

**NOTICE TO AIRPORT CONSULTANT ENGINEERS
REGARDING A REQUEST FOR LETTERS OF INTEREST**

**March 16, 2018
(Aeronautics Division)**

The Tennessee Department of Transportation (TDOT) Aeronautics Division, an Equal Opportunity/Affirmative Action Employer, seeks to retain the services of an airports consultant engineering services firm to develop an **Airport Pavement Management Program (PMP)** as described below.

Scope of Work

Pavement Management Program (PMP)

One (1) consultant will be selected to assist the TDOT Aeronautics Division with collecting, analyzing, maintaining, and reporting pavement data for approximately 68 general aviation facilities Statewide. A detailed scope of service is included in Attachment 'A'.

Compensation Ceiling: To be determined. In no event shall the maximum contract amount exceed \$1,000,000.00.

Proposed Contract Time: Three (3) YEARS

Proposed Contract Payment Type: Fixed Lump SUM

Tentative Notice to Proceed Date: August 1, 2018

Technical Requirements

Applicable Federal and State statutes, regulations, rules, orders, standards, specifications, and policies must be satisfied in the performance of aviation planning and professional engineering services tasks. The most notable include:

- FAA Advisory Circular 150/5380-7A Airport Pavement Management Program
- FAA Advisory Circular 150/5370-11, Use of Nondestructive Testing Devices in the Evaluation of Airport Pavements.
- FAA Advisory Circular 150/5335-5C, Standardized Method of Reporting Airport Pavement Strength – PCN.
- ASTM D5340, Standard Test Method for Airport Pavement Condition Index Surveys

Personnel Requirements

The following requirements must be met by the Prime-Consultant at the time of submittal:

1. At least one Principal of the Prime-Consultant must be a Professional Engineer registered in the State of Tennessee.
2. At least one Principal or a responsible member of the Prime-Consultant must be a professional Civil Engineer registered in the State of Tennessee.
3. In addition to the above, at least one Principal or Responsible Member shall have had a minimum of five years of experience in airport pavement evaluation.

Submittal Requirements

Firms may request consideration by submitting a letter of interest (LOI). These may be submitted to:

**Mr. John-Paul Saalwaechter, P.E.
Civil Engineering Manager
607 Hangar Lane
Nashville, TN 37217**

**Or electronically by email to:
John.saalwaechter@tn.gov**

All letters of interest must be received on or before **4:00 p.m. (Central Time) April 6, 2018**. For additional details regarding these projects, please contact Mr. John-Paul Saalwaechter at (615) 741-0780 or by email at John.saalwaechter@tn.gov.

All firms must be pre-qualified or have a completed prequalification form filed with the TDOT by the deadline for Letters of Interest. Additional information, including the Prequalification

Form ([DT-0330, Part 1](#)), and an example letter of interest can be found at: <http://www.tdot.state.tn.us/ConsultantInfo.htm>. Interested firms without internet access may obtain this information by calling Ms. Chris Smotherman at (615)741-4460 or Christine.Smotherman@tn.gov. The letter of interest shall not specifically identify sub-consultant(s), but rather indicate the scope of services anticipated to be completed by any sub-consultants. The sub-consultant shall be one that is prequalified by the TDOT to perform the specific tasks required. A pending prequalification status will be acceptable. **Please include a valid email address and phone number for the point-of-contact.**

Evaluation Process

Phase I Evaluation

The Department will evaluate the **current prequalification statements** on file for those submitting letters of interest and choose several firms who appear to be viable candidates, from which to invite proposals. Please note: New or updated prequalification forms must be received before the deadline for letters of interest. The criteria that will be considered are:

- i. Work experience in the required disciplines: Experience Categories (annual average revenue for last 5 years in relevant Profile Codes (A05, A06, P15, and T02).
- ii. Specialized expertise in the field of pavement management.
- iii. Qualification Type: UNLIMITED.

Phase II Evaluation

Phase II involves submitting [Form DT-330 Part II](#) (Contract Specific Qualifications). Please note that a new section for TDOT overhead rate approval letters and sub-consultant commitment letters has been added. It shall be the responsibility of the prime consultant to include a signed statement from each sub-consultant on their own letterhead confirming that they have the staff available and agree to provide the necessary services for the specific item/project. For firms submitting proposals during Phase II evaluation, the criteria that will be considered are:

Criteria and Relative Weights	
i. Proposed Team member expertise (Sections C, D, & E of Part II of the DT-0330 form).	25 %
ii. Relevant project or work experience (Sections F & G of Part II of the DT-0330 form).	25 %
iii. Technical problem solving approach (as explained in Section H of Part II of the DT-0330 form).	25 %
iv. Interviews and Product Demonstrations	25 %

Interviews and Product Demonstrations

Each firm submitting a proposal will also be allotted two (2) hours for a formal interview and product demonstration. In addition to the proposal, firms are encouraged to bring additional information such as example deliverables. A computer with internet access and a projector will be provided by The Aeronautics Division.

Following Phase II evaluation, the three* firms deemed most qualified by the Consultant Selection Committee (CEC) will be recommended to the Commissioner in alphabetical order for Phase III evaluation.

* In instances where only two qualified consultants respond with proposals, the Department may proceed with evaluation and selection if it is determined that the solicitation did not contain conditions or requirements that arbitrarily limited competition.

Phase III Evaluation

From the list of firms determined by the CEC to be the most highly qualified firms to perform the solicited services, the Commissioner will rank the firms in order of preference for each item.

Post Selection

The TDOT Aeronautics Division will then enter into negotiations with the firm deemed to be most highly qualified based upon the Commissioner's ranking. Before the invitation of cost proposals are made, a mutual understanding of the scope of work and all technical and administrative requirements of each proposed undertaking will be established with the prospective consultant. This may be accomplished by conference, phone, or correspondence as determined to be most appropriate by the Aeronautics Division. Instructions will be given regarding the method of compensation and the documentation needed to justify the proposed compensation.

Procurement Schedule

*Dates other than LOI submittal deadline are tentative and provided for information only.

- LOI submittal deadline – April 6, 2018 No Later Than 4:00 p.m. (Central Standard Time)
- Request for proposals – May 4, 2018*
- Proposal submittal deadline – May 25, 2018* No Later Than 4:00 p.m. (Central Standard Time)
- Interviews and Product Demonstrations – June 4 thru 15*, 2018
- Final selection – June 29, 2018*
- Notice to Proceed – August 1, 2018*

Evaluation proceedings will be conducted within the established guidelines regarding equal employment opportunity and nondiscriminatory action based upon the grounds of race, color, religion, national origin, sex, creed, age, and disability. Interested certified Disadvantaged Business Enterprise (DBE) firms as well as other minority- and/or women-owned firms are encouraged to respond to all advertisements by TDOT. For more information on DBE certification, please contact the Civil Rights Office Small Business Development Program at (615) 741-3681. Details and instructions for DBE certification can be found at the following website:

<http://www.tdot.state.tn.us/civil-rights/smallbusiness/>.

John C. Schroer
Commissioner

JCS/MF/JPS

Attachment A - Scope of Services

As Tennessee’s aviation system faces increasing limitations on funding for capital improvement projects, it is imperative to have a solid pavement management plan (PMP) that assists airports in finding optimum strategies for maintaining pavements in a safe serviceable condition over a given period for the least cost. The scope of this project requires the successful Consultant to visit each airport to determine existing pavement conditions in accordance with the Federal Aviation Administration (FAA) Advisory Circular 150/5380-7B– *Airport Pavement Management Program (PMP)* and ASTM D5340-12 – *Standard Test Method for Airport Pavement Condition Index Surveys*. The collected inventory and pavement condition index (PCI) data will be used to prepare maps, update pavement management data, develop multi-year maintenance and rehabilitation plans, and produce project reports.

The Consultant shall perform airport pavement inspections, to update TDOT’s Airport Pavement Management System (APMS), and provide electronic reports in a searchable PDF format for individual airports and for the statewide airport system. These updates will be performed annually to incorporate the latest available data. There are **68** paved General Aviation airports to be covered under this management plan.

The following is a summary of the major tasks required and associated with this project that will be required of the selected Consultant. A complete detailed Scope of Services will be negotiated with the Consultant and become part of the final contract with TDOT.

Task 1.0 Records Review

The objective is to conduct a review of the records to determine pavement structure and age. Information pertaining to the pavement history, as well as information concerning the physical layout of the pavement system, will be obtained. This work will concentrate on pavement maintenance, rehabilitation and new construction that has occurred at a project airport since it was last inspected in the previous PCI study.

Task 2.0 Pavement Network Definition Update

Airport mapping will be updated to identify the location of branches, sections, and sample units. Since recommendations for pavement maintenance and rehabilitation are made at the section level, it is important that the sections identified in the current data represent areas where pavement repair work would realistically be applied.

Task 3.0 Pavement Condition Survey

The pavements will be inspected using the pavement condition index (PCI) procedures as outlined in the American Society for Testing and Materials (ASTM) Standard D5340-12, *Standard Test Method for Airport Pavement Condition Index Surveys* and the FAA Advisory Circular 150/5380-7B– *Airport Pavement Management Program (PMP)*. Additionally, photographs of representative pavement conditions and typical distresses observed in each section will be collected during the inspection. Table 1 identifies the standard inspection sampling rate that will be used during the PCI inspection.

Table 1. Inspection sampling rate.

PCC Pavements		AC Pavements	
N	n	N	n
1 — 3	all	1 — 3	all
4	3	4	3
5 — 7	4	5 — 9	4
8 — 10	5	10 — 20	5
11 — 16	6	21 — 30	6
17 — 28	7	31 — 70	7
29 — 64	8	>70	10%, but ≤ 17
65 — 90	9		
> 90	10%, but ≤ 32		

N – Total number of samples in a section

n – Number of samples to inspect in a section

Attachment A - Scope of Services

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Tentative Condition Survey Schedule

The tentative Pavement Condition Survey Schedule is organized by calendar year. The airports are grouped geographically, with the exception of those listed in *this format*. The general plan being to move east to west across the State and complete all surveys within 3 years. The timing is negotiable so long as all airports are inspected within 3 years and any airports with major M&R activities planned to occur in 2018-2020 are inspected post-construction.

2018 (14 airports)

<u>ID</u>	<u>City/Airport</u>
0A9	Elizabethton / Elizabethton Municipal Airport
1A3	Copperhill/ Martin Campbell Field
2A0	Dayton/Mark Anton Airport
3A2	Tazewell/ New Tazewell Municipal Airport
6A4	Mountain City/ Johnson County Airport
DKX	Knoxville/Knoxville Downtown Island Airport
FGU/3M3	Collegedale/ Collegedale Municipal Airport
GKT	Sevierville/ Gatlinburg-Pigeon Forge Airport
JAU	Jacksboro/ Campbell County Airport
MMI	Athens/ McMinn County Airport
MNV	Madisonville /Monroe County Airport
MOR	Morristown /Moore-Murrell Airport
RVN	Rogersville/ Hawkins County Airport
RZR	Cleveland/ Cleveland Regional Jetport 96

2019 (26 airports)

<u>ID</u>	<u>City/Airport</u>
0A3	Smithville/ Smithville Municipal Airport
1A7	Gainesboro/ Jackson County Airport
1M5	Portland /Portland Municipal Airport
2M2	Lawrenceburg/ Lawrence County Airport
3M7	Lafayette/ Lafayette Municipal Airport
8A3	Livingston/ Livingston Municipal Airport
APT	Jasper/ Marion County Airport
BGF	Winchester/ Winchester Municipal Airport
CKV	Clarksville/ Outlaw Field Airport
CSV	Crossville/ Crossville Memorial Airport
GCV	Greenville/Green County Municipal Airport
GZS	Pulaski/ Abernathy Field Airport
LUG	Lewisburg/Ellington Airport - Lewisburg
M33	Gallatin/Sumner County Regional Airport
M54	Lebanon/ Lebanon Municipal Airport
M91	Springfield/ Springfield Robertson County Airport
MBT	Murfreesboro/ Murfreesboro Municipal Airport
MQY	Smyrna /Smyrna Airport 62
MRC	Columbia/ Maury County Airport
RKW	Rockwood/ Rockwood Municipal Airport
RNC	McMinnville/ Warren County Airport
SCX	Oneida/ Scott Municipal Airport
SRB	Sparta/ Upper Cumberland Regional Airport
SYI	Shelbyville/ Bomar Field
THA	Tullahoma/ Tullahoma Regional Airport/William
UOS	Sewanee/ Sewanee - Franklin County Airport

Attachment A - Scope of Services

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2020 (28 airports)

<u>ID</u>	<u>City/Airport</u>
0M2	Tiptonville/ Reelfoot Lake Airport
0M3	Hohenwald/ John A. Baker
0M4	Camden/ Benton County Airport
0M5	Waverly/ Humphreys County Airport
2A1	<i>Jamestown/ Jamestown Municipal Airport</i>
2M8	Millington/ Charles W. Baker
DYR	Dyersburg/ Dyersburg Regional Airport
FYE	Somerville/ Fayette County Airport
FYM	<i>Fayetteville/ Fayetteville Municipal Airport</i>
GHM	Centerville/ Centerville Municipal Airport
HZD	Huntingdon/ Carroll County Airport
M01	Memphis/ General Dewitt Spain
M02	Dickson/ Dickson Municipal Airport
M04	Covington/ Covington Municipal Airport
M08	Bolivar/ William L. Whitehurst
M15	Linden/ Perry County Airport
M29	Clifton/ Hassel Field
M31	Halls/ Arnold Field Airport
M53	Humboldt/ Humboldt Municipal Airport
M93	McKinnon /Houston County Airport
MKL	Jackson/ McKellar Sipes Regional
NQA	Millington/ Millington Municipal Airport
PHT	Paris-Henry County Airport
PVE	Lexington/Parsons Beech River Regional Airport
SNH	Savannah-Harden County Airport
SZY	Selmer Robert Sibley Airport
TGC	Trenton Gibson County Airport - Trenton
UCY	Union City Everett Stewart

Task 4.0 Data Update

The existing pavement data will be updated with the inventory, M&R history, and PCI data collected during earlier project tasks. The data entered will be verified through a process of basic data entry checks followed by “reality” checks. The “reality” checks consist of a review of items such as last construction dates versus pavement condition and the standard deviation of different sections.

Task 5.0 Aviation Toolset Customization

The APMS solution will be customized to more accurately reflect the conditions and policies under which the state of Tennessee operates. The customization will involve updating the pavement performance models, maintenance policies, prioritization guidelines, and unit cost information contained in the APMS.

Task 6.0 APMS Toolset Update

An updated MicroPaver (or equivalent) data repository and updated CAD maps of each airport will be provided. This includes the update of the existing MicroPaver (or equivalent) solution to the most current version.

Task 7.0 Data Analysis

Data analysis will include the evaluation of the distress data (composite index, cause of deterioration, and rate of deterioration), a statewide needs analysis, the identification of the level of repair required and the timing of these activities, and the development of a multi-year pavement repair program. The statewide needs assessment will include an analysis of the overall statistics on the condition of airport pavements. The condition of the pavement sections – current and projected – will then be used to identify pavement M&R (maintenance and repair) needs. The information obtained during the pavement condition analysis and the statewide needs

Attachment A - Scope of Services

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assessment shall be used to facilitate the formulation and prioritization of M&R projects over a five year plan. This plan will present a list of pavement M&R projects by each year.

Task 8.0 Statewide Summary Report

A Statewide Summary Report will be prepared that will contain the results of the analysis, including annual maintenance programs, multi-year pavement rehabilitation programs, and network level budget plans for varying budget scenarios.

Task 9.0 Pavement Solution Report

An interactive report deliverable will be created. The pavement inventory and condition data, color-coded PCI maps, photographs taken during the inspection, predicted condition data, and the M&R plan for each airport will be incorporated into this program for easy retrieval of project information.

Task 10.0 GIS Map Link

The GIS link will be established between the updated MicroPaver (or equivalent) data repository and the airport maps using MicroPaver (or equivalent) internal GIS viewer.

Task 11.0 PCI and MicroPaver (or equivalent) Training

Training in the conduct of a PCI inspection and the use of MicroPaver (or equivalent) will be conducted. The MicroPaver (or equivalent) training course will consist of a 1.5 day tutorial using realistic scenarios leading the trainee/s through the steps involved in updating and utilizing the APMS data repository.

Task 12.0 Web Based Data Viewing Tool

Provide a web-enabled GIS-based software tool that supplements MicroPaver (or equivalent) by allowing web-based access to pavement-related data, without licensing limitations. This will help to disseminate the results of the study to all stakeholders.

As-needed Services

As-needed services are of indefinite delivery/indefinite quantity.

Task 13.0 Pavement Structure Determination

“As built” records should provide this information. If they are not available or if records are suspect, it may be necessary to perform nondestructive and/or destructive testing to determine the existing pavement’s thickness and composition of the structural layers. Nondestructive testing may include nondeflection measuring equipment such as ground-penetrating radar (GPR), or deflection measuring equipment such as falling weight deflectometer (FWD). Nondestructive testing shall be done in accordance with FAA Advisory Circular 150/5370-11, Use of Nondestructive Testing Devices in the Evaluation of Airport Pavements.

Task 14.0 PCN Determination

Determination of the PCN values requires detailed pavement cross section, subgrade strength, and operation traffic information. All necessary information will be collected and the appropriate PCN value for each airport runway included in this project will be determined in accordance with FAA Advisory Circular 150/5335-5C, *Standardized Method of Reporting Airport Pavement Strength – PCN*.

Task 15.0 Roughness

Roughness measurements can be helpful when there is evidence of roughness issues, usually in the form of frequent pilot complaints. Measuring and evaluating runway roughness shall be done in accordance with FAA AC 150/5380-9, Guidelines and Procedures for Measuring Airfield Pavement Roughness.

Task 16.0 Friction.

Friction measurements may be made on a periodic basis to measure the skid-resistance of runway pavement due to the accumulation of contaminants on the pavement surface; and the mechanical wear and polishing action from aircraft tires rolling or braking on the pavement. Friction measurements shall be done in accordance with

Attachment A - Scope of Services

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FAA AC 150/5320-12, Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces.