



May 7<sup>th</sup>, 2012

Mr. John Ingram  
Director of Infrastructure  
Village of Orland Park  
Department of Public Works  
15655 Ravinia Av  
Orland Park, IL 60462  
(708) 403-6350  
publicworks@orland-park.il.us

Subject: **Proposal for Investigation of Orland Parkway Failure**

Dear Mr./Ms. Ladson:

Applied Research Associates (ARA), Inc., appreciates the opportunity to submit this letter proposal to the Village of Orland Park for forensic investigation of the pavement failure on Orland Parkway.

If you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,

Joe Pitlik  
Engineer

William R. Vavrik, Ph.D., P.E.  
Vice President

cc: Michelle Johnson, ARA Contracts

## PROJECT UNDERSTANDING

A significant pavement failure has been observed by the Village of Orland Park on Orland Parkway. Preliminary observation of this failure shows that the outside westbound lane of Orland Parkway has separated from the balance of the roadway and is sliding towards the ditch. A major crack has propagated along the length of the failure and has opened to a significant width. The pavement appears to be rotating as it moves towards the ditch. The site location is illustrated in the image below.

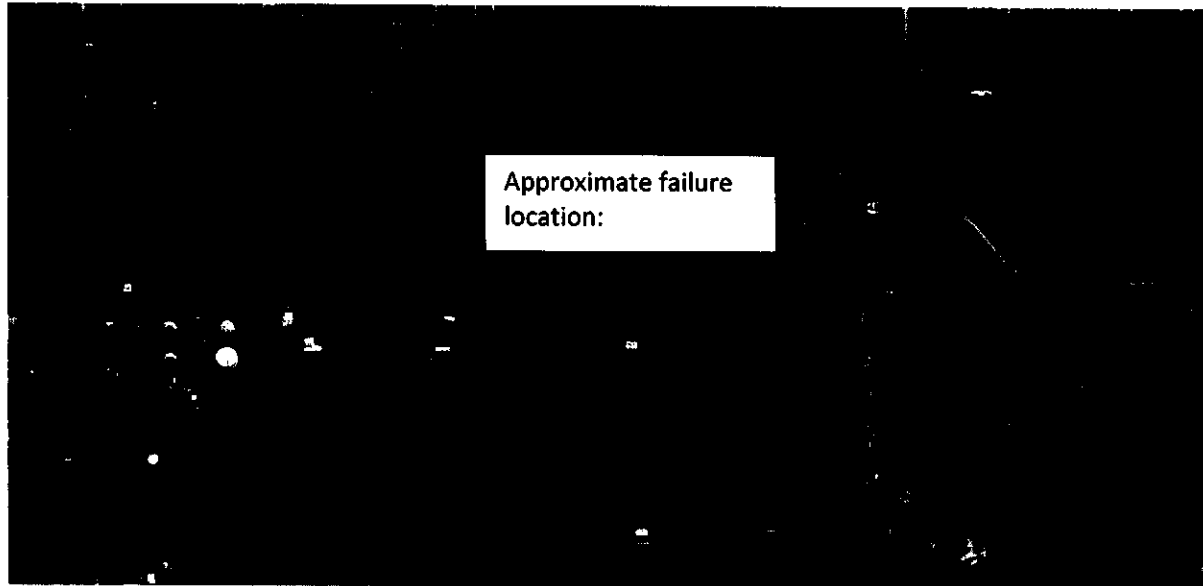


Figure 1: Approximate Site Location

## SCOPE OF SERVICES

A task-by-task summary of ARA's proposed scope of work is provided in the following sections.

### Task 1. Records Review

The Village of Orland Park will provide to ARA all available project documentation for review. This will include design and as built plans as well as any other project documentation. This may include:

- Bid documentation
- Correspondence with contractor
- QA/QC documentation for materials
- QA/QC documentation for in-situ roadway

ARA will review this documentation to gain an understanding of the design and construction of the pavement. Findings from this review will be discussed in the project report.

### Task 2. Geotechnical Testing

ARA will commission the coring and boring of the roadway in both the pavement failure zone, as well as undisturbed pavement. Approximately 4 boring locations will be selected. The removed pavement will be inspected. Subgrade and base characterization will be performed to determine the characteristics of the roadbed. The results of geotechnical testing will be discussed in the project report.

**Task 3. Site Measurement and Observation**

ARA will perform an onsite inspection of the area. Measurements will be taken to determine the amount of movement which has occurred. The amount and degree of pavement distress will be documented. On-site photographs will be combined with imagery from ARA's digital survey vehicle (already recorded as part of the pavement management survey) to serve as a complete photo documentation of the site. Some of these photographs will be included in the report. The balance will be archived on ARA's servers in case they are needed later in furtherance of this matter.

**Task 4: Report**

Following the completion of data analysis, ARA will deliver a report showing the results of our record review and field examinations. A summary of the geotechnical report will be included and geotechnical report will be attached as an appendix. ARA will provide conclusions as to the likely cause(s) of the pavement failure and make recommendations for the repair/replacement of the failed pavement. ARA will review this document with the Village of Orland Park.

**PROJECT COSTS**

ARA's firm fixed price proposal to perform this project is \$9,900. These costs include our labor, overhead, equipment charges, travel, and other direct costs. These costs do not include any fees or expenses for traffic control, which is understood to be provided by the Village of Orland Park. Additional work, such as refuting contractor responses or presentation of the results to others, can be performed outside the scope of this project at an additional cost. ARA will invoice monthly on a percent complete basis, for payment to be made within 30 days of receipt of invoice.

**PROJECT SCHEDULE**

ARA is available to perform testing within 2 weeks of receipt of written notice to proceed. We will deliver the final report within 2 weeks of completion of all fieldwork and receipt of documentation and geotechnical testing results.

**REQUIRED SUPPORT**

ARA requires the following support to successfully complete this project in an efficient and effective manner:

- ⬢ Contact information for project representative for coordination
- ⬢ Full access to project site
- ⬢ Traffic control and protection as needed
- ⬢ All available documentation of the project site (plans, correspondence, previous testing results, etc.)

We appreciate the opportunity to provide you these services and look forward to working with you on this project. If you have any questions or comments, please do not hesitate to contact us.

### ACCEPTANCE OF PROPOSAL

To accept this proposal as an agreement to provide professional services in accord with the scope, cost, schedule, required support, and terms & conditions, please sign this proposal in the space below. This acceptance will act as a notice to proceed.

ACCEPTANCE AND AUTHORIZATION
Name (print)
Title
Signature:
Date:

## TERMS & CONDITIONS

Applied Research Associates, Inc. (ARA) agrees to perform the specified work in accordance with the accepted professional standards.

### **COMPLIANCE WITH LAW**

In the performance of services, it is mutually agreed that the Client and ARA will comply with applicable terms and regulations of the United States Government which are by law or regulation to be included in agreements of this nature and are incorporated herein by reference.

### **INDEPENDENT CONTRACTOR**

ARA will act as an independent contractor and not as Client's agent for any purpose whatsoever, and will have no authority to make any commitments on behalf of Client or to bind Client in any way whatsoever.

### **PROJECT SUPERVISION AND ASSIGNMENT**

ARA shall have wide discretion in the methods used to perform any assigned tasks unless specified otherwise. ARA will exercise sound professional judgment, use the standard of care as required in the industry, and strive for high quality performance and products and service delivery. ARA will cooperate with the Client to the extent possible to arrange for consultations between the Client, ARA personnel, and others engaged in rendering services to the client related to ARA's performance under this agreement. ARA agrees that no tasks shall be performed or expenses incurred without specific authorization of the Client.

### **OWNERSHIP OF DOCUMENTS**

All data, information, software, hardware, and documents produced by ARA under this agreement shall remain the property of ARA and may not be used by the Client for any endeavor outside of the scope of this agreement without the written consent of ARA, unless otherwise noted in this agreement.

### **ACCESS TO PROJECT SITE**

ARA will be granted access to the project site for the activities necessary for the performance of the services. If traffic control is required for the site visit, it shall be provided by the Client or specific provisions will be made for ARA to provide traffic control at an additional cost. ARA will take precautions to minimize damage when performing its work, but ARA is not responsible for any items destroyed as a necessary part of the work.

### **CONFIDENTIALITY**

Each party agrees not to use the other's proprietary information for any purpose other than for the performance of this Agreement. Proprietary information is defined as information concerning techniques, processes, inventions, research and development, and cost data in written form with each sheet thereof marked with an appropriate legend

indicating its proprietary nature and delivered by one party to another. Any other use of such proprietary information by the recipient shall be made only upon receipt of the prior written consent from an authorized representative of the other party.

### **INDEMNIFICATION**

The Client shall indemnify and hold harmless ARA from and against any and all (including third party) claims, damages, losses and expenses (including reasonable attorney's fees) arising out of or resulting from the performance of services, provided that any such claims, damage, loss or expense is caused in whole or in part by the negligent act or omission and/or liability of the Client, anyone directly or indirectly employed by the Client (except ARA).

### **RISK ALLOCATION**

It is agreed between the parties and in recognition of the relative risks, rewards, and benefits of the project to both the Client and ARA, the risks have been allocated so that the Client agrees that, to the fullest extent permitted by law, ARA's total liability to the Client, for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement, from any cause or causes, shall not exceed the total amount of \$50,000 or the amount of ARA's fee (whichever is smaller). Such causes include, but are not limited to, ARA's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

### **DISPUTE RESOLUTION**

Any controversy or claim arising out of or relating to this agreement, or breach thereof, which may be properly submitted to arbitration, shall be settled by arbitration.

### **TRAVEL**

Travel costs are actual project expenses for meals, incidentals, motels, airfare, mileage, rental car, parking, and other travel costs.

### **PAYMENT**

Payment for ARA invoices are due net 30 days. Interest will be charged on amounts outstanding more than 30 days. The interest rate will be 1½ percent per month, compounded until paid. In the event of late payment, the Client agrees to pay all collection costs, legal expenses and attorneys' fees incurred by ARA in collecting payment, including interest.