



UNITED STATES
CIVILIAN BOARD OF CONTRACT APPEALS

November 15, 2024

CBCA 8132-FEMA

In the Matter of CITY OF LONG BEACH, MISSISSIPPI

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Morgan A. Middleton, General Counsel, Mississippi Emergency Management Agency, Pearl, MS, counsel for Grantee; and Stephen C. McCraney, Executive Director, Clayton C. French, Jr., Chief Recovery Officer, and John M. Siler, Director, Office of Public Assistance, Mississippi Emergency Management Agency, Pearl, MS, appearing for Grantee.

Shahnam Thompson, Office of Chief Counsel, Federal Emergency Management Agency, Department of Homeland Security, Washington, DC, counsel for Federal Emergency Management Agency.

Before the Arbitration Panel consisting of Board Judges **LESTER**, **VERGILIO**, and **GOODMAN**.

LESTER, Board Judge, writing for the Panel.

Applicant, the City of Long Beach, Mississippi (the City), requested public assistance (PA) funding from the Federal Emergency Management Agency (FEMA) to restore the marina at Long Beach Harbor (the Harbor), which suffered significant damage in October 2020 as a result of a presidentially-declared disaster. FEMA issued a first appeal decision providing PA funding for only a portion of the damage that the City originally claimed was caused by Hurricane Zeta. The City requests arbitration from the Board under the authority of section 423 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. § 5189a (2018). The Board is only being asked to decide scope eligibility in this arbitration. Any questions about cost eligibility are reserved for evaluation

by FEMA once the City submits a planned scope of work (SOW) for addressing the damage that the panel determines is eligible for PA funding.

After a thorough review of the documentary evidence in the record and the testimony of six witnesses presented at the hearing in this matter, the panel agrees with FEMA's scope determinations. As FEMA recognizes, there is no question that the Harbor suffered significant damage from the hurricane event, and FEMA has agreed to provide PA funding for the repair of those parts of the Harbor and its marina that FEMA acknowledges the hurricane damaged. Although the City alleges that there is significant underwater and underground damage at the Harbor that is not visible to the naked eye, which the City discovered through various forms of ultrasound and radar testing, the first time that the City ever conducted such testing was in response to Hurricane Zeta. It has no comparable pre-Zeta testing that would allow it to show that the alleged reduction in the diameter of wooden pilings that support its piers, detected through controversial ultrasound testing, or the types of alleged voids in the subgrade supporting its marina parking lots, detected through ground penetrating radar (GPR) testing, did not already exist before Hurricane Zeta. Accordingly, the City has not established that it was Hurricane Zeta, rather than the combination of age, usage, normal deterioration, and numerous prior weather events (including prior hurricanes that hit the Harbor), that caused this non-visible damage. As a result, the City has identified no viable basis for altering FEMA's scope eligibility determinations.

Background

The City of Long Beach, a small community on the Mississippi Gulf Coast with a population of just under 16,000 people, developed the Harbor into a publicly owned and operated marina. The marina is mostly surrounded and protected by a perimeter of riprap jetties and a concrete bulkhead, inside of which were six main piers of varying lengths (accessible by ramps) at which commercial and recreational vessels could dock.¹ On top of the riprap jetties and concrete bulkhead were sidewalks and paved areas, leading to small fishing piers, that allowed for pedestrian use and automobile parking. The Harbor opens directly onto the Gulf of Mexico.

In late October 2020, Hurricane Zeta struck the City, bringing with it an 8.2-foot storm surge that caused extensive damage to the Harbor. On December 31, 2020, the President declared the hurricane event a disaster (FEMA-4576-DR-MS), with an incident period of October 28 to 29, 2020, which authorized public assistance for the City.

¹ The Harbor also had two dinghy piers, a transient pier, and an excursion pier on the west side.

On January 13, 2021, the City submitted a request for public assistance to cover damage to the Harbor and its marina that the City stated was caused by turbulent wave motion, tidal surges, and extreme winds resulting from Hurricane Zeta. The City began working with FEMA to develop a SOW to repair damage to the Harbor, including its piers, bulkhead and knee wall, boat launch ramps, jetties, pavement, and sidewalks. FEMA created Grants Manager Project 176241 on March 17, 2021, to memorialize all reported damage and associated costs. Several times between April and July 2021, FEMA inspectors visited the Harbor to validate, quantify, and document the cause, location, and details of the reported damage.

In August 2021, the City provided FEMA with a report prepared by the City's engineer documenting the results of what the City called "pile integrity testing" (PIT), which a contractor for the City had conducted on a sampling of 159 of the timber pilings supporting the piers and boat launch ramps in the Harbor. The sampling method is not part of the record. Testing of the sampling of pilings showed a 90.5% failure rate. The City's engineer applied that 90.5% figure to the Harbor as a whole, arguing that 90.5% (or 1234 of the Harbor's 1310 pilings, which the City determined approximated a 90.5% failure rate) should be viewed as having failed, which, given the scope of damage, meant that the entirety of the Harbor's pilings needed to be replaced. The report also identified extensive damage to the bulkhead and knee wall at the eastern side of the Harbor and to the parking lots and the subgrade beneath them.

Following the City's response to FEMA's request for documentation regarding pre-disaster conditions, FEMA inspectors reinspected the Harbor on May 16, 2022. To evaluate the City's request to replace all pilings in the Harbor, the inspectors conducted a visual inspection, by boat, of each piling in the Harbor, and they documented findings that only thirty-seven pilings showed visible damage. The inspectors also investigated the other parts of the site at issue in this matter.

On June 5, 2023, FEMA issued a determination memorandum (DM) granting the City's request for PA funding in part but denying \$9,526,444.51 in claimed costs, which FEMA found ineligible. FEMA authorized replacement of the thirty-seven pilings that its inspectors had found were damaged but otherwise denied the City's request for PA funding to replace the remaining pilings in the Harbor. FEMA approved PA funding for some of the claimed pavement, sidewalks, and hardscape costs, but it rejected the City's request to replace the subgrade beneath the parking lots after rejecting the type of testing that the City had used to find subgrade damage. FEMA also rejected the City's request for funding bulkhead and knee wall repairs because the City had not shown that the alleged damages were caused by Hurricane Zeta.

On August 3, 2023, the City submitted its first appeal to the Mississippi Emergency Management Agency, which forwarded it to FEMA. On April 17, 2024, FEMA issued its first appeal decision, denying the City's request for additional PA funding.

On June 17, 2024, the City filed a request for arbitration (RFA) with the Board. FEMA filed its response to the RFA on September 3, 2024, and the City replied on October 23, 2024. In addition to the parties' written submissions, the record contains thirty-six exhibits, including numerous photographs and videos showing pre-hurricane and post-hurricane conditions at the Harbor, the City engineer's report identifying damage that Hurricane Zeta allegedly caused at the site, a cost estimate that an expert witness hired by the City prepared for this arbitration, FEMA inspection reports, and the City's first appeal submissions. On November 7, 2024, six witnesses—four presented by the City and two by FEMA—testified at a hearing in this matter.

Discussion

I. Standard of Review

When addressing challenges to FEMA scope eligibility determinations in arbitration under the Stafford Act, we “consider all evidence in the record created for th[e] arbitration proceeding, and we will review that evidence de novo.” *St. Tammany Parish*, CBCA 1778-FEMA, 10-1 BCA ¶ 34,457, at 170,004. “This review extends to determinations of issues of fact.” *University of Southern California*, CBCA 8121-FEMA, slip op. at 3 (Oct. 31, 2024). “It is the applicant's burden to support its application for PA funding.” *Id.* at 4.

II. Pilings

A. The Scope of Damage

Before Hurricane Zeta hit, the piers within the Harbor were supported by approximately 1310 timber piles. Each timber pile measures 30 to 40 feet in length and 10 to 12 inches in diameter, attaches to above-water pier decking or boat launch ramps but is otherwise completely underwater, and is embedded vertically and deeply into the mud at the bottom of the harbor.

The City asserts that 1234 of the 1310 pilings at the Harbor were damaged by Hurricane Zeta to such an extent that they need replacement and that, because of the difficulty of replacing so many pilings within the marina, FEMA should provide PA funding of \$6,252,627.78 to replace all of them. The damage to most of the pilings that the City claims have failed is not visible. Instead, the City identified damaged pilings through PIT methodology, and the contractor only tested an allegedly random sample of approximately

10% of the timber piles in the Harbor. PIT uses ultrasound to measure the pile diameter at the mudline at the bottom of the Harbor to determine whether, from a structural standpoint, the pile has retained the necessary diameter to support the pier. The testing at issue here was conducted between January 11 and 28, 2021. The contractor reported that, of the 159 piles that it tested using PIT, 144 (90.5%) of the piles had a reduced diameter of 20% or greater at the mudline, which the City reports is viewed as structurally unsound.

The City's engineer, applying the 90.5% failure rate of the sample of pilings to the Harbor as a whole, determined that 1234 (or 90.5%) of the Harbor's 1310 timber piles were now "incapable of performing at their intended level" to support the piers and boat launch ramps. RFA, Exhibit 1 at 6-7. He determined that "there is no reasonable way to perform repairs on such a wide scale without the replacement of all the pier elements which depend on the piles" and that "[t]his will necessitate a whole-scale removal and replacement of the piles and all connected pier elements." *Id.* at 2. "Because of the destruction of the piles during the storm," he concluded, "each of the Harbor piers should be completely rebuilt to assure safe use by the public." *Id.*

FEMA came to a different conclusion when its inspectors came to the Harbor in May 2022 for a reinspection of the site. By boat, FEMA's inspectors went pile to pile and checked each of the 1310 pilings for visible damage. They found only thirty-seven pilings that were missing, visibly broken, or clearly leaning, a figure that the City does not dispute. Based upon that visual inspection, FEMA ultimately found no other evidence of damage to the pilings and limited its PA funding authorization to replacement of those thirty-seven pilings.

At the hearing, the City did not dispute that there is some controversy about the accuracy and viability of PIT, even if there also does not appear to be any better method of testing piles outside of visual inspection. We need not evaluate the extent to which FEMA, in other circumstances, might accept PIT (or accept a harbor-wide extrapolation of a small sample of pilings based on PIT) because the City here has no pre-Zeta PIT baseline against which to compare its post-Zeta PIT results.

Eligibility for PA funding requires that eligible facilities be "damaged . . . by a major disaster." 42 U.S.C. § 5172(a)(1)(A). "The Applicant must demonstrate that damage was caused *directly* by the declared incident." FEMA Public Assistance Program and Policy Guide (PAPPG) (June 2020) at 52 (emphasis added); *see* 44 CFR 206.223(a)(1) (2020) (requiring work be "the result of the emergency or major disaster"). FEMA asks applicants to provide it with "[d]ocumentation supporting [the] pre-disaster condition of the facility," PAPPG at 52, to assist FEMA in evaluating whether claimed damage was caused by the declared incident or, instead, by a prior incident or the cumulative effect of prior events. *See id.*

The problem for the City here is that it never conducted PIT in the Harbor before Hurricane Zeta. The Harbor was developed and has been active as a marina since at least the 1970s. The various piers in the marina and their pilings were not all built at the same time. Some are much older than others, and various pilings in the marina have been replaced over the years while others have not. Although the record is unclear as to what the expected life cycle of a timber piling is, they do not last forever. In the past, the City has always used visual inspections to determine when a piling needed to be replaced. PIT is different: it purports to measure the diameter of pilings at the mudline through ultrasound. That is, it does not measure visible damage but, instead, damage that is otherwise unseen.

Having never conducted PIT in the Harbor at any time before Hurricane Zeta, the City cannot know what pre-Zeta PIT would have shown about the pilings' pre-Zeta mudline diameters and non-visible conditions. As the City's engineer testified at the hearing, the Harbor has been subjected to numerous severe weather events over the decades of the marina's operation, including Hurricanes Katrina and Nate. Those and other earlier weather events, as well as possible minor boating accidents in the Harbor and just general usage, are likely to have affected the marina and its pilings. Without a prior PIT report showing that the pre-Zeta mudline diameters of each piling differ from the post-Zeta diameters, the City has no baseline demonstrating that Hurricane Zeta caused the mudline diameters to change. In such circumstances, even if we accept the City's PIT methodology as viable, the City has failed to establish that Hurricane Zeta, as opposed to the cumulative effect of age and past events, caused the alleged failure of 90.5% of the pilings in the Harbor. PA funding is available only for replacement of the thirty-seven pilings, which FEMA acknowledges Hurricane Zeta damaged.

B. Recoverable Costs

The City complains that, even if FEMA only has to provide PA funding to replace thirty-seven pilings, the amount that FEMA has authorized for that work—a total of \$1,480,231—is far below what it will actually cost to replace those pilings. The City says that, to replace a piling, it must bring a barge into the Harbor with the necessary equipment and strength to remove and install pilings and that, because of the locations of some of the thirty-seven damaged pilings, additional pilings will need to be removed (and later reinstalled) to allow the barge to gain access to the damaged pilings. Relatedly, the City also complains that, in its authorization, FEMA has failed to include costs for sewage, water, and electrical systems associated with the piers that plainly were destroyed by Hurricane Zeta and asserts that these costs must be included as part of the reconstruction of the pilings and piers.

As FEMA correctly responds, this arbitration is limited to scope entitlement. Although FEMA has estimated the dollars associated with its scope entitlement determination, the actual costs that FEMA will eventually fund will not be definitized until,

at the earliest, the City has submitted a thorough SOW detailing its plan for performing the authorized work. As explained in the PAPPG, “[o]nce FEMA, the Recipient, and the Applicant agree on the damage description and dimensions, either the Applicant submits the SOW and cost for FEMA review and validation, or FEMA submits the project to its [Consolidated Resource Center] to develop the SOW and cost.” PAPPG at 183. As a part of the SOW that it submits, the City will describe the steps and costs that will be necessary to perform approved work—that is the time when the City will have the opportunity to show FEMA what it will need to do to gain access to and replace the thirty-seven approved pilings. *See id.* We have no basis at this point in time for micromanaging the replacement project work.

III. Pavement

Surrounding three sides of the marina are what essentially amount to embankments that provide protection to the marina. The top of each of those embankments is paved to allow for automobile parking. The asphalt-paved East Parking Lot (built at the eastern edge of the marina) and West Parking Lot (built at its western edge) are laid on top of separate riprap jetties that extend out from the shore. The Southern Quay, which turns the corner at the end of (and is connected to) the East Parking Lot’s jetty, is a bulkhead structure on top of which is a concrete parking structure.

FEMA acknowledges that Hurricane Zeta caused damage to the pavement in certain areas of these structures, inclusive of areas in which asphalt pavement is now deformed, pulled back, and/or unevenly ridged, and has authorized reimbursement of associated repair costs to level and restore the parking lots. The City, however, believes that the damage to these lots is much deeper and more extensive than FEMA acknowledges and that the hurricane essentially washed out the base, particularly at the East Parking Lot. After Hurricane Zeta hit the Harbor, the City hired a contractor to conduct a GPR evaluation at the site. According to one of the City’s experts, “[t]his technique allows for evaluation of the condition of the subgrade beneath the east and [west] parking lots, as well as the southern fishing quay, the western rip-rap jetty/sidewalk, and underneath the sidewalks.” RFA, Exhibit 1 at 10. That expert opined that “[t]he GPR shows that the subgrade [beneath the various parking lots] has significant voids through all portions of roadways and unconsolidated/unstable soil underneath sections of sidewalks, some that are adjacent to the falling portion of barrier wall in the inner harbor.” *Id.* “Based on the location of the voids,” he further opined, “it appears obvious that soil is exfiltrating from behind the wall due to the movement of water through destroyed sections of the wall and expansion joints.” *Id.* He concludes that “[t]his destruction contributes to the existence of voids in the middle of the parking area” and that, “[a]s the soil erodes from the outer edges, soil from the center continues to lose cohesion and settles throughout the surrounding voids.” *Id.*

Based on the GPR results and its expert witness's evaluation of those results, the City seeks to expand the scope of damage that FEMA has recognized at the parking lots to include the need to reconstruct the underlying subgrade. The parties dispute whether GPR is an allowable method for detecting subgrade problems in the circumstances here. FEMA cites to a provision relating to roads without visible surface damage in its "Public Assistance Guidance on Inundated and Submerged Roads," FEMA Policy FP 104-009-13 (Aug. 2021) (retroactively applicable to disasters declared on or after January 1, 2016), as precluding reliance on GPR. The City responds that, because of the obvious surface damage to the lots at the Harbor, this provision does not apply here and that, instead, we should look to a PAPPG provision applicable to roads built on slopes that allows for consideration of GPR. FEMA disagrees with the City that the parking lots, which sit on embankments built out into the Gulf, are constructed on slopes such that the City's cited PAPPG provision does not apply and that, even in situations in which GPR may be considered, GPR is only a first step in identifying damage and must be followed by more definitive tests involving sample excavations, which the City has not performed.

We need not resolve any of those disputes because, regardless of which FEMA policy applies and whether GPR evaluations alone (without sample excavations) are sufficient to prove subgrade defects, the City cannot establish that subgrade defects, if any, were caused by Hurricane Zeta. Under the PAPPG, "[f]or the repair of this type of damage [to and beneath roadways] to be eligible [for PA funding], the Applicant must demonstrate that the damage was directly caused by the incident." PAPPG at 169-70. That is, the applicant must establish that the "particular disaster event [at issue] is the specific cause of the damage for which funding is being sought." *Monroe County Engineer, CBCA 7329, 22-1 BCA ¶ 38,204, at 185,537*. Even FEMA, in the PAPPG, recognizes that "distinguishing between pre-existing damage and damage caused by the incident is often difficult" for applicants. PAPPG at 169.

Here, the east and west jetties and the Southern Quay bulkhead (with the parking lots above them) were constructed at least two decades ago, and numerous weather events, including Hurricanes Katrina, Nate, and others, have hit the Harbor and sometimes caused extensive damage. Yet, the City never conducted GPR testing on any of these parking areas until after Hurricane Zeta hit. Without earlier testing, the City has no basis for establishing that, prior to Hurricane Zeta, GPR evaluations would have shown an *absence* of voids in the subgrade or that any defects in the subgrade were not the combined confluence of numerous weather events occurring over the course of time. Without any prior GPR analyses with which to compare its new GPR evaluation, the City cannot establish that it was Hurricane Zeta, and Hurricane Zeta alone, that caused the alleged subgrade defects. Accordingly, it cannot recover the costs of subgrade reconstruction from FEMA.

The City attempts to hold FEMA to statements that FEMA's inspectors made in reports following their reinspection of the Harbor in May 2022. At that time, the inspectors made such comments as that hurricane flooding had "washed out areas under the parking lot causing sinkage," RFA, Exhibit 5c at 8; that the "East parking lot has several washouts underneath it that need repair," RFA, Exhibit 5c at 7; and that the "Southern Quay has several washouts underneath it from the hurricane flooding." RFA, Exhibit 5a at 1. To the extent that the City wants to hold FEMA to its inspectors' statements as some kind of binding admission, it cannot do so. FEMA at the hearing and in its briefing explained that the role of inspectors is to identify damage, not to assess the cause of damage. FEMA's on-site inspectors do not determine whether damage that they see was caused by the disaster event, only that there is identifiable damage. FEMA conducts further assessments following on-site inspections to evaluate whether identified damage pre-existed the disaster event. The City therefore cannot rely on any statements by inspectors to eliminate its burden of establishing that Hurricane Zeta, rather than the confluence of time, usage, and earlier weather events, caused identified damage. The City failed to meet that burden with regard to its subgrade damage claims.

IV. Bulkhead and Knee Wall

The City asserts that it needs to replace 638 linear feet of a bulkhead and knee wall, which support the interior marina side of riprap jetty supporting the East Parking Lot, at an estimated cost of \$1,086,750.69. As part of its 2022 reinspection of the site, FEMA inspectors could only identify 237 linear feet of the bulkhead and knee wall that they believed needed replacement, along with the repair of 65 linear feet of anchor bolts. Ultimately, though, in its determination memorandum, FEMA eliminated reimbursement for any costs associated with replacing or repairing that bulkhead except for certain bulkhead asphalt repairs (estimated to be approximately \$39,923).

To support its assertion of damage to the bulkhead and knee wall, the City presented post-hurricane photographs showing that at least one section of the concrete knee wall appears to have shifted so that it is no longer aligned with or attached to the next section of the wall. Yet, FEMA presented pre-hurricane photographs, pulled from Google Earth, showing that this misalignment pre-dated Hurricane Zeta. The City shows another post-Zeta photograph allegedly showing separation of the knee wall from the adjoining sidewalk, but FEMA has presented a pre-Zeta photograph at the same location showing that the same gap (though then filled with grout missing in the City's post-Zeta photo) pre-dated Hurricane Zeta. Other photographs that the City has presented simply do not reflect significant changes to the bulkhead and knee wall before and after Hurricane Zeta.

The City argues that FEMA had no basis for overriding FEMA inspectors' statements, made following their 2022 reinspection of the site, that they saw 237 linear feet of damage

to the bulkhead and that those statements essentially should constitute admissions that control the City's PA funding entitlement. Yet, as previously discussed, the inspectors' role in visiting the site was to identify damage, not to assess whether the damage pre-dated the disaster event. Any sympathetic comments that the inspectors might have made on-site or in reports do not override FEMA's subsequent work to determine whether the damage that the inspectors identified pre-dated the disaster event at issue. In arbitration pursuant to the Stafford Act, the panel needs to be convinced that damage eligible for PA funding occurred.

V. Other Issues

In its RFA, the City included the following as an issue in this arbitration: "How alleged duplications between the Hurricane Nate Project, the Hurricane Zeta Debris Removal Project, and rip-rap and slurry included in the Gulf of Mexico Energy Security Act ('GOMESA') Project should be resolved in the damage inventory and SOW?" As discussed above, the parties agreed during the initial conference that this arbitration would be limited to scope entitlement. In any event, the parties submitted no evidence that would allow the Board to consider this issue. Questions about the SOW that the City has not yet submitted to FEMA are not ripe for arbitration.

To the extent that the City has raised other damage or cost claims in its RFA, the City has not presented sufficient evidence in this arbitration to support PA funding.

Decision

For the foregoing reasons, the panel denies the City's request to expand FEMA's scope determination to include additional claimed damages beyond what FEMA has already approved.

Harold D. Lester, Jr.

HAROLD D. LESTER, JR.
Board Judge

Joseph A. Vergilio

JOSEPH A. VERGILIO
Board Judge

Allan H. Goodman

ALLAN H. GOODMAN
Board Judge