

## ***Request for Proposals***

# **Using Recycled Asphalt Pavement in Asphalt Mixtures in Canada**

*Issue Date: December 14, 2023*

*Submission Deadline: 13:00 ET, January 25, 2024*

### **A. BACKGROUND**

Recycled asphalt pavement (RAP) can be used in roadway bituminous mixtures as a cost-effective portioned replacement of virgin aggregate skeleton and asphalt binder. To be successful, mixtures containing RAP should have similar characteristics to mixtures containing 100% virgin materials and should offer equal or better long-term performance under laboratory and field conditions.

Over the past 40 years, RAP mixtures in North America have performed satisfactorily when properly engineered, produced and placed. Field performance of RAP mixtures has been reported to be comparable or better than asphalt mixtures with zero recycled content. However, as RAP use has increased, Canadian agencies have observed signs of premature performance issues including cracking in asphalt pavements. This premature distress is particularly prevalent in mixtures with higher amounts of RAP.

### **B. OBJECTIVES**

The project would develop a practice-ready report on the use of RAP in asphalt mixtures that can be referenced by Canadian transportation agencies. The report would be based on a review of literature, effective agency practices and input from industry leaders, and would address material management, material characterization, mixture design, plant production, and laydown of asphalt mixes produced with RAP to ensure proper performance. Asphalt mixes include both hot and warm mix, and quality, health, climate and environmental impacts should be specified for each aspect.

Key project tasks will include:

- Review international literature to summarize industry best practices and guidelines for RAP usage, with a focus on countries that have successfully used high recycled content over the last 20 years
- Summarize and update findings from a 2021 survey of Canadian agencies on their use of RAP in asphalt mixes
- Summarize lessons from a series of online learning events held by TAC's RAP Working Group
- Develop a chapter outlining recommendations for Canadian agencies on how to develop a methodology for testing, recording and sharing performance evaluations of innovations or new approaches for RAP mixes (i.e. elements to be included to ensure controls to document performance, allowing agencies to compare similarly and how to improve practices)

## C. DELIVERABLES

The main project deliverable will be a report entitled *Using Recycled Asphalt Pavement in Asphalt Mixtures in Canada*. In addition to the content outlined in Section B, it will contain an executive summary, table of contents, list of figures, list of tables, introduction, and references. All information compiled during the project will be included, with appendices containing any content that is inappropriate for the main body.

Other deliverables will include:

- A table summarizing comments received during Project Steering Committee (PSC) review of deliverables, tracking who submitted each comment and specifying how the comment was addressed, to be updated after each commenting period (see Section D for anticipated PSC meetings).
- Bimonthly progress reports on task/schedule status and any perceived challenges, to be circulated to PSC members and presented at project meetings.
- A PowerPoint deck describing the work undertaken and report contents to be presented by the consultant team leader to online meetings of the PSC, Pavements Committee, Soils & Materials Committee, and Infrastructure & Asset Management Council during TAC's 2026 Spring Technical Meetings (with the deck circulated in advance to the PSC, inclusive of the presenter's notes).
- A PowerPoint deck suitable for a 60-minute TAC webinar (i.e. 30-minute presentation followed by 30 minutes of questions) to be delivered by the consultant after the project is completed, providing a high-level overview of the project and its deliverables to a multidisciplinary audience.

The consultant will provide:

- Microsoft Word/PowerPoint and PDF versions of the deliverables.
- All figures that contain text as separate files, with text accessible and editable by TAC for translation purposes; exceptions include where original-source French-language graphics are also provided, or where TAC agrees that the technical content should remain in English.
- Credits for images drawn from other sources, with evidence that written permission to reproduce them has been received.
- Any relevant spreadsheets in Microsoft Excel format.

Deliverables must be submitted in English. TAC will provide an electronic Word template with pre-set report headings and styles to which consultants must adhere, with any variations subject to TAC approval. In addition, the selected proponent must adhere to TAC's *Publication Guidelines*<sup>[1]</sup> and *Guidelines for Pooled-Fund Projects*<sup>[2]</sup>.

## D. SCHEDULE

The consultant should propose a project schedule that enables high-quality deliverables and varies from the following milestones only where a supporting rationale is provided:

- Contract award ..... February 2024
- PSC & Consultant Meeting – kickoff (online) ..... March 2024

<sup>[1]</sup> [https://www.tac-atc.ca/sites/tac-atc.ca/files/site/doc/projects/docs/tac\\_publications\\_guidelines\\_2015-01-01\\_en.pdf](https://www.tac-atc.ca/sites/tac-atc.ca/files/site/doc/projects/docs/tac_publications_guidelines_2015-01-01_en.pdf)

<sup>[2]</sup> <https://www.tac-atc.ca/sites/tac-atc.ca/files/site/doc/projects/docs/pfp-guidelines.pdf>

- Submission of report table of contents, literature review and updated survey summary..... June 2024
- PSC comments due on ToC, literature review and survey results deliverables ..... July 2024
- PSC Meeting (online) ..... July 2024
  
- Submission of 50% report ..... November 2024
- PSC comments due on 50% report..... January 2025
- PSC Meeting (online) ..... February 2025
  
- Submission of 100% report .....September 2025
- PSC comments due on 100% report..... October 2025
- PSC Meeting (online) ..... November 2025
  
- Submission of revised 100% report and memo to TAC committees..... February 2026
- Presentation to SMC, PavC and IAMC (online).....April 2026
- PSC comments due on revised 100% report and memo to TAC committees .....April 2026
- Submission of final report and memo to TAC committees, graphics and slide deck..... May 2026
- TAC webinar delivery.....Summer/Fall 2026

The PSC will include about 20 representatives of project funding partners, and will be an active project participant. Members will review draft deliverables and require at least 15 working days to submit comments. The consultant will respond to all comments, questions and suggestions, and requires at least 5 working days to review PSC comments and develop an initial response before meeting with the PSC. The consultant team leader is required to attend PSC meetings and presentations. Note that some number of online working meetings in addition to those listed above may be required, and would not constitute an increase in the scope of work.

## E. BUDGET

This project's maximum budget is \$120,000; this amount includes all fees and expenses, but excludes applicable taxes. Only fixed-price proposals will be accepted, and price is not a factor in their evaluation. Proposals exceeding the maximum budget will be disqualified. TAC will not accept invoices for cost overruns (fees or expenses) associated with the original scope of work. Note that the lead consultant must be a TAC member organization, and that no more than 20% of the budget may be assigned to subconsultants that are not TAC member organizations (non-member firms may submit proposals, with the understanding that they would become a member if selected to conduct the project).

A detailed cost breakdown is requested as part of the proposal; invoices must link billing amounts to the percentage of completion of major tasks. TAC will retain a 10% holdback from each payment until the final deliverables have been approved by the Infrastructure & Asset Management Council and accepted by TAC. All work conducted in the 12 months leading up to March 31 of each year must be invoiced by that date.

## F. PROPOSAL REQUIREMENTS

The proposal should address the following subjects.

**Project understanding** – Demonstrate a clear understanding of the project's scope and objectives, describe challenges that might be encountered in its execution, and propose measures to resolve them.

**Methodology** – Describe major tasks, major information sources, planned analyses, and possible limitations. Although the working language for this project is English, the consultant will be expected to review literature and communicate with stakeholders in French, as required.

**Schedule** – Propose a project schedule that enables high-quality deliverables, using Section D as guidance.

**Resources** – Identify a total cost with fees broken down by task and team member, as well as travel or other expenses. Proposals stating a total cost greater than the maximum budget specified in Section E will be disqualified.

**Consultant team** – Identify a project leader and team members including subconsultants, describe their roles, and identify their experience on similar or otherwise relevant projects as well as any experience with TAC projects and processes. The lead consultant must be a TAC member organization.

**References** – Identify three organizations for which senior members of the consulting team have conducted similar or otherwise relevant projects, including the organization’s address and the name and telephone number of an individual familiar with the proponent’s work. TAC reserves the right to request additional references.

**Conflict of interest declaration** – Disclose possible financial or organizational conflicts of interest in conducting the project; for example, the proponent’s ownership, relationships or proprietary rights and interests could be perceived as jeopardizing its objectivity. Identify mitigating strategies for any such circumstances.

Proposals should include:

- A covering letter (not more than two pages long)
- Table of contents (optional)
- Main body (not more than 10 pages long, with 12-point single-spaced text and one-inch margins)
- Additional pages for:
  - Project cost breakdown (one page)
  - Project schedule (one page)
  - Project team organization chart (one page)
  - References
  - Conflict of interest declaration
- Team lead and principal(s) résumés (each not more than four pages long total)

Any material in excess of these scope and length parameters will be deleted from proposals before evaluation.

## G. PROPOSAL EVALUATION

TAC’s Project Manager (see Section I, below) must receive a PDF version of the proposal by email **no later than 13:00 ET on January 25, 2024**.

Email any questions regarding this Request for Proposals to TAC’s Project Manager **by January 8, 2024**. Addenda with responses will be posted to the RFP page on TAC’s website as soon as possible, but no later than **January 12, 2024**. Note that proponents are responsible to check for addenda.

## H. PROPOSAL EVALUATION CRITERIA

Proposals will be evaluated by the PSC based on the criteria listed in Table 1.

When top proponents have average scores within five points of each other, the selection will be made by a vote of PSC members.

**Table 1: Proposal Evaluation Criteria**

Evaluation Criteria	Weight
Understanding of scope, objectives and desired deliverables	20
Approach, methodology and level of detail of each included task	35
Adequacy of work plan and resources to ensure quality within required timeframes	15
Demonstrated qualifications, experience and competence of consultant lead and team members in areas relevant to this project	30 (15 for team lead + 15 for team members)
<b>TOTAL &gt;</b>	<b>100</b>

## I. PROJECT ADMINISTRATION

A contract for consulting services must be established with the consultant before work can begin.

TAC maintains an online collaborative platform to enable documentation sharing for this project. The working language for this project is English, though the consultant will be expected to review literature and communicate with stakeholders in French, as required.

TAC's Project Manager will act as liaison between the PSC and the consultant for this project and will work with the PSC to review project deliverables and ensure objectives are met. For more information, contact:

**Craig Stackpole, P.Eng., PMP**  
**Senior Program Manager**  
**Transportation Association of Canada**  
 401-1111 Prince of Wales Drive  
 Ottawa, Ontario K2C 3T2  
 Tel: 613-736-1350 x 232  
 Fax: (613) 736-1395  
 E-mail: [cstackpole@tac-atc.ca](mailto:cstackpole@tac-atc.ca)