

July 13, 2012

Mr. Todd Hileman  
Village Manager  
Village of Glenview  
1225 Waukegan Rd.  
Glenview IL 60025

Mr. Richard A. Nahrstadt  
Village Manager  
Village of Northbrook  
1225 Cedar Lane  
Northbrook, IL 60062

Subject: Union Pacific Railroad  
UPRR Restoration at Shermer Road

Dear Messrs. Hileman and Nahrstadt:

Union Pacific Railroad has retained Alfred Benesch & Company (Benesch) to provide the following information regarding the derailment restoration at Shermer Road:

- Task 1: Monitor the top of rail profile and alignment daily to determine if the track is moving more than would typically be expected.
- Task 2 Prepare calculations to determine if utilities in the corridor are subject to additional load stresses due to the placement of temporary fill and railroad live load.
- Task 3 Prepare slope stability analysis to estimate the factor of safety of the temporary embankment.

### **Summary of Benesch Activities and Findings - July 6 through July 12**

#### Task 1

Benesch initiated work for this assignment on July 6, and collected topographic field survey that included locating existing Shermer Road, the temporary stone embankment, and the top of rail for Track 2. This information was used to develop our "Situation Plan", and the engineering model of the site.

The top of rail of Track 2 was surveyed daily from July 8 to July 12. The top of rail of Track 1 was surveyed daily from July 9 to July 12. After our review of the survey data and plots that were prepared from that data, we have concluded that since the tracks were placed back in service they have not experienced movement beyond what would typically be expected for new track construction. Benesch will continue to collect survey data on a daily basis until directed to cease such operations, and will report to the Village on a weekly basis.

Task 2

This work is dependent on three primary inputs, the characteristics of the temporary embankment material, the characteristics of the in-situ materials, and the existing depth of cover over the utilities. Samples of the temporary embankment material were collected on July 11, and the sieve analysis was completed on July 12. The characteristics of the in-situ materials will be determined by soil borings that will be made on July 13, 2012. We are assuming the cover over sewers to be 3-feet, and over water mains to be 5-feet. The joint utility meet was held to clear the boring locations on July 11, making July 13 the date to complete the borings. Calculations will be completed by July 16.

Task 3

This work is similarly dependent on the characteristics of the temporary embankment material and the in-situ materials. Calculations will be completed by July 16.

Please let me know if you have any questions or if we can be of further assistance.



EXPIRATION DATE 11-30-2013  
DATE: 07-13-2012

Richard D. Conrath, P.E.  
Vice President

RDC:r