In the United States Court of Federal Claims

Nos. 11-31C, 11-360C
Filed: September 11, 2015

WESTON/BEAN JOINT VENTURE,	*	Differing Site Condition; Constructive Change; Defective Design Specifications; FAR 52.236-2; FAR 52.243-4; FAR 52.249-10(b)(1); Maintenance Dredging; Implied Duty of Good Faith and Fair Dealing; Liquidated Damages.
Plaintiff,	*	
v.	*	
THE UNITED STATES OF AMERICA	*	
Defendant.	*	

Michael H. Payne, Cohen Seglias Pallas Greenhall & Furman PC, Philadelphia, PA, for plaintiff.

Jeffrey S. Klingman, Trial Attorney, with whom were *Martin F. Hockey, Jr.*, Assistant Director, *Robert E. Kirschman, Jr.*, Director, *Joyce R. Branda*, Acting Assistant Attorney General, and *Benjamin Mark Moss*, Of Counsel, Commercial Litigation Branch, Civil Division, United States Department of Justice, Washington, D.C., for defendant. Of Counsel, *Carolyn J. Fox*, Assistant District Counsel, U.S. Army Corps of Engineers, Jacksonville, District.

POST-TRIAL OPINION AND ORDER

KAPLAN, Judge.

These consolidated cases arise out of a contract between the plaintiff, Weston/Bean Joint Venture[1] ("WBJV" or "Weston/Bean"), and the United States Army Corps of Engineers ("USACE" or "the Corps") for the dredging of the Miami River and the disposal of contaminated sediments. Weston/Bean's central claim is that although the contract was one for "maintenance dredging" and disposal of "sediments," the Corps directed it to engage in "new work" dredging, which required it to dredge and dispose of significant quantities of rock. WBJV alleges that because it was required to engage in such "new work" dredging, the subsurface conditions it

[1] Weston/Bean Joint Venture was formed on April 14, 2004. JS ¶ 13. It is a general partnership consisting of Weston Solutions, Inc., a corporation organized under the laws of the Commonwealth of Pennsylvania ("Weston"), and Bean Environmental, LLC, a limited liability company organized under the laws of Louisiana ("Bean"). Compl. (11-31) ¶ 1.

encountered in performing its work under the contract were materially different from those indicated in the contract documents. According to WBJV, the "constructive change" to the contract and/or the differing site condition it encountered resulted in the imposition of significant excess costs related to the processing and disposal of the dredged materials.

In addition to its constructive change/differing site condition claim, WBJV also alleges that the government provided defective specifications for the Miami River Project, which resulted in damage to certain properties along the river; that the government breached its implied duty to cooperate; that it unreasonably failed to grant extensions of time to complete work; and that the government improperly retained or assessed liquidated damages. Weston/Bean seeks an equitable adjustment of the contract amount, a time extension of 348 days, and $12,423,937.23 in damages, plus interest, costs, and attorney fees.

After a decision by this Court denying the parties' cross-motions for summary judgment, a nine-day trial was held in Washington, D.C. in June 2014. The Court heard testimony from sixteen witnesses, including several experts. Hundreds of exhibits were admitted and the parties have filed hundreds of pages of post-trial briefs.

For the reasons set forth below, the Court concludes that plaintiff has failed to prove its claims. Accordingly, judgment is entered for the government as to all counts in plaintiff's complaint.

FINDINGS OF FACT

I. Creation of the Miami River Channel

Beginning in the late 1920s, the City of Miami, Florida sought an appropriation from the federal government to deepen and to widen the Miami River. Joint Stip. of Facts ("JS") ¶ 1, ECF No. 88, May 30, 2014. On July 3, 1930, Congress appropriated $800,000 for these purposes and authorized the Secretary of War "to improve the Miami River with a view to securing a channel" 150 feet wide and 15 feet deep for a distance of 3 miles from the mouth of the river, 125 feet wide and 15 feet deep to a point 4.125 miles from the mouth, and 90 feet wide and 15 feet deep to a point 5.5 miles from the mouth, with "each section to have suitable side slopes." Id.; see also Rivers and Harbors Act of 1930, Pub. L. No. 71-520, ch. 847, 46 Stat. 918, 945; Trs. of Internal Improvement Fund v. Claughton, 86 So. 2d 775, 781 (Fla. 1956). The dimensions authorized by Congress constitute what is referred to as "the federal channel."

The federal channel of the Miami River was dredged from 1931 to 1933, creating "a navigation channel that extends from the mouth of the Miami River approximately 5.5 miles to a salinity control structure near NW 36th Street." JS ¶ 2; PX 7 at 17 § 1.7.2. Approximately 1,000,000 cubic yards ("CY") of dredged materials were removed from the federal channel. JS ¶ 2. Some sections of the channel, however, were not dredged to the authorized depth of 15 feet mean low water ("-15 feet MLW" or "-15 feet").[2] After dredging was completed, a final after-

[2] "Mean low water" is defined as "the lowest level under normal conditions to which the tide drops in the tidal cycle." DX 2 at 276.

dredge survey was performed, whose results are reflected in a set of documents referred to as the "1934 as-builts" or the "as-built drawings." Mahar Tr. 695:15-18.[3]

The 1934 as-builts show that there remained rock above grade (i.e., rock above -15 feet) in some areas of the channel. Mahar Tr. 658:3-4; Wood Tr. 863:2-4; 874:16-20. Thus, the federal channel that resulted from the 1930s project was "150 feet wide and 14-16 feet deep from the mouth of the Miami River to the south fork" of the river, "125 feet wide and 14-16 feet deep from the south fork to the Tamiami Canal, and 90 feet wide and 10-14 feet deep from the Tamiami Canal to the Seaboard Railroad Bridge near the salinity structure." JS ¶ 2; PX 7 at 17 § 1.7.2.

No dredging of the federal channel was performed between its creation in the mid-1930s and the beginning of the project at issue in this case ("the project"). JS ¶ 2. Private dredging, however, occurred outside of the federal channel along bulkheads, docks, and boat slips. Id. Asked by the Court at trial if it is "unusual to wait 70 years to do a maintenance dredge," the project designer, Mr. John Bearce, testified that "[t]he Miami . . . River was in a state of equilibrium. It wasn't necessarily shoaling in. And it was being used by the navigation community on a regular basis. So for various reasons it was not maintained for seventy years, and yes, that is very unusual and not typical." Bearce Tr. 1086:22-1087:9. According to Mr. Bearce, "[m]ost projects might have a typical maintenance dredging interval of three to five years. That would be typical." Id. at 1087:8-9.

A. 1986 Dredging Authorization and Feasibility Report

In 1986, Congress authorized and directed the Secretary of the Army "to remove polluted bottom sediments from the Miami River and Seybold Canal in Miami, Florida, between the mouth of the Miami River and the salinity control structure at 36th Street." JS ¶ 3; Water Resources Development Act of 1986, Pub. L. No. 99-662, § 1162, 100 Stat. 4082 (1986) ("WRDA"); PX 7 at 14. Following the passage of the WRDA, however, the Corps conducted a feasibility study of the Miami River and found that "no quantifiable National Economic Development benefits could be identified for the Miami River sediment removal" and, as a result, it did not recommend dredging the Miami River. PX 7 at 15 (1986 Draft Feasibility Report). After the public and governmental agencies voiced their opinions on the draft report, the Corps produced a final feasibility report titled "Navigation Study for Miami Harbor (Miami River)" in March 1990. PX 4. The final report concluded that although there was no apparent justification for removing sediment from the Miami River for water quality or environmental purposes or for "new navigation work," "there [was] an apparent justification for maintenance dredging of the Miami River to provide the currently authorized dimensions for the Federal navigation project." PX 4 at 29.

[3] Citations to the transcript include the name of the witness, the page number(s), and the line numbers. For example, Bearce Tr. 1086:22-1087:9, means that the witness testifying was Mr. John Bearce and his testimony can be found on page 1086 of the transcript starting at line 22 and ending on page 1087 of the transcript at line 9.

B. The Miami River Commission

In early 1998, the Florida legislature created the Miami River Commission ("MRC") to improve the 5.5-mile Miami River and its surroundings, including the 69-square-mile water basin surrounding the river. Fla. Stat. § 163.06 (establishing the MRC as "the official coordinating clearinghouse for all public policy and projects related to the Miami River"). The legislature charged the MRC with uniting government agencies, businesses, and residents to "speak with one voice" on Miami River issues. Id.; see also 2000 Miami River Improvement Act, Fla. Stat. § 163.065 (noting that the purpose of the MRC is to "ensure a coordinated federal, state, regional, and local effort to improve the Miami River and adjacent areas" and authorizing the MRC, Miami-Dade County, and the City of Miami to develop a comprehensive plan for the river with "a range of varied components essential to a healthy urban environment, including cultural, recreational, economic and transportation components"); Taylor Tr. 58:25-59:5.

The MRC became the local sponsor of the dredging project and held monthly or quarterly meetings attended by both the Corps and representatives of Weston and Bean, among others.[4] See Taylor Tr. 58:21-59:10 ("I became aware of the project in the late '90s, probably '99-2000 sometime, and began attending meetings probably on a monthly basis."), 60:23-61:25; Kelly Tr. 317:11-317:23; McWilliams Tr. 468:12-468:23.

C. Dredged Material Management Plan

In September 2002, the Corps issued a report entitled "Final Report: Dredged Material Management Plan and Environmental Impact Statement" ("DMMP"). PX 7. The DMMP was developed to "identif[y] the specific measures necessary to manage the volume of material likely to be dredged over a 20-year period, from both construction and maintenance dredging" of the Miami River. Id. at 22 § 3.3.2. "The management of dredged material," the DMMP stated, "serves a dual purpose." Id. at 11, 13 § 1.2. "The primary purpose [of the management of the dredged material] would be the improvement of navigation by creating accessibility to and from Biscayne Bay and the Atlantic throughout the tidal cycle." Id. at 13 § 1.2. "The secondary purpose is the removal of contaminated sediments from the Miami River." Id.; see also id. at 205. The DMMP's conclusions and recommendations stated that the base plan would consist of "[d]redging the Miami River to its authorized navigation depth and disposal of the dredged material in an environmentally acceptable manner, in accordance with county, state, and Federal regulations." Id. at 109 § 9.0.

Attached to the DMMP, among other items, were, "Miami River 1934 'As-Builts,'" which showed, as explained above, that the authorized depth of 15 feet was achieved in parts of the lower portions of the federal channel, but that the upper portions of the channel were not dredged to -15 feet MLW. Id. at 6, 118-27; Bearce Tr. 935:18-936:25, 939:3-16; Perez Tr. 1393:3-19. The 1934 as-builts identified the elevation of the bottom of the river after the initial

[4] The minutes of these meetings beginning with the meeting held on June 28, 2000 are available online at the MRC's website—www.miamirivercommission.org/dredge.htm (last visited September 8, 2015).

dredge, but did not identify the type of material left behind. Bearce Tr. 1217:11-1218:25; Perez Tr. 1392:20-1394:2.

II. Solicitation

On August 29, 2003, the Jacksonville District of the Corps issued solicitation number DACW-02-R-0016. JS ¶ 8. The solicitation requested "performance of the work described in" the solicitation itself and accompanying drawings. JX 1 at 31; see also JX 1 at 39 ("Maintenance Dredging, 15-Foot Project, Miami River, Cut-1 thru Cut-48"); DX 406 (Drawings Nos. 1/1-3/2); Taylor Tr. 86:2-10 (The Drawings are "graphic depictions of the scope of work . . . each page [contains] a different characterization of the project, whether it was the dimensions of the channel or the depth."). The solicitation provided that the project would be divided into 15 "Acceptance Sections" ("AS"), beginning with AS-1 at the upstream end of the federal channel. JS ¶ 9. The "base work" was the federal portion AS-1; all other work was listed under "option items." Id.

A. Description of Work and Estimated Quantities Clauses

The Description of Work clause stated that the project would "involve maintenance dredging of the Miami River from Cut-48 at the Northwestern end of the Federal Navigation Channel to Cut-1 at Biscayne Bay." JX 1 at 39. It further stated that "[a]pproximately [500,000 to 750,000] cubic yards of contaminated sediment will be removed from the river." Id. In addition, the solicitation provided that "[t]he dredging and disposal operations will be conducted according to stringent environmental standards" but that "the method of disposal and final fate of the dredged material will be determined by the successful bidder's proposal." Id.

The contract line item numbers ("CLINs") for AS-1 through AS-14 included information for the "federal channel" and "non-federal portion." Id. at 40-47. The CLINs for AS-15 included Federal channel information only. Id. at 47. The contractor would be paid for three main activities: Dredging and Disposal, Turbidity Monitoring, and Endangered Species Monitoring. JX 1 at 40-47. While turbidity and endangered species monitoring would be paid on a lump sum basis, payment for dredging and disposal was based on the price per cubic yard of the estimated quantities of material. Id. at 40-47. The estimated quantities stated for each CLIN included the "required depth, allowable overdepth, and shoaling estimated to occur between the dates of surveys shown on drawings and actual dredging."[5] Id. at 47, 201 ¶ 999.211-4008.[6] The

[5] These terms are defined and explained below.

[6] The Corps estimated that the total quantity of materials for all Acceptance Sections to the required depth of 15 feet MLW was 416,000 CY, i.e., 310,000 CY for the Federal channel and 106,000 for the non-federal portions. DX 406 at Drawing No. 1/2; PX 42 at 24; JX 1 at 40-47; Taylor Tr. 86:18-87:12. The total estimated quantity of materials to the allowable overdepth of 17 feet MLW was 721,000 CY, i.e., 599,000 CY for the federal channel and 122,000 CY for the non-federal portions. Id. This amount was the difference between the pre-dredge survey and the overdepth lines shown on the plans and specifications. JX 1 at 40-47; Taylor Tr. 77:16-78:11, 112:14-19; McWilliams Tr. 498:22-499:11; Bearce Tr. 1177:4-7.

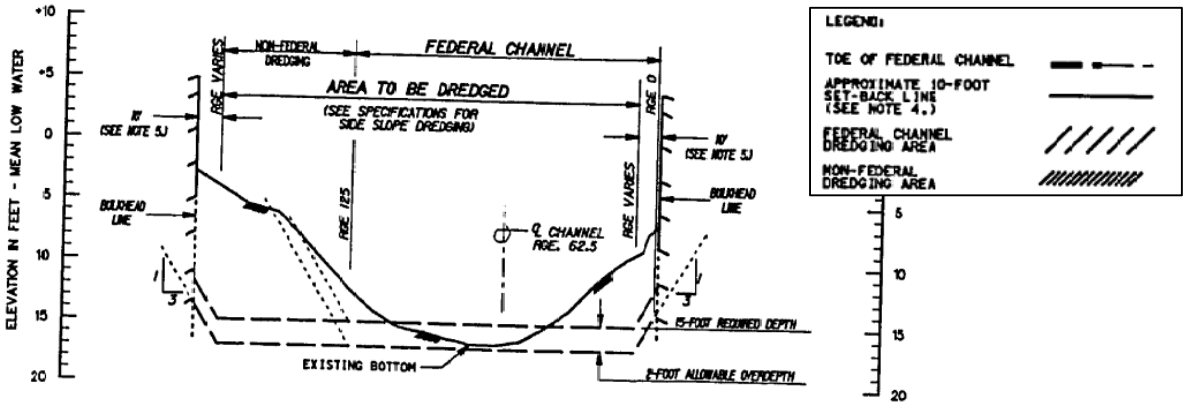
solicitation provided that the "contractor [is] not required to excavate the material in the area of the allowable overdepth." JX 1 at 201 ¶ 999.211-4008(b). "However, as a precondition for requesting an equitable adjustment in the event that the actual quantity [of material in the template] is less than 85 percent of the estimated quantity, the Contractor shall have excavated 100 percent of the available material in the required prism and at least 75 percent of the available material in the area of allowable overdepth." Id.

B. Dredging Specifications

Section 02325 of the solicitation, entitled "Dredging," provided specific information on the contractor's responsibilities with regard to dredging. JX 1 at 366-82.

1. Required Depth, Final Examination of Work, Shoaling, and Continuity of Work Clauses

The "required depth" for the project was 15 feet MLW, with a two-foot "allowable overdepth" (i.e., to 17 feet MLW) "[t]o cover the inaccuracies of the dredging process." JX 1 at 1, 3, 13, 377 ¶¶ 3.4.1 (defining "required depth"), 3.4.2 (defining "allowable overdepth"); DX 406 at Drawing 2/11; Taylor Tr. 139:9-19 (testifying that the overdepth is granted to the contractor to allow the contractor to "overdredge a certain elevation . . . in an effort to try to leave that elevation that the Corps . . . is looking for"). The contract drawings, an example of



DX 406 at Drawing 2/11 (depicting a cross-section of AS 2)

which is reproduced here, showed the "existing bottom" of the channel as well as a "required depth" for the "area to be dredged" of 15 feet MLW with an "allowable overdepth" of 2 feet.[7]

[7] The Corps did not include the 1934 as-built drawings with the solicitation because the Corps did not have an electronic version available when the solicitation was issued. Bearce Tr. 1171:1-16. As noted above, the 1934 as-builts were included in the DMMP which was a public document. The version of the as-builts supplied with the DMMP was, however, so small as to be practically illegible. See PX 7 at 118-27. Weston/Bean has not argued, however, that original or more legible copies of the as-builts were unavailable upon request or that the information provided in the as-builts differs materially from information contained elsewhere in the DMMP, the solicitation, or WBJV's own geotechnical information. In any event, WBJV stated in its

See id.; see also JX 1 at 3, 13. The "area to be dredged," which consisted of the federal channel and non-federal portions, is the "dredging template" or "dredging prism."

The Final Examination of Work clause provided a mechanism for ensuring that the contractor achieved the required depth of 15 feet. It stated that:

> As soon as practicable and no later than three (3) weeks after the completion of the entire work or any section thereof (if the work is divided into sections) as in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding or by sweeping, or both, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same by dragging the bottom or by dredging at the contract rate of dredging. . . . When the area is found to be in a satisfactory condition, it will be accepted finally. . . .

JX 1 at 380-81 ¶ 3.7.1.

The Shoaling clause addressed the possibility of the accumulation of material above the required depth that might occur after a section had already been found acceptable. Pursuant to the shoaling specification, if "shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, redredging at contract price, within the limits of available funds may be done if agreeable to both the contractor and the Contracting Officer." JX 1 at 381 ¶ 3.8.

Finally, the Continuity of Work clause specified that "[n]o payment will be made for work done in any area . . . until the full depth required under the contract is secured in the whole of such area, unless prevented by ledge rock." JX 1 at 381 § 02325 ¶ 3.9. In addition, the contracting officer had the discretion to defer payment "for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured." Id.

2. Character of Materials To Be Dredged Clause

The solicitation contained a Character of Materials To Be Dredged clause. JX 1 at 373 ¶ 2.1. That clause provided in full as follows:

> The sediments in the Miami River are a combination of sand, silty sand, clay, silt, and gravel overlying soft to moderately hard limestone rock. Silty, very fine to medium grained sand comprises the majority of the sediments, followed by apparently discontinuous sandy clay lenses. Wood and man-made trash and debris, including old boats are also present in the sediments. Limestone gravel and cobbles can be expected along portions of the channel bottom and side slopes. Massive,

proposal that it reviewed the DMMP. PX 42 at 96 § 2.13.1.

> monolithic in situ rock, if encountered, is not required to be dredged. However, it shall be accurately located and the location reported to the Contracting Officer.

Id.

This clause was drafted by personnel in the Corps' engineering division including John Bearce, a civil engineer who has worked for the Corps in the area of dredging (including disposal of dredged material) for twenty-four years and who served as design engineer for the project. Bearce Tr. 924:9-925:23, 928:20-929:3, 1089:8-11. The 1934 as-builts were taken into account when drafting the clause. Id. at 1170:13-16. According to Mr. Bearce, the phrase "To Be Dredged" was added to the title of the clause pursuant to an amendment to the solicitation "to emphasize to prospective bidders that the material that is being described in this paragraph 2.1 is—is to be dredged." Id. at 1090:2-7.

3. Setbacks & Side Slopes Clauses

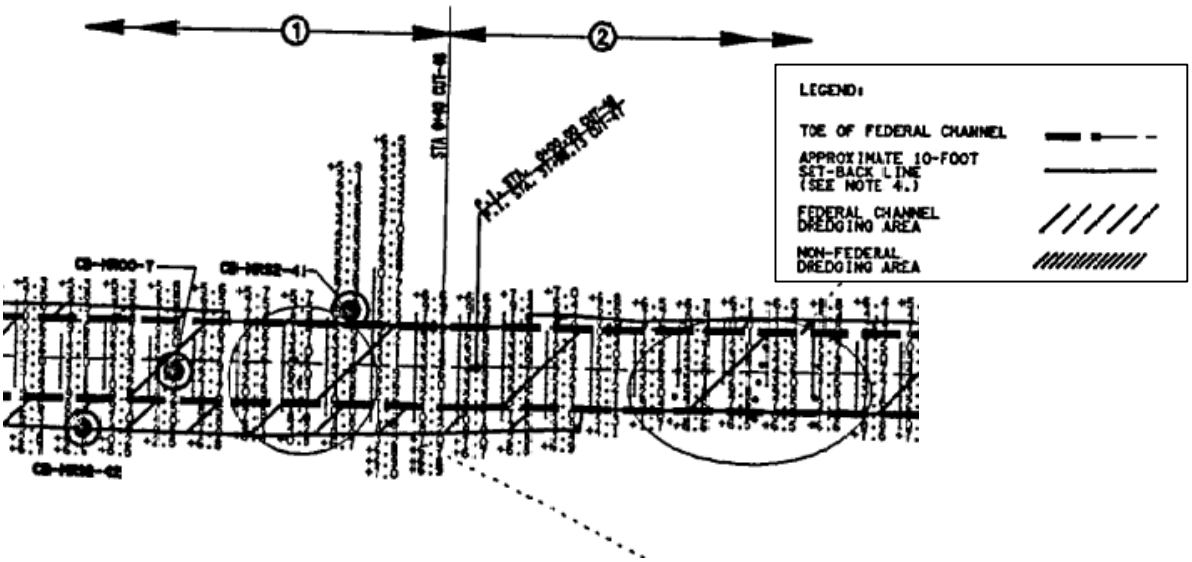
The specifications provided that "[n]o dredging will be permitted within 10 feet of any structure." JX 1 at 374 ¶ 3.2.3 (Adjacent Property and Structures clause). While the Corps uses a standard "set back" of 25 feet for its dredging projects, in this case, the Corps established a setback of 10 feet at the request of the local sponsors. Perez Tr. 1411:22-1412:7. The drawings defined a "structure" as a "bulkhead, bridge fender, dock, pier or any other structure." DX 406 at Drawing 2/11.

The Side Slopes clause provided as follows:

> Although dredging of side slope material may be necessary to provide the required project channel dimensions (depth and width), the side slopes shown on the drawings are provided for payment purposes only. Side slopes may be formed by box cutting, step cutting, or dredging along the side slope. Material actually removed, within the limits approved by the Contracting Officer, to provide for final side slopes not flatter than that shown on the contract drawings, but not in excess of the amount originally lying above this limiting side slope. . . . will be estimated and paid for whether dredged in original position or by box cut dredging whereby a space is dredged below the allowable side slope plane on the bottom of the slope for upslope material capable of falling into the cut.

JX 1 at 377 ¶ 3.4.3. The drawings showed that in some areas of the channel, the 10-foot setback intersected with the toe of the channel,[8] such that the slopes of the channel were located entirely within the 10-foot buffer zone. DX 406 at Drawing Nos. 2/6 – 2/11. An example of one such drawing is set forth below.

[8] The toe of the channel is the point where the side slope intersects with the bottom of the channel. Taylor Tr. 138:18-139:2.



DX 406 at Drawing 2/10 (depicting the area between AS-1 and AS-2)

C. The Corps' Geotechnical Data

In addition to the solicitation and the drawings, the Corps provided prospective offerors with three forms of geotechnical information based on its own investigations of the Miami River in 1992 and 2000, prior to the issuance of the solicitation: (1) boring logs; (2) particle size and distribution tests; and (3) wash probe data. JX 1 at 219-20 § 01000 ¶ 1.3.1; PX 26-38.

1. Testing Methods Used During the Corps' Investigation

(a) Core Borings

Core borings require a casing and split-spoon sampler to collect samples of the material in the channel for analysis. See Taylor Tr. 91:3-15. Core borings are also used to determine the strength, density, and compactness of the material in the river at particular depths based on the "blow count" that is achieved when the sampler is hammered into the soil. See Mahar Tr. 611:25-612:6.

In this case, the Corps used a 140-pound hammer dropped 30 inches to drive the sampler into the soil. Taylor Tr. 91:25-92:5; Bearce Tr. 1004:4-1004:11. The drilling operator logs the sampled material and the number of hammer blows required to advance the sampler six inches at any particular depth; the number of hammer blows needed is referred to as the "blow count." Taylor Tr. 91:16-24. From the number of hammer blows, an N value is derived, which is the number of blows needed to drive the sampler the last one foot, expressed in blows per foot. Id. If a hammer is not required and the weight of the rod alone causes the sampler to move through the material, this is noted in the boring logs as "settled." Mahar Tr. 611:25-612:6; Bearce Tr. 1007:9-13. This characterization indicates that the material is soft, very loose material without enough strength to support the weight or the mass of the sampler. Mahar Tr. 611:25-612:25.

A higher blow count indicates material that is stronger or more compact and more

resistant to drilling, although it does not reveal the character of the material—rock, sand, silt, debris, etc. For example, a blow count of 50 indicates "material that is hard and it could be the limestone or it could be something else." Rios Tr. 1246:7-11; see also Bearce Tr. 1007:24-1008:1 ("[T]he blow count tells you how resistant material is. [A very high blow count] doesn't necessarily mean rock . . . . Certainly, if it was a large, massive rock layer, the blow count might go so high that they would stop drilling."). The blow count also does not reveal the size of any of the material that the sampler encounters. Mahar Tr. 612:7-612:12, 617:10-12 (testifying that boring logs are useful in showing the density, strength, type, and in-situ character of materials but not the size of those materials); Bearce Tr. 1008:13-14; Rios Tr. 1245:9-15, 1248:9-1249:7 (testifying that in Florida there is both hard and soft rock, and a split spoon sampler can go through soft rock and cause displacement of rocks surrounding the sampler).

Another method used as part of a geotechnical investigation involves a vibracore sampler, which uses a larger sampling tube that has a vibrating motor attached to move the tube down through the material (as opposed to a 140-pound hammer). Taylor Tr. 92:20-23. Vibracore samplers are used primarily to determine the type of material present in a given area by examining the material collected in the tube. Taylor Tr. 93:5-12. The vibracore sampling method does not provide good information about the density of material encountered. Taylor Tr. 93:12, 93:5-12; Mahar Tr. 737:5-8; Rios Tr. 1252:24-1253:9.

(b) Particle Size and Distribution Tests

Samples taken from the core boring may be used to create size distribution charts and gradation curves by passing each sample through a series of sieves and recording the size and weight of material retained in each sieve. Mahar Tr. 625:20-628:12. These tests provide "both a graphical and numerical representation of the different sizes of material that are within that sample." McWilliams Tr. 476:20-22.

(c) Wash Probes

Wash probes are an exploration method that reveals the depth of hard material based on its resistance to penetration by a water jet. Taylor Tr. 104:3-24; McWilliams Tr. 477:5-16. A pipe with an attached water jet to move material out of the pipe's path is lowered into the body of water until it meets resistance. Taylor Tr. 104:7-21. As no sample is collected, a wash probe test does not provide information about the character of material that is in the water nor about the nature of material that is encountered at the point of refusal. Id. 104:25-105:5.

2. Results of the Corps' Investigation

(a) The 1992 Tests

In 1992, the Corps performed core borings in 44 locations, at an average distance of 660 feet "primarily for the purpose of . . . determining [the] difficulty of dredging." Bearce Tr. 1034:21-23. Corps employees recorded the results of the 1992 core borings in boring logs. PX 27.[9] A contractor, Law Environmental, Inc., plotted particle size distribution and physical

[9] Core boring CB-M92-41, which was taken in acceptance section 1, is a representative example

properties of the core borings. PX 28-34. Additionally, the Corps created a settling curve or gradation curve for each sample "which shows for the fine-grained material how long it takes to settle through the water." Bearce Tr. 1027:15-17; PX 35; Mahar Tr. 625:20-628:12.

The Corps employed a split-spoon sampler with a two-inch outside diameter and a 1.375-inch inside diameter. PX 27; Perez Tr. 1389:14-15. Use of a split-spoon sampler with a 1.375-inch inside diameter is a standard geological investigation method. Bearce Tr. 1004:18-20. A split-spoon sampler cannot retrieve materials larger than the inside diameter of the sampler. JS ¶ 5. Dr. Mahar, whom the Court qualified as an expert in engineering geology and geotechnical engineering, Tr. 578:13-17, testified that according to geological standards, boulders are rocks larger than 12 inches; cobbles are 3 to 12 inches; gravel is 3/16 of an inch to 3 inches; sand is 0.003 inches to 3/16 of an inch; and silt and clay are smaller than 0.003 inches. Mahar Tr. 594:5-595:14; accord Bearce Tr. 1009:22-25, 1010:10-18. The material retrieved in the sampler, accordingly, would not reveal whether large gravel, cobbles, or boulders were present in the water or in the sediment as only materials less than 1.375 inches in diameter would fit inside the split-spoon sampler.

According to Dr. Mahar, because of the limited size of the split-spoon sampler, the operation of the drilling rig may be taken into account to assist in identifying the presence of cobbles or other material larger than the diameter of the split spoon. He testified that, during the drilling, an experienced operator will observe the drill and make notes regarding any "rig chatter" experienced as well as the size and frequency of objects encountered. Mahar Tr. 600:19-603:3. It is standard geotechnical practice, according to Dr. Mahar, that when the drill hits harder material like a cobble or boulder, the operator will log how long it took the drill to go through the harder material, the fragments that rise to the surface in the casing, and the time it takes to resume normal drilling if the drill glances off something. Mahar Tr. 615:17-616:19; Bearce Tr. 1006:20-25. In addition, Dr. Mahar testified, obstructions will cause the drilling fluid to lose circulation, which is something else an experienced operator should note on the drilling

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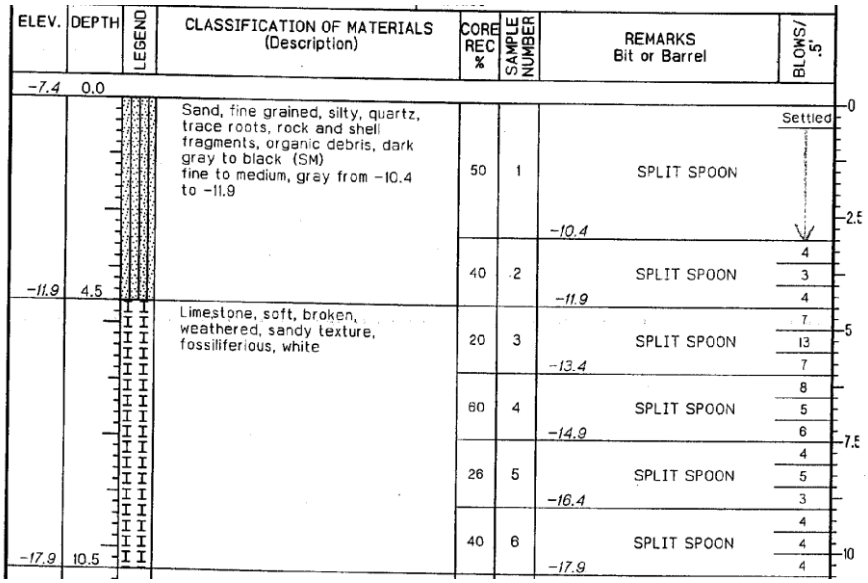
of the boring logs provided by the Corps. PX 27 at 41; DX 406 at Drawing No. 2/10.



log. Mahar Tr. 604:5-7. Thus, Dr. Mahar testified, the information in the core boring logs can reveal the presence of cobbles or boulders in the sediment based on these notations. Mahar Tr. 602:25-603:6.

Dr. Mahar testified that it was "critical" that the drilling operator log information concerning both the sampler and the operation of the drilling rig because the samples "tell only part of the story." Mahar Tr. 618: 4-18. If the logs do not record obstructions based on "rig chatter" or the loss of drilling fluid, he testified, then there can be only two explanations: (1) that the operator did not log the information or (2) that there are no cobbles or boulders in the area sampled. Mahar Tr. 604:23-605:12-13.

The individual who actually performed the core borings for the Corps was "R. Gordon," the drill rig operator or driller. Bearce Tr. 1000:21-1001:3. R. Gordon did not testify at trial. However, Rafael Rios, the Corps' geologist in charge of the project, did testify. He was on the boat or barge when R. Gordon performed the core borings and was responsible for analyzing the material recovered from the sampler and preparing the drilling logs. Mr. Rios stated that in his career he had probably been on a barge when core borings were taken over one hundred times. Rios Tr. 1235:3-6. He also testified that he had seen as many as one or two thousand pages of core boring logs in his career. Id. at 1235:10-21. When asked whether he would log the presence or absence of cobbles and boulders as revealed by the movement of the drill, Mr. Rios stated that "sometimes you record it and sometimes no." Rios Tr. 1259:6-14. He was unfamiliar with the term "rig chatter," although he assumed that it was a reference to "the drill moving when you hit something hard." Rios Tr. 1259:15-18. According to Mr. Rios, "normally, we don't record things like that." Rios Tr. 1259:19-23. By "we" the Court understood Mr. Rios to be saying that Corps employees generally (and not just Mr. Rios) do not ordinarily make notations in the logs regarding rig chatter.

Indeed, the logs do not contain any notations regarding rig chatter or the loss of drilling fluid. See PX 27 (core borings number taken in AS-1 through AS-15 in 1992). In summary, they show that core borings performed during the 1992 Corps investigation recovered gravel, sand, silt, clay, peat, wood remains, and limestone. PX-27 at 27-44; DX 406 at Drawing Nos. 2/6-2/10. They also reveal that the limestone, which was characterized as soft, broken, white, sandy, and in some places, moderately hard, ranged in depth from 6.4 feet MLW to 16.4 feet MLW. See PX-27. N values ranged from "settled" to a blow count of 105, which was necessary to reach an elevation of -9.1 feet MLW in AS-8. PX 27.[10]

[10] Five of the forty-four core borings in AS-1 through AS-15 showed blow counts or N values above 50, indicating the presence of very hard material. See PX 27 at 12 (core boring log showing 50 blow counts at a depth of 15.4); id. at 21 (showing an N value of 53 to reach a depth of 7.5 feet MLW and describing the soil at this depth as limestone, moderately hard, broken, weathered, silt, white); id. at 23 (showing that a blow count of 50 only moved the sampler 0.3 feet at depths of about 7.6 feet MLW and an N value of 105 to reach a depth of 9.1 feet MLW); id. at 34 (showing an N value of 80 to reach a depth of 9.6 feet MLW and that a blow count of 50 moved the sampler 0.2 feet at a depth of 11.8 feet); id. at 39 (showing that a blow count of 50 moved the sampler 0.3 feet at depth of about 15.5 feet MLW).

Dr. Mahar testified that in light of the absence of notations of rig chatter, in his view, the drilling logs did not reveal any large gravel, cobbles, or boulders in the sediment. Mahar Tr. 622:22-24. He also observed that there was a "sharp" interface between the sediment and the limestone rock and that the boring logs did not reveal any evidence of cobbles or boulders on top of this layer of limestone rock that might have been left over from when the channel was originally constructed. Mahar Tr. 622:8-14, 623:2-10. Dr. Mahar testified that except in one of the 24 logs taken in AS-1 through AS-6, the blow counts recorded in the log indicated that the limestone rock in the dredging prism was "[v]ery soft [and] weathered." Mahar Tr. 623:14-18; see also id. at 652:15-653:5. He further testified that this rock was soft enough that "[a]ny material that would end up going to the plant . . . would be broken down in place or it would break down in the operations." Mahar Tr. 650:8-18; accord id. 584:13-584:14 ("I'm looking at a job that is fundamentally a soft-ground job.").

(b) The 2000 Tests

In 2000, the Corps performed another set of subsurface tests of the Miami River. While the goal of the 1992 testing campaign was to assess the difficulty of dredging, the 2000 testing campaign focused on the environmental aspects of the project, and was designed "to determine the content of the sediment," i.e., "is it sand, mud, how deep is the rock, etc [ ] and therefore, how long it will take [the sediments] to dry." PX 7 at 158 (Minutes of the MRC, August 17, 2000 meeting); see also id. at 163 (Minutes of the MRC, October 11, 2000 meeting stating that the Corps "has contracted a company to conduct various sediment surveys throughout the river area to determine the levels of sand, rock, and fine silt in the sediment. . . . [which] will help determine how long the dredged sediments will take to dry and provide information concerning potential odor problems"); Bearce Tr. 1035:3-9 (testifying that the 2000 investigation was conducted "for the purpose of characterizing the material environmentally, for chemical constituents and other things that the state environmental agencies might have been concerned about").

The Corps took core borings in six locations using a vibracore tube with a four inch diameter. PX 37-38. The 2000 vibracore samples contained gravel, sand, silt, and limestone. PX 37.

The Corps also performed wash probes in 2000. The 1992 and 2000 wash probes were taken in lines across the federal and non-federal portions of the channel. Data from the wash probes showed the elevation of the top of the sediments and the refusal elevation at various locations along the river. PX 36 at 1; PX 38 at 1. In general, the elevation of wash probe refusal corresponded to the top of the limestone layer on the boring logs. Mahar Tr. 635:22-637:1; PX 1312 (depicting relationship between refusal elevation and top of the limestone layer). The refusal elevation ranged from -1.1 feet MLW (WP-MR 92-13F taken in AS-11) to -28.99 feet MLW (WP-MR00-3B taken in AS-2). PX 36 at 3; PX 38 at 1; DX 406 at Drawing Nos. 2/4 and 2/10.

Samples taken from the boring logs were used to create size distribution charts and gradation curves. See PX 28, PX 29, PX 30, PX 31, PX 32, PX 33, PX 34, PX 35, PX 37. Samples from the 1992 core borings ranged in size from 0.075mm to 1.5 inches, with most of the material finer than a diameter between 0.375 inches and 0.75 inches. See PX 28, PX 29, PX 30,

PX 31, PX 32, PX 33, PX 34, PX 35.

Dr. Mahar testified with reference to AS-1 that the boring logs indicated that the contractor would "encounter rock in the dredging template, bottom line." Mahar Tr. 658:17-21. According to Dr. Mahar, "[a]ll of [the boring logs] [showed] basically the same thing in terms of the rock elevation. And it is consistent with the information that is in the cross-section with regard to the 1934 [as-built] survey." Mahar Tr. 658:20-23. In other words, the geological data indicated that the limestone rock ranged in depths from 6.4 feet MLW to 16.4 feet MLW. See PX 27.

D. Physical Conditions Clause

The Physical Conditions clause, located in the general requirements section of the solicitation, contained cautionary language regarding the uses to which prospective offerors should put the Corps' test results. It stated as follows:

> While the Government's borings are representative of subsurface conditions at their respective locations and vertical reaches, local variations characteristic of the rocks and subsurface materials of this region are to be expected. The material recovered from the core borings is available for inspection by prospective bidders . . . and prospective bidders are strongly urged to examine the material and assure themselves that they have made the best possible evaluation of the subsurface conditions. . . . Bidders shall form their own conclusions from this examination prior to submission of their bids.

JX 1 at 219-20 § 01000, ¶ 1.3.1.

III. WB's Pre-Proposal Activities and Geological Investigations

A. Testing, Sampling, and Surveying

In June and November of 2002, Weston/Bean "undert[ook] extensive testing, sampling, and surveying of the Miami River." PX 42 at 11 § 1.2; accord JS ¶ 6. Weston/Bean conducted this testing, sampling, and surveying for three reasons: (1) "to independently determine sediment material characteristics to complete data gaps and minimize unknowns and reduce risk," PX 42 at 14 § 1.5; (2) "to further understand the physical and chemical characteristics of the sediment," id. at 40 § 2.9.1; and (3) "to supplement and/or confirm the previous USACE sampling events, including grain size, in situ density, in situ dry matter content, organic content, chemical consistency, and stabilization and mechanical dewatering characteristics." Id.; McWilliams Tr. 469:5-8. To these ends, Weston/Bean used vibracore sample tubes, piston samplers, and a mini clamshell bucket to examine both the extent of contamination of the sediment and the size of the materials present. Mahar Tr. 640:18-641:15, 642:18-643:7; Taylor Tr. 65:11-14; Kelly Tr. 326:8-19; PX 42 at 40. They did not perform wash probes. McWilliams Tr. 537:21-538:8.

In June 2002, Weston/Bean obtained six samples using a mini clamshell bucket and vibracore sample tubes and conducted grain size distribution tests on five individual samples and

one composite of all samples. PX 1286 at 43-44. In November 2002, Weston/Bean obtained 52 sediment samples using a clamshell bucket, piston sampler and/or vibracore sample tubes. PX 1286 at 45.

According to WBJV's expert, Dr. Mahar, "the clamshell bucket was able to reach the top of rock," but "only sediments were sampled and not the rock." PX 1286 at 45 (Dr. Mahar's expert report). The particle size distribution tests that WBJV conducted were consistent with the government's gradation tests showing some gravel with a maximum size of less than 1.5 inches. Mahar Tr. 645:10-13; 646:16-20; PX 1286 at 48. Also consistent with the results of the Corps' tests, "limestone bedrock was encountered above the dredging template . . . at approximate elevation of -14ft (MLW)." PX 1286 at 46.

According to Jeffrey McWilliams, who was then Bean's operations manager, and who led WBJV's pre-bid investigation, McWilliams Tr. 467:23-25; 471:22-472:1, the material sampled "was consistent with maintenance dredging [of] sediments and was consistent with what the Corps had represented on the borings and their wash probes." McWilliams Tr. 472:4-7.

B. WB's Pre-Proposal Rock Estimate

On November 13, 2003, Weston/Bean forwarded to the Corps a document drafted by Mr. McWilliams entitled "Discussion of rock within the dredging template." JX 2. The document stated that "[t]he contract drawings indicate the existence of rock above grade in much of the Miami River, as evidenced by the results of the 1992 and 2000 wash probes given in the contract drawings and specifications." JX 2 at 2 (WBJV's pre-proposal rock estimate); Taylor Tr. 114:4-9, 116:11-13; Bove Tr. 248:22-249:16, 252:9-15; see also PX 1475; PX 1477; McWilliams Tr. 468:24-472:7, 495:22-496:12. The document also explained that the core borings showed "that there was some hard material above grade." Id. 473:12-13; accord Rios Tr. 1243:9-15, 1265:2-1267:20. Further, it stated that "[a]s a responsible contractor, Weston/Bean calculated the volume of rock within the dredging template based on the information provided in the contract drawings." JX 2 at 2. Because the templates were not provided electronically, WBJV created its "own templates by digitizing the toe lines for Federal and Non-Federal dredging given on the contract drawings, which included the 10-foot offset from existing structures." Id. Weston/Bean then developed cross-sections "at 150-foot intervals along the channel from which to perform average end area volume calculations." Id.

Using the top of the sediment indicated by the USACE pre-dredge survey, WBJV performed a "quantity check of the dredge template without considering the presence of rock, in order to compare the accuracy of our template calculations with that of the USACE." Id. (emphasis in original). The results compared "favorably" with the estimated quantities in the contract documents, "indicating an accurate calculation and proper template construction." Id. Specifically, WBJV calculated an estimated quantity of 588,648 CY of all material in the federal channel to -17 feet MLW, compared with the Corps' 599,000 CY estimate. Id. (last row of table); McWilliams Tr. 496:13-498:13, 538:25-539:18, 540:2-10.

Weston/Bean then estimated the volume of material that it "expect[ed] to remove" pursuant to the contract. JX 2 at 2 (emphasis in original). Mr. McWilliams testified that WBJV

determined that the solicitation did not contemplate dredging below the layers of limestone rock that were identified in the boring logs and by the wash probes because, in its view, such dredging would be considered "new work" rather than "maintenance" dredging. McWilliams Tr. 501:25-502:17. He stated that "[w]here the wash probes hit refusal, we said okay, we're not going to be dredging that. That's not maintenance material. Soft stuff is maintenance material." McWilliams Tr. 499:15-18. Accordingly, WBJV estimated the amount of material that it expected to remove by subtracting out the "volume of rock within the template" based upon the 150-foot interval cross-sections that WBJV had developed using the Corps' core boring and wash probe data. JX 2 at 2-3; McWilliams Tr. 498:22-499:11, 501:9-502:10. Weston/Bean noted that "[p]ast practice indicates that approximately half of the overdepth is removed when avoiding unpaid overdepth. Therefore, [it] anticipate[d] removing less than the volume" of total estimated material. JX 2 at 3. Based on its extrapolations from the Corps' data, Weston/Bean concluded that 171,699 CY, or 28.7 percent, of the estimated quantity of material above -17 feet MLW was "rock." JX 2 at 3.

Weston/Bean "realize[d] that creating a [digital terrain model] from wash probe sections taken 200-700 feet apart, particularly in areas of dredged rock, could lead to an inaccurate final rock volume." JX 2 at 3; McWilliams Tr. 545:1-7. "However, based on the available information," the report observed, "our calculation techniques provide a good indication that substantial rock above grade and overdepth exists on this project." JX 2 at 3.

Weston/Bean further explained that it "bid on the advertised volume given in the specifications," but based its "productions and unit prices on the actual volume that we expect to remove." Id. That is, WBJV based its unit prices on its assumption that it would not be required to dredge 20 to 30 percent of the estimated quantities in the contract, then multiplied that lower price by the total estimated quantities in the contract. Id.; McWilliams Tr. 502:19-503:17. Mr. Taylor approved this document. Taylor Tr. 115:22-116:1.

On Friday November 14, 2003, Larry Bove of Weston and Ancil Taylor of Bean had a telephone call with Wanda Cruz, the procurement representative of the Corps. Bove Tr. 255:2-5. According to Mr. Bove, during that phone call, he and Ms. Cruz discussed the potential inconsistency between WBJV's calculation of the amount of rock in the template (which WBJV believed it would not be required to remove) and the solicitation's estimate of the quantities of material to be dredged. Id. at 255:7-17. Mr. Bove stated that he advised Ms. Cruz that WBJV had "hit refusal" at about the same locations that the Corps had, and that he also stated that "that left a volume that would not be able to be dredged in maintenance dredging." Id. at 255:5-14. Mr. Bove further testified that after a few moments of silence, Ms. Cruz came back on the line and advised him that "since you provided nothing materially different, please bid the specifications in the solicitation." Id. at 248:1-4, 255:10-19.

IV. Weston/Bean's Proposal and Contract Award

In 2003, WBJV drafted its proposal for the project. See JS ¶ 10. Mr. McWilliams served as Bean's proposal manager and was responsible for drafting the portions of the proposal relating to dredging. Taylor Tr. 99:22-24; McWilliams Tr. 484:6-14. General Patrick Kelly of Weston served as overall proposal manager. Kelly Tr. 329:7-10. Mr. Cole designed the processing plant

as described in the proposal and drafted "a lot of" the disposal and handling of material section of the proposal. Cole Tr. 403:17-22. Harry van Dam, a senior project engineer with Boskalis Dolman ("Boskalis"),[11] assisted Bean with the proposal and helped Bean understand the processing side of the project. Taylor Tr. 179:21-180:7.

According to Mr. McWilliams, in preparing its bid, WBJV considered the geotechnical information, which it concluded provided "very limited data, actually no data to indicate the size of materials greater than an inch or an inch and a half." McWilliams Tr. 256:2-6. He observed that, nonetheless, WBJV "believed that in doing this job, in getting to the bottom of the sediments, knowing what the description was and knowing that we were in an urban setting, so we were going to find bigger things, tires, shopping carts, whatever, that we estimated the amount of debris in our proposal" as 3-5%. Id. at 256:7-15.

On November 21, 2003, WBJV submitted its proposal. JS ¶ 10. The proposal stated that WBJV had "thoroughly reviewed all of the available documentation for the Miami River dredging project, including the contract plans and specifications, the amendments to the contract," and the DMMP, among other documents. PX 42 at 96 § 2.13.1; see also JS ¶ 11; DX 185 at 1 (The Corps made DMMP available before bidding). Weston/Bean asserted that Weston had "contaminated sediment treatment, material handling, and disposal management experience," and that Bean, "a top three U.S. dredging firm that has an established reputation with the Jacksonville District . . . . has an excellent track record of successfully executing environmentally sensitive dredging projects similar to the Miami River Project." PX 42 at 11 §§ 1.2-1.3. The proposal further noted that Bean "brings proven experience, the latest dredging systems, and appropriately sized dredging equipment to the project." Id.

Under a section of the proposal titled "We Understand the Miami River Project," WBJV stated that its geotechnical investigation "has revealed that there is some limestone rock in the pay template." PX 42 at 14 § 1.5. Weston/Bean explained that "[m]uch of the Miami River template includes rock above grade, as per the wash probes included in the contract drawings." Id. at 41. Weston/Bean stated that it had chosen a mechanical dredge in part because such a dredge "handles debris well" and also "will dig to refusal only" whereas "[d]redging with a hydraulic dredge in areas where the rock bottom encroaches into the channel could cause damage to the cutterhead and/or the dredge." Id.[12]

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[11] Boskalis Dolman is the environmental contracting component of Royal Boskalis Westminster nv, a Dutch company. Van Dam depo. at 13:9-11; Taylor Tr. 57:13-14.

[12] In its proposed findings of fact, WBJV contends that "[t]he technical proposal . . . indicated that Weston/Bean expected to excavate the federal and non-federal Portions of the Project to wash probe refusal." Pl. Br. at 30 ¶ 98 (citing PX 42 at 41-45). But the cited pages in WBJV's technical proposal do not contain a statement to that effect, and the Court is not convinced that such an expectation is obvious on the face of the proposal. On the one hand, the proposal mentions the existence of "rock" above grade as shown in the wash probes in discussing the relative merits of using a mechanical as opposed to a hydraulic dredge. PX 42 at 41. The Court concludes, however, that the proposal could reasonably be read to reflect WBJV's expectation that it would not be required to dredge massive, monolithic in situ rock (see infra)—not that it

The proposal stated that WBJV would separate and process dredged materials as follows:

> Bulk and oversized debris (boat wreck debris, cars, cable, refrigerators, mattresses, steel, wood, concrete, boulders, etc.) will be immediately offloaded, washed, and deposited into the debris staging area . . . . This oversized debris will be loaded into roll-off containers, dump trucks, or onto flatbed trailers as appropriate for transport and disposal.
>
> . . . .
>
> After the oversized debris is separated, the remaining sediment and debris will be offloaded from the barge and transferred with the crane to the vibrating grizzly screen, the first stage in Weston/Bean's sand separation/mechanical dewatering system, to separate out large debris and materials exceeding 4 inches in size. This will include large rocks, large pieces of wood, metals, plastics, glass, and other large materials. . . .
>
> Sediment and small debris passing through the grizzly screen will fall onto an inclined conveyor for conveyance to a vibrating wash screen mounted atop the sand screw. Material delivered to the sand screw's screens will be subjected to high-pressure water flushing and vibration to effectively separate debris measuring 3/8 to 4 inches from the sediment. . . . The "small debris," reasonably clean wood, glass, plastic, steel and oilier metals, and rocks and other debris, will be separated out and transferred to the debris area for subsequent disposal.

Id. at 61 § 2.101, 63; see also id. at 60; Cole Tr. 404:17-405:18.

V. Contract Award and Formation of the Weston/Bean Joint Venture

On April 9, 2004, the government awarded Contract No. W912EP-04-C-0021 to WBJV for AS-1 federal channel in the amount of $11,800,000. JS ¶ 12. The contracting officer stated that WBJV's proposal and subcontracting plan were "incorporated into the contract." JX 1 at 28.[13] The contract was subsequently modified forty-seven times. Id.

On April 14, 2004, Weston and Bean executed the Weston/Bean Joint Venture Agreement. JS ¶ 13. Pursuant to that agreement, WBJV is managed by a management

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would not be required to dredge any rock at all. This seems to the Court to be a reasonable interpretation of the proposal's statement that a "mechanical dredge would dig to refusal" whereas a hydraulic dredge could be damaged by an encounter with rock on the bottom of the channel. PX 42 at 41.

[13] Pursuant to the terms of the solicitation, other than provisions of WBJV's proposal that were incorporated into the contract by specific reference, the terms and conditions of the solicitation were to take precedence over WBJV's proposal. JX 1 at 62.

committee or "board" consisting of four members, two from each joint venture partner. Taylor Tr. 55:10-14. On the board from Weston were Mr. Bove, Division Manager, and General Kelly, Vice President. On the board from Bean were Mr. Taylor, President, and James Bean, Jr., Vice President of C.F. Bean, Bean's parent company. JS ¶ 14; DX 47 at 2-3 ¶ 4.1; Taylor Tr. 55:17-21. Reporting to the board were Mr. Cole from Weston and Mr. McWilliams from Bean. Mr. Cole served as the joint venture's Project Manager and was "involved in design, preparation of proposal, sales of the job, and then actual management of people on the project." Cole Tr. 398:11-15. Mr. McWilliams was the joint venture's Operations Manager in charge of "overseeing all the operations, production, crew, equipment . . . and reporting back to senior management." McWilliams Tr. 468:1-5, 505:20-25.

VI. Disposal Subcontract to Eagle

On May 6, 2004, Eagle North America ("Eagle") submitted a proposal to WBJV to perform processing of dredged materials for the project. JS ¶ 16; DX 54; see Bove Tr. 262:19. In July 2004, another contractor, Bean and Boskalis, submitted a proposal.[14] Bove Tr. 262:18-20. WBJV awarded the subcontract to Eagle on September 9, 2004. JS ¶ 19. Weston/Bean selected Eagle because its proposed price was lower than Bean/Boskalis's, and because its plant would presumably be more portable if there was a break in work due to lack of funding. Bove Tr. 262:21-263:21.

VII. Dredging of AS-1 (September 2004 to February 2005)

On September 30, 2004, WBJV began dredging operations in the AS-1 federal channel using a clamshell bucket. JS ¶ 20; Taylor Tr. 122:12-123:4; Brennan Tr. 1510:14-16. According to Mr. Taylor, WBJV was immediately surprised at the "very rocky" nature of the material that its operators had dredged and loaded on barges. Taylor Tr. 123:8-12. Mr. Taylor testified that as the dredging progressed, he continued to receive reports about "significant quantities of rock" being placed in the barges. Id. at 123:17-23. He further stated that when he visited the site, he personally observed significant quantities of rock. Id. at 124:15-21 ("30 to 70 percent in many cases"); see also McWilliams Tr. 506:4-5 (testifying that "[a]s the excavation began, right from the start we noticed large quantities of rock").

Mr. Cole, WBJV's project manager, was present at the processing plant on a daily basis during this period. Cole Tr. 414:3-4. He observed what he characterized as "varying amounts of sand and a huge amount of rock." Id. at 414:13-14. He further testified that he complained to Clarence Saxby Anderson, the Corps' project engineer for AS-1 through AS-6, about the quantities of rock WBJV was encountering, stating that "we're not supposed to be taking this stuff out" and "[t]his is material above grade, and we don't need to be taking it out." Id. at 415:7-10; see also McWilliams Tr. 506:1-19 (WBJV's project manager testifying that he was at the site every day and that WBJV verbally informed Corps representatives that WBJV was "running into a lot of rock" and that "we don't know if it's going to continue with the rest of the

[14] From 1998 to 2008, Bean's parent company had a business relationship with Royal Boskalis. Taylor Tr. 56:14-21; Wood Tr. 833:4-834:8.

job, but we are running into it"). Mr. Cole testified that after Mr. Anderson consulted with his supervisors, Doug Wood (the Corps' resident engineer and alternative administrative contracting officer) and George Cooper (the administrative contracting officer for the project), "the orders that came back to us were: Dig to 15." Cole Tr. 415:7-18; see also id. at 416:15-16 (testifying that "primarily [Mr. Anderson] told me to dig to 15. That was the specification"); McWilliams Tr. 526:5-19 (testifying that after WBJV advised Mr. Anderson that "we have rock above grade and as part of this contract we're not to dig rock, so here so far is what we are leaving behind," Mr. Anderson responded that "the sections would not be accepted until they were cleared to minus 15, to the required grade").[15]

Pursuant to the contract, WBJV was required to provide daily contractor quality control ("CQC") reports to the Corps. Wood Tr. 854:11-25. The purpose of these reports was to keep official records of the progress of the project on a daily basis, including "if there are any unusual occurrences, what type of material, what's the equipment on site, how many people." McWilliams Tr. 507:7-12; see also Wood Tr. 854:16-20 (CQC reports outline all activities taking place on the contract).

At trial, WBJV introduced a number of completed CQC reports into evidence. It did not, however, present testimony from any witness describing how WBJV provided the CQC reports introduced into evidence to Mr. Anderson. Both Mr. Wood and Mr. Anderson testified that, notwithstanding the contractual requirement, the Corps did not receive the CQC reports on a timely basis. Wood Tr. 856:3-857:15; Anderson Tr. 1313:4-1315:14 (testifying that reports were "months late"). The Corps memorialized this conclusion in a March 7, 2005 letter from Mr. Wood to WBJV which was intended to "document the late submission of [CQC reports]" and which stated that the Corps did not receive "the initial package of reports from work that began September 11, 2004 until the middle of January 2005." JX 8.

In any event, whether or not the reports were timely supplied to the Corps, they support the testimony of WBJV's witnesses that, as time went on, WBJV was encountering and dredging a significant amount of rock. They also show that—at least initially—WBJV did not believe that the amount of rock it was dredging would serve as the basis for any claim for an equitable adjustment. Thus, the CQC report dated September 30, 2004, and prepared by WBJV's quality control representative ("QC representative"), contained a notation that "[m]aterials consisted of mud, sandy material and rocks of varying sizes." PX 166 at 1; Cole Tr. 433:15-25. In response to the question "DID ANYTHING DEVELOP THAT MAY LEAD TO A CHANGE IN ORDER/CLAIM?" the QC representative stated, "NO." PX 166 at 2. The October 4 and

[15] Although WBJV's witnesses testified that they objected to dredging rock that was above grade, the record does not indicate that their objections were based on a claim that the rock being dredged was massive, monolithic in situ rock (which both the government and WBJV agree was not required to be dredged under the Character of Materials To Be Dredged clause). In fact, the Court concludes that this was not the basis for their objections, as the record reveals that in circumstances where WBJV believed that it had encountered massive, monolithic in situ rock, it supplied a formal written notification of its conclusion as required by the contract. See, e.g., JX 9; DX 115.

October 7, 2004 CQC reports described the material being removed as "[p]rimarily [s]and with significant quantities of [g]ravel, [c]obbles, [b]oulders and some [s]ilt," noting that "[t]here were no problems encountered in dredging this material." PX 170 at 1; PX 173 at 1; see also McWilliams Tr. 534:17-535:1. These reports also stated that nothing had developed that could have led to "a change in order or a claim." PX 170 at 2; PX 173 at 2; see also McWilliams Tr. 535:2-13.

In mid-October 2004, WBJV removed the clamshell bucket from the jobsite, and, thereafter, WBJV used a conventional "backhoe" bucket, the Barredor del Rio, for dredging. DX 407 at 43; McWilliams Tr. 487:8-488:17 (concluding that a backhoe was clearly preferable to a clamshell bucket for this project); Brennan Tr. 1512:6-14; see also PX 196 at 1. On October 19, 2004, the government exercised its option for the AS-1 non-federal portions. JS ¶ 21. The CQC reports for October 31, 2004 and November 1, 2004 were similar to the earlier reports, noting that the dredged material containing significant quantities of gravel, cobbles, boulders, and some silt. PX 196; PX 197. The November 1, 2004 CQC report estimated that gravel, cobbles, and boulders comprised 40% of the dredged material. PX 197 at 1. Again, the report stated that "[t]here were no difficulties in removing this material." Id.

Sediment processing and disposal operations began in early November 2004. PX 201 at 1. After Eagle began "tentative processing on November 2, it immediately encountered many operational problems such as blown pipe joints, burned-out starters on pumps, unloading excavator breakdowns, etc." DX 95 at 1 ¶ I(2); see also DX 407 at 44; PX 198 (November 2, 2004 CQC report stating "No processing operations today"); PX 199 (November 3, 2004 CQC report stating "Rerouting water lines to provide necessary water to material separation screens"); PX 200 (November 4, 2004 CQC report stating "Continue preparing processing plant"). On November 5, 2004, the Eagle plant resumed operations around 3:30 p.m. but production had to stop at 11:30 p.m. to allow for the repair of a water line. PX 201 at 1; DX 407 at 44.

In addition, the processing plant—which Mr. Bove testified had been designed to handle sediments only, with a limited capacity to handle larger material—immediately ran into problems. Bove Tr. 274:24-275:12. The plant's design protocol provided for separating out some oversized material that was up to six inches in diameter before the rest of the material passed through to the screens. Id. But because of the large quantity of rock and oversized materials that WBJV had dredged, substantial amounts of rock crowded at the front end, "creating significant downtimes." Bove Tr. 275:5-12.

The CQC reports began to reflect the problems that the plant was experiencing as a result of the unexpected quantities of rock that were being dredged. The November 5, 2004 CQC report stated "[s]ubstantial quantities of rock interfering with effective operation of material separation system." PX 201 at 1; DX 407 at 44. That report also raised for the first time the possibility that WBJV might file a claim alleging a differing site condition based on the quantity of rock in the dredging template. PX 201 at 1. It stated that, "[t]he large quantity of rock in the dredged materials is substantially slowing production of the processing plant"; that "[t]he quantity of rock encountered far exceeds that which was anticipated"; and that "[i]f the rock volume remains consistent throughout Acceptance Area 1, it could be considered a Differing Site Condition." Id. Several subsequent CQC reports contained similar statements. PX 202-19, 224,

229, 232-235. But see PX 223 at 2 (November 27, 2004 CQC report stating that nothing had developed that might lead to "a change in order or a claim").

In his weekly narrative reports for the project, dated November 8, 2004, November 15, 2004, and December 6, 2004, Mr. McWilliams advised WBJV's board about the problems that the processing plant was experiencing. DX 95; DX 98; DX 99. For example, his November 8, 2004 report stated that:

> Eagle's problems with the debris and sand separation system are primarily related to throughput. . . . When loading the current system (at 1 CY/minute), the rock that passes the grizzly is blanking off the 2" screen and is insufficiently washed, which results in a lot of material sticking to the rock and debris instead of going into the system. . . . In addition, we are choking off the pumps with the heavy concentration of rock in the material.

DX 95 at 1. In response to these problems, Mr. McWilliams wrote, WBJV planned to "design and install a larger hopper above the grizzly where we will load and slurry the material with a larger volume of jet water; we believe this will clean the rock and debris and slurry the material sufficiently so that production is maintained." Id. According to the report, WBJV "worked over the weekend installing jets and backwash systems to agitate and clean out material." Id. Another proposed course of action included "us[ing] a smaller screen under the grizzly to eliminate plugging the lines." Id. Weston/Bean instructed Eagle to "replace the larger PVC slurry pipe with HDPE in order to eliminate joint failures." Id. at 1 ¶ I(2); see also DX 407 at 44.

Mr. Anderson acknowledged that during this period of time he had discussions with various WBJV personnel regarding the quantity of gravel and cobbles that were being dredged. Anderson Tr. 1281:5-10; 1341:25-1342:14. He testified, however, that he was advised "repeatedly" by Mr. Cole that WBJV did not intend to pursue the issue as a differing site condition. Id. at 1342:3-14; 1282:3-9.

On December 6, 2004, several members of the Corps, including Saxby Anderson and John Bearce, conducted a site visit of WBJV's operations. See PX 626; Anderson Tr. 1213:19-1214:2. A quality assurance report[16] completed for the visit stated that Mr. Anderson informed Mr. Bearce that WBJV claimed it was "seeing a lot more rock (gravel not in situ) than [it] anticipated in AS 1." PX 626 at 1; id. at 2 (December 6, 2004 CQC report describing the dredged material as containing "significant quantities of Gravel, Cobbles, Boulders and some Silt," although "[t]here were no problems encountered in dredging this material"). The quality assurance report further stated that Mr. Bearce "concurred that he did not expect anything like 25% of the 2" to 3" gravel or dead coral that [WBJV was] seeing." Id. at 1. At trial, Mr. Bearce testified that he "was surprised by that claim—by that—by that statement of that percentage and felt that [he] would like to see that verified before [he] put a lot of faith in that." Bearce Tr.

[16] A quality assurance report is a document prepared by the government after a site visit. Wood Tr. 858:1-6; Bearce Tr. 1213:22-1214:1. The report, among other things, serves to "verify the accuracy of the information submitted in the Contractors Quality Control Reports." Wood Tr. 858:1-8.

1214:20-1215:3. The report further stated that "Weston/Bean had been modifying the equipment to better handle the rock but has not indicated yet that they consider it a differing site condition." PX 626 at 1; see also id. at 3 (CQC report noting that the "[h]igh rock quantities" may lead to a change in order/claim); DX 98 at 1.[17] The author of the quality assurance report concluded the remarks on the report with the following statement: "Inform Doug Wood of above." PX 626 at 1.

In a December 14, 2004 email, Mr. Wood advised Mr. Anderson and Mr. Cooper that a memorandum to the Corps' district office needed to be prepared "alerting to a possible differing site condition—and your evaluation of the situation." PX 1273 at 1. At trial, Mr. Wood could not recall what had led him to write this email. Wood Tr. 905:15-19. He testified that "apparently there was [sic] issues that were discussed and I don't know if the contractor at this point in time gave us a formal notification of differing site condition or whether we were trying to be proactive." Id. at 905:20-24.

In any event, a few days later, during a December 17, 2004 meeting, the WBJV board directed Mr. McWilliams "to hold off on a submission of a change order" regarding "the type and quantity of rock" encountered in AS-1. DX 103 at 4-5 ¶ 3. The board did not discuss the possibility of submitting a differing site condition claim during that meeting because, although the board "believed [WBJV] was experiencing a differing site condition," the board did not know whether it had "met what [it] considered the standard for alerting the Corps that [it] had a different site condition" because "[i]t was very, very early in the job" and the board "wanted to make sure at least [it] truly understood every issue before [it] raised a change order flag." Bove Tr. 272:16-274:15; see also DX 103.

The question of whether WBJV intended to file a differing site condition claim came up again during the January 11, 2005 weekly progress meeting between WBJV and Corps personnel. JX 49 at 1; Bearce Tr. 1284:9-24. Thus, the minutes of that meeting reflect that the "USACE indicated that if unexpected quantities of rock are delaying the dewatering, Weston/Bean should submit a letter providing explanation, actions taken to make up schedule,

[17] Defendant's Exhibit 98 consists of a December 6, 2004, weekly narrative report prepared by Mr. McWilliams for WBJV management which indicates that Mr. McWilliams (or one of his subordinates) had "drafted a notice of a Differing Site Condition for the USACE," and notes that "[t]he rock volume far exceeds what was expected and is having a negative impact on production." DX 98 at 1 § II.1. While the Court permitted this document to be admitted into evidence, the government chose not to cross examine Mr. McWilliams about it when it had the opportunity to do so. As the Court explained in its July 24, 2014 Order closing the evidentiary record, ECF No. 138, while it would admit documents about which no witness had testified if their authenticity was not in question, the failure of a party to offer testimony regarding the substance of a document would be considered by the Court in deciding what weight should be assigned to it. In that regard, the Court does not assign much independent significance to Defendant's Exhibit 98; at best, it confirms what is otherwise revealed in the record—that WBJV was at least considering whether to file a differing site condition claim during this time period based on what it considered to be an unexpectedly large amount of rock that it was being required to dredge.

and requesting additional days." JX 49 at 2 ¶ 4; see also DX 113 at 2 ¶ 4; Anderson Tr. 1286:3-8.

VIII. Termination of Eagle for Default and Substitution by Bean-Boskalis

As discussed above, although WBJV did not experience any difficulties dredging the material in AS-1, the processing of that material was another matter. It was immediately evident when processing began in early November that the Eagle plant did not have the capacity to deal with the quantity of rock that WBJV was loading into the system. Bove Tr. 275:5-12. Because payment to Eagle was based on the number of cubic yards of materials processed, and because as time went on Eagle continued to have difficulty in processing the materials, it was not receiving payment under its subcontract with WBJV. Id. at 275:13-16. This "put a financial burden" on the company and it "couldn't invest the amount of money necessary to change [the plant] process for it to work." Id. at 275:16-19.

In late 2004, WBJV approached Eagle in order to determine what it would take to resolve the processing problems and make the contract economically viable. Id. at 276:16-25. Weston/Bean's board discussed a proposal from Eagle for a $1.6 million loan to purchase new capital equipment that would help to bring production to the level required in the contract. Id. at 277:18-278:1; 278:23-279:2. To repay the loan, Eagle would reduce the cost of processing. Id. While this proposal was under consideration, the Board learned that Eagle's primary subcontractor in charge of sand separation was going to leave the site because it had not been paid by Eagle. Id. at 279:10-15; Taylor Tr. 180:15-17. The board ultimately rejected Eagle's loan proposal and decided to terminate its subcontract with Eagle and work instead with a Boskalis processing plant. Bove Tr. 278:2-9; 279:20-21.

On February 1, 2005, Bean and Boskalis submitted a proposal for a new material processing plant to WBJV. JS ¶ 25; DX 125. Thereafter, on February 10, 2005, WBJV ceased dredging, and Eagle ceased processing materials and began demobilizing from the site. JS ¶ 26; Bove Tr. 280:6-7. Five days later, in a February 15, 2005 letter, Mr. Bove notified Eagle that its subcontract with WBJV was being terminated for default. JS ¶ 27; DX 137; Bove Tr. 280:9-16.

In the letter Mr. Bove explained that the grounds for termination were Eagle's: (1) "cessation of work and abandonment of the project"; (2) "failure to prosecute the work in accordance with the processing rates set out in the Subcontract"; (3) "failure to meet the performance requirements of the Subcontract, including moisture and cleanliness criteria"; (4) "misrepresentations and/or breach of warranty of its ability to perform the Subcontract work in accordance with the Subcontract requirements"; (5) "refusal to prosecute the work with the diligence that will ensure completion within the time specified in the subcontract"; and (6) "failure to pay subcontractors and suppliers as required by the Subcontract and Federal Acquisition Regulations." DX 137 at 2. Mr. Bove advised that Eagle had left WBJV "with no alternative, particularly given Eagle[]'s abandonment of the project last week." Id.; see also Bove Tr. 280:17-21; Cole Tr. 422:17.

In a February 15, 2005 letter to Mr. Wood, Mr. Cole notified the Corps that Eagle "has ceased its operations at the project." JX 28 at 1. He further advised that WBJV was terminating

Eagle for default. JX 28 at 1. On March 11, 2005, WBJV submitted a proposal to the government to substitute a processing plant supplied by Bean/Boskalis for the Eagle plant. JS ¶ 28; JX 55. The Boskalis plant had additional and more robust front-end equipment to handle the quantities of rock being dredged. Bove Tr. 281:25-283:7; Cole Tr. 423:1-13.

Following Eagle's default on February 10, 2005 till May 19, 2005, no dredging or processing occurred on the project. PX 299 – 396 (CQC reports showing no dredging or processing activity). On May 19, 2005, the government issued unilateral modification P00007 incorporating the Boskalis plant into the contract. JS ¶ 29; PX 60. The modification provided, in relevant part, that:

> In accordance with the Limitations on Substitutions for Certain Positions and/or Subcontractors paragraph of this contract, the attached revised technical proposal[] detailing the substitution of the dredging and processing plant is hereby incorporated into this contract. This change was requested by the Contractor for the Contractor's convenience. There shall be no additional cost to the Government for this change. The contract amount and schedule remain the same.

PX 60 at 1; see also JX 1 at 201 ¶ 999.215-4001.

Thereafter, between May 20, 2005, and June 4, 2005, WBJV resumed dredging and dredged the gas pipeline area near the railroad bridge and also performed miscellaneous cleaning passes in AS-1. DX 365 at USACE004538- USACE004605; DX 407 at 24. On June 4, 2005, the Boskalis plant became operational and was able to process limited amounts of dredged material to test the system. DX 365 at USACE004603; DX 407 at 24. On June 7, 2005, WBJV resumed dredging in AS-1 and commenced dredging in AS-2. JS ¶ 30; DX 365 at USACE004618.

IX. Completion of AS-1 to AS-6

On January 17, 2005, Mr. McWilliams sent a letter to Mr. Wood advising him, as required by the contract, that WBJV had encountered what it considered to be massive, monolithic in situ rock. DX 115 at 1. Specifically, he stated that channel obstructions had been encountered along the south toe of AS-1 in the non-federal channel and that the material encountered "was very hard and is believed to be in-situ rock." Id. The letter stated that "as per the contract specifications, we will not attempt to remove this material." Id.

The Corps ultimately responded in a March 30, 2005 letter signed by Mr. Wood. In the letter, Mr. Wood stated that the Corps had "confirmed" the existence of rock that "may have prevented your dredge from meeting the required template." JX 9 at 1. "However," Mr. Wood went on, "in addition to these areas, the after-dredge survey results disclosed material above the required contract template in Section 1 (see attached plot of high spots)." Id. Therefore, he stated, "the Government cannot consider Section 1 ready for acceptance since the section does not comply with the contract documents." JX 9 at 1; see also Wood Tr. 850:13-852:7.

In a June 14, 2005 letter to Mr. Wood, Mr. McWilliams notified the Corps that WBJV

had found "an area of hard material and rock directly underneath and adjacent to the railroad bridge in Acceptance Section 1. . . . on the toe of the channel" and that it had been "unable to take the sections to grade." JX 29 at 1. Mr. Wood responded in a July 7, 2005 letter to WBJV, the substance of which was that the government's February 5, 2005 survey of AS-1 (performed in the wake of Mr. Wood's January letter identifying channel obstructions along the south toe of Acceptance Area 1 in the non-federal channel) had identified in situ rock under the railroad bridge but that other high spots still existed. JX 10 at 1. Therefore, the letter advised, the government did not consider Section 1 ready for acceptance. Id.; see also Wood Tr. 852:14-853:24. Mr. Wood directed that "[p]er Specification Section 02325, paragraph 3.7.1: Final Examination of Work, you are required to remove the material above template at the contract rate of dredging." JX 10 at 1.

In a subsequent July 23, 2005 letter to Mr. Wood, Mr. Cole identified four "areas that remain above -15.00 MLW after dredging is complete": (1) "High spots in the channel – Dredgable Material"; (2) "High Spots in the channel – Rock"; (3) "High Spots along the toe of slope – Sloughing and Shoaling"; (4) "High Spots along the toe of slope – Rock." JX 33 at 1. Mr. Cole explained that "it has been the USACE position that all high spots be cleared, unless they are determined to be rock." Id.

In response, the Corps informed WBJV that the sections "would not be accepted until they were cleared to minus 15, to the required grade." McWilliams Tr. 526:16-19; see also JX 11 at 1 (August 2, 2005 letter from Mr. Wood stating that "[s]ide slope dredging is not required under this contract. The intent of the contract is to clear the bottom of the channel. However, we do anticipate that side slope material may need to be removed (either directly or indirectly) in order to clear the channel bottom to required depth"); PX 893 at 1 (August 23, 2005 letter from the Corps informing WBJV that "any adjustments to the dredging template will be made by the Government on a case-by-case basis"); Taylor Tr. 142:12-17; Anderson Tr. 1305:18-1306-13. Thus, in order for the Corps to accept the work, WBJV was required to redredge several times "areas that were not demonstrated to be in situ rock," including along the toes of the channel where material had sloughed into the channel from the side slopes. Wood Tr. 868:13-17; see also Taylor Tr. 137:12-20, 146:10-19, 147:16-148:1; McWilliams Tr. 526:21-25; 566:19-23; Anderson Tr. 1306:17-22.

On August 31, 2005, the government accepted AS-1 as complete. JS ¶ 35. In an August 31, 2005 memorandum for record, Mr. Wood stated that he had:

> [D]etermined that Weston Bean had sufficiently dredged the toe along the North and South bank near the RR bridge to accept section 1 as complete as long as no other high spots were noted in the Government [After Dredge] survey. . . . The area where material was agreed to allow to remain was outside of the traffic flow where the channel narrows under the bridge and was not considered to impede navigation. Government AD surveys indicated that the only other area in AS 1 that did not clear the template was an area along the South toe that was determined to be in-situ rock and therefore not required to be dredged.

JX 5.

On October 4, 2005, the government accepted AS-2 as complete. JS ¶ 36. In an October 4, 2005 memorandum for record, Mr. Wood stated that he had:

> [D]etermined that Weston Bean had sufficiently dredged the channel to accept [AS-2]. The results of the survey, conducted by the Government's licensed surveyor, Sea Systems, on 15 September 2005, indicate that the only areas above template were an area along the South toe that was determined to be in-situ rock and two areas along the North toe in front of the Hooper property. In accordance with the contract documents, in-situ rock is not required to be dredged. . . .

JX 6.

On November 18, 2005, the government advised WBJV by telephone that AS-3, AS-4, AS-5, and AS-6 were considered complete and confirmed acceptance by letter dated December 22, 2005. JS ¶ 37.

X. Compromise of Hooper Seawalls and Docks

Weston/Bean leased two properties, one located at 3460 NW North River Drive ("Hooper East"), at which it kept its processing equipment, and another at 3464 NW North River Drive ("Hooper West"), which it used for docking and mooring facilities. JS ¶¶ 17, 24; Bove Tr. 267:15-268:1; Brennan Tr. 1565:1-6.

On July 11, 2005, Mr. McWilliams's weekly narrative report noted that the Hooper West seawall had been compromised. DX 156 at 2; see also JS ¶ 32. According to the report, a section of Hooper West "eroded behind the seawall apparently due to wall engineering." DX 156 at 4. In addition, the report stated that "[Hooper East] has three problems beneath the water line." Id. at 2. Mr. McWilliams advised that WBJV should expect that Mr. Hooper would demand that WBJV fix the damage. Id. at 4; McWilliams Tr. 561:20-562:6. In April 2006, WBJV received notice of damage to the Hooper East seawall and confirmed the damage in July 2006. JS ¶ 32. In a January 3, 2007 letter to Weston/Bean, the manager of the Hooper properties stated that the "cap" had been "battered" by WBJV's operation. DX 407 at 67; DX 410 at 3; Brennan Tr. 1566:5-1568:24.

According to Jeffrey Lish, a Bean employee who was ultimately put in charge of performing the repairs on the seawall (see infra), the bulkhead had been poorly constructed. DX 200 (April 29, 2006 email from Mr. Lish to Nancy Johnson, Weston's Project Manager). Mr. Lish testified that the backfill for the seawall had been constructed by dumping silty clay, roots, wood debris, topsoil, and sediments from the river behind the wall. Lish Tr. 957:8-15, 959:15-961:1. Those were improper materials to use for backfill, he observed, because they cannot be compacted to an acceptable engineering value. Id. at 957:8-12, 959:2-4. Additionally, the dock had been constructed using railroad ties for some of the tiebacks, one of which was "rotted in two," which is not a proper engineering procedure. Id. 959:5-8, 976:9-17.[18]

[18] The April 29, 2006 email from Mr. Lish also stated that "Bean elected to dig inside the 10' 'no fly' zone which became an issue when problems started to pop up we had no leg to stand on with

In a July 24, 2005 letter, Mr. Cole reported the damage to the Hooper West seawall to Mr. Wood. He wrote that after WBJV had finished dredging the toe of the slope next to Hooper West, he noticed that 25 cubic yards of soil had moved into the river through a gap between the old and new bulkheads on the property. DX 163 at 1. He further stated that WBJV also noted that stress cracks had developed over the previous week, indicating that the bulkhead might be moving. Id. Further, a piece of the Hooper West dock had fallen into the river over the weekend. Id. Referring to the requirements of the specifications, Mr. Cole stated that "[t]his incident occurred even though the JV is very careful to dredge no closer than 10 ft from any structure." DX 163 at 1. Mr. Cole stated that WBJV had sent a dive team to survey the bulkhead "and discovered that a portion of it has been eroded below the bulkhead sheeting." Id. He further stated that "[i]t does not appear this situation is related to the dredging but should be addressed before further dredging occurs in this area." Id.; see also Cole Tr. 449:6-450:24. On March 16, 2007, Weston/Bean forwarded to the Corps a proposal it had received from a contractor for the repair of the dock damage at Hooper East and West. JX 41.

At trial, various WBJV witnesses attributed the collapse of the Hooper seawalls to the Corps' requirement that WBJV redredge the toe of the slope adjacent to the seawalls repeatedly in order to achieve the required depth of 15 feet. According to Mr. McWilliams, "[t]hat allowed the material that was kind of holding up the Hooper property over the years to slough back into the channel, exposing the weaknesses." McWilliams Tr. 566:19-23; see also Taylor. Tr. 149:10-150:8; Bove Tr. 285:2-22.

XI. Differing Site Condition Claim

In the meantime, after AS-1 and AS-2 had both been completed, and a few weeks before the completion of AS-3 to AS-6, WBJV formally notified the Corps that it was filing a differing site condition claim in a letter dated October 20, 2005. DX 185. The subject line of the letter read "Follow-up Status Report – Differing Site Conditions – Rock in the Miami River."[19] Id. at

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the USACE." DX 200 at 1. Mr. Lish testified at the trial that notwithstanding this observation, Bean did not violate the 10-foot buffer requirement. Rather, Mr. Lish claimed his email was expressing concern that the Corps might perceive that such a violation had occurred based on scatter plots from the dredge's crane monitoring system. Lish Tr. 969: 20-974:2. Those plots, Mr. Lish testified, appeared to show that Bean had violated the buffer zone, when in fact it had not. Id. The Court did not find Mr. Lish persuasive on this point as his email states that Bean "elected to dig inside the 10' 'no fly' zone," not that the scatter plots made it appear that Bean had done so. But in any event, at trial, Ancil Taylor testified that he investigated the matters described in Mr. Lish's email. Taylor Tr. 1848:13-15. Based on this investigation, Mr. Taylor concluded that Mr. Lish had misread the scatter plots and that there was no evidence Weston/Bean had violated the 10-foot buffer when actually performing the work. Taylor Tr. 1853:23-25. The government did not introduce any evidence to contradict Mr. Taylor's testimony, which the Court found credible. Accordingly, the Court finds that WBJV did not violate the 10-foot buffer zone in dredging adjacent to the Hooper properties.

[19] Mr. Cole testified that he chose the subject, "Follow-up Status Report . . ." because he felt that the letter was a follow-up to WBJV's pre-proposal rock estimate and the CQC reports stating

1. The first sentence of the letter states that it was sent "as a follow-up to again notify the USACE that rock outcroppings in the Miami River exist and were not clearly identified by the USACE in the RFP documentation as dredgable." Id. The substance of the letter asserts that—based on the language of the solicitation and the results of the Corps' geotechnical investigation—WBJV had assumed that all but approximately 3-5% of the rock above grade in the channel was "in situ" and was therefore not required to be dredged. Id. The letter alleges the existence of a differing site condition based on the fact that "[t]he Rock identified in the sampling has thusfar been found to be dredgable thru AS-6, thereby significantly increasing the volume of rock over which that was assumed for bidding purposes (3-5%)." DX 185 at 2.

The Corps rejected WBJV's differing site condition claim by letter dated December 6, 2005. PX 904. According to the Corps, at the time WBJV sent its March 11, 2005 letter requesting permission to substitute the Boskalis plant for the Eagle Plant, WBJV's site staff had advised the Corps that WBJV did not intend to pursue a differing site condition claim. Id. at 1; Wood Tr. 859:2-860:3. Further, the letter cited the language of the change order that authorized the substitution of the Boskalis plant, stating that the change had been requested for WBJV's convenience and that "[t]here shall be no additional cost to the government for this change." PX 904 at 1-2. In any event, the letter stated, given the fact that WBJV had conducted its own investigation, it "should not be surprised at the amount of rock in the river." Id. at 2.

XII. Total Material Dredged in AS-1 Through AS-6

The amount of material WBJV dredged in AS-1 to AS-6 was greater than it had expected to dredge. Based on its assumption that it would not be required to dredge any rock above grade, WBJV had expected to dredge a total of 176,058 CY of material in AS-1 to AS-6. Taylor Tr. 127:1-6; see also JX 2 at 3.

The amount WBJV actually dredged and for which it received payment ("the pay volume"), however, was 219,913 CY of material.[20] This amount was comparable to the Corps' estimate and WBJV's own estimate of the material available to be dredged in the dredging template. The Court summarizes the relevant estimates and compares them to the pay volume in the table below.

Acceptance Area	Corps' Estimated Federal Volume	WBJV' Estimated Federal Volume	Actual Pay Volume
1	54,000	55,241	50,756
2	47,000	41,460	46,749
3	26,000	29,048	27,894
4	29,000	36,166	29,357

that WBJV was "excavating inordinate amounts of rock." Cole 425:8-13-426:3.

[20] WBJV was not compensated for dredging below -17 feet MLW. See JX 1 at 40-47, 378 ¶ 3.4.4 (Excessive Dredging clause stating that "[m]aterial taken from beyond the limits . . . will be deducted from the total amount dredged"); see also JX 50 at 2 (document prepared by WBJV discussing reasons for removal of "a large quantity of unpaid" material in AS-2).

5	37,000	37,840	32,306
6	34,000	35,480	32,851
Total	**227,000**	**235,235**	**219,913**

JX 2 at 2; PX 1482 at 3-4; Taylor Tr. 125:9-126:15.

XIII. Interim Demobilization

On December 2, 2005, WBJV advised the Corps that because the government had accepted AS-1 through AS-6 and had not awarded additional sections due to a lack of funding, it considered the project in an "Interim Demobilization" status. JX 37; Bove Tr. 293:14-294:5. WBJV determined that there might be a period of downtime of over six months. Bove Tr. 294:6-13. Therefore, WBJV demobilized its equipment from the Miami River, disassembled the Boskalis plant, shipped it back to Europe, and waited for the Corps to raise the funding needed to complete AS-7 to AS-15. Id. at 294:14-18; JX 37.

A little over two years later, on January 18, 2007, the contracting officer notified WBJV that the government anticipated exercising additional options "within the next few weeks." JS ¶ 38. Pursuant to the contract, following the exercise of an option, WBJV would have 60 days to remobilize. JX 1 at 47; Bove Tr. 296:2-297:19. On May 22, 2007, the government issued unilateral modification P00024 exercising its options in AS-7 and AS-8, thereby requiring WBJV to remobilize no later than July 21, 2007. Pl. Br. ¶ 186; JX 1 at 47 n.4; JS ¶ 39; PX 77 at 2; Bove Tr. 296:17-22. The modification included a $196,666 award for interim mobilization and demobilization. PX 77 at 2.

In a June 12, 2007 letter, WBJV requested a 120-day extension to remobilize, i.e., until September 18, 2007, on the ground of "structural problems with portions of the bulkhead and site permitting issues that need to be addressed prior to the recommencement of operations at the site." JX 43 at 1. In letters dated July 6, July 18, and July 25, 2007, WBJV provided a limited amount of documentation and information in support of its extension requests. See JX 21 at 1. In a July 30, 2007 letter, Mr. Wood stated that these letters had not provided a complete chronology, explanation of events, and supporting documentation, which was required for the Corps to consider WBJV's request. Id. In an August 8, 2007 letter, WBJV provided the information requested in Mr. Wood's July 30, 2007 letter. JX 45. Thereafter, on October 15, 2007, the contracting officer denied WBJV's request, finding that WBJV "did not pursue repairs of the seawall with diligence," because "[t]he damage to the seawall occurred in the July 2005 timeframe, yet substantive progress to secure the repairs was not made until May 2006" and because, she found, it "[was] questionable whether or not [WBJV] proceeded with diligence during certain periods after May 2006." JX 22 at 2.

XIV. Completion of AS-7 to AS-15

On February 16, 2008—210 days after WBJV was required to remobilize pursuant to modification P00024—repairs to the Hooper properties were completed, and WBJV began dredging in AS-7, although the Boskalis plant was not yet remobilized. DX 271 at 1; DX 407 at 70; Brennan Tr. 1573:6-1575:7.

When WBJV returned to finish AS-7 to AS-15, it mobilized different dredging equipment and informed the Corps that "[it] would not under pretty much any circumstances attempt to dredge anything more than they could actually just touch and move out of the way." Wood Tr. 866:23-867:6. The parties then agreed on a new method for determining whether rock WBJV encountered would be considered "massive, monolithic in situ" rock that WBJV would not be required to dredge. Taylor Tr. 152:9-11 ("When we returned to the project to perform work on section 7 and ultimately through 15, the acceptance criteria changed on the job."). Under that method, whenever WBJV identified an area as containing in situ rock, the Corps went out to the location on a survey boat and "sounded the rock with a bar" to verify whether it was or was not in situ rock. Wood Tr. 867:17-23. For AS-1 to AS-6, the procedure had been that "if the backhoe was able to strike the material several times and not move it," WBJV would alert a field representative of the Corps and "confirm that [the material] was in situ material and would not be dredged." Wood Tr. 868:1-5. Although neither party presented any evidence regarding the differences between the two methods, the apparent result of using the new procedure for AS-7 to AS-15 was that the Corps accepted work with material remaining above grade with significantly greater frequency. Taylor Tr. 152:12-17, 154:21-155:5; Wood Tr. 866:19-868:5.

As of November 10, 2008, the government had accepted AS-7 through AS-15 as complete. JS ¶¶ 40-44. Because the Corps permitted WBJV to leave a significant amount of material above -15 feet MLW, the quantities dredged were less than the estimated quantities in the contract. Consequently, effective September 22, 2009, the government issued bilateral modification P00046, which paid WBJV $4,025,987.30 for "fixed costs which were incurred and not recovered in the performance of contract work in Acceptance Sections 7 through 15 due to the extensive presence of monolithic rock within the template of the dredging project." PX 99 at 1 § 16C, 2 § 14A.

XV. Certified Claims

On December 21, 2009, WBJV submitted to the contracting officer a certified claim for "unanticipated quantity of large gravel, cobbles and boulders of limestone." PX 1239 at 2; DX 326 at 8. Unlike the notice of differing site condition that WBJV submitted in October of 2005, WBJV no longer premised its claim on the theory that the solicitations and test results had misled it about the "dredgability" of the rock above grade. See id. Instead, WBJV stated that "the differing site condition occurred because excess quantities of large gravel, cobbles and boulders were encountered in the sediments left over from the original new work dredging project and in the limestone rock." PX 1239 at 7; DX 326 at 14.

Weston/Bean requested an equitable adjustment in the amount of $8,151,092.49 for the costs of the following: disruptions in the original processing plant due to the unanticipated quantities of rock; demobilization of the original processing plant; site improvements and mobilization of a replacement processing plant; permits for the replacement processing plant; labor and expenses for site supervision; land rent and facilities; marine equipment standby; a dive team and a crane barge for boulder removal; and other items. PX 1239 at 24; DX 326 at 31. In addition, WBJV requested an extension of time to complete the contract and the release of contract amounts retained by the government as liquidated damages. PX 1239 at 26; DX 326 at 33.

On July 15, 2010, the contracting officer issued a final decision denying WBJV's 2009 certified claim. JX 52. She concluded that WBJV "has not demonstrated that the conditions differ materially from what was represented in the contract documents." Id. at 4. According to the contracting officer, "[t]he Corps' analysis shows that it is likely the type of dredging equipment used, a backhoe, could have contributed to the alleged increase in quantity of rock by aggressively scraping in-situ rock and creating smaller rock fragments." Id. at 5. In addressing WBJV's claim that the excess rocks created problems at the processing plant, the contracting officer expressed skepticism given the various other problems WBJV's subcontractor Eagle encountered, including ultimately defaulting on its subcontract. Id. She noted that WBJV failed to provide "any documentation related to the subcontractor's default to indicate what they have recovered and thus the actual damages they have sustained." Id. Moreover, the contracting officer denied WBJV's claims for additional costs for demobilization and remobilization because "[m]any of the alleged costs are attributable to the subcontractor default and/or WBJV's business decisions on how to execute this contract." Id. at 6. Finally, she concluded that WBJV failed to notify the Corps of the potential differing site condition promptly and before the conditions were disturbed. Id. at 7.

On September 24, 2010, WBJV submitted to the contracting officer a second certified claim for "additional dredging to achieve acceptance near the toe of the slopes[,] acceptance sections 1 through 6." JX 51 at 1. It submitted a third certified claim on January 18, 2011 for "contract time extension[,] remobilization for acceptance sections 7 and 8." PX 1240 at 1. In its 2010 and 2011 certified claims, WBJV asserted that it could not have remobilized until the seawalls were repaired. JS ¶ 45. The contracting officer denied WBJV's 2010 and 2011 certified claims on February 4, 2011 and March 22, 2011, respectively. JX 53, 54.

DISCUSSION

As the record in this case reveals, the Eagle plant that WBJV initially employed to process the material it dredged from the Miami River was not up to the task. According to WBJV, this was not the result of poor planning on its part. Instead, it argues that the Corps' insistence that WBJV dredge the river down to a depth of 15 feet, even in spots where rock had been left above grade when the channel was originally built in the 1930s, led to the failure of its processing operation. Thus, the bulk of WBJV's claim for damages in this case is based on the theory that while its contract with the Corps was one for "maintenance" dredging and the disposal of sediments, the Corp directed it to perform "new work" dredging and to remove oversized gravel, as well as cobbles and boulders in order to achieve the required depth.

In addition, WBJV alleges that the Corps provided defective specifications for the project which led to damage to the Hooper properties. Specifically, it contends that the Corps put the toe of the channel so close to the 10-foot buffer from the Hooper seawall that WBJV could not employ a box cut to dredge the adjacent slope. According to WBJV, the seawall collapsed as a consequence of these design elements, coupled with the Corps' requirement that it achieve a depth of 15 feet MLW throughout the federal channel.

Finally, WBJV claims that the government breached its implied duty of good faith and fair dealing when, after an extended period of demobilization, it required WBJV to remobilize

within the 60-day period prescribed by the contract notwithstanding that its knowledge that WBJV had not yet completed the repairs to the Hooper properties or retrieved its processing plant from overseas. Weston/Bean also argues that the Corps unreasonably failed to grant it extensions of time to complete performance and that the government improperly retained or assessed liquidated damages.

For the reasons set forth below, the Court concludes that WBJV has misconstrued the contractual requirements and that its claims otherwise lack merit. Therefore, the Court directs the entry of judgment for the government as to each of WBJV's claims.

I. Weston/Bean's Constructive Change and Differing Site Condition Claims

As noted, WBJV's claims in this case, whether couched as "differing site condition" or "constructive change" arguments, are premised on the notion that the contract required that WBJV dredge only the "sediments" that were present within the dredging prism. Weston/Bean contends that the contract did not require it to dredge other material (such as large gravel, cobbles, boulders, or soft to moderately hard limestone rock) even if the removal of this material was necessary to achieve the contractually "required depth" of 15 feet MLW. See Pl. Br. 9 ¶ 3; 17-18 ¶ 40; 18-19 ¶ 43; 20-21 ¶ 51; 23-24 ¶ 64; 25 ¶ 71; 26 ¶¶ 79, 81; 30 ¶ 99; 65-66; 82; 90; 103.

Weston/Bean's interpretation of its obligations is premised almost entirely upon the Corps' use of the phrase "maintenance dredging" to characterize and describe the project, both in the title of the solicitation and in the Description of Work clause. According to WBJV, "maintenance" dredging: (1) means the periodic dredging of a channel for purposes of removing sediments that have blown into and accumulated in the channel since the last time it was dredged; (2) does not typically involve the dredging of significant quantities of rock; and (3) never involves, as did this project, the dredging of "virgin" material (i.e., rock located in areas that were not dredged to their authorized depths when the channel was built in the 1930s). Pl. Br. 20-21 ¶ 51, 62-63. The latter, WBJV argues, is "new work" not "maintenance" dredging. Id.

As described in greater detail below, to prevail in a constructive change case, a plaintiff must demonstrate that, as a result of an informal order or government fault, it has performed work beyond that which is contractually required. See Int'l Data Prods. Corp. v. United States, 492 F.3d 1317, 1325 (Fed. Cir. 2007). In a Type I differing site condition case, on the other hand, the focus is on whether a contractor has encountered "subsurface or latent physical conditions at the site which differ materially from those indicated in [the] contract" and which have "cause[d] an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under [the] contract." FAR 52.236-2(a)(1), -2(b) (1984).

In this case, WBJV candidly admits (and the record shows) that at the time it submitted its offer in response to the solicitation it was aware that there was a significant amount of rock above the grade of -15 feet MLW in some sections of the dredging prism. In fact, as described in greater detail above, at the time it made its offer, WBJV anticipated that some 28.7 percent of the material in the dredging prism was rock. JX 2 at 3. Its argument, therefore, is not that it did not know that there was rock in the dredging template. Pl. Br. 1-2. Rather, its argument is that it

understood that it would not be required to dredge that rock. Id. at 2. The unexpected quantities of rock that it was required to dredge, WBJV contends, had a major negative impact on its processing operations, which were not designed to deal with large amounts of rock greater than 1.5 inches in diameter. Id. at 3, 5.

Given WBJV's framing of the issues and the record in this case, the Court agrees with the government that WBJV's claims fall more naturally under a constructive change rubric than a "differing site condition" theory. Accordingly, the Court turns first to WBJV's constructive change claim.

A. Constructive Change

"A constructive change occurs where a contractor performs work beyond the contract requirements without a formal order, either by an informal order or due to the fault of the Government." Int'l Data Prods., 492 F.3d at 1325; see also FAR 52.243-4 (2007) (Changes clause); JX 1 at 91, 166 (incorporating FAR 52.243-4 by reference into contract). To prevail on a constructive change claim and secure an equitable adjustment, a contractor must show that an official with authority to bind the government "demanded work above and beyond that in the contract." Agility Defense & Government Services, Inc., 115 Fed. Cl. 247, 251 (2014) (citing Int'l Data Prods., 492 F.3d at 1325); see also Ace Constructors, Inc. v. United States, 499 F.3d 1357, 1361 (Fed. Cir. 2007). Therefore, where the government simply requires performance in compliance with contract specifications and/or mandates that a contractor correct nonconforming work, no adjustment is warranted. NavCom Def. Elecs., Inc. v. England, 53 F. App'x. 897, 900 (Fed. Cir. 2002) (citing S.S. Silberblatt, Inc. v. United States, 433 F.2d 1314, 1323 (Ct. Cl. 1970)); see also Len Co. & Assocs. v. United States, 385 F.2d 438, 443 (Ct. Cl. 1967) ("In all cases, the contracting officer, as part of his duty to assure compliance by the contractor with the plans and specifications, has the power to order the work done in a manner which is reasonable and proper.").

The interpretation of a contract involves the resolution of a legal question. See S. Nuclear Operating Co. v. United States, 637 F.3d 1297, 1301 (Fed. Cir. 2011). For the reasons set forth below, the Court concludes that WBJV's interpretation of the contract is incorrect as a matter of law, and that WBJV failed to show that it was required to perform work beyond the contractual requirements. Therefore, its constructive change claim must fail.[21]

1. The Language of the Contract

"Contract interpretation begins with the language of the written agreement." Coast Fed. Bank, FSB v. United States, 323 F.3d 1035, 1038 (Fed. Cir. 2003). "When interpreting a contract, if the provisions are clear and unambiguous, they must be given their plain and ordinary meaning." Bell/Heery v. United States, 739 F.3d 1324, 1331 (Fed. Cir. 2014) (internal quotation

[21] Because the Court finds that WBJV did not establish the elements of a constructive change, it does not reach the issue of whether WBJV provided the necessary notice of the change to the contracting officer, or if it showed that a government official with the requisite authority ordered any such change.

marks and citations omitted); see also Hol-Gar Mfg. Corp. v. United States, 351 F.2d 972, 975 (Ct. Cl. 1965) (The language of the "contract must be given that meaning that would be derived from the contract by a reasonably intelligent person acquainted with the contemporaneous circumstances.").

The title of the solicitation in this case is "Maintenance Dredging, 15-Foot Project, Miami River, Cut 1 through Cut 48." The "Description of Work" section states, in pertinent part, that:

> The project will involve maintenance dredging of the Miami River from Cut-48 at the Northwestern end of the Federal Navigation Channel to Cut-1 at Biscayne Bay. Approximately one-half to three-fourths of a million cubic yards of contaminated sediment will be removed from the river. . . . The dredging and disposal operations will be conducted according to stringent environmental standards; however, the method of disposal and final fate of the dredged material will be determined by the successful bidder's proposal.

JX 1 at 39.

The Character of Materials To Be Dredged clause contained in the dredging specification section of the solicitation elaborates on the composition of the sediment in the river and also identifies the other materials that could be expected to be found within the dredging prism. It states, in its entirety, as follows:

> The sediments in the Miami River are a combination of sand, silty sand, clay, silt, and gravel overlying soft to moderately hard limestone rock. Silty, very fine to medium grained sand comprises the majority of the sediments, followed by apparently discontinuous sandy clay lenses. Wood and man-made trash and debris, including old boats are also present in the sediments. Limestone gravel and cobbles can be expected along portions of the channel bottom and side slopes. Massive, monolithic in situ rock, if encountered, is not required to be dredged. However, it shall be accurately located and the location reported to the Contracting Officer.

JX 1 at 373.

The contract does not include a definition of "massive, monolithic in situ rock." According to Mr. Bearce, "'massive' means heavy," "'[i]n situ' means in place, naturally in place," and "'monolithic' means one piece, in other words, not fragmented but one solid piece of material." Bearce Tr. 1009:2-5. Similarly, Mr. Cooper testified that "massive, monolithic in situ rock" was "bedrock" or "rock that's been there forever." Cooper Tr. 1051:12-15.

Dr. Mahar provided a more contract-specific definition of "massive, monolithic in situ rock." He testified that "[t]here are fundamentally two definitions" for the word massive—"a geologic definition and an excavation definition." Mahar Tr. 596:2-5. According to Dr. Mahar, the "geologic" definition is based on the observable appearance of the material and can encompass material ranging in size from four inches to six feet, depending on particular schools

of thought within the geotechnical field. Mahar Tr. 596:6-11. In a dredging project, however, where the appearance of the material in the dredging template is not known ahead of time, the contractor relies on the excavation of the material to identify what constitutes "massive, monolithic in situ rock." The question for the contractor is "whether or not basically I can dig this material up and whether or not I can dislodge it and actually remove it from the subaqueous environment." Mahar Tr. 597:9-13. Dr. Mahar testified that when an excavation definition is employed, whether rock is massive, monolithic in situ rock is dependent upon the type of dredging equipment used and the difficulty in excavating the material with that particular type of equipment. Mahar Tr. 596:21-597:5. "Different types of equipment have different digging capabilities, and so massive, monolithic rock for one type of equipment may be different than massive, monolithic rock for another type of [equipment]." Mahar Tr. 596:22-597:1; see also Bearce Tr. 1230:22-25 (testifying that "the difference, in [his] mind, between rock and sediment disappears if they're both dredgeable").[22]

According to Dr. Mahar, the Character of Materials To Be Dredged clause is an "interpretation . . . . of the expected conditions based on the boring logs and the gradations." Mahar Tr. 618:19-22. Indeed, the record in this case revealed that the clause accurately identified the material present in the dredging prism. Thus, in addition to sediment, the materials that WBJV encountered included loose cobble and boulders, as well as massive, monolithic in situ rock. The testimony also established that some of the loose rock was in the sediment and that other loose rock was left over on the channel bottom from the initial dredging of the channel in the 1930s. Bove Tr. 247:12-17; Mahar Tr. 588:14-19, 589:8-10.

Further, the record establishes that, consistent with the Character of Materials To Be Dredged clause, the dredging prism also contained layers of soft to moderately hard limestone rock which Dr. Mahar testified was "virgin" or "new work" material—i.e., material that should have been but was not removed when the channel was first dredged in the 1930s, notwithstanding that the material was above the authorized -15 foot level. Mahar Tr. 732:20-734:11. With respect to Acceptance Sections 1 to 6—the Corps required WBJV to dredge such limestone rock except where WBJV identified it as massive, monolithic in situ rock. Wood Tr. 874:21-875:15. In the latter circumstance, if the Corps agreed that the material was massive, monolithic in situ rock it did not require WBJV to dredge it. Taylor Tr. 188:18-189:18, 190:24-191:2 ("I can't recall an instance where [WBJV] or Saxby Anderson had specifically identified a

[22] Several of the WBJV's witnesses (including Ancil Taylor, whom WBJV offered as an expert in dredging), testified that they were unable to offer any definition of the phrase "massive, monolithic in situ rock." Taylor Tr. 189:11-14 (testifying that "I am not sure I know what the definition of that is completely, but we were there to remove sediment, not rock, regardless of massive, soft, hard."), 190:4-10 ("I don't really have a clear understanding I guess of what's massive. It's not necessarily a geotechnical term."), 191:11-21; McWilliams Tr. 541:3-20 (testifying that he did not know what massive, monolithic in situ rock is and therefore could not say whether or not a conventional excavator bucket used on the project could dredge massive, monolithic rock). The Court found these professions of ignorance unconvincing because, in fact, in several instances WBJV identified occurrences of rock as constituting "massive, monolithic in situ" rock, and successfully sought the Corps' approval to leave it in place.

location as massive, monolithic rock and instructed us to dredge it."). See JX 10 at 1. Where WBJV did dredge the layers of limestone rock, the dredging apparently resulted in additional loose cobbles and boulders as the rock fractured and broke into pieces. Mahar Tr. 650:8-651:19, 663:10-13; Pl.'s Br. 26 ¶ 77.

As noted above, WBJV contends that the contract did not require that it dredge any material other than the sediment. It states that its "intention was to dredge only the sediments, leaving virgin material that resisted wash probe penetration because it had not previously been dredged . . . [and] to dredge to the authorized channel dimensions only where all of the material to such depth was sediment." Pl. Br. 30 ¶ 99. See McWilliams Tr. 559:14-17. Thus, WBJV "interpreted the wash probe refusal elevation to be the point where Weston/Bean would stop dredging." Pl. Br. 25 ¶ 71.

Weston/Bean's contentions and stated expectations, however, are inconsistent with the contractual language and accompanying drawings. First, the "required depth" for the project set forth in the solicitation is 15 feet (with 2 feet of allowable overdepth). Further, several drawings included with the solicitation identified the "area to be dredged" as one that reached a "required depth" of 15 feet, with 2 feet of "allowable overdepth." DX 406 at Drawing No. 2/11; JX 1 at 377.

Further, the total estimated quantities of materials to be removed set forth in the solicitation for pricing purposes included all of the material in the dredging prism, whether sediment, debris, or rock. JX 1 at 40-47. Thus, offerors were to propose their prices based on the expectation that they would be required to remove all material in the dredging prism. Indeed, as shown above, the record reveals that the volume of material that WBJV was ultimately required to dredge (and was paid for dredging) was closer in amount to the government's estimated quantities than it was to WBJV's pre-proposal estimate of the amount of material that it expected to remove (which subtracted out the rock).

Moreover, the Final Examination of Work clause included a mechanism for ensuring that the contractor achieved the required depth of 15 feet. It stated that the government would "thoroughly examine" the contractor's work after completion to ensure that there were no "shoals, lumps, or other lack of contract depth," and provided that if there were, then the contractor would be required to remove them. JX 1 at 380-1. Nothing in this provision suggests that the Corps would accept work that did not meet the contract depth if the material left above grade were something other than sediment. Similarly, the Continuity of Work clause provided that the contractor would not be paid "until the full depth required under the contract is secured" in an acceptance section "unless prevented by ledge rock," which the Court interprets to be the equivalent of "massive, monolithic in situ" rock. JX 1 at 381.

Further, there is absolutely nothing in the language of the contract which refers to the results of the wash probe tests as defining the depth to which the contractor would be required to dredge or as affecting the contractor's obligation to dredge to -15 feet (except, as explained above, where there was massive, monolithic in situ rock above the required depth). See JX 1 at 377 ¶ 3.4.2 (referring to the required depth and allowable overdepth as shown on the drawings); see also PX 42 at 41 (WBJV's proposal stating its intent to dig to "refusal"). Nowhere in its

briefs or at trial did WBJV explain how the very specific requirement that it dredge to -15 feet which as shown on the drawings could be met if it were required to dredge only sediment or to go only to refusal elevation.[23]

Weston/Bean's argument that the contract only required it to dredge sediment is also inconsistent with the Character of Materials To Be Dredged clause. JX 1 at 373 (emphasis supplied). That clause identifies all of the materials present in the dredging prism as follows: (1) sediment (sand, silty sand, clay, silt, and gravel); (2) soft to moderately hard limestone rock lying under the sediments; (3) wood and man-made trash and debris, including old boats, which are also present in the sediments; (4) limestone gravel and cobbles along "portions of the channel bottom and side slopes"; and (5) "massive, monolithic in situ rock." Significantly, among all these materials, the only material that is designated as "not required to be dredged" is massive, monolithic in situ rock.[24]

The Court finds the maxim expressio unius est exclusio alterius highly instructive to the interpretation of the Character of Materials To Be Dredged clause. It dictates in this case that no exceptions should be read into the contractual language identifying the materials "to be dredged" other than those specifically enumerated in the clause. In designating only massive, monolithic in situ rock as "not required to be dredged," the clause clearly signals that the other materials described are required to be dredged. See Slattery v. United States, 635 F.3d 1298, 1323 (Fed. Cir. 2011) (en banc) (discussing the canon of statutory construction expressio unius est exclusio alterius as meaning "the express mention of one thing excludes all others"); Ventas, Inc. v. United States, 381 F.3d 1156, 1161 (Fed. Cir. 2004) ("Where Congress includes certain exceptions in a statute, the maxim expressio unius est exclusio alterius presumes that those are the only exceptions Congress intended.").

Indeed, WBJV's interpretation of the contract, under which it would be required to dredge only sediment, renders superfluous the next to the last sentence in the Character of Materials To Be Dredged clause stating that massive, monolithic rock is not required to be dredged. For if the contract required that only sediment was required to be dredged, then it was unnecessary to state that massive, monolithic in situ rock was not required to be dredged. Moreover, if only sediment was required to be dredged, then it is unclear what purpose is served

[23] As explained above, wash probes reveal the elevation of material resistant to penetration by a water jet. Because no sample is collected, wash probes do not provide information about the character of material encountered at the point of "refusal." As Mr. McWilliams testified, it is not possible to tell from wash probe test results whether rock is dredgeable or not dredgeable. McWilliams Tr. 548:2-20. The point at which the wash probes hit refusal, accordingly, does not necessarily correspond to the point at which massive, monolithic in situ rock is encountered. In this case, for example, wash probe "refusal" occurred at points coincident with the top of the layers of limestone rock, which the record reveals were readily dredgeable.

[24] Although massive, monolithic in situ rock was not required to be dredged, the contractor was required to accurately locate and report the location of such rock to the contracting officer. In addition, if a contractor chose to dredge such rock within the template, it would be paid for the work. Bearce Tr. 1094:1-5.

by having the contractor accurately locate and notify the contracting officer of the location of massive, monolithic in situ rock, as is required by the last sentence in the Character of Materials To Be Dredged clause. The notification requirement makes sense only if it is read in conjunction with the exception to the dredging requirement and other contract provisions as a means of allowing the contracting officer to confirm that the contractor is not required to dredge the particular rock it has identified as massive, monolithic in situ rock.

Notwithstanding the foregoing, WBJV notes that the Description of Work clause states that "approximately one-half to three-fourths of a million cubic yards of contaminated sediment will be removed from the river" but says nothing about the removal of rock. While WBJV's observation is accurate, it is well-established that "[a] contract must . . . be construed as a whole and in a manner that gives meaning to all of its provisions and makes sense." Bell/Heery, 739 F.3d at 1330 (internal quotation marks and citations omitted); accord Hercules Inc. v. United States, 292 F.3d 1378, 1380-81 (Fed. Cir. 2002) (en banc) ("The contract must be construed to effectuate its spirit and purpose giving reasonable meaning to all parts of the contract."). Where an interpretation is available that gives a "reasonable meaning" to all parts of the contract, that interpretation "will be preferred to one which leaves a portion of it useless, inexplicable, inoperative, void, insignificant, meaningless or superfluous." Hol-Gar Mfg. Corp., 351 F.2d at 979; accord Gould, Inc. v. United States, 935 F.2d 1271, 1274 (Fed. Cir. 1991).

Weston/Bean's interpretation of the Description of Work clause is contrary to these principles. Thus, interpreting the Description of Work clause to specify that only sediment was to be removed during the project conflicts with the Character of Materials To Be Dredged clause, as described above, as well as the Required Depth clause. Moreover, the interpretation that WBJV proffers would also have the effect of authorizing the contractor to leave man-made trash and debris and incidental loose rock in the channel (because such materials are not "sediment"). But even WBJV does not contend that it was not required to dredge trash and debris. In fact, WBJV recognized that there might be at least some rock within the sediment that it would be required to dredge. See PX 42 at 61, 63 (describing "large debris and materials exceeding 4 inches in size" as including "large rocks"); PX- 42 at 65, 69, 73 (estimating that 3-5% of "in situ sediment" would consist of "debris" which included rocks); see also JX 1 at 65 (language in solicitation providing that "[t]he material to be dredged is contaminated and may contain significant amount of debris"); JX 1 at 299-300 (prescribing a procedure for dealing with inadvertent discoveries such as submerged historical, archaeological, and cultural resources); JX 1 at 373 (excerpt of a diver's report noting that divers "found the top of the rock trench +/- 4 feet below mudline and were encumbered by enormous amounts of debris").

Further, the Description of Work clause's forecast that "approximately one-half to three-fourths of a million cubic yards of contaminated sediment will be removed from the river" for treatment does not foreclose a requirement that other material in the dredging template must also be removed. The Corps estimated that the total quantity of material in the federal and non-federal portions of the project was 416,305 CY at the required depth of 15 feet and 721,000 CY at the allowable overdepth of 17 feet. DX 406 at 3; PX 42 at 24; JX 1 at 40-47; Taylor Tr. 86:18-87:12. Mr. Taylor testified at trial that "it is typical for the Corps . . . to represent the volume of material that is within the design template, which is the dimensions of the channel that the Corp has been authorized to dredge." Taylor Tr. 76:25-77:7. Thus, although the Corps

estimated the amount of total material in the dredging prism, it did not estimate what fraction of the material was sediment, rock, or debris. In fact, a reasonable interpretation of the broad estimated range of "one-half to three-fourths of a million cubic yards" of sediment represents the difference between the material in the template that was expected to be "sediment" and that which might consist of rock. See Taylor Tr. 80:9-81:6.

In any event, in context, the best reading of the Description of Work provision is that—in estimating the amount of "sediment" that would likely be dredged and have to be processed—the focus was on the environmental aspects of the project. See JX 1 at 39 (Description of Work clause stating that "dredging and disposal operations will be conducted according to stringent environmental standards"). The provision does not, however, override the requirements in other sections of the contract—specifically those provisions requiring that the river be dredged down to its authorized depth of 15 feet MLW and that the only material in the dredging prism that was "not required to be dredged" was massive, monolithic in situ rock.[25]

2. Maintenance Dredging

Notwithstanding the language of the Required Depth, Character of Materials To Be Dredged, and other specific clauses described above, WBJV emphasizes that the contract characterizes the project as one involving "maintenance dredging" in the title of the solicitation and in the Description of Work clause. It also argues that the project was so described during the meetings of the Miami River Commission that led to the solicitation. Taylor Tr. 58:21-59:7, 70:13-15; PX 7 at 180 (minutes of MRC October 24, 2001 meeting). Therefore, it argues, "any rock in the dredge template would not be removed because, in the dredging industry, a maintenance project does not include dredging soft to moderately hard limestone rock, or any other type of rock, whether or not it is monolithic or fractured. Dredging limestone rock would be new work, not maintenance." Pl. Br. 20-21.

There is no definition of "maintenance dredging" set forth in the contract. The U.S. Army Corps manual, however, defines "maintenance dredging" as "[t]he cyclic dredging of the same area over a period of time to remove accumulating sediments and to maintain ship and barge traffic." See DX 2 at 275; see also Bearce Tr. 1012:8-1013:12; Perez Tr. 1395:16-

[25] Weston/Bean also argues that "the primary purpose of this project was the processing of contaminated sediments" and that the project was authorized and funded solely for that reason. Pl. Br. 79. Weston/Bean's argument that the project was strictly an environmental one, designed only to remove contaminated sediments conflicts with the DMMP, which states that the primary purpose of the project was "improvement of navigation, creating accessibility to and from Biscayne Bay and the Atlantic throughout the tidal cycle," whereas the secondary purpose was "the removal of contaminated sediments from the Miami River." PX 7 at 13 § 1.2; accord Bearce Tr. 930:24-932:3; Perez Tr. 1417:11-14. And even if the primary purpose was the removal of contaminated sediments, it was clearly not the exclusive purpose. At least part of the purpose of the project was the improvement of navigation by bringing the channel to its authorized depth of 15 feet.

1396:10. In contrast, the manual defines "new work dredging" as "[d]redging in an area that has not previously been dredged, and which often includes clay bottom or bedrock material." DX 2 at 277.

The definition of "maintenance dredging" in the Army Corps manual does not limit the process to the removal of sediments as it also includes as a separate purpose of such dredging the "maint[enance] of ship and barge traffic." Further, the record in this case reveals that "maintenance dredging" projects can and often do involve the dredging of loose rock, sometimes in significant quantities. Corps witnesses testified that in the first maintenance dredging project following new work dredging, the contractor is commonly required to excavate rocks that were left over after the new work was done. Wood Tr. 845:6-846:12; Bearce Tr. 1014:5-25, 1019:11-1020:6, 1080:4-1082:20, 1086:9-1087:25, 1205:7-1206:8, 1228:14-17; Cooper Tr. 1049:20-1050:22; Anderson Tr. 1279:19-1281:4; Perez Tr. 1391:4-1393:2. This is certainly to be expected in circumstances like those presented in the Miami River, where no maintenance dredging had been performed for the entire 70-year period since the channel was initially built. Bearce Tr. 1018:13-25, 1087:8-9 ("Most projects might have a typical maintenance dredging interval of three to five years. That would be typical.).

In fact, WBJV does not dispute that a maintenance dredging contractor may encounter "material that may have been left over from previous dredging activity." Pl. Br. 19 ¶ 46. And WBJV's expert, Dr. Mahar, testified that maintenance dredging contemplates the removal of loose rock left over from previous dredging operations. See Mahar Tr. 591:24-592:6, 697:24-698:23; Bove Tr. 245:5-6, 247:14-16; PX 1239 at 7 ("The differing site condition occurred because excess quantities of large gravel, cobbles and boulders were encountered in the sediments left over from the original new work dredging project and in the limestone rock."). But see Bove Tr. 253:10-17 (observing that "in a maintenance dredging job we were consistent in that we were dredging sediment and not rock, because maintenance dredging is sediment, not rock").

While the Court is satisfied that the weight of the evidence establishes that maintenance dredging can and often does involve the removal of material other than sediment, including loose rock, the record also establishes that at least some of the work that WBJV performed on the project may not fall neatly under the rubric of "maintenance dredging." Dr. Mahar emphasized that in order to reach the 15 feet required depth in this case, WBJV was required to dredge the soft and moderately hard limestone rock that was present beneath the sediment. According to Dr. Mahar, as well as several of WBJV's other witnesses, the dredging of the layer of soft to moderately hard limestone rock was "new work" and not "maintenance dredging" because it involved the excavation of material that should have been (but was not) removed when the channel was first constructed.[26] Mahar Tr. 592:7-593:2.

[26] Dr. Mahar also opined that the layer of limestone rock could be characterized as "massive, monolithic in situ rock." See Mahar Tr. 731:13-25. But this characterization of the limestone layer is inconsistent with Dr. Mahar's other testimony that the limestone rock was only soft to moderately hard and was easy to dredge, as well as with his recognition that one way to identify whether material is massive, monolithic in situ rock is by its dredgeability. Further, WBJV never identified the limestone layer as massive, monolithic in situ rock, or posed an objection to

Mr. Bearce was less definitive than Dr. Mahar and some of WBJV's other witnesses about the distinction between maintenance and new work dredging. He testified that "there's lots of argument over [the definition of maintenance dredging] in the dredging industry and in the dredging business." Bearce Tr. 1013:15-17. He stated that "new work is the first time you dig a channel, and maintenance dredging is everything else." Bearce Tr. 1012:1-7; see also Taylor Tr. 67:3-11; Kelly Tr. 314:13-16; PX-1286 at 16. At the same time, Mr. Bearce agreed with the characterization of the original contractor's failure to dredge the layer of limestone rock, leaving some rock above grade, as "an incomplete new work dredging project." Bearce Tr. 1127:7-12. When asked whether the completion of that contract some 70 years later could be characterized as "just a follow-on new work dredging project," he replied, "I would say in general no, but if you want to look at technicalities, a technicality between the two definitions, the definition of maintenance dredging and new work, I will admit that there are some gray areas. There's some areas of overlap between those two definitions." Bearce Tr. 1127:13-21. Ultimately, Mr. Bearce acknowledged, "there may have been some amounts of incidental new work dredging within [the dredging prism]—if we split hairs and look at the technicalities." Bearce Tr. 1165:1-4; see also Wood Tr. 863:2-12 (characterizing as "new work" dredging the removal of material that was left above the authorized depth by the contractor in the 1930s).[27]

The Court concludes that it is unnecessary to determine whether or not the dredging of the layer of limestone rock in some parts of the channel could reasonably be characterized as "new work" as opposed to "maintenance" dredging. Even assuming that some portion of the dredging required to reach -15 feet in AS-1 to AS-6 could be characterized as involving "new work," the Court is mindful of the principle that "evidence of trade practice and custom does not trump other canons of contract interpretation, but rather cooperates with them." Metric Constructors, Inc. v. Nat'l Aeronautics & Space Admin., 169 F.3d 747, 753 (Fed. Cir. 1990); see

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dredging it on that basis. At the trial, Mr. Taylor first stated that he was unable to recall whether or not the Corps directed WBJV to remove massive, monolithic in situ rock. Taylor Tr. 188:24-189:18. He subsequently stated that he could not recall an instance where either WBJV or the Corps representative, Mr. Anderson, had identified material as massive, monolithic in situ rock and where the Corps directed WBJV to dredge such rock. Taylor Tr. 190:24-191:2. The Corps witnesses testified without contradiction that WBJV had never been directed to dredge massive, monolithic in situ rock, and pointed out that the Corps also allowed the contractor to leave other spots above grade in its discretion, where a sufficient justification was provided. Anderson Tr. 1299:3-16; 1302:6-1304:5; 1319:11-23; PX 121; PX 893. Bearce Tr. 1085:7-21. The Court concludes, therefore, that none of the rock that the Corps required WBJV to dredge was "massive, monolithic in situ rock" within the meaning of the Character of Materials To Be Dredged clause.

[27] According to Mr. Bearce, unless a contractor encounters material that is very difficult to remove, the material (whether sediment or rock or debris) generally is removed, so that there is ordinarily no reason to debate about what "maintenance dredging" entails. Bearce Tr. 1016:10-16. Indeed, the meaning of the phrase "maintenance dredging" is at issue in this case only because of the difficulties that WBJV had in the treatment and disposal of the rock, not in its dredging of the material.

also R.B. Wright Constr. Co. v. United States, 919 F.2d 1569, 1572 (Fed. Cir. 1999) (noting that "neither a contractor's belief nor contrary customary practice . . . can make an unambiguous contract provision ambiguous, or justify a departure from its terms"). The Court is also mindful of the principle that to the extent that contract provisions appear to conflict, "those which relate to a particular matter control over the more general language." Hills Materials Co. v. Rice, 982 F.2d 514, 517 (Fed. Cir. 1992) (citing Hol-Gar Mfg. Corp., 351 F.2d at 980); see Hometown Fin., Inc. v. United States, 409 F.3d 1360, 1369 (Fed. Cir. 2005) ("Our precedent establishes as a principle of contract interpretation that a specific contract provision will control over a general contract provision.").

Weston/Bean's deployment of the less than precise phrase "maintenance dredging" to neutralize the specific requirements set forth elsewhere in the contract is inconsistent with these maxims. The Character of Materials To Be Dredged, Required Depth and other clauses described above require that the contractor dredge to -15 feet, except where doing so would require it to dredge massive, monolithic in situ rock. The general language upon which WBJV relies, both in the title and in referring to the project as one that "involves" "maintenance dredging," cannot override the specific language of these clauses, especially where the contract itself did not provide a definition of the phrase "maintenance dredging." [28]

3. Acceptance Sections 7 to 15

Finally, in arguing that the requirement that it dredge rock represented a constructive

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[28] In addition to its contentions based on the use of the phrase "maintenance dredging" to describe this project, WBJV argues that its interpretation of the contractual requirements is supported by the results of the geotechnical tests performed by the Corps. It contends that it reasonably interpreted the Corps' decision to use only core boring tests and wash probes in conducting its investigation to mean "that the Solicitation required the dredging of sediments to the depth where the drill hit rock." Pl. Br. 23 ¶ 64. It reasons that if the Corps had intended that the contractor dredge significant quantities of rock or that it dig up the limestone layer, then it would have conducted further geotechnical tests to quantify the amount and character of the rock, which it did not do.

The Court is not persuaded by this argument. In analyzing a claim based on a differing site condition, the results of the government's tests are considered among the contractual indications with respect to subsurface conditions. See A.S. McGaughan Co. v. United States, 24 Cl. Ct. 659, 666 (1991) (contractor bound by indications of soil test results referenced in the contract), aff'd, 980 F.2d 744 (Fed. Cir. 1992) (unpublished decision). And the Court could conceive of a situation in which test results might be used as some evidence to support an otherwise reasonable reading of contractual language for purposes of adjudicating a differing site condition claim. The Court, however, is unaware of any cases that support WBJV's argument that implications drawn from the fact that the government did or did not do particular geotechnical tests can ever override the language of the specifications set forth in a contract. Therefore, the Court will address WBJV's arguments based on the geotechnical testing in the context of its analysis of WBJV's differing site condition claim.

change in the contract, WBJV highlights the differences between the post-dredge surveys conducted in Acceptance Sections 1 to 6 and those conducted for sections 7 to 15. Pl. Br. 42-43. The latter surveys show that the Corps permitted WBJV to leave a significant amount of rock above grade in AS-7 to AS-15, whereas the former show a template for sections 1 to 6 that is generally clean down to the required depth. JX 51 at 147 (color version). The reason for this distinction was the Corps' determination that there was an "extensive presence of monolithic rock within the template of the dredging project" in sections 7 to 15. PX 99 at 2. According to WBJV the "simple and logical explanation" is that the same massive, monolithic in situ rock must also have been present in sections 1 to 6, where the Corps nonetheless required that such rock be dredged. Pl. Reply Br. 15.

The Court does not believe that the difference that WBJV has noted provides any support for WBJV's contention that it was required to perform work beyond contract requirements in Acceptance Sections 1 to 6. First, WBJV presented no proof (and in fact has never argued) that the rock above grade in AS-1 to AS-6 that it was required to dredge was massive, monolithic in situ rock. See Pl. Reply Br. 58 (observing that WBJV's constructive change claim "is based on the fact that the Corps forced Weston/Bean to dredge oversized materials other than massive, monolithic in situ rock, in contravention of the clear terms of the Contract"). It also provided no proof that it had identified the rock above grade in AS-1 to AS-6 that it was required to dredge as massive, monolithic in situ rock, as the contract required. Indeed, as discussed above, on several occasions when WBJV did identify rock as such, the Corps agreed, and did not require that the rock be dredged. See JX 5 (government letter to WBJV stating that "the only other area in AS 1 that did not clear the template was an area along the South toe that was determined to be in-situ rock and therefore not required to be dredged"); JX 6. Thus, as the Court has found above, the Corps did not require WBJV to dredge massive, monolithic in situ rock in AS-1 through AS-6.

Moreover, the record suggests that the Corps' decision to allow WBJV to leave rock above grade in sections 7 to 15 was based on a change in the protocols for identifying massive, monolithic in situ rock, to which the Corps agreed after WBJV essentially announced that it was unwilling to dredge the above grade rock in sections 7 to 15. In fact, there is no evidence in the record that compares the above grade rock that was required to be dredged in AS-1 to AS-6 with that allowed to remain in AS-7 to AS-15. In short, the fact that the Corps was willing—for whatever reason—to treat the above grade rock in sections 7 to 15 as massive, monolithic in situ rock is of no assistance to WBJV's constructive change claim in this case, which the Court finds is without merit.

B. Differing Site Condition

1. Legal Standard

A plaintiff has a Type I differing site condition claim under FAR 52.236-2(a)(1) if the plaintiff encounters "subsurface or latent physical conditions at the site which differ materially from those indicated in the contract." To "establish entitlement to an equitable adjustment by reason of a Type I differing site condition . . . [plaintiff] must prove, by a preponderance of the evidence," that: (1) the conditions indicated in the contract differ materially from those actually encountered during performance; (2) the conditions actually encountered were reasonably

unforeseeable based on all information available to the contractor at the time of bidding; (3) the contractor reasonably relied upon its interpretation of the contract and contract-related documents; and (4) the contractor was damaged as a result of the material variation between the expected and encountered conditions. Comtrol, Inc. v. United States, 294 F.3d 1357, 1362 (Fed. Cir. 2002); Stuyvesant Dredging Co. v. United States, 834 F.2d 1576, 1581 (Fed. Cir. 1987); see also Int'l Tech. Corp. v. Winter, 523 F.3d 1341, 1348 (Fed. Cir. 2008); Randa/Madison Joint Venture III v. Dahlberg, 239 F.3d 1264, 1274 (Fed. Cir. 2001). To determine whether a plaintiff has met its burden, the court must "place itself into the shoes of a 'reasonable and prudent' contractor, and ascertain whether the conditions actually encountered were reasonably unforeseeable on the basis of all the information available to the contractor at the time of bidding." Spirit Leveling Contractors v. United States, 19 Cl. Ct. 84, 94 (1989) (quoting P.J. Maffei Bldg. Wrecking Corp. v. United States, 732 F.2d 913, 917 (Fed. Cir. 1984)); H.B. Mac, Inc. v. United States, 153 F.3d 1338, 1345 (Fed. Cir. 1998) (explaining that the court "place[s] itself into the shoes of a reasonable and prudent contractor and decide[s] how such a contractor would act in interpreting the contract documents").

2. Application of Standard

In this case, Weston/Bean argues that a reasonable contractor reading the contract documents as a whole would interpret them as indicating that it would be required to dredge only incidental amounts of rock greater than 1.5 inches in diameter. Pl. Br. 1-2. Weston/Bean argues that because the conditions indicated in the contract differed materially from those it encountered in performance of the contract, it was required to dredge significant quantities of oversized rock, which overwhelmed the system it selected for processing the dredged materials.

As noted above, the Court rejects WBJV's argument that the only material that WBJV was required to dredge under the contract was sediment.[29] Rather, the contract required WBJV to dredge down to a required depth of 15 feet, leaving only material that constituted "massive, monolithic in situ rock" in the dredging template. Thus, the issue for purposes of WBJV's differing site condition claim is whether a reasonable contractor reading the documents as a whole would have interpreted them as indicating that only an incidental amount of rock greater than 1.5 inches (other than massive, monolithic in situ rock) was present in the dredging template. In this case, such a reading would clearly not be reasonable, given both the language of the solicitation and the results of the geotechnical tests.

First, the Character of Materials To Be Dredged clause stated that limestone gravel and

[29] The Court notes, however, that even if WBJV were correct that only sediments were to be dredged, the Character of Materials To Be Dredged clause explicitly states that the sediments to be dredged included gravel, which WBJV's expert witness, Dr. Mahar, testified may be anywhere from 3/16 of an inch to 3 inches in diameter. Mahar Tr. 594:5-595:14. Although the Character of Materials To Be Dredged clause states that the majority of the sediment would consist of "silty, very fine to medium grained sand, followed by apparently discontinuous sandy lenses" the clause does not otherwise attempt to precisely quantify the amount of the sediment that consisted of gravel.

cobbles could be expected along "portions of the channel bottom and side slopes." JX 1 at 373. Weston/Bean's contention that the use of the word "portion" indicates that there would be only "incidental" cobbles at the channel bottom is simply not persuasive. The word "portion" means a "part" or a "share." A portion can be large or it can be small. See Freeman v. Quicken Loans, Inc., 132 S. Ct. 2034, 2041-42 (2012) (the term "portion" "normally means less than all," although it "can be used to include the entirety, or 100 percent"). Thus, a statement that limestone gravel and cobbles can be found along "portions of the bottom and side slopes" does not indicate one way or the other whether the quantities of rock will be large or small. It certainly does not indicate, as WBJV argues, that "the quantity of oversized material [i.e., material with a diameter larger than 1.5 inches] would be, at most, incidental cobbles." Pl. Br. 65.[30]

Second, and equally important, the Character of Materials To Be Dredged clause and boring logs also indicated that there were layers of soft to moderately hard limestone rock in the dredging template. While WBJV states that it was of the belief that the contract did not require it to dredge this rock, the Court has rejected that contention for the reasons stated above.

Further, the geotechnical tests were consistent with the description of the materials in the dredging template. In particular, while there is some debate about whether the geotechnical tests suggested the presence or absence of cobbles and boulders in the sediment itself, there is no dispute that the tests revealed layers of soft to moderately hard limestone rock below the sediment (as was also described in the Character of Materials To Be Dredged clause) and that the test results were also consistent with the presence of a layer of loose rock and cobble at the interface between the sediment and the limestone rock. At trial, plaintiff's expert, Dr. Mahar, testified with reference to AS-1, that the boring logs indicated that the contractor would "encounter rock in the dredging template, bottom line." Mahar Tr. 658:17-21. According to Dr. Mahar, "[a]ll of [the boring logs] [showed] basically the same thing in terms of the rock elevation. And it is consistent with the information that is in the cross-section with regard to the 1934 [as-built] survey." Mahar Tr. 658:17-23. That is, taken together, the Character of Materials To Be Dredged clause and accompanying geological data indicated that there was limestone rock in the dredging template, in depths ranging from 6.4 feet MLW to 16.4 feet MLW. See JX 1 at 377; PX 27.

While Dr. Mahar was of the view that the contract did not require WBJV to dredge the limestone rock (on the grounds that such dredging would involve "new work"), the geotechnical tests clearly revealed its presence, and also revealed, as Dr. Mahar testified, that the limestone rock was dredgeable and would break up into cobbles, boulders, and finer material when disturbed. Mahar Tr. 663:10-13 (large gravel, cobbles and boulders were in the sediment as a result of the dredging process), 623:14-18; 652:15-653:5 (except in one of the 24 logs taken, the blow counts recorded in the log indicated that the limestone rock in the dredging prism was "very soft and weathered"), 650:8-650:18 (limestone rock was soft enough that "[a]ny material

[30] Mr. Bearce testified that while he knew there was loose rock in the dredging prism, he did not know the quantity of such rock before drafting the Character of Materials To Be Dredged clause and consequently could not indicate such quantity. Bearce Tr. 1207:20-23.

that would end up going to the plant . . . would be broken down in place or it would break down in the operations"), 584:13-584:14 ("I'm looking at a job that is fundamentally a soft-ground job."); see also Pl. Br. at 26 ¶ 77 (observing that there was "large gravel, cobbles and boulders in the sediment created by new work dredging of the limestone rock").[31]

Indeed, WBJV has acknowledged that it knew that there was limestone rock in the dredging template based on the geotechnical tests. It estimated that the rock could be about 30% of the material present. See JX 2 at 3; McWilliams Tr. 558:18-23 (testifying that he could not estimate what percentage of WBJV's rock estimate was loose rock, hard rock, or massive, monolithic rock). And while it now argues that it believed that it would not be required to dredge that rock because the project was dubbed a "maintenance dredging" project, the Court has concluded that WBJV's interpretation of the contract language was incorrect.

In fact, notwithstanding the testimony of some of WBJV's witnesses, the Court finds itself skeptical of WBJV's claim that the Corps' use of the phrase "maintenance dredging" is what led WBJV to conclude that it would not be required to dredge any rock. Instead, the record suggests that WBJV did not expect to dredge the layers of limestone rock (and accordingly did not plan for the effect of such dredging on its processing plant) because it had concluded—albeit erroneously—that such rock was not "dredgeable" and would therefore fall into the category of "massive, monolithic in situ rock," which was not required to be dredged.

In particular, the Court finds telling WBJV's letter of October 20, 2005, which served as its formal notice of its differing site condition claim. In that letter, WBJV stated that it was notifying the Corps "that rock outcroppings in the Miami River exist and were not clearly identified in the RFP documentation as dredgeable." DX 185 at 1. The substance of the letter asserts that—based on the language of the solicitation and the results of the Corps' geotechnical investigation—WBJV had assumed that all but approximately 3-5% of the rock above grade in the channel was "in situ" and was therefore not required to be dredged. Id.; see also Taylor Tr. 107:24-108:3 (testifying that based on wash probe data he concluded "[t]hat there was material at the bottom of the sediment that resisted penetration and would likely remain in the channel after dredging"). The letter alleges the existence of a differing site condition based specifically on the fact that "[t]he Rock identified in the sampling has thusfar been found to be dredgeable thru AS-6, thereby significantly increasing the volume of rock over which was assumed for bidding

[31] WBJV spends a significant amount of effort trying to establish that the geotechnical tests did not reveal the presence of cobbles and boulders in the sediment itself, based on the fact that the boring logs did not record any "rig chatter." There is a conflict in the record regarding whether the absence of these notations may reasonably be read to signify the absence of loose rock in the sediment (as opposed to simply reflecting a Corps practice not to record "rig chatter"). But in any event, the Court concludes that whether or not the tests revealed rock within the sediment itself is beside the point. The tests clearly revealed rock in the dredging prism, and the Character of Materials To Be Dredged clause alerted offerors to the presence of gravel and cobbles on the channel bottom. Whether the rock that WBJV ultimately dredged was mixed in with the sediment, was located at the bottom of the channel, or was generated by the dredging of the layers of soft to moderately hard limestone rock is of no consequence, because under the contract, all such rock was required to be dredged down to a depth of 15 feet.

purposes (3-5%)." DX 185 at 2; PX 1069 at 2.

Nowhere in this letter did WBJV mention the fact that the contract was one for "maintenance dredging" or that it expected to dredge only sediments. Before this Court, however, WBJV has modified its position (or at least adjusted its legal argument). It still claims, as described above, that it did not expect to have to dredge the limestone rock. But it no longer links that expectation to the notion that the language of the solicitation and the geotechnical tests did not reveal that the rock was "dredgeable." Nor could it, given that, as described above, Dr. Mahar testified that the geotechnical testing indicated that the layer of limestone rock was dredgable and would break down into smaller pieces once it was dredged. Rather, WBJV has now constructed an argument that has nothing to do with dredgeability, but instead is grounded on the significance of the phrase "maintenance dredging."

The shift in approach reflects adversely on the credibility of WBJV's claimed reliance upon the use of the phrase "maintenance dredging" as the basis for its conclusion that it would not be required to dredge a significant amount of oversized rock. Thus, it undermines WBJV's ability to establish that it, in fact, reasonably relied upon indications in the contract when concluding that it would not be required to dredge significant quantities of "oversized" rock. But in any event, the shift is unavailing. As noted above, this case is not really about whether WBJV knew that there was a significant amount of "oversized" rock in the dredging template because, in fact, WBJV acknowledges that it did. This case is instead about whether the contract required WBJV to dredge such rock, a question that the Court has determined must be answered in the affirmative. So understood, there is no merit to WBJV's argument that the geotechnical data that the Corps supplied affirmatively indicated that WBJV would not be required to dredge significant quantities of "oversized" rock. For this reason, WBJV's differing site condition claim, like its constructive change claim, must fail.[32]

II. Weston/Bean's Defective Specifications Claim

Weston/Bean seeks an equitable adjustment arising out of costs that it incurred to repair damage to the Hooper properties. According to WBJV, the damage occurred as a result of defective design specifications, which it says required WBJV to repeatedly dredge the toe of the channel, adjacent to the Hooper properties in order to achieve the required depth of 15 feet MLW. For the reasons set forth below, the Court concludes that WBJV's defective design specifications claim lacks merit.

A. Legal Standard

It is well established that "[w]hen the Government provides a contractor with design specifications, such that the contractor is bound by contract to build according to the specifications, the contract carries an implied warranty that the specifications are free from design defects." White v. Edsall Constr. Co., 296 F.3d 1081, 1084 (Fed. Cir. 2002). The

[32] Because the Court concludes that WBJV has failed to establish the existence of a differing site condition, it does not reach the issue of whether WBJV provided sufficient notice of such condition to the Corps.

"implied warranty," however, "attaches only to design specifications detailing the actual method of performance" and "does not accompany performance specifications that merely set forth an objective without specifying the method of obtaining the objective." Id. at 1084; see also Stuyvesant, 834 F.2d at 1582. "Design specifications explicitly state how the contract is to be performed and permit no deviations. Performance specifications . . . specify the results to be obtained, and leave it to the contractor to determine how to achieve those results." Stuyvesant, 834 F.2d at 1582. "The distinction between design and performance specifications," however, "is not absolute" and "contracts may have both design and performance characteristics." Blake Const. Co., Inc. v. United States, 987 F.2d 743, 746 (Fed. Cir. 1993). "The real issue" therefore, "is not whether the [contractual provisions and drawings] should be labeled design specifications or performance specifications, but how much discretion the specifications gave." Id.

To recover an equitable adjustment for costs incurred due to alleged defective design specifications, WBJV must show that the design specifications were defective, that it relied on the defect, and that the defect was latent. E.L. Hamm & Assocs., Inc. v. England, 379 F.3d 1334, 1339 (Fed. Cir. 2004); Robins Maint., Inc. v. United States, 265 F.3d 1254, 1257 (Fed. Cir. 2001). As the Federal Circuit has explained:

> [W]here a contractor-claimant seeks to recover an equitable adjustment for additional work performed on account of a defective specification, the contractor-claimant must show that it was misled by the defect. To demonstrate that it was misled, the contractor-claimant must show both that it relied on the defect and that the defect was not an obvious omission, inconsistency or discrepancy of significance—in other words, a patent defect—that would have made such reliance unreasonable.

E.L. Hamm, 379 F.3d at 1339. When faced with a patent defect, the contractor "is obligated to bring the situation to the government's attention if he intends subsequently to resolve the issue in his own favor." Id. Moreover, a contractor must demonstrate that it "fully compl[ied] with the design specifications." Edsall, 296 F.3d at 1084-85. It must also prove that "the costs incurred were due to the constructive changes caused by defendant's defective specifications." Teledyne McCormick-Selph v. United States, 588 F.2d 808, 810 (Ct. Cl. 1978).

B. Application of Standard

Weston/Bean has identified the following contract requirements as "design specifications" which it alleges were defective in combination: (1) that Weston/Bean dredge to -15 feet MLW, including at the toes of the side slopes and including rock, Pl. Br. 98 (citing Taylor Tr. 142:12-17); (2) that WBJV comply with a 10-foot buffer, or exclusion zone extending 10 feet from any structures adjacent to the river, within which Weston/Bean was not permitted to dredge, Pl. Br. 98-99 (citing JX 1 at 374); and (3) that WBJV choose among only one of three possible dredging methods to create the side slopes: box cutting, step cutting, or dredging along the side slope. Pl. Br. 99 (citing JX 1 at 377).

According to WBJV, these requirements "in theory, were consistent, but in performance, were impossible to satisfy." Pl. Br. 98. Specifically, because the Corps "placed the toe of the

dredged template close to or at the 10-foot buffer," Weston/Bean could not use a "normal box cut" (which required dredging into the slope) without violating the 10-foot buffer. Pl. Br. 99. Further, WBJV argues, because it could not use any of the techniques specified in the contract for dredging the side slopes and because the Corps insisted that it dredge to -15 feet, WBJV had to dredge the toe itself to -15 feet multiple times to remove the material that repeatedly sloughed down into the channel from the slopes. Pl. Br. 7, 98. Weston/Bean further contends that "the 10-foot buffer zone was not sufficient to protect the adjacent structures and property from subsidence and related damage" and caused the collapse of the Hooper dock. Pl. Br. 101 (citing Taylor Tr. 149:10-150:8; Bove Tr. 285:2-22); see also McWilliams Tr. 531:25-533:9. WBJV concludes that "[t]his forced over-dredging [of the template] was a constructive change to the Contract and resulted in the incursion of additional costs, for which Weston/Bean should receive an equitable adjustment." Pl. Br. 101.

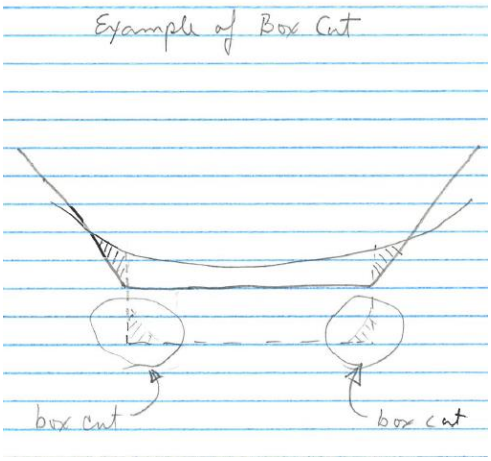
In this case, Weston/Bean did not establish that the specifications at issue were design, as opposed to performance specifications. WBJV had the discretion to use any means to meet the objective of achieving the required depth of 15 feet MLW, so long as it did not violate the 10-foot buffer. Further, the contract did not require WBJV to dredge the side slopes unless doing so was "necessary to provide the required project channel dimensions (depth and width)." JX 1 at 377. Weston/Bean did not prove that it was necessary to dredge the side slopes themselves to achieve the project dimensions because it did not show that it could not have instead, opted to overdredge the channel bottom in the first instance. See PX 7 at 209 (discussing allowing for the overdredging of the channel to compensate for sloughing of channel sides); JX 1 at 377 (providing allowable overdepth of two feet "[t]o cover the inaccuracies of the dredging process" and allow contractor to achieve the required grade).

Further, even assuming the specifications identifying three methods for forming the side slopes were design specifications, WBJV has still failed to establish its entitlement to an equitable adjustment. Weston/Bean argues that these specifications were defective because, as a practical matter, it could not have dredged the side slopes to achieve the required dimensions through one of the three methods specified in the contract. Pl. Br. 99. Specifically, it could not use these methods because the toe of channel was too close to the 10-foot buffer zone, and in certain areas the slope was located entirely within the 10-foot buffer zone. Id. And because it could not use any of these three methods, WBJV argues, it was required to repeatedly clear the toe to -15 feet, resulting in the repeated sloughing of material from the slope, which allegedly caused the seawall to collapse. Pl. Br. 7, 99. Weston/Bean's argument, however, is premised on what the Court concludes is an unduly restrictive definition of the phrase "box cutting" that excludes from its scope the overdredging of the bottom of the channel within the dredge template to leave a void into which the side slope material might slough.

Thus, relying on an illustration in a Corps of Engineering Manual and the testimony of several of its witnesses, WBJV contends that a "normal box cut" is achieved by "cutting into the slope to create a void into which sediment can slough without impinging on the dredge template." Pl. Br. 44 (citing Taylor Tr. 144:4-145:3). As Mr. McWilliams testified, however, if the toe "is within ten feet, you wouldn't even consider" such a "normal box cut" "because you'd be in violation of the specifications, the ten foot rule." McWilliams Tr. 563:7-10. Therefore, he stated, "a box cut when you're within the ten-foot limit, rule, when you have a structure within

ten foot [sic] of the toe, can't even be considered." McWilliams Tr. 563:15-17.

Mr. Bearce, on the other hand, disagreed that "box cutting" necessarily involves cutting into the slope itself, as WBJV argues. He testified that "box cutting" also includes the technique of dredging deeper than the required dimensions along the toe of the channel, thereby allowing material along the side slopes to slough into the void left below and resulting in a channel that satisfies the required depth. Bearce Tr. 1181:11-1182:19, 1188:2-16. He drew an example of such a cut as follows:



Another Corps witness, Mr. Rene Perez, appeared to take issue with Mr. Bearce's view that the phrase "box cutting" could encompass the process of digging below the -15 feet elevation in the channel bottom and allowing material to slough into the void left below. [33] Perez Tr. 1456:2-1457:23. But notwithstanding that apparent difference of opinion, the Court is not persuaded that Mr. Bearce's interpretation of the phrase was an unreasonable one.[34] In fact, Mr. Bearce's opinion is consistent with the contractual language, which defined a box cut as "dredging whereby a space is dredged below the allowable side slope plane on the bottom of the slope for the upslope material capable of falling into the cut." JX 1 at 377-78.[35]

In short, the contract permitted WBJV to employ the method about which Mr. Bearce testified. As WBJV did not use that method until after the Hooper seawall had already been damaged, it cannot recover its costs on a defective specifications claim. Edsall, 296 F.3d at

[33] Rene Perez is a supervisory civil engineer who has worked for the Corps since 1981 and served as project manager for the project. Perez Tr. 1382:1-11, 1384:24-25.

[34] The Court generally found Mr. Bearce to be a very competent and credible witness both because of his over 24 years of experience in the field and his demeanor. Mr. Bearce gave straightforward answers both on direct and cross examination and did not attempt to evade difficult questions.

[35] In the contract, this method was juxtaposed with dredging the side slope material in its "original position." JX 1 at 377-78 ("[Material actually removed from the side slopes] will be estimated and paid for whether dredged in original position or by box cut").

1084-85 (holding that to secure an equitable adjustment a contractor must demonstrate that it "fully compl[ied] with the design specifications").

Further, and in any event, even assuming that WBJV was correct that the method Mr. Bearce suggested was not a "box cut," any resulting design defect was a patent one. Thus, WBJV was well aware prior to contract performance (or reasonably should have been) that, in many areas of the channel, the side slopes were located within or directly adjacent to the 10-foot buffer zone. The contract drawings 2/1 through 2/10 showed numerous places in which the toe of the channel and the 10-foot set-back line intersected. DX 406 at 2/1-2/10.[36] Therefore, it was clear to WBJV prior to submitting its proposal that in various parts of the channel, the side slopes could not be formed by actually dredging the side slope material in its original position through the methods identified in the contract, as interpreted by WBJV.

Finally, WBJV has failed to establish that the failure of the Hooper seawall was caused by a design defect in the dredging operation, as opposed to structural problems with the seawall itself. Mr. Lish testified that the seawall was poorly constructed and structurally inadequate. Lish Tr. 957:8-15, 959:2-8, 959:15-961:1, 976:9-17. According to Mr. Lish, "[t]he existing material [used to construct the seawall] was not of a controlled backfill material. It was silty clay, had roots and wood debris mixed in." Lish Tr. 957:8-10. He concluded that the material was "bad" because it "was incapable of being compacted to an acceptable compatibility, engineered value." Lish Tr. 957:11-12, 959:2-4. Other engineering issues included, for example, using railroad tiebacks to hold the material in place, which he testified "[was] not an engineered procedure for tiebacks." Lish Tr. 957:5-15, 959:2-8, 959:15-961:1, 976:9-17.

In fact, after sending a dive team out to look at the seawall, Mr. Cole reported to WBJV that the team "discovered that a portion of [the bulkhead] has been eroded below the bulkhead sheeting" but that "it does not appear this situation is related to the dredging" although it "should be addressed before further dredging occurs in the area." DX 163 at 1; Cole Tr. 449:6-450:24. Mr. McWilliams, on the other hand, testified at trial that the damage occurred because, as a result of dredging, a "big bank of material flowed down into the channel, exposing the bulkhead sheet pile wall, whatever it would be" so that "the material that was kind of holding up the dock was gone." McWilliams Tr. 532:4-15. While Mr. McWilliams has a degree in ocean and civil engineering and has worked as an engineer, McWilliams Tr. 465:18-21, he was not qualified as an expert for purposes of offering an opinion on the cause of the failure of the Hooper seawall and he provided no supporting data or explanation to support his conclusion, which appears to be at odds with that of the diving team.

In short, WBJV has not proven that the design specifications about which it complains were defective ones. Further, even if it had, such defects were patent and hence cannot serve as the basis for an equitable adjustment. And finally, WBJV has failed to establish that the collapse of the seawall was caused by its dredging operations at the toe of the adjacent slope, rather than defects in the construction of the seawall itself. Therefore, its defective specifications claim

[36] WBJV has chosen to cite only to drawing 2/11, which includes a sample of cross cuts of the river in which the toe is located at some distance from the 10-foot buffer zone. But drawings at 2/1-2/11 show numerous places where the toe and the 10-foot buffer overlap.

lacks merit.

III. Weston/Bean's Claims for Breach of the Implied Duty To Cooperate and Equitable Adjustment for Excusable Delay in Remobilizing

As described in greater detail above, after WBJV completed work on AS-6, and with no exercise of any further options by the government, WBJV decided to demobilize in December 2005, which included disassembling the Boskalis processing plant and shipping it back overseas. The Corps subsequently exercised its options on AS-7 and AS-8 on May 23, 2007, advising WBJV that—pursuant to the contract—it was expected to remobilize within 60 days. WBJV requested a 120 day extension to June 12, 2007, predicated on the need to complete repairs to the Hooper seawall and the fact that the Boskalis processing plant was committed to another project and therefore unavailable for remobilization. After requesting additional information to substantiate the extension request, the Corp denied WBJV's request in a letter dated October 15, 2007, based on a determination that WBJV had not been sufficiently diligent in its efforts to repair the seawall. Ultimately the seawall repairs were completed in February of 2008, and WBJV began dredging AS 7, although the Boskalis plant was not yet mobilized.

Weston/Bean argues that the government breached the implied duty of good faith and fair dealing "when it issued unrealistic remobilization orders and steadfastly refused to grant Weston/Bean's request for an extension of time to remobilize." Pl. Br. 107. It further argues that the delay in remobilization was excusable because it "stem[med] directly from the Corps' issuance of a remobilization order that was impossible to comply with, coupled with the Federal government's decision to reallocate funds away from this maintenance dredging project." Id. at 108. These claims lack merit.

Pursuant to each contract it enters, the government has implied duties of good faith and fair dealing. Centex Corp. v. United States, 395 F.3d 1283, 1306 (Fed. Cir. 2005). The aspect of the covenant of good faith and fair dealing that calls for non-interference is often referred to as a duty to cooperate. See id. at 1304 (stating that the covenant of good faith and fair dealing "imposes obligations . . . that include the duty not to interfere with the other party's performance"); Olympus Corp. v. United States, 98 F.3d 1314, 1318 (Fed. Cir. 1996) ("[I]nterference by the government with a contractor's access to the work site may constitute a breach of the government's duty to cooperate."). The implied duty not to hinder performance prohibits the Government from "do[ing] anything to prevent performance thereof by the [contractor] or that will hinder or delay him in its performance." Lewis–Nicholson, Inc. v. United States, 550 F.2d 26, 32 (Ct. Cl. 1977).

Weston/Bean's claim of breach of the implied duty to cooperate falters at the outset, however, because the contract expressly required it to remobilize and to resume work within 60 calendar days from the date the government exercised its options pursuant to the contract. Pl. Br. 49 ¶ 184; JX 1 at 47 n.4; Bove Tr. 296:2-16. "The implied duty of good faith and fair dealing cannot expand a party's contractual duties beyond those in the express contract or create duties inconsistent with the contract's provisions." Precision Pine & Timber, Inc. v. United States, 596 F.3d 817, 831 (Fed. Cir. 2010). Imposing a duty on the Corps that it waive the 60 day remobilization period based on WBJV's asserted difficulties meeting that deadline would be

contrary to the express provisions of the contract, which provide no right to such a waiver and impose an absolute obligation on WBJV to remobilize.

Nor is there any merit to WBJV's argument that the Corps' assessment of liquidated damages was improper because its delay in remobilizing was excusable. "[A] party asserting that liquidated damages were improperly assessed bears the burden of showing the extent of the excusable delay to which it is entitled." Sauer Inc. v. Danzig, 224 F.3d 1340, 1347 (Fed. Cir. 2000). To establish entitlement to an extension based upon excusable delay, WBJV was required to prove the following: (1) the delay resulted from "unforeseeable causes beyond the control and without the fault or negligence" of WBJV and its subcontractors or suppliers; (2) WBJV "took reasonable action to perform the contract notwithstanding the occurrence of such excuse"; and (3) the unforeseeable cause delayed the overall contract completion, i.e., it affected the critical path of performance. See id. at 1345 (internal quotation marks and citations omitted); Int'l Elecs. Corp. v. United States, 646 F.2d 496, 510 (Ct. Cl. 1981); FAR 52.249-10(b)(1). A contractor's purported problems with subcontractors or suppliers do not excuse the contractor's performance delays. Decker & Co. v. West, 76 F.3d 1573, 1581 (Fed. Cir. 1996); accord Wescor Forest Prods., Co., AGBCA No. 96-154-1, 97-2 BCA ¶ 29242 ("It is . . . no excuse that a contractor . . . has difficulty obtaining a subcontractor or supplier." (citing Frankstown Fish Co., AGBCA No. 94-188-1, 96-2 BCA ¶ 28380)).

Weston/Bean has failed to meet its burden of proving that its delayed remobilization was excusable. It is undisputed that, in a January 18, 2007 letter, the contracting officer notified WBJV that the Government anticipated exercising additional options "within the next few weeks." JS ¶ 38. WBJV did not respond to that letter by requesting more time, nor did it make any effort to obtain a substitute processing subcontractor, or to perform material processing without a subcontractor, as set forth in its proposal. PX 42 at 18 § 1.7, 25 § 2.2. Additionally, WBJV presented no evidence that during the two-and-a-half-year period of demobilization it attempted to obtain alternative sites for docking, mooring, and material processing, such as the dockside processing site and "Jai Alai" staging area identified in WBJV's proposal. See id. at 16 § 1.7, 17-18, 68. Moreover, WBJV was aware of potential damage to the Hooper seawall as early as July 2005 and April 2006, respectively. Weston/Bean does not explain why it was unable to repair the damage to either seawall until May 2006 at the earliest, or why repairs were not completed until February 16, 2008, five months after the September 18, 2007 date for remobilization WBJV requested. See JX 22 at 2; DX 271 at 1 ("Dredging Operations"); DX 407 at 70 § III(D)(iv)(e).

In short, WBJV did not show that its remobilizing delay resulted from unforeseeable causes beyond its control and without its fault or negligence, or that it took reasonable action to perform the contract notwithstanding the occurrence of such unforeseeable causes. Thus, the delay in repairing the damage to the seawalls is not excusable and WBJV is not entitled to an equitable adjustment or a return of the liquidated damages the Corps withheld. See Sauer, 224 F.3d at 1347; Decker, 76 F.3d at 1581.

CONCLUSION

On the basis of the foregoing, the government is entitled to judgment on all counts in the

complaint. Each party shall bear its own costs. The Clerk of the Court is directed to enter judgment accordingly.

IT IS SO ORDERED.

s/Elaine D. Kaplan
ELAINE D. KAPLAN
Judge, U.S. Court of Federal Claims