August 5, 2022

CBCA 7303-FEMA

In the Matter of MONROE COUNTY ENGINEER

James L. Peters, Monroe County Prosecutor's Office, Woodsfield, OH, counsel for Applicant.

Anne Vitale, Ohio Emergency Management Agency, Ohio Department of Public Safety, Columbus, OH, counsel for Grantee.

Charles Schexnaildre, Office of Chief Counsel, Federal Emergency Management Agency, Department of Homeland Security, Baton Rouge, LA, counsel for Federal Emergency Management Agency.

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

Applicant, the Office of the Monroe County Engineer (the County or the Engineer), requests public assistance (PA) funding under the auspices of section 423 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. § 5189a (2018), for repairs to the surface, base, and retaining structure at mile 5.72 of County Road 26 (CR 26-5.72), also known as Beautiful Ridge Road, in Monroe County, Ohio, and stabilization of the embankment on which CR 26-5.72 is constructed. The County alleges that heavy rainfall from February 5 to 13, 2019, for which the President declared a major disaster, 84 Fed. Reg. 19,793 (May 6, 2019), caused soil saturation and local runoff, which, in turn, caused the alleged damage.

This matter differs from other Monroe County roadway damage claims that the Board has recently addressed arising out of the February 2019 rainfall event, *see Monroe County Engineer*, CBCA 7288-FEMA, et al., 22-1 BCA ¶ 38,142; *Monroe County Enginer*, CBCA

7251-FEMA, et al., 22-1 BCA ¶ 38,061, in that, here, the Federal Emergency Management Agency (FEMA) does not dispute that the February 2019 rainfall caused slope slippage and roadway damage. Instead, FEMA asserts that PA funding is unavailable to stabilize the slope at CR 26-5.72 because it was unstable before February 2019. FEMA has approved disaster-related repairs for the roadway itself—that funding issue is not a part of the County's arbitration request—but FEMA will not release roadway repair funding until the County first stabilizes the embankment. The parties have submitted this matter for decision on the written record with a paper hearing pursuant to Board Rule 611 (48 CFR 6106.611 (2021)). For the reasons explained below, we deny the County's request for PA slope stabilization funding.

Background

CR 26-5.72 is a two-lane roadway that was originally constructed in 1924. In April 2014, the County constructed a pipe piling retaining wall at CR 26-5.72. That retaining wall was built twenty feet behind an older, smaller preexisting retaining structure that does not appear to have been of use when the April 2014 wall was constructed. The County did not require any design documentation, engineering plans, or as-planned or as-built drawings for the April 2014 work, believing that, because construction of a pipe piling retaining wall is typical in the industry, such preconstruction planning efforts are unnecessary. The County did not take any photographs of the wall after it was constructed.

The County alleges that the April 2014 retaining wall had no damage or visible signs of instability until four years later when, immediately following a significantly wet winter and early spring (inclusive of a rainfall event in February 2018 that was itself declared a disaster by the President), the soil became so heavily saturated that, according to the County, the pressure on the retaining structure likely exceeded its structural capacity. In June 2018, the County made repairs to the structure and roadway, including driving back down some piling that had upheaved, installing pile tie-back anchors on the opposite side of the road, tying the 2014 piling wall back to these anchors with one-inch hot roll steel rods, replacing or resetting some of the guardrail cribbing, attaching a whaler pipe for increased structural stability, and making hot mix pavement repairs to patch the roadway.

The County contends that, after it made the June 2018 repairs at CR 26-5.72, no further damage occurred at that stretch of the roadway or to its retaining structure until February 2019, at which point additional rainfall from the disaster at issue here caused new slope instability and roadway damage. The County sought \$725,868.85 in PA funding from FEMA to repair the roadway surface and base at CR 26-5.72 and to restore the pipe piling retaining wall at the embankment to its predisaster design and function.

On September 8, 2020, FEMA prepared an eligibility determination memorandum in response to the County's request, which was designated as project no. 108357. In its

memorandum, FEMA reported that, during its investigation of the County's request, it observed cracking, depression, and patching of the asphalt surface at CR 26-5.72, but that Google Earth aerial imagery from 2015 showed patching at the same location, evidencing that damage issues affecting the surface at CR 26-5.72 predated the 2019 disaster. Accordingly, FEMA determined that PA funding for the roadway surface and base was not available. FEMA also reported that, during its initial on-site investigation, it could not find that damage to the embankment or retaining structure was the result of slope instability triggered by the February 2019 rainfall.

On November 30, 2020, the grantee, the Ohio Emergency Management Agency (EMA), forwarded to FEMA the County's first appeal. The County contended that, because it made repairs in June 2018, damage to the roadway and retaining structure that it discovered after the February 2019 rainfall were clearly caused by the later rainfall event. In support of the County's position, the Ohio EMA argued, among other things, that photographs provided by the County showed a clear failure of the existing structure and a clear drop in the road surface after the February 2019 rainfall. Based upon that evidence, the Ohio EMA recommended that FEMA approve reimbursement of \$725,868.85 for repair of the damage and soil stabilization at CR 26-5.72.

By decision dated November 19, 2021, FEMA's Region V Acting Regional Administrator partially granted the first appeal, acknowledging that "the Applicant has demonstrated that the road component of the Facility sustained damages due to landslide or slope instability triggered by the declared disaster." Applicant's Exhibit 4 at 1. Accordingly, the Administrator authorized, but did not quantify, PA funding for repairs to the roadway surface and base. Nevertheless, with regard to the embankment, the Administrator found "ample evidence of predisaster instability after the Facility was constructed." *Id.* Because "the Applicant has not provided sufficient information or documentation to demonstrate that the Facility and slope were stable prior to the [February 2019] disaster," he determined that, "in accordance with FEMA's Landslides and Slope Stabilization Policy," which is a part of FEMA's Public Assistance Program and Policy Guide (PAPPG) (Apr. 2018), "work to stabilize the slope and restore the Facility's integral ground [is] not eligible for [PA] funding." *Id.* He also determined that "work to repair the Facility's surface and base is only eligible upon the Applicant first demonstrating that it has stabilized the slope and restored the integral ground." *Id.*

In support of his decision as it related to slope instability, the Regional Administrator relied in part on an expert analysis prepared at FEMA's request by Dr. Timothy Stark, who found extensive evidence of prior slope movement that predated the February 2019 rainfall. Dr. Stark reported the following findings from his investigation and analysis:

The analysis of historical aerial optical, Light Detection and Ranging (LiDAR), and infrared images as well as terrestrial images included with this claim (#108357) and available rainfall data show the slope over which CR26 traverses is the site of a large pre-existing landslide and increased soil moisture in the slope materials. . . . The observed pavement distress is caused by slope movement within this large pre-existing landslide and the location is primarily due to the inability of the existing pipe-pile retaining wall to withstand this movement.

FEMA's Exhibit 1 at 15. Dr. Stark's investigation, which included review of Google Earth images dating back to 1997, showed that, at some point prior to 1997, there was a landslide at this location and that the slope "continued to move downslope between 1997 and 2015." *Id.* at 16-17. He also reported that the roadway "was recently paved above the old pipe-pile retaining wall, which is located within the prior landslide," and that "[t]his recent re-paving added additional two to four inches of asphalt above the wall . . . , which increased the weight acting on the wall and slope." *Id.* at 15-16. He found that "recent patching of CR 26 indicate[s] that this is an area of prior movement and this pipe-pile retaining wall is not adequate to retain the backfilled area." *Id.* at 22. Based upon Dr. Stark's analysis and other evidence in the record, FEMA declined to provide the County with slope stabilization funding for CR 26-5.72.

The County received the first appeal decision by certified mail on November 27, 2021, and timely submitted an application for arbitration to the Board on January 21, 2022. The Board docketed that application as CBCA 7303-FEMA. The parties have submitted this matter for decision on the written record.

Discussion

"FEMA has long held that the integral ground making up the slope beneath a facility and the portion of the slope essential to support the structural integrity of a facility, such as a road, is only eligible for PA if it was stable prior to the disaster." *Noble County, Ohio*, CBCA 6575-FEMA, 19-1 BCA ¶ 37,443, at 181,959 (footnote omitted). If an eligible roadway "is located on a slope and is damaged as a result of a landslide or slope instability triggered by [a declared disaster], FEMA looks to the stability of the slope that supports the facility before it approves PA funding to restore the facility." *Id.* In its Landslides and Slope Stabilization Policy, FEMA has set forth the following guidance regarding the interplay between slope stability and PA funding eligibility for roadways and embankments:

• If the site is stable, permanent restoration of the facility and its integral ground is eligible.

• If the site is unstable and there is no evidence of predisaster instability after the facility was constructed, permanent restoration of the facility and its integral ground is eligible, including measures to stabilize the integral ground.

• If the site is unstable and there is evidence of predisaster instability after the facility was constructed, restoration of the facility's integral ground is not eligible. Restoration of the facility is eligible only upon the Applicant stabilizing the site and restoring the integral ground.

PAPPG at 128.

Here, FEMA contends that, because the integral ground beneath CR 26-5.72 was unstable before the February 2019 rainfall, the third bullet above precludes PA funding eligibility for soil stabilization efforts. We agree. The situation here is remarkably similar to that in Noble County, Ohio, where the applicant had made numerous repairs over the course of many years to a roadway, which was built on a hillside, and a nearby embankment, but had repeatedly used the same methods of repair on a piecemeal basis without ever fully addressing the root cause of the underlying hillside slope issues above and below the affected roadway itself. After an excessive rainfall in February 2018, the applicant determined that much more extensive and expensive repairs were needed to stabilize the slope and repair the slip area than it previously had deployed. The applicant requested PA funding, claiming that the repairs were necessitated by the February 2018 rainfall. The arbitration panel found that the applicant's repeated repairs over the years "did not resolve the stability and drainage issues but were temporary fixes of the road sufficient to keep it open" and that "[t]he repairs were done without addressing the root problems of the road, the stability of the slope itself, and associated drainage." Noble County, Ohio, 19-1 BCA at 181,961. As a result, the panel upheld "FEMA's determination that the slope and integral ground beneath the road were unstable prior to the declared event," id., and that PA funding was not available for the applicant's soil stabilization efforts.

In the present case, a landslide that occurred at some point prior to 1997 affected the integral ground on which CR 26-5.72 is constructed. Although the County built a new retaining structure in 2014 to support the roadway there, the structure failed in 2018, just four years after the wall's construction, suggesting that the 2014 stabilization efforts were not sufficient to address preexisting instability at the site. Further, the type of repairs that the County made in 2018 were temporary fixes or stopgap measures compared to the much more

The term "integral ground" refers "to only the ground necessary to physically support a facility." PAPPG at 128.

extensive stabilization work that the County is now proposing. Because the County has not established that the integral ground below CR 26-5.72 was stable prior to the February 2019 rainfall, FEMA properly denied PA funding for the County's stabilization efforts.

Decision

For the foregoing reasons, the County's request for PA funding for soil stabilization efforts is denied.

Harold D. Lester, Jr.
HAROLD D. LESTER, JR.
Board Judge

Beverly M. Russell
BEVERLY M. RUSSELL
Board Judge

<u>Joseph A. Vergílio</u> JOSEPH A. VERGILIO Board Judge