

## ***Request for Proposals***

# **Flashing Amber Arrow Signal: Synthesis of Practice**

*Issued: March 28, 2024*

*Deadline for proposals: 13:00 ET on May 22, 2024*

### **A. INTRODUCTION**

Several factors have complicated the task of providing safe and effective traffic signal timing for all users (including the more common use of bike lanes and paths in urban centres, and a heightened priority on safety for vulnerable road users). This is especially true for the management of permissive motor vehicle turning movements (both left and right turns) that conflict with pedestrian and cyclist movements. The tools and regulations currently available to practitioners are sometimes inadequate to meet the multiple (and often competing) objectives of traffic signal operation.

The flashing amber arrow signal (sanctioned in the United States by the Federal Highway Administration and originally designed to offer permissive left turns under “yellow trap” conditions) is a tool that could help Canadian road authorities to improve safety for road users. However, a thorough review of the American experience and an assessment of the Canadian context are required before the flashing amber arrow signal could be incorporated into TAC’s technical guidance. Other guidance on tools that can improve safety outcomes where turning vehicles conflict with active transportation users may also be considered through subsequent TAC projects, eventually leading to a comprehensive toolbox of devices, guidelines and applications related to permissive turns.

### **B. SCOPE AND APPROACH**

This project will provide a synthesis of the American experience and Canadian context related to flashing amber arrow signals, and recommend next steps to inform the future development of technical guidance for Canadian road authorities (if warranted).

The successful consultant will accomplish the above through key tasks that include:

- A review of relevant literature on research and practical experience related to flashing amber arrow signals in the United States, with follow-up interviews and/or communications with appropriate contacts to augment or refine the resulting knowledge base.
- A summary of lessons learned from the American experience, including benefits, risks and challenges for safety and operations.
- A survey of Canadian jurisdictions to gather information on perceived opportunities, challenges, benefits and risks related to flashing amber arrow signals, with follow-up interviews and/or communications with appropriate contacts to augment or refine the resulting knowledge base.
- A summary of key challenges, opportunities, benefits and risks for the application of flashing amber arrow signals in Canada, including considerations related to various legislative and regulatory contexts, road

types (e.g. operating speed, lane configuration), road user groups, road environments (e.g. urban, suburban, rural), and traffic signal design and operational practices.

- Recommendations for next steps, including supplementary research, development or testing.

### C. DELIVERABLES

The main project deliverable will be a comprehensive but focused final report that includes:

- An executive summary
- A summary of experience with flashing amber arrow signals in the United States
- A summary of findings related to the possible use of flashing amber arrow signals in Canada
- Recommended next steps

Other deliverables will include:

- Two draft technical memoranda containing details of information gathered through the project
- PowerPoint decks to accompany 20-minute presentations to TAC’s Safety, Design & Operations Council and Traffic Operations & Management Committee, and a 30-minute TAC webinar presentation

All deliverables will be submitted in English and electronic formats (Word, Excel, PowerPoint, and/or PDF) using templates to be provided by TAC where applicable. French translation will be the responsibility of TAC.

### D. SCHEDULE

The consultant should propose a project schedule that enables high-quality deliverables, ideally adhering to the following milestones (with divergence permitted if a supporting rationale is provided):

- Contract award ..... May 2024
- PSC Meeting #1 (online) – project kickoff, discussion of proposed work plan and schedule ..... June 2024
- Submission of draft technical memorandum #1 on American experience ..... September 2024
- PSC Meeting #2 (online) – discuss draft memorandum #1 ..... September 2024
- Submission of draft technical memorandum #2 on Canadian opportunities and challenges..... November 2024
- PSC Meeting #3 (online) – discuss draft memorandum #2 ..... December 2024
- Submission of 100% draft report including revised memoranda content and recommendations .. February 2024
- PSC Meeting #4 (online) – discuss 100% report and draft project recommendations..... February 2024
- Submission of final draft report and summary deck ..... March 2025
- PSC Meeting #5 (online) – approve final draft report and summary deck ..... March 2025
- Presentations to Traffic Operations & Management Committee and Safety, Design & Operations Council (online) ..... April 2025
- Submission of final report and webinar deck ..... May 2025
- TAC webinar delivery ..... TBD

The Project Steering Committee (PSC) will include about 10 representatives of project funding partners, who will review and comment on all deliverables. The consultant will maintain a detailed log of comments and resulting actions for each deliverable. Generally, a minimum of 15 working days is required for PSC members to review

deliverables before meetings. The consultant's team leader must attend the PSC meetings noted above and may be asked to attend other online meetings.

## E. BUDGET

This project's maximum budget is **\$80,000** for all fees and expenses, not including applicable taxes. Proposals exceeding this maximum budget will be disqualified. Proposals are expected to be fixed-price, and price will not be a factor in their evaluation. Proposals must include a detailed cost breakdown. TAC will not accept invoices for cost overruns (fees or expenses) associated with the original scope of work.

Invoices must link billing amounts to the percentage of major tasks completed. TAC will retain a 10% holdback from each payment until the final deliverables have been accepted by TAC and approved by TAC's Safety, Design & Operations Council. All work conducted in the 12 months leading up to March 31 of each year must be invoiced by that date.

## F. PROPOSAL REQUIREMENTS

Proposals should provide the following information:

- *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 overcome them.
- *Consulting team.* Identify a project leader and team members, including subconsultants, describe their roles, and identify their experience on similar or otherwise relevant projects and any experience with TAC projects and processes. Although the working language for this project is English, the consultant will be expected to review the literature and communicate with stakeholders in French as required; French-speaking consulting team members should be identified.
- *Methodology.* Describe major tasks, resources to be applied, key information sources, planned analyses, and possible limitations. Include a preliminary list of American organizations and Canadian jurisdictions to be interviewed for this project.
- *Schedule and resources.* Show the proposed person-hours for each team member by task, total fees broken down by task and team member, any expenses, and a schedule with key milestones and project deliverables.
- *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.
- *Conflicts of interest.* 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
- 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 member résumés (each not more than four pages long)

Note that any material exceeding these scope and length parameters will be deleted from proposals before evaluation.

## G. PROPOSAL SUBMISSION

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 May 22, 2024**.

Email any questions regarding this Request for Proposals to TAC’s Project Manager (see Section I below) by April 18, 2024. Response addenda will be posted to the RFP page on TAC’s website as soon as possible but no later than April 25, 2024. Note that proponents are responsible for checking for addenda.

## H. PROPOSAL EVALUATION

Proposals will be evaluated using the criteria in the following table. TAC reserves the right to conduct telephone or online interviews of proponents.

Evaluation Criteria	Weight
Understanding of the project’s scope, objectives and desired deliverables; to highlight their level of insight, proponents must include a proposed list of key issues to be examined	30
Demonstrated qualifications, experience and competence of the project leader and team members	25
General approach and methodology, including a proposed list of key American organizations and Canadian jurisdictions to be interviewed and any innovative approaches to addressing key issues	20
Adequacy of work plan, schedule and resources to ensure quality and timeliness of deliverables	20
Team member experience with TAC projects and processes	5
<b>TOTAL &gt; 100</b>	

## I. PROJECT ADMINISTRATION

A contract for consulting services will be established before work can begin. TAC’s Project Manager will be the liaison between the consultant and the Project Steering Committee for this project and will work with the Project Steering Committee to review project deliverables and ensure objectives are met.

The working language for this project is English. TAC will be responsible for recording and distributing meeting minutes and maintains a secure online collaborative platform for sharing documents.

For more information, contact:

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