

DRAFT

**TECHNICAL SERVICE CONTRACT**

**VILLAGE OF ORLAND PARK  
PAVEMENT, ROADWAY AND TREE MANAGEMENT CONSULTANT  
SEPTEMBER 14, 2011**

<b>Village of Orland Park (Village)</b> 14700 Ravinia Avenue Orland Park, IL 60462 Phone: 708-403-6100 Fax: 708-403-6169	<b>Applied Research Associates, Inc. (ARA)</b> 100 Trade Center Dr. Suite 200 Champaign, IL 61820 Phone: 217-356-4500 Fax: 217-356-3088
Technical POC: <b>Edward Wilmes</b> Phone: 708-403-6350 Email: ewilmes@orland-park.il.us	Technical POC: <b>William R. Vavrik, Ph.D., P.E.</b> Phone: 217-356-4500 Email: wvavrik@ara.com
Contracts POC: <b>Edward Wilmes</b> Phone: 708-403-6350 Email: ewilmes@orland-park.il.us	Contracts POC: <b>Liu Yan</b> Phone: 217-356-4500 Email: yliu@ara.com
Contract Type: Contract Effective Period: Contract Value:	<b>Fixed Price</b> <b>January 1, 2012 - December 31, 2012</b> <b>\$304,000 (USD)</b>

This agreement entered into as of January 3, 2012 between Village of Orland Park and ARA, a registered New Mexico Corporation, when accepted by authorized signature, serves as a binding contract between the Village of Orland Park and ARA.

**TERMS AND CONDITIONS**

**ARTICLE 1. COMPLIANCE WITH LAW**

In the performance of services hereunder, it is mutually agreed that ARA will comply with all applicable laws, regulations of the United States Government and the States where ARA is registered to do business. This compliance includes to all laws and regulations pertinent to ARA as a contractor under contracts funded by the US federal or state government or under research entities funded by the US federal or state governments.

**ARTICLE 2. INDEPENDENT CONTRACTOR**

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

**ARTICLE 3. PROJECT SUPERVISION**

ARA shall have wide discretion in the methods used to perform any tasks assigned to hereunder unless specified otherwise. ARA shall perform its services consistent with the professional skill and care ordinarily provided by professionals practicing in the same or similar locality under the same or similar circumstances.

**ARTICLE 4. SCOPE OF WORK**

See Exhibit A – Scope of Work.

**ARTICLE 5. CONTRACT EFFECTIVE PERIOD**

The contract terms' effective period is January 3, 2012 – December 31, 2012.

Should there be need to extend the effective period, a modification to this agreement shall be effectuated by both parties.

**ARTICLE 6. COMPENSATION**

Total compensation to ARA for service provided during the effective period of the contract shall be a fixed price of \$304,000 (USD) for the scope of work provided in Article 4.

**ARTICLE 7. INVOICE**

ARA shall submit monthly invoices based on percentage of completion. Payment terms are 30 calendar days from the receipt of an invoice.

ARA shall use its standard invoice format and provide the following information on its invoices to the address on the first page of this contract:

- Village's Contract reference number
- Period of performance for which the invoice is submitted
- Total dollar amount authorized to expend
- A brief description of work accomplished for amount billed
- Amounts for the billing period and cumulative amount-to-date
- Final invoice must be clearly marked "Final" in addition to invoice number

**ARTICLE 8. INDEMNIFICATION**

ARA agrees, to the fullest extent permitted by law, to indemnify and hold the Village harmless from any damage, liability or cost (including reasonable attorney's fees and costs of defense) ("Claimed Damages") to the proportionate extent that such Claimed Damages are caused by ARA's negligence or willful misconduct.

ARA shall have no upfront duty to defend the Village, but shall reimburse defense costs of the Village to the same extent of ARA's indemnity obligation herein. The indemnity obligations provided under this section shall only apply to the extent such claims are determined by a court of competent jurisdiction or arbitrator to have been caused by the negligence or willful misconduct of ARA.

These indemnity obligations shall not apply to the extent said claims arise out of, pertain to, or related to the negligence of the Village or its other agents, other servants, or other independent contractors, or other consultants of the Village, or others who are directly responsible to the Village, or for services furnished by those persons.

**ARTICLE 9. INSURANCE**

ARA agrees that it now carries, and will continue to carry during the performance of this contract, at its own expense, the applicable insurance policies indicated below:

General Liability	\$1 Million	Automobile Liability	\$1 Million
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Umbrella Liability	\$10 Million	Workers Compensation	\$1 Million
Professional Liability	\$2 Million		

**ARTICLE 10. TERMINATIONS**

The Village shall have the right to terminate this contract if ARA breaches this contract and fails to cure in reasonable time. The Village shall notify ARA in writing of such termination ten (10) days before the effective termination date. Upon termination, ARA shall submit all work completed up to the termination effective date to the Village. The Village shall pay ARA for work performed minus the cost incurred for cure.

**ARTICLE 11. DISPUTE RESOLUTION**

The Village and ARA shall make every reasonable effort to resolve all issues or disputes that may arise under this contract including termination issues fairly by negotiation without litigation, if practicable. The Village and ARA agree to negotiate in good faith to reach a mutually agreeable resolution of such dispute within a reasonable period of time. If good faith negotiations are unsuccessful, the Village and ARA agree that they may resolve the dispute by mediation, arbitration or litigation.

**ARTICLE 12. FORCE MAJEURE**

Neither party shall be liable for delay, nonperformance, loss or damage due to acts of God, acts of government, wars, riots, civil unrest, strikes, accidents or other causes beyond the control of that party.

**ARTICLE 13. RECORD RETENTION AND ACCESS**

ARA shall maintain all financial and performance records related to this project for at least three (3) years after final payment has been made under this contract. ARA shall grant government or authorized government representatives' access to these records for auditing purposes.

**ARTICLE 14. SEVERABILITY**

If any of the provisions of this contract in the application to any person or circumstance, is rendered or declared illegal for any reason, or shall be in valid or unenforceable, the remainder of this contract and the application of such provision to other persons or circumstances shall not be affected there by, but shall be enforced to the greatest extent permitted by applicable law.

This agreement supersedes any and all previous written or oral agreements between the Village and ARA concerning the subject matter addressed herein.

The signatures below indicate acceptance of the foregoing by the Village and ARA, by which means this letter constitutes a binding contract between the two parties.

**ACCEPTED**

**Village of Orland Park**

**Applied Research Associates, Inc.**

\_\_\_\_\_

Name

**William R. Vavrik, Ph.D., P.E.**  
\_\_\_\_\_

Name

\_\_\_\_\_

Title

**Vice President**  
\_\_\_\_\_

Title

\_\_\_\_\_

Signature

  
\_\_\_\_\_

Signature

\_\_\_\_\_

Date

**December 13, 2011**  
\_\_\_\_\_

Date

## EXHIBIT A: SCOPE OF WORK

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### 2012 PAVEMENT, ROADWAY AND TREE MANAGEMENT CONSULTANT

#### **TASK 1: KICKOFF, RECORDS REVIEW, AND PLANNING**

In this task, ARA will provide the following technical services:

- Meet with Village personnel and assess project scope and schedule
- Assemble existing asset data, databases, and map files
- Schedule and route data collection

#### **TASK 2: COLLECT DIGITAL IMAGE DATA**

ARA will collect pavement and asset inventory digital images and data by means of a survey vehicle, collecting multiple camera angles from a driver's perspective. ARA will use this data to perform pavement condition, tree assessment, and roadway asset data inventory.

ARA will use a Digital Survey Vehicles (DSVs) that is equipped cameras, laser sensors, differential GPS and inertial navigation systems that can provide a wide variety of pavement surface and geometric characteristics. ARA will survey one direction on all village roads.

#### **TASK 3: PAVEMENT CONDITION SURVEY**

ARA will evaluate pavement conditions using a modified Pavement Condition Index (PCI) survey methodology. In this methodology, ARA will perform a condition assessment in primary direction with a windshield survey method. ARA will assess 5 critical distresses in block-to-block sections.

#### **TASK 4: IMPELEMENT THE PAVEMENT MANAGEMENT SYSTEM**

ARA will upload the pavement condition data into the pavement management database and implement the pavement management system. Using basic performance modeling, treatment information, and budgets from the Village will determine an initial pavement capital and maintenance plan for 2012. The complete the pavement management system implementation includes developing Orland Park specific pavement performance models for the identified pavement families within the Village. Evaluating and expanding the potential pavement treatments to include aspects of pavement preservation, maintenance, rehabilitation, and reconstruction. ARA will update the treatment cost and consequences to reflect market conditions and expected outcomes.

Using these updated system inputs, ARA will work with the Village to develop a 5-year capital and maintenance plan and a 10-year look-ahead plan under the Village's expected funding scenarios.



## **EXHIBIT A: SCOPE OF WORK (CONTINUED)**

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### **2012 PAVEMENT, ROADWAY AND TREE MANAGEMENT CONSULTANT**

#### **TASK 5: ROADSIDE ASSET SURVEYS**

ARA will use the digital survey data collected as the basis to develop roadside asset management database. ARA will work with the Village to understand the specific requirements for each asset type and the existing data that exists for these assets. At a minimum for each asset the GPS coordinates and basic elements of each asset will be surveyed. This asset management database will include surveys of:

- trees (including Ash/No ash designation, species and trunk diameter category)
- signs (including MUTCD code and size)
- traffic signal,
- street lights
- pavement markings
- ADA curb cuts

#### **DELIVERABLES**

The deliverables include:

- Digital images of all roadways, provided on a hard drive for use by the Village
- A complete pavement management system database in RoadCare
- Shapefiles of the pavement maintenance and capital program for use in the Village's GIS system.
- Shapefiles for each roadside asset that includes all collected survey attributes
- An asset management system implementation report
- A research update report regarding the SuperCross pavement crosswalk based on visual inspection during December 2011, with updated condition report fall of 2012
- A presentation to the Village on the results of the complete pavement management system

Task Number	Task Description	Estimated Cost	Estimated Time (days)	2011: Basic PMS	2012: Complete PMS	Trees	Roadside Assets
1	Kickoff and Planning	\$8,800	3	\$8,800			
2a	Collect Data (one way)	\$45,900	28	\$45,900			
2b	Collect Data (two way)	\$62,600	35		\$16,700		
3	Modified PCI Condition Survey	\$31,100	35	\$31,100			
4	Tree System Training & Customization	\$27,600	7			\$27,600	
5a	Tree Survey (DSV Basic)	\$40,300	90				
5b	Tree Survey (DSV Detail)	\$58,300	130			\$58,300	
5c	Tree Survey (Foot on Ground)	\$21,500	28				
6	RoadCare Base Implementation (Deliver & Train)	\$15,800	5		\$15,800		
7	RoadCare Setup, M&R Customization & Analysis	\$40,000	28				
8	Reports & 2 Presentations (incl CIP)	\$21,500	5		\$21,500		
9	ADA Curb Cuts Survey	\$13,500	23				\$13,500
10	Pavement Markings Survey	\$19,000	25				\$19,000
11	Sign Survey	\$30,100	40				\$30,100
12	Street Lights Survey	\$11,200	18				\$11,200
13	Traffic Signals Survey	\$4,500	5				\$4,500
TOTALS:				<b>\$85,800</b>	<b>\$54,000</b>	<b>\$85,900</b>	<b>\$78,300</b>