowed, in the event that rock used from Flathead's production was used for extra work, including shoulder rock or other items of work requiring aggregate. Appellant further stated that where surplus rock was used on other change-directed work, full payment for Grading C was made and authorized by modification. The

payment for furnishing the material in place, included the cost of production. Appeal File at 239-41.

75. Finally Mr. Mann said that he was unaware, despite the CO's statement to the contrary, that it was never the intent of the Government to have shoulder rock crushed for the work. He said that perhaps at the time the modification was negotiated and at a point where the FS anticipated sufficient rock could be produced, that might have been the case. He then noted, "but that does not assume the contractor would not get paid for production, if needed." He then closed by addressing other issues such as the method and economies of rock crushing and how the crushing process works and how material was paid for on this contract. Appeal File at 241.

76. By letter of February 5, 2005, appellant revised its cost claim. Appeal File at 252-54. Appellant said it had initially included in the claim $9018 on behalf of Freeman for impacts. Mr. Mann continued that after reviewing that with Mr. Freeman, Mr. Freeman had indicated that additional costs were actually related to the retaining wall and not other work. (Retaining wall here is both special rock and Grading A.) Consequently, Freeman or appellant was increasing the costs for the retaining wall and deleting the $9018 for impacts relating to other work. Appellant then provided a series of numbers in which were included changes to its earlier shoulder rock number. On this calculation, it used a unit price of $9.15/cy and multiplied that figure by 2800 cys to come to $25,620. Appeal File at 252-53.

77. Thereafter, several other communications were exchanged, but they generally add nothing to our consideration of the appeal. In a February 7, 2005 letter, appellant laid out its costs and claim, which totaled $52,804. Appeal File at 243-44, 247, 249, 252-53. On February 7, 2005, appellant filed its appeal.

78. On May 19, 2005, the FS filed a motion for summary judgment with the Department of Agriculture Board of Contract Appeals. There the FS asserted that appellant was not entitled to the bridge amount for the retaining rock, not entitled to compensation for the Grading A, not entitled to adjust the unit price for an increased DQ item, and not entitled to any payment for shoulder rock since the FS owned the Grading C material. As to the overrun items, the motion focused solely on that part of the DQ clause which allowed compensation due to an error in the original design that caused the quantity to change by 15% or more. The board issued a ruling on January 18, 2006. In that ruling the board denied the FS motion. In denying the motion, the board was not required to decide if compensation should have been made under the change provision of the DQ clause, rather than the error in design provision. In a majority opinion, the board concluded (assuming in that opinion that the issue was interpretation and application of the error in design provision and application of the 15% provision) that once appellant showed that the overrun in the retaining

wall exceeded 15%, then it would be entitled to compensation for the entire overrun, including the bridge amount. Additionally, the board found that the clause allowed appellant to adjust the unit price, depending upon proof of an increase. As to the Grading A, the board ruled that there were issues that needed to be resolved as to the amount of Grading A placed at the wall and whether appellant established that it met the 15% threshold. As to the shoulder rock, the board found that the record needed more development.

79. In arguing its case, the FS has raised the issue of the *Severin* doctrine (*Severin v. United States,* 99 Ct. Cl. 435 (1943), as to both the rock claims involving Freeman and the shoulder rock. Mr. Freeman testified that Flathead is only responsible to pay Freeman what the Government pays to Flathead. Mr. Freeman said that he expected to get paid if the claim was successful. Transcript at 115, 164-65. Mr. Mann said he would pay Freeman, if the FS paid Flathead. Transcript at 703-04. In arguing *Severin*, the FS focused on Freeman's contract and focused on the fact that Freeman's contract has a provision that Freeman is to be paid at the unit price for items subject to additions and deductions based on actual quantities installed, as provided in the table subject to the VEQ clause of the prime contract. The line items specified are placing and hauling costs. Appeal File at 301-06. According to the FS briefing, once there is an increase in quantities, such as here, the VEQ clause in Freeman's contract would kick in. As such, the FS reasons that regardless of what the prime contract between Flathead and the FS says, the subcontractor is limited by what its contract with Flathead specified. The FS then argues that to recover under the VEQ clause, Freeman would have to show that any increase in costs was solely due to the variation. Mr. Freeman pointed out that his contract does not specifically spell out how and when additional payment is due from Flathead, but it was his understanding that if Flathead obtained an increase, then Freeman's contract would be adjusted. The amount would be determined by what the owner paid the contractor. Transcript at 119, 164. Mr. Mann pointed out, through Mr. Freeman, that Appeal File at 305 under Paragraph 17 said that the documents "attached hereto and made part of the agreement" were incorporated into the Freeman contract. Mr. Mann then stated that Freeman would be paid under the terms and conditions of the prime contract, with the exception of anything that may differ. Transcript at 136-37, 704.

Discussion

Severin Doctrine

The FS claims that payment should not be made because this case falls within the *Severin* doctrine. It says that the costs, if any, were incurred by Freeman and Freeman had no pass-through clause in its contract with Flathead. Accordingly, the FS reasons that it has no liability to Flathead. The FS recognizes the general rule as to subcontractor damages, citing *Precision Pine & Timber, Inc. v. United States*, 63 Fed. Cl. 122 (2004), that if a prime

is liable to a subcontractor for damages sustained by the subcontractor, the prime can bring action for the subcontractor's damages. However, the FS says that there is no obligation when there is a conditional liability. Put another way, the FS position is that absent a binding legal obligation, there is no liability. The FS says there are no cases that extend the concept of "conditional liability" beyond a contract to a feeling of obligation on the part of the prime, with the terms and amount to be left to the discretion of the prime, possibly through negotiation.

The FS position is misplaced. It runs counter to established law, as set out by the court in *Metric Constructors, Inc. v. United States*, 314 F.3d 578, 581 (Fed. Cir. 2002). There the court held that a contractor that is liable for damages sustained by its subcontractor may bring a pass-through claim unless the Government proves that a subcontractor has released the prime. There is no evidence of release here. Recently, the Department of Transportation Board of Contract Appeals in *TAS Group v. Department. of Justice*, DOTBCA 4535, 06-2 BCA ¶ 33,441, reiterated the standard that the burden is on the Government to show that the prime has no responsibility to the subcontractor. As that board stated, "A prime contractor is precluded from maintaining a suit on behalf of its subcontractor only when a contract clause or release completely exonerates the prime contractor from liability to its subcontractor." *Id.* at 165,763 (citing *J.L. Simmons Co. v. United States*, 304 F.2d 886, 888-89 (Ct. Cl. 1962)). A case cited as authority by the FS, *Perry-McCall Construction, Inc. v. United States*, 46 Fed. Cl. 664, 671 (2000), similarly cited to the principle set out in *Simmons*.

Additionally, counter to the FS contention otherwise, the contract between Freeman and appellant indicates that Flathead will be liable to Freeman. The Appeal File at 305 sets out the terms between Mann and Freeman and incorporates a number of clauses by reference, excluding only those specifically mentioned or contradicted. Freeman understood that it would get paid under the terms and conditions of the prime contract with the exception of anything that may differ in this contract. Appellant clearly viewed itself as obligated to Freeman and stated that it intended to pay Freeman.

Clause and Detail

Before we address the meaning of the DQ clause, we first reference the Agriculture Board of Contract Appeals ruling of January 18, 2006, denying the FS motion for summary judgment. There, the board addressed a motion where the FS asserted that appellant was (1) not entitled to be compensated for 131 cys of retaining rock, the bridge amount of the retaining rock overrun; (2) not entitled to compensation for the additional Grading A material used at the rock wall; and (3) not entitled to adjust the unit price for an increased DQ item.

The FS had earlier agreed and paid appellant for the overrun in the rock wall that exceeded 115% of the DQ. In the majority opinion on the motion for summary judgment, the board concluded that the Government had not demonstrated that the contract precluded relief for the bridge amount of 131 cys of retaining rock overrun (because of design errors). Additionally, the majority concluded that the unit price could be adjusted, depending upon proof of an increase. As to the Grading A, the majority ruled that there were issues that needed to be resolved regarding the amount of Grading A placed at the wall and regarding whether appellant established that it met the 115% threshold. In issuing the ruling, the majority addressed the issues presented by the FS in the motion. The FS motion focused on the meaning and application of section (a)(2) of the DQ clause, that portion that dealt with compensation for a design error. As will be evident below, we find here that the adjustment due appellant should be under (a)(1) of the clause, the section that addresses increases due to changes. Our reliance in this decision on (a)(1) rather than (a)(2) is important, because entitlement under (a)(1) does not require appellant to establish that the overrun exceeded 115% of the DQ. In our ruling on summary judgment, the 15% overrun in the retaining wall rock was a given. The majority had not been able to come to a similar conclusion on that matter as to the Grading A material, noting that the record needed additional development. Our reliance on (a)(1) here makes the issues involving 115% moot.

The record clearly establishes that the increase in Grading A was directly linked to increases in the retaining wall. Whenever the retaining wall height increased, so too did the amount of Grading A material used next to it. Therefore, to the extent that we conclude that the overrun in the retaining wall was due to a change and not design error, the same will apply to the increase in Grading A material.

Appellant asserts that the increase in the retaining wall rock and Grading A material was due to a change, in that the wall that appellant was required to build was higher than the wall called for and detailed in the contract and higher than the wall size used to come up with the designed quantity. The FS asserts that the increase was not due to a change, but rather due to an error in the original design under (a)(2) of the DQ clause. As noted above, following the conclusion that (a)(2) controlled, the FS paid appellant for the overrun in the retaining wall that exceeded 115%. The FS, however, did not pay for any overrun in Grading A material, asserting that the quantity for Grading A did not exceed 115% of the DQ, and therefore, no compensation was authorized.

The DQ clause in the contract provides:

> One of the following methods of measurement for determining final payment is DESIGNATED IN THE SCHEDULE OF ITEMS for each PAY ITEM.

> (a) Designed Quantity (DQ). These quantities denote the final number of units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units DESIGNATED IN THE SCHEDULE OF ITEMS may be authorized under any of the following conditions.
>
> (1) Changes in the work authorized by the CO.
>
> (2) A determination by the CO that errors exist in the original design that cause a PAY ITEM quantity to change by 15 percent or more.
>
> (3) A written request submitted to the CO showing evidence of errors in the original design that cause the quantity of a PAY ITEM to change by 15% or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designated quantity is in error.

There is no dispute that there were overruns as to both the retaining wall rock and Grading A material used at the wall. The issue before us is which portion of the DQ clause is applicable.

The retaining wall constructed by appellant, and that represented on Sheet 6 of the drawings, showed a wall that would vary in size. The wall that was represented, however, was understood by both appellant and some FS officials, such as Mr. Acosta, to show a maximum height of 6 feet. The wall appellant had to construct on this contract exceeded that height at many locations, thereby increasing the amount of retaining wall and Grade A material required. The FS does not disagree that the wall that was built exceeded 6 feet in height at a number of locations. In defending the appeal, however, the FS contends that the drawing did not limit the height of the wall and, alternatively, even if the contract documents did represent a 6 foot maximum, the presence of the overrun in material was due to a design error in how the FS came up with the designated quantities for both the retaining wall and Grading A material and not due to a change in the work.

We start with what the contract documents depicted. Sheet 6 of the drawings sets out what is required and how the wall and the Grading A material supporting the wall are to be placed. The drawing is labeled “typical” for the construction at both the snow park and the ditch. The details set out the parameters and specific dimensions for various elements of

construction, including the maximum height of the wall, thickness of the Grading A material, thickness and configuration of the retaining wall rock, and other elements.

There is a triangle shown on the left side of each detail. The triangle shows two dimensions, 1 foot and 6 feet. The longer leg of the triangle is shown vertically and points downward toward several dotted lines marked "existing ground line." The shorter leg of the triangle is horizontal and is located at the top of the triangle, forming a right angle with the longer leg. The triangle is set to the left of the retaining wall and Grading A fill. To the right of the triangle are depictions of the retaining wall rock. In both details, the drawing shows that the retaining wall is to be constructed of two large rocks. In each instance, the top rock is dimensioned at 2.5 to 3 feet in height and 2 to 3 feet in width. The drawing does not dimension the bottom rock. However, on each detail, the lower rock is shown to be essentially the same size as the rock above it. Each drawing also depicts a portion of the bottom rock at below the existing ground line. The rock at the ditch shows the rock being 0.5 feet into the ground, and the rock for the snowmobile trail is shown as one foot below existing ground. That being said, however, taking the two rocks together, each detail still shows the two rocks being no higher than a combined 6 feet, at its highest.

The triangle symbol and the rocks are not depicted at the same scale. Rather, each symbol (the triangle and rocks) are given specific dimensions. In addition, the detail shows that Grading A is to be 2 feet in width and the same height as the adjacent rocks. The detail further provides dimensions for the width of the road and sets a slope dimension from the road to the top of Grading A.

Both parties agree that the rock wall was going to vary in height and appellant would not place a rock wall in areas where the wall would not exceed 2 feet.

Appellant and its subcontractor understood the details to show that the wall would not exceed 6 feet in height at any point. Because Grading A was required next to the rock wall, any increase in the rock wall caused a companion increase in Grading A. If appellant was reasonable in expecting the rock wall not to exceed 6 feet, then it was entitled to the same expectation as to Grading A.

The FS does not dispute that there are references on the typical details indicating a 6 foot dimension. However, the FS through several witnesses has argued that the 6 foot dimensions and indications as to the size and number of rocks did not really mean 6 feet. The FS asserts that such depictions and dimensions are not controlling, but simply guidance. In that regard, Ms. Klinger testified that "typical" could mean 8 or 10 feet, not just the 6 feet shown. Mr. Warhol contended that the detail only covered a particular location and was not applicable to other areas. He said that the detail would have allowed a contractor to use as

many rocks as the contractor wanted within the space depicted, saying a contractor could have used three or four rocks instead of two, even though only two were shown.

Moreover, if we take to its logical end the above FS description of the drawing details as providing only guidance, then appellant would have been free to use narrower rock and would have been free to set in a narrower course of Grading A. Following the FS logic, appellant could have used 4 or 5 rocks in a 6 foot area, instead of the two. It could have varied the size of rocks and not had to use the large rocks depicted. If "typical" was limited, then appellant could have chosen to make the wall one foot in width and not the two feet depicted. If "typical" was limited, then appellant could have placed one foot of Grading A rather than two at each location. If the dimensions had no real teeth, then why would rock have been dimensioned at a range of 2.5 feet to 3 feet, and why would the contractor have been given leeway in terms of width? We are quite certain that if appellant had attempted to limit the rock wall width to one foot or the Grading A fill to one foot, the FS would have found that unacceptable and attempted to enforce the detail. Had the FS so acted, we would have enforced the detail in favor of the FS.

We recognize that the parties understood that the height of the wall could vary and appellant has clearly stated that it knew that at times the wall would be only a few feet high. We also recognize that in that instance, there would not be two 3-foot rocks. However, such a logical conclusion does not change the fact that the drawing details provided a template, indicating a maximum height of 6 feet, and the contractor was entitled to follow it. To adopt the reading and application now put forward by the FS would make the details essentially meaningless and superfluous and would be contrary to how drawings are read. Therefore, as we see it, it was reasonable for appellant to read the overall details on Sheet 6 to indicate that the wall would not exceed 6 feet. That was supported not only by the dimension on the triangle, but also by the height of the depicted rocks.

Particularly important to our decision is the testimony of Mr. Acosta and an acknowledgment in the FS briefing as to what the drawing depicted. Mr. Acosta was the FS official who appeared most knowledgeable as to the design and expectation of the FS at the time of design. While some of his testimony appeared contradictory, confusing, and strained, he was clear on the fact that he understood the contract documents to show that the wall was not to be greater than 6 feet. When asked specifically about what was reflected in Sheet 6, he agreed after describing the dimensions of the rock shown on the drawing that he understood that the height of the wall could go from 3 to 6 feet. When asked if the 3 to 6 feet was going to be the variation in the height of the wall, he replied, "correct." When asked the same question, albeit somewhat differently, he again acknowledged that he would read the 2.5 to 3 feet dimension next to the top rock to indicate the size of the individual rocks. He did, however, note that the bottom rock did not have a specific dimension, as the FS was keying

it so it could be a little higher or taller. In its opening brief at page 2, the FS states, as to the typical wall profile or cross-section, "The 'typical' describes a wall that ranges from one to six feet in height from the road surface down to the ground." In addition, the original CO, Ms. Klinger, agreed at one point that nothing on the drawing showed the wall being larger than 6 feet. In the face of the FS's own reading, there is no basis to conclude that appellant was not reasonable in understanding that the wall it would be required to provide would be limited to 6 feet. The wall appellant constructed was considerably higher.

This situation is a classic change in the work. The contract called for a 6 foot or lower wall and the contractor had to construct a much higher wall. The DQ provides for adjustments due to a change in the work. That section does not include a 115% limitation. It is the appropriate section to be applied in this case. As Mr. Acosta acknowledged, the FS did not make a calculation error in coming up with the DQ. The DQ used by the FS reflected the height limitation expected and designed by the FS.

The FS testimony and attempt to interpret the details is in conflict with common construction practice and how contractors and the Government read and apply details. In *George Hyman Construction Co.*, ASBCA 28504, et. seq., 88-2 BCA ¶ 20,613, the board addressed the use of typical details. There it said, "As used in architectural engineering drawings, such term signifies an intention that the depicted matter be followed at all locations in the drawing where the identical conditions exist without need of reference thereto." See also *Eddie's Construction, Inc.*, ASBCA 22116, 78-1 BCA ¶ 12,938 (1977); *T.L.T. Construction Corp.*, ASBCA 33215, 87-1 BCA ¶ 19,467 (1986), which also supports the general applicability of a typical detail. The testimony of the FS witnesses attempting to negate the detail are simply not persuasive and moreover show a lack of understanding of the construction drawing process.

In deciding as we do, we are mindful of the FS arguments that it was an error in the original design that caused the pay item to increase and that the increase was not due to a change in the design. The FS claims that it is not a change, because the FS called for a wall and a wall was constructed, albeit higher than 6 feet. The FS claims that in order for there to be a change, the contractor has to show new elements of work, such as the addition of geogrid or putting the wall in a new location. The FS position has no basis or logic. In fact, in looking at the geogrid modification, which the FS describes as a change, the situation and basic facts are generally parallel to the increase in height here. The point is that a change in height (particularly of the significance here) is a change in the work. We frankly have difficulty understanding how the FS can argue otherwise. This was not a minimal change.

Given our conclusion that the overrun is attributable to a change, we need not go into a further analysis of the operation of the relationship of (a)(1) and (a)(2) of the clause. We

do point out, however that as a general matter, in order for there to be an issue as to a design quantity error, the work actually required by the FS has to be the same as it describes in the original plans and specifications. The dispute has to be over whether in calculating or arriving at a quantity for a particular application, the FS somehow erred in arriving at the proper total. It is not appropriate to use the error in design in instances where the work performed is a different size or configuration than what had been originally designed and which design had served as the basis upon which the DQ was calculated. As the AGBCA said in a non-precedential decision, *Big Sky Contractors*, AGBCA 1999-190-2, (Jan. 18, 2006), those portions of the DQ clause which deal with the 15% variation generally deal with a wrong formula, measurements, or mathematical calculation. The FS has not shown us that such an error occurred here. Here, the quantity increased because the contractor had to build a higher wall than that represented in the contract and used by the FS to calculate the DQ.

As explained by Mr. Culham, the FS uses a DQ item to put everyone on notice that the item is calculated and not measured. The DQ reflects the quantity based on the design used, in this case a wall not to exceed 6 feet in height. Once the Government provides an estimated quantity through a vehicle such as the VEQ clause or DQ clause, a contractor is entitled to rely on the stated quantity. That is because by including such clauses, the Government agrees to pay the contractor for any overrun (here with the DQ, having to first meet a threshold, if a design error). Clauses such as those noted above do not contemplate or require a contractor to verify the government quantity at the time of proposal as a precondition to securing payment for an overrun.

Wall and Grade Quantities

Appellant placed a total of 1538 cys of retaining wall rock. The quantity was reached by calculation and not precise measurement. The figure is composed of the 872 cys set out in the proposed schedule, 535 cys paid by the FS for as the quantity over 15%, and 131 cys (the bridge quantity) not paid by the FS on the basis that the first 15% overrun was at the contractor's risk.

There is no similar agreement between the parties as to the quantity of the additional Grading A material that appellant placed at the wall. While various numbers have been used in addressing the Grading A material, we find that 1231 cys is a fair representation of the total placed between the road and the retaining wall (this does not include the 900 cys of Grading A material already compensated in the geogrid change). The FS, however, challenges whether the 1231 cys claimed by appellant is all Grading A material, or instead, also includes rock which was excavated from other portions of the road construction and which the FS permitted appellant to substitute for Grading A in some locations. The FS contends that of the total of 1231 cys claimed by appellant, appellant only placed 537 cys of Grading A at the

wall, with the remaining 685 cys being rock fill from excavation. Appellant disagrees with the FS numbers, but does acknowledge that some excavation material was used at the wall instead of Grading A. Appellant, however, does not provide a quantity, nor does its claim provide a deduction for that substitution. With that in mind, we note that appellant, before any deduction, claims it is entitled to be compensated for an additional 533 cys of Grading A material. Appellant explained that it arrived at that figure by deducting 698 cys, the amount it expected (based on contract documents) to place at the wall, from the 1231 cys actually placed. To come to an accurate figure for purposes of quantum, we need to adjust the 533 cys to reflect substituted rock from on-site.

The FS claims that of the total of 1231 cys placed at the wall, appellant placed 685 cys of rock in lieu of Grading A. It supports its number by relying on several job logs, identified in Respondent's Exhibit 2, which it says reference the placement of fill at the side of the wall. The FS is correct to a point. Based on the logs and testimony, we find that at some locations, appellant used excavated rock in lieu of Grading A. Additionally, while appellant raised some questions as to how certain the FS could be that excavated rock reflected on the logs was not otherwise used for fill (and not for use at the retaining wall), appellant provided no hard evidence to challenge the FS. Accordingly, we find on balance that Mr. Culham's conclusions as to the logs are generally supported and more likely than not to be correct. However, we note that his total in Respondent's Exhibit 2 needs to be adjusted. The 12 loads that Mr. Culham references in the Appeal File at 353 does not reference the wall. As such, the log does not adequately support that deduction. Accordingly, those 12 loads are not included, thereby reducing the FS figure by 180 cys. (The FS and appellant agree that each load is 15 cys.) Further, we find that Mr. Culham made a mathematical error. The correct quantity should be 32 loads and an additional 40 cys, not the 43 cys contended. That number, however, needs to be further reduced, since it includes the 12 loads shown, Appeal File at 353, loads that are not tied into the Grading A wall. Using the correct quantity and deducting the 12 loads identified on Appeal File at 353, the proper adjustment is 300 additional cys (20 additional loads) plus 40 cys for a total of 340 cys of on-site material used in lieu of Grading A. Using that deduction, we thus find that of the 1231 cys of material placed at the wall, 891 cys was Grading A material and the remainder was rock excavated from on site. Since appellant has acknowledged that it expected to use 698 cys of Grading A at the wall (based on contract documents), the overrun breaks down to 193 cys of additional Grading A and 340 additional cys of rock excavation from on-site. Appellant is entitled to be compensated for the costs associated with the overrun for both the Grading A and on-site material. However, the unit price only applies to the 193 cys of additional Grading A and we must arrive at a separate adjustment price for the costs associated with the overrun cured by the use of on-site material. We do that because the unit price included material costs and since some of the overrun was dealt with by Government-furnished material, the material cost portion must be removed. The costing is discussed in a separate section of this opinion.

Quantum For Retaining Rock and Grading A

In addressing quantum, we start with the retaining rock. The FS has paid appellant at its unit price for the entire retaining rock overrun less the bridge quantity of 131 cubic yards. For different reasons than set out in our decision on summary judgment, we find here that appellant is entitled to the bridge amount, basing entitlement on (a)(2) of the DQ clause and not (a)(1) as addressed in the decision on summary judgment. Under (a)(2), the matter of percentage overrun is no longer a factor. Accordingly, appellant is entitled to be compensated for the 131cys, identified as the bridge quantity. For purposes of this decision, we calculate that at the contract unit price of $91/cy, resulting in a dollar figure of $11,921. We deal with the issue of adjustment in the unit price in our discussion below.

To determine quantum, we have reviewed the testimony of the parties. We find Mr. Freeman's explanation credible that Freeman incurred added costs in placing and hauling the retaining wall rock because of the need to support the higher rock wall and change the placing sequence. We note that the FS did present limited evidence on logs which indicated that some placement of the retaining rock was performed without having to support it; however, the information provided was simply too sketchy to draw the conclusion sought by the FS. We are comfortable that in general Freeman changed its sequence and could not proceed as planned, because of having to place higher rock. Moreover, we are not surprised that there would be some variations in appellant's placement and performance and that there would be some instances where appellant would not have been impacted at a specific location. Additionally, logs by practice are a shorthand or snapshot and generally are not intended to fully explain activities. While the FS relied on logs to attempt to contradict Mr. Freeman, we note that the FS did not present contradictory testimony from someone such as Mr. Acosta, who would have been on site and observed the work. Had the FS presented testimony from him challenging Mr. Freeman's description of the impacts, we may have been more convinced. We also note that when Mr. Acosta described appellant's performance, and particularly that of Freeman, he did so in highly positive terms. More specifically, Mr. Acosta noted that to him, it was clear that the contractor knew what the contractor was doing. Balancing the evidence, we find that there was a change in how appellant had to perform and that affected appellant's cost.

In addressing appellant's claims that the change in height and resulting change in sequence affected its unit price, the FS raises several defenses. The FS asserts that Freeman underestimated its costs and encountered operational inefficiencies during performance that were unrelated to the added rock and caused it to incur additional costs. The FS also says that if an adjustment is warranted, the adjustment should be done on a basis similar to that used with the VEQ clause, specifically -- any increase should be dependent on appellant showing the overrun not only was more costly to place, but also that the increase in costs was due

solely to the fact of the overrun. As to the VEQ matter, the standard used for adjustment is based upon specific language in that clause. Both Flathead and Freeman understood their contract obligations to follow the prime contract. Had this been a VEQ matter, which it is not, then Freeman would have been bound by that clause. The claim here is under the DQ clause.

As to the contention by the FS that Freeman underestimated its costs in its proposal, we find that we need not go through an analysis of the proposed pricing. This is not a case where we are going to measure the adjustment by comparing actual costs to what Freeman proposed. In that type of instance, an under-proposal would be significant, as it would create a lower floor for measuring added costs. As will be clearer below, we chose a different route. In fact, to the extent appellant may have under-proposed, that would actually work to the FS benefit on the calculation we adopt.

As to any claims of inefficiency, Mr. Acosta appeared to disprove them, describing the contractor's competence in highly positive terms. Moreover, we do not expect construction to run like a Swiss watch and there will almost always be some inefficiencies, equipment problems, and the like. The FS has not shown us here that there were unreasonable or inordinate inefficiencies that should reduce any recovery.

We now turn to establishing an adjustment. We find, based on the descriptions by Mr. Freeman, that the unit costs did increase because of the change in Freeman's operations caused by dealing with a higher wall. We, however, are also faced with the fact, as acknowledged by Mr. Freeman, that Freeman did not segregate costs. Freeman cannot provide us a measured mile nor can Freeman guarantee that other costs, not associated with the height increase, are not included in its total costs of performance. With that in mind, we find that any attempt to compare proposal and actual costs would include too many uncertainties. We thus have a situation where we find that added costs were incurred; however, we have no certain measure of those costs. We do believe that while not perfect, one of the alternative approaches set out by the FS can be used to arrive at a fair and reasonably accurate number.

We adopt the calculation framework provided by the FS in Respondent's Exhibit 3 . There the FS calculated the contractor's anticipated per foot placement costs and then applied to that the inefficiency factor of 50%, which had been testified to by Mr. Freeman. We recognize that in presenting its calculation, the FS did not and does not concede that the 50% used by Mr. Freeman was correct. In fact, the FS argued that it was unsupported. The FS, however, provided no alternative estimate, nor did it provide convincing evidence to challenge Mr. Freeman's estimate as to the impact of the additional material on Freeman's unit costs. Additionally, we note that since the FS position is that the Freeman proposal was too low, using a percentage adjustment against anticipated costs serves in favor of the FS. If Freeman

priced its costs too low, then applying a percentage to such costs reduces Freeman's recovery to some degree. That said, while Freeman estimated impact, Freeman did not provide hard data to support that percentage. While we are confident that the additional material resulted in a change of method and added costs, we are not comfortable with accepting the claimed 50% impact at face value, given the lack of corroboration. Therefore, based on our understanding of the added work and taking into account Mr. Freeman's own estimate of 50% more cost, we find that a 33% factor would be more appropriate.

We now turn to arriving at an adjustment. In calculating the per foot costs, the FS concluded that Freeman's original estimate for labor and equipment to build the wall was $7.09 per linear foot. The FS arrived at that by taking $18,859, which was the total cost for the activity, and dividing it by 2660 linear feet, the linear footage estimated by the FS. When the Board applies our factor of a 33% increase in equipment and labor to build the wall, we come up with a new number of $9.42 a linear foot ($7.09 x 1.33) attributable to the increased labor/equipment effort for that portion of the wall exceeding 6 feet. That is an increase of $2.34 per linear foot. When we multiply that figure by 2352 linear feet, which the FS characterized as a liberal quantity for the length of wall over 6 feet, that yields $5503.68 as the amount of compensation.

Before addressing overhead and profit, we make one other adjustment. We find that the evidence, through some of the job logs, shows that Freeman was not impacted at every location where the wall exceeded 6 feet. While the logs do not translate into a hard and fast number, we conclude that to use 2660 linear feet as a measure would pay Freeman for more than that to which it is entitled. As we noted earlier, Freeman used no measured mile or kept daily costs; accordingly, our adjustment here needs to be based on an estimate. We find that Freeman's total increase should be reduced by 20% to account for segments of the higher wall, where it was not impacted. Our calculation is thus as follows. Freeman's costs before overhead and profit are $2.34 a linear foot. When we multiply that by 2128 linear feet, which reflects a reduction of 20% to the 2660 linear feet identified by the FS, the total compensation before overhead and profit comes to $4979.52. We recognize that in using the above calculation, we are not directly recalculating the unit price for the retaining rock. To do that, we would have to convert the linear feet into cubic yards and then do our calculation. The total adjustment due appellant, however, would be the same and, accordingly, we do not see the need to make a mathematical calculation that would come to the same result.

We then add overhead and profit to the above number. We apply a different markup for overhead and profit then used by the FS. We were not convinced by the evidence that the 6.5% markup identified by the FS is mandated for extra work. The added costs here were due to a change in the work and as such a contractor is not bound to the markups used in its proposal. We find here that the appropriate markups should be the general industry standard

of 10% overhead and 10% profit for Freeman and a 10% markup on Freeman's number for Flathead. As to the FS arguments that Flathead should not receive any markup, we find those contrary to standard practice and not supported by the contract. With markups, appellant's total is $6627.74.

In addition to arriving at added cost for the retaining rock, we need to arrive at the proper adjustment for the Grading A material. Appellant has sought compensation at the unit price it proposed. The FS has not provided us with an alternative figure for the unit price. Moreover, the FS paid the contract unit price for the added Grading A material in the geogrid modification. While that is not conclusive, it does indicate that at least at one point, the FS considered the unit price to be a reasonable figure. Based on the above, we find that appellant is entitled to an adjustment at the unit price for 26 cys, which is the amount of Grading A actually used that exceeded the anticipated Grading A of 698 cys. As to the additional material placed at the rock wall in lieu of Grading A, we need to make a separate calculation. While Freeman did not have material costs, it still had to haul and place this added material. For that reason, we cannot use the unit price, for to use it would result in an overpayment.

In its brief, the FS stated that the material costs for Grading A were $4.85 per ton. It then applied to that a conversion rate of 1.35 to come up with a cubic yard price for Grading A material of $6.54 per cy. If we deduct $6.54 from the unit price of $16.67, we are left with $10.13 a cy. That appears to be the fair figure for the work involved in having to haul and place the material. We are mindful that the FS tangentially raised the point that the hauling costs for the excavated material might have been less than that needed for material from a commercial source. However, other than making the statement, the FS provided no supporting evidence or an alternative cost. Accordingly, appellant is entitled to 26 cys at $16.67 and 505 cys at $10.13. The total for both is $5549.07. Since the above costing uses the unit price as a base and the unit price already includes markups, we make no further markup adjustment.

Shoulder Rock Claim

The parties agree to the basic facts surrounding the furnishing of the Grading C rock for the shoulder. Shoulder rock was needed to level the roadway shoulders next to the new paved surface being placed under the contract. The FS omitted a line item for shoulder rock in the initial solicitation. To provide for that, the FS added by Modification 2 a new line item, Item 304(14), identified as Government-furnished aggregate. The parties initially estimated that 3500 cys of material would be needed.

The FS agreed to provide the material from an on-site pile and to pay the contractor $8.15 per cy for the hauling and placement of the material. Because the material was to be

Government-furnished, there was no need for appellant to price the processing of the material. Later, by Modification 3, the FS increased the quantity of shoulder rock placement by an additional 1800 cys, to a total of 5300 cys. Appellant declined to sign an accord and satisfaction included with that modification.

The record shows that there was no discussion or expectation at the times of the modifications involving appellant using Grading C material for shoulder rock. Grading C was generally a better quality than needed and a lower grade of rock or rejects would have worked for the purpose, had such been available. Flathead's subcontractor did not crush the Grading C rock in expectation of use as shoulder rock. Rather, the subcontractor crushed it for use on the roadway. During operations, appellant's subcontractor produced more Grading C than was needed for the road, and when the subcontractor closed down its operations a significant amount of Grading C rock remained at the crushing site. At that time, however, contract work, not involving Grading C, was still underway and being performed. But for appellant using the Grading C rock on the shoulder, the Grading C would have in all likelihood remained unused and on the job-site at the close of the contract. Additionally, if the material had been left, then under the contract clause in issue, the material would have been excess and would have belonged to the FS.

There were some early discussions between Mr. Mann and Mr. Acosta as to whether the FS might need more rock than the 3500 cys initially identified. In that regard, Mr. Acosta had conveyed that if more material was needed, the FS would be responsible for securing it, possibly from the nearby town of Dayton. There were also some discussions between Mr. Mann and Mr. Acosta as to appellant possibly crushing other type of rock (reject) and being paid for it, but appellant had indicated doubts as to whether the crushing would create reject material and Mr. Acosta was clearly not relying upon it.

At the hearing, the FS alleged that additional sources of material would have been available on site to supplement the identified on-site pile, and therefore, appellant should not be compensated for the use of Grading C, since appellant's actions deprived the FS of the ability to use that material. However, the FS did not provide any convincing evidence to support the contention that there were other sources. Furthermore, the FS did not identify alternative sources during the initial discussions between the parties or at any other time during performance of the shoulder rock placement. To the extent the FS presented any evidence of alternative sources that may have been available, that evidence related to a claimed additional pile identified by Mr. Acosta. He contended that it had been created by another crusher during the job and he said that the pile had 1000 to 1500 cys of material. However, his evidence as to the pile was contradicted by Mr. Mann, who testified as to conversations he had with his subcontractor, who advised him that no piles were available. Moreover, as to the pile identified by Mr. Acosta, he provided no information as to quality

or whether it could have even been used. Finally, and we find important, if such pile existed, then it would have been relatively easy for the FS to have provided a picture, some detail, some corroboration and a measurement. That was not provided. Based on the testimony and our weighing of credibility on this issue, we conclude that to the extent there may have been a pile, it was no longer in existence at the time the Grading C was being placed at the shoulder. We find Mr. Mann's testimony convincing that while there may have been a reject pile at one time, it was flattened by the contractor to level an area and was not available for use in building shoulders. In summary, we find that there was no additional on-site alternative available to either the FS or appellant. Therefore, if the Grading C had not been used in order for the FS to create the shoulder, the FS would have had to secure material from off-site or direct appellant to secure material and crush it on site. We also find that the shoulder was necessary for safety reasons, although its size could have been adjusted.

At the hearing, and to some extent at the 11th hour, the FS claimed that the on-site pile held 3500 cys and not the 2500 cys claimed by appellant. That difference is important, since appellant has limited its claim to the amount of material used in excess of what was in the FS on-site pile. If the FS was correct, then the 5300 cys placed would be reduced by 3500 cys and not 2500. The FS, despite its contention that the pile held 3500 cys, has presented no credible support for that number. In contrast, Mr. Mann has shown that he estimated the pile at 2500 cys. Moreover, at the time of the hearing, the pile was still on site. If the FS wanted to challenge the position of appellant that the pile was larger than credited by Mr. Mann, all the FS had to do was measure the pile. It did not. Weighing the evidence, we find that the existing pile had 2500 cys and therefore, the quantity at issue is the 5200 placed by appellant, less 2500 cys.

Finally, as an aside, we note that the parties spent considerable time at the hearing presenting evidence regarding the quality of the material in the existing pile. We need not deal with that testimony here, since appellant is crediting the quantity in the on-site pile, as if it was suitable for use. Thus, whether it was actually suitable or not is irrelevant for purposes of calculating the amount of material in issue.

Having addressed the existing pile, we now turn to the issue of entitlement, which centers on the meaning and operation of Clause 105.05, Rights in & Use of Materials Found or Produced on the Work. It provides:

> (a) With the written approval of the CO, suitable stone, gravel, sand or other material found in the excavation can be used on the project. Payment will be made both for the excavation of such materials at the corresponding contract unit price and for pay items for which the excavated material is used. Replace, without additional compensation, sufficient suitable materials to complete the

> portion of the work that was originally contemplated to be constructed with such material.
>
> (b) Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the government. The government is not liable to make reimbursement for the cost of producing these materials.

The FS reads the clause to provide that once the Grading C material was crushed by Flathead's subcontractor for the road base, any excess Grading C material that was crushed, but not incorporated into the road base, belonged to the Government and was government property. Implied in that assertion is that material could become the property of the FS, even though the contract was still being performed. As understood by the FS, because the Grading C material was produced for the roadway and not used for that purpose, the material was excess and "was produced or processed from government lands in excess of quantities required for performance of this contract." If the FS reading of the clause is correct, then we need go no further.

Appellant asserts that the wording "in excess of the quantities required for performance of this contract" only gives the FS ownership of material that is left unincorporated into the project at its close. Both parties agree that the Grading C material was incorporated for use as shoulder rock. The fact that the Grading C would have belonged to the FS, had it not been used and had it remained on the project once the work was completed, is not in our view controlling, given the facts and the contract language. For here the fact is that the material was used. The clause called for a condition precedent. In order to meet that condition, the material had to be in excess of that required for performance of the contract. The Grading C at issue in this dispute was not in excess of that required, as it was used on the contract to create the shoulder. The clause does not define material on the basis of why it was produced. Rather, the condition that must be met is that the material must be excess to what was required for performance of this contract, and here the material in dispute was not excess. Were we to apply the FS reading, then we must expand the meaning of the words and redefine "required for performance of this contract" to mean for performance of "a work item specified." The wording does not say that. The wording is considerably broader.

In briefing, the FS argues that the language must be read using the doctrine of contra proferentum and that under that doctrine, the FS reading prevails. First, to use contra proferentum there must be more than one reasonable interpretation. Second, if there are competing reasonable interpretations, then the non-drafter's interpretation would normally prevail, absent certain exceptions. *Hills Material Co. v. Rice*, 982 F.2d 514, 516 (Fed. Cir. 1992). Here, we find that the only reasonable interpretation is that of appellant. It is the only

interpretation that does not read new words into the contract language. However, even if we did not find it to be the only interpretation, then clearly the interpretation put forward by the contractor would be a reasonable one.

In its response brief, the FS contends without factual predicate that appellant understood the clause in the same manner as did the FS. The FS bases its contention on the fact that appellant did not tell the FS, at the time it initially placed the Grading C rock, that it was expecting to get paid for the crushing costs. The fact is that in all likelihood neither appellant nor the FS paid any attention to clause 105.05 at the time appellant submitted its proposal on the contract or at the time that the parties added the requirement for shoulder rock. There is no evidence that appellant considered the clause at the time it was placing the Grading C. In contrast, it is clear that once the Grading C was being placed, both Mr. Acosta and Mr. Culham did consider the clause and read the clause to hold that the FS owned the property. That is why the FS allowed appellant to continue with the Grading C. However, the record is also clear that during that time there were no discussions as to the clause with appellant, no indication that appellant was expecting that the clause would invest the FS with ownership of the Grading C, but also, no demand from appellant to get paid.

This dispute is not controlled by the parties' intent or understanding of the clause, either at proposal or during placement. Appellant's claim is not based on reliance. Rather the dispute is about what the contract says as to material crushed by appellant and used on the project for the benefit of the FS.

Normally, having determined that appellant's reading is appropriate, we would stop there. However, this appeal is complicated by the fact that although appellant provided the material and that material had a value, there was never a meeting of the minds at the time of placement as to payment or value. The record is clear that while the FS knew the work was being performed, the FS did not expect to have to pay for the material, and more important, appellant never took steps to put the FS on notice of its expectation that it was to be paid.

Proceeding without putting a party on notice can at times be fatal to a contractor's claim. However, that is not always the case. In assessing who takes the risk when actions are taken without sufficient approval, the law has us look at matters such as whether a benefit has been conferred by the contractor on the Government in the form of goods or services, which the Government accepted. In considering that, courts look at a number of factors including whether the Government needed the material or service provided (and thus would have secured what was provided or similar services); whether it derived a benefit; and whether the contractor was acting in good faith. While the Government does not have to pay for work that it did not require or order, it cannot simply walk away where it has taken a role in the ordering of the services and where it has retained the benefit. Whether labeled as *quantum meruit* or

quantum valebant, retention of benefits can justify relief, even if there is a lack of authority. *See United States v. Amdahl Corp.*, 786 F.2d 387 (Fed. Cir. 1986); *Health Practice Enhancement Network, Inc.*, VABCA 5864, 01-1 BCA ¶ 31,383.

In *Wayne Construction, Inc.*, AGBCA 83-122-3, *et seq.*, 84-2 BCA ¶ 17,352, the board dealt with a claim for unjust enrichment in a case where crushed rock was also the material in dispute and where the language of the clause mirrored in many respects the clause in issue here. *Wayne*, however, differed significantly from this case, because in *Wayne* there was no contention that the Government put the material claimed as "excess" to use on the contract. In fact, the FS evidence showed otherwise. Accordingly, the board found that there was no unjust enrichment. In making its decision the board said, "While some aggregate remained, there is no evidence that the Forest Service derived any use or benefit therefrom. Tangible use or benefit by the Government is essential to support recovery under the theory of unjust enrichment alleged by Appellant. *Tellico Lumber*, [AGBCA 80-149-3, 80-2 BCA ¶ 14,787]." The clear implication from the board decision is that had the material been used for the FS, the use would have been compensable.

The facts here show that the FS needed shoulder rock to be placed on the sides of the road. The FS did not necessarily need Grading C, but it did need to create a shoulder for safety reasons and needed some material to do that. The FS did have some leeway as to the width of the shoulder. According to Mr. Acosta, the shoulder did not necessarily need to be as wide as the one constructed on this project. He said that the shoulder could have been one to one and one-half feet in width, but that it was put in wider. He, however, gives us no specific dimension for the shoulder as placed. For purposes of this decision we will accept, based on Mr. Acosta's statements, that one and one half feet would have been adequate. Based on the fact that Mr. Acosta said a wider shoulder was constructed and that the amount of additional width was significant, we will find that the width as placed was 2 feet. We, therefore, reduce the total of extra shoulder rock by 25%, so as to account for the possible FS savings that were prevented by a lack of notice.

We now turn to determining an equitable adjustment. Appellant attempted to establish the costs its subcontractor incurred to crush the rock. Appellant came up with a figure of $9.15/ cy. The FS provided its own calculation of appellant's number and it came to a unit figure of $6.34. We, however, need not resolve the difference. As noted above, we have concluded that the shoulder had to be placed. However, we have also concluded that by failing to notify the FS of its intention to seek added costs, appellant essentially blocked the FS from fully mitigating the impact of this situation. With that in mind, we believe the record provides a better number than that provided by either party.

We calculate compensation based on value, using as a basis what it would have likely cost the FS to secure material had appellant notified it of its intended claim. In reaching our conclusion we take into account the fact that appellant's lack of notice made it impossible for the FS to fully replicate what it would have done, had the FS had a choice at the time of the substitution.

The shoulder was needed. However, according to Mr. Acosta, it could have been built with lesser quality material and did not have to be as wide as it was constructed. There was, however, no realistic alternative on-site to the Grading C. The only apparent alternative was to secure material from somewhere off-site. In this case, we cannot know for certain what type of material may have been available and from where. Because the uncertainty might have been remedied had appellant provided the FS timely notice of its intention to seek compensation for the Grading C, we give the FS the benefit of the doubt on what was most likely available.

Giving the benefit of the doubt to the FS, we conclude that the FS may have been able to find some sort of reject material in the range of $1.50/cy. We also find that the added hauling costs would have been $3.75, (the hauling costs from Dayton, since no closer source was identified.) Those cost elements total $5.25 a cy, which is less than the crushing costs identified by either party. As to markup, we believe it is appropriate here to leave the markup on the table. The fact is that appellant will be the beneficiary of the award for the Grading C. There is no indication, that DeAtley is making any claim. To some degree, appellant is securing a windfall, in that had the material not been used on the contract, appellant would not have been entitled to compensation for what then would have been excess material. That, however, is balanced by our understanding that some overage was calculated in DeAtley's price to appellant, and thus to some degree, appellant paid for the added material. The alternative, of course, would be to deny payment. For us to do that, however, would not only deprive appellant of the ability to recoup costs, but would also be providing the FS with free material. It would also require us to read the clause more broadly than warranted.

We, therefore, find that appellant is entitled to be compensated at $5.25/cy for 2100 cys. We arrive at 2100 cys by taking 2800 cys (the difference between the 5300 cys placed and the 2500 in the on-site pile) less 25%, which we attribute to placing a wider shoulder than needed. Accordingly, appellant is entitled to $11,025 for the shoulder rock.

Decision

The appeal is **GRANTED IN PART**. Appellant is entitled to be compensated as follows: for the bridge quantity of 131 cys, $11,921; for additional costs (adjustment to unit price) due to the increase in the retaining wall height, $6627.74; for the additional Grading

A and substituted material, $5549.07; and for the shoulder rock, $11,025. In addition, appellant is entitled to Contract Disputes Act interest on those claims.

_____
HOWARD A. POLLACK
Board Judge

I concur:

_____
CANDIDA S. STEEL
Board Judge

VERGILIO, Board Judge, dissenting in part.

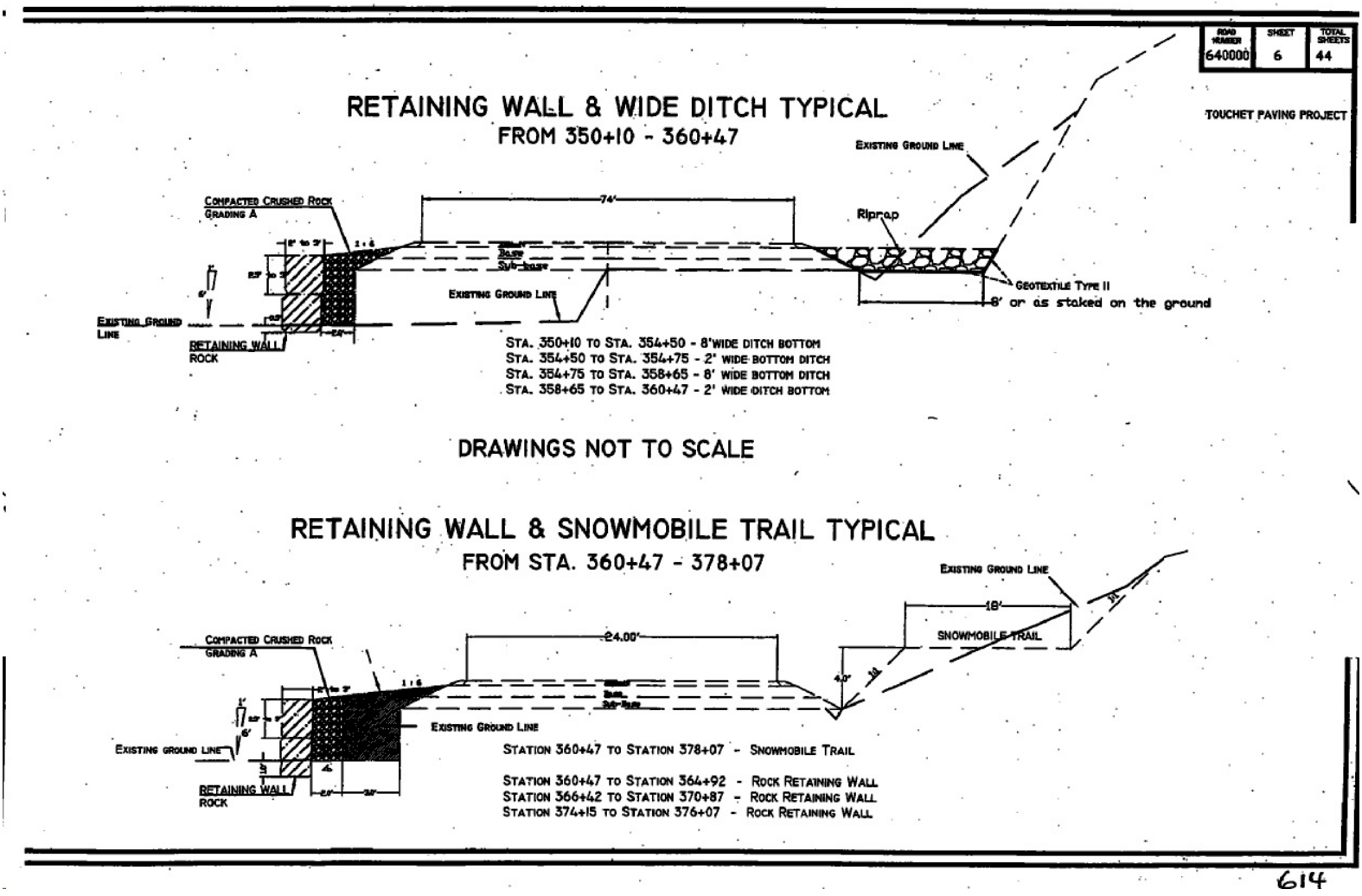
I concur with the decision of the majority to the extent that the claims are not barred by the *Severin* doctrine and that the claim for the accurate designed quantity (without a fifteen percent deduction) should be granted in the amount of $11,921, plus interest as prescribed in statute, but dissent from the other aspects of the decision. I do not read the contract as indicating the maximum height of the retaining wall. The retaining walls in question were built according to the design in the contract. The claims do not involve changes, but correctable assumption-based errors under the Methods of Measurement clause. Under the clause, an error in a designed quantity shall be corrected to reflect the correct quantity when the variation is at least fifteen percent of the stated designed quantity, and not corrected when the error is less than fifteen percent of the stated designed quantity. The contractor has not demonstrated that per unit costs increased to perform the work associated with the additional quantity. For the remaining claim, the record demonstrates that the contractor has been compensated to perform the work that created the aggregate as surplusage. The contractor is not entitled to additional payment for transforming rock into the aggregate which belonged to the Government.

Severin Doctrine

The Government has failed to demonstrate that the *Severin* doctrine bars pursuit of these claims. Corrections for designed quantity errors under the Methods of Measurement clause are not predicated upon increased or decreased contractor costs. Therefore, the *Severin* doctrine does not affect pursuit of those aspects of the claims. In seeking equitable adjustments to unit costs, the contractor does have to demonstrate its actual costs and increases. As the majority explains, the Government has failed to meet its burden of demonstrating that a subcontractor "executed an iron-clad release sufficient to trigger application of the *Severin* doctrine." *Metric Constructors, Inc. v. United States*, 314 F.3d 578, 584 (Fed. Cir. 2002).

The Contract (Error versus Change)

The contract requires the placement of retaining wall segments along the roadside. Construction is to be in accordance with contract specifications, including the Forest Service Specifications for Construction of Roads and Bridges (Nov. 1996), Appeal File at 5 (¶ C-3), curiously not placed into the record by either party. The contract contains drawing details of the "retaining wall & wide ditch typical" and the "retaining wall & snowmobile trail typical":



Appeal File at 614.

The contractor and majority conclude, based upon these depictions, that the retaining walls will have a maximum height of six feet. I do not read these details (and would not read them in isolation from the contract as a whole) to limit the height of a retaining wall to a maximum of six feet. The contract drawings depict cross-sections of a "typical" retaining wall. Typical in this context represents typical construction and does not explicitly or implicitly identify a dimension as an absolute maximum or minimum. The contractor has pointed to no aspect of the contract that indicates that the maximum height of the wall will be six feet, or other basis that makes such a conclusion reasonable. The nature of the construction and the use of the designed quantity basis for payment also supports the notion that variances in construction were anticipated, particularly over the given terrain, such that reading an absolute into the diagrams is not reasonable.

The majority also imposes an inconsistent and inequitable reading by its determination of what the *typical* drawings depict. The majority observes that the drawings reference a six-foot retaining wall. However, if that is the typical retaining wall, both the majority and contractor have failed to account for that typical height in making calculations of the designed quantities. If the drawings indicate that a six-foot wall retaining wall was to be constructed throughout the project, the contract line items must be adjusted under the Changes clause for all retaining wall work at a height below six feet.

Further, the triangle, interpreted by the majority as relating to the retaining wall, depicts the elevation variance in the existing ground line when measured below the sub-base on the road and near the retaining wall. As depicted in the diagrams, the retaining wall is placed (1) one-half foot below the existing ground line along the road with a ditch and one foot below the existing ground line along the road with a snowmobile trail and (2) rises to the top of the sub-base, which is three-quarters of a foot above the existing ground line at the road level. Appeal File at 613-14. As depicted, a typical retaining wall could be 7.25 or 7.75 feet from its base to its top, along the road with a ditch and with a snowmobile trail, respectively, with 6.75 feet visible above the existing ground line. Even if viewed as revealing a maximum height for the wall, the depicted maximum height is greater than six feet. The majority fails to factor into its calculations the true extent of the supposed change.

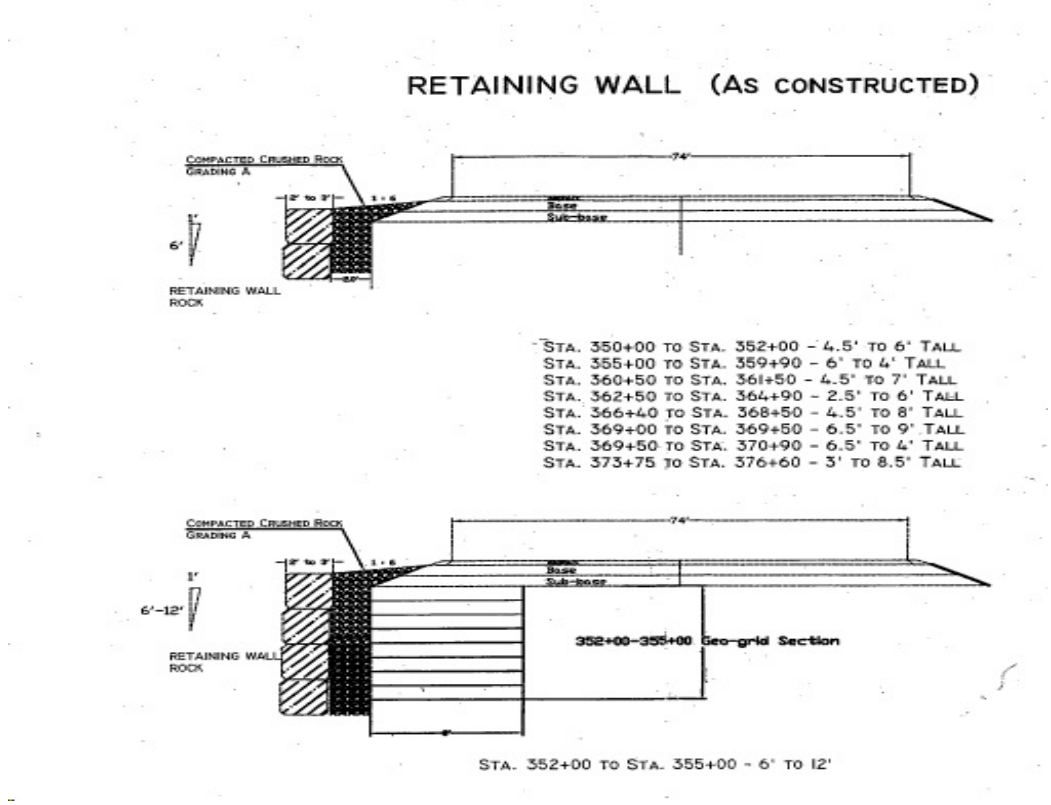
The varying height and length of the retaining wall should not have been unknown to the contractor. The contract incorporates the Site Investigation and Conditions Affecting the Work clause (APR 1984), 48 CFR 52.236-3 (1985), Appeal File at 16, under which:

> The Contractor acknowledges that is has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its costs . . . . The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

Contract drawings 10 through 40 of 44 depict on a map with elevations of the topography the placement of the road; the retaining wall is required because of elevation

changes over the span of the road. Appeal File at 618-40. The exploratory work of the Government resulted in depictions (dated June 21, 2003) of cross-sections of the road on the terrain taken at various intervals. Appeal File at 602-08. The contractor has not demonstrated that it was reasonable to conclude that the height of the retaining wall would never exceed six feet, given the contract, the diagrams, and the existing site. As dictated in the clause above, the contractor is deemed to have visited the site and reviewed the available diagrams in assessing the work to be accomplished.

For the work in question, the contractor utilized retaining wall rocks and compacted fill. The contractor built the retaining wall to fit the terrain; the contractor has not demonstrated that it was required to deviate from any contract specification. Such a showing would be difficult without placing in the record the actual specifications incorporated by reference. The as-built detail (below) is not different from the typical diagrams, although the height of the retaining wall varied from 2.5 to 9 feet tall and "two-block" construction was not always utilized.



Appeal File at 653. The construction method of blocks of rock and compacted rock was used in the construction. In contrast, work which required the use of a geogrid, a different construction method, is depicted with a different as-built diagram and was treated as a change within the scope of the contract. Appeal File at 653.

From the contract and record, I conclude that for the portions of the retaining wall in question, the contractor constructed the retaining wall as depicted in the contract and as it should have anticipated. The method and manner of construction used did not constitute a change under the contract.

Methods of Measurement Clause

The Methods of Measurement clause details the requirements to adjust the number of units to be paid for under a designed quantity pay item. The provision states:

> **(a) Designed Quantities (DQ)**. These quantities denote the final number of units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units DESIGNATED IN THE SCHEDULE OF ITEMS may be authorized under any of the following conditions:
>
> (1) Changes in the work authorized by the CO [contracting officer].
>
> (2) A determination by the CO that errors exist in the original design that cause a PAY ITEM quantity to change by 15 percent or more.
>
> (3) A written request submitted to the CO showing evidence of errors in the original design that cause the quantity of a PAY ITEM to change by 15 percent or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designed quantity is in error.

Appeal File at 282. This method of measurement is distinct from other methods (e.g., staked quantities, actual quantities, and lump sum). This is not a fixed unit price line item for an indefinite quantity, despite the suggestion of the Government. The designed quantity, as opposed to the actual quantity, method of measurement, indicates that the unit price is agreed upon for the stated designed quantity plus or minus fifteen percent (but not inclusive) if the variation is attributable to an identified error and the deviation is within the fifteen percent variance. *J&D Services of Northern Minnesota, Inc.*, AGBCA 98-126-1, 99-2 BCA

¶ 30,478, at 150,572-73; *Flathead Contractors, LLC*, AGBCA 2005-130-1, et al., 06-1 BCA ¶ 33,174, at 164,379 (dissent).

A design assumption by the Government when calculating the designed quantity was that the wall would not exceed six feet in height. As is apparent from the as-built information, the assumptions for height and length were erroneous and led to smaller figures for the designed quantities for the two line items in question, 252(01) and 304(10)A. The erroneous assumptions mean that each designed quantity may be eligible for correction under the clause. Correction is to occur if the pay item quantity changes by fifteen percent or more, but not if the quantity changes by less than fifteen percent. Appeal File at 282. Rather than introduce into the record calculations based upon corrected assumptions, the parties rely upon the total actual quantities of the two line items in dispute.

Designed quantity line items are not portrayed as fixed unit price items for indefinite quantities. The Government inappropriately mixes contract types when it contends that a contractor prices a designed quantity item on a fixed-price basis for all quantities of work; such a fixed-price clause is not in the contract. The Methods of Measurement clause establishes the quantities and bases of payments under the contract, it does not address the unit price under the contract. The contract has no unit price for work outside the parameters of the pricing structure of the contract. The clause does not explicitly or implicitly state that a unit price must remain fixed when there exists an error in the original design assumptions causing a variation of at least fifteen percent of the stated designed quantity or when a change in work occurs. The Methods of Measurement clause addresses the number of units to be utilized for compensation, not the unit price.

Line item 252(01)

For line item 252(01), Special Rock Embankment, Retaining Wall, the contract specifies a designed quantity of 872 cubic yards (cy) and a unit price of $91. Appeal File at 3. The Government and contractor agree that the total quantity used was 1538 cy. Appeal File at 208, 224. This increase represents a variation of greater than fifteen percent of the designed quantity, such that correction under the Methods of Measurement clause of the designed quantity is to occur. Appeal File at 282. The Government has paid the contractor at the unit price for the designed quantity (872 cy) and for the quantity utilized above 115% of the designed quantity (that is, 535 cy), but not for 15% of the designed quantity (131 cy). The contractor seeks payment for the 131 cy at what it claims are its marked-up costs, and for the 535 cy at what it claims are its marked-up costs less the unit price in the contract.

The corrected quantity should be inserted into line item 252(01) in section B, Appeal File at 3. The clause does not indicate that other than the corrected quantity should be

utilized. Even if one reads the clause as ambiguous, the Government was both the party making the assumption error and the drafter of the clause, such that the contractor's reasonable reading of the clause as requiring use of the corrected quantity (not just a fraction thereof) would prevail. Accordingly, I reject the Government's suggestion that the corrected designed quantity must be adjusted downward by fifteen percent of the contract quantity.

The contractor bears the burden of proof to recover in excess of the unit price as it seeks in its claim. The variations in height of the retaining wall segments in question should have been envisioned by the contractor. The record does not demonstrate that the contractor (or its subcontractor) incurred costs in excess of the unit price of the contract when constructing the additional quantity of the retaining wall line item. Therefore, I would not adjust the unit price for any portion of the adjusted designed quantity.

The contractor is entitled to payment of 1538 cy x $91/cy = $139,958. It has been paid for all but 131 cy of this amount. I conclude that the contractor prevails on recovery of $11,921, plus interest as prescribed in statute, 41 U.S.C. § 611 (2000).

Line item 304(10)A

For line item 304(10)A, Crushed Aggregate, Type Sub-Base, Grading A, Compaction C, the contract specifies a designed quantity of 8287 cy and a unit price of $16.67 per cy. Appeal File at 3. The contractor has not demonstrated that the correction in the designed quantity is at least fifteen percent of 8287 cy. That is, the contractor contends that the designed quantity should be corrected by 1230 cy because of the designed quantity error. That increase represents less than 14.85 percent of the contract's designed quantity. Therefore, the contractor is not entitled to an adjustment under the Methods of Measurement clause. I conclude that this claim must be denied.

Shoulder Rock, Line Item 304(14).3

The contract incorporates, from the Forest Service Specifications for Construction of Roads and Bridges, the following clause:

> **Rights in & Use of Materials Found or Produced on the Work**
>
> (a) With the written approval of the CO, suitable stone, gravel, sand, or other material found in the excavation can be used on the project. Payment will be made both for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Replace,

> without additional compensation, sufficient suitable materials to complete the portion of the work that was originally contemplated to be constructed with such material.
>
> (b) Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

Exhibit 5 at 283 (¶ 105.05).

Bilateral contract modification 2 adds a line item of work and payment (on an actual quantity basis): "304(14).3 Placing aggregate, comp. B. CY in a hauling vehicle. CY @ $8.15/CY = $23,105.25." The line item calculation is based upon an assumed quantity of 2835 cy. The material would be Government-furnished. Appeal File at 142-43. Additional cubic yards of material were used. Appeal File at 144-45.

The contractor claims that it is entitled to payment for converting rock to aggregate that was later used on the contract for this line item. Because the contract directs that such surplusage is the property of the Government, the Government maintains that the contractor lacks a contractual basis for relief.

The contractor did not convert the rock to aggregate as a separate action or line item of the contract for use on the shoulder rock; the contractor lacked written approval to do so. Rather, during performance of the contract, the aggregate was produced as surplusage in the performance of other work under the contract. Through the contract, the Government paid for the work that produced that by-product. As specified in the above clause, the contractor did not own any of the material so produced at the site; the pre-crushed material was Government property and the additional crushed material remained the property of the Government, for Government use.

The record provides no basis for the Board to conclude that there was an expectation that the contractor would be paid separately for crushing that rock. The contractor has failed to demonstrate a basis to be compensated additionally for converting the rock to aggregate, when those efforts occurred in the course of performance of the contract. Accordingly, the

Government is correct that the contractor is not entitled to separate payment for crushing the rock. Equities do not favor this contractor, which has been compensated for the underlying work that produced the additional, ultimately utilized aggregate. I would deny this claim in its entirety.

_____
JOSEPH A. VERGILIO
Board Judge