## COUNTY OF MILWAUKEE INTEROFFICE COMMUNICATION

Date: December 8, 2014

To: Chris Abele, County Executive

Marina Dimitrijevic, Chairwoman County Board of Supervisors

From: Don Tyler, Director of Administrative Services

Subject: NOTIFICATION OF EMERGENCY REPAIR PURSUANT TO

MILWAUKEE COUNTY ORDINANCE SECTION 44.14(6) -

Lake Park Ravine Bridge Closure and Repair

## **Policy Issue**

Section 44.14 (4) of the Milwaukee County Code of Ordinances allows, in the event of any emergency where immediate action is necessary to preserve property, that the Director of Administrative Services is authorized to take action to construct or repair, provided that a report is submitted thereon to the County Executive and County Board within seventy-two (72) hours. Pursuant to the above, the Department of Administrative Services (DAS) is proceeding with Emergency Work to close the Lake Park Ravine Bridge and Ravine Drive below the bridge and retain a structural engineer to determine the next steps.

## Background

Monitoring of the bridges by the Parks staff revealed changing conditions on the southerly most bridge over Ravine Drive and prompted Parks to request a consultant to visit the site. The Parks Department retained a consultant familiar with the bridges, Malas Engineering, LLC to perform a condition evaluation. The consultant has identified more significant structural issues on the Ravine Road 1940 Concrete Arch Pedestrian Bridge, P-40-0576. A field visual inspection on Friday, December 5, 2014 revealed increased concrete cracking, movements, and earth washout. After review and analysis of the findings, on Monday December 8, 2014 the consultant strongly recommended that the bridge and Ravine Road be closed immediately. This closure should remain in effect until such time that a thorough inspection and analysis of the bridge's existing condition determines that the bridge is safe.

The existing abutment walls running north-south have failed. The washing of the fill material inside the hollow abutment structure introduced loads on the abutment walls that they were not designed to handle. These thin lightly reinforced concrete walls were designed to retain earth. It appears that the loss of fill inside the abutment forced these walls to retain several feet of embankment which caused their failure.

The following actions are being taken:

- 1. Close the Bridge and Ravine Road to traffic immediately
- 2. Establish survey controls and monitoring points to monitor the structure horizontal and vertical movement
- 3. Obtain professional engineering design services to complete detailed inspection and analysis of the structure

Chris Abele, County Executive Marina Dimitrijevic, Chairwoman County Board of Supervisors Emergency Repair – BHD Essential Electrical System Component Upgrades

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Malas Engineering LLC has recommended that the County retain the consultant GRAEF-USA. They are very familiar with this bridge, they have recently worked on related projects for this bridge and this type of work is clearly within their expertise.

As Director of DAS I have decided, in conjunction with the Parks Director, the County Executive's Office and the Office of the County Board Chairwoman, that in order to maintain public safety, time is of the essence in determining the current condition of this bridge and the alternatives the County might have with regard to the future of the bridge.

In order to perform this work as soon as possible and reduce the potential for development of a crisis situation, DAS-Facilities Management is proceeding immediately with retaining GRAEF-USA to analyze the bridge and recommend the next steps. DAS-FM will also retain a construction contractor if necessary to handle any imminent danger to public safety.

## **Fiscal Note**

The funds to conduct a structural evaluation and recommend next steps are estimated to be approximately \$250,000.

Prepared by: Greg High. Director, AE&ES Section, DAS-FM

Approved by:

Don Tyler, Director

Department of Administrative Services

cc:

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