REQUEST FOR PROPOSALS

FREIGHT VEHICLE INTERSECTION OPTIMIZATION SERVICES

May 21, 2021
INTRODUCTION
The North Central Texas Council of Governments (NCTCOG) is requesting written proposals from qualified parties to develop, implement, and provide management services for a solution that optimizes the movement of freight vehicles through intersections in Dallas-Fort Worth region (DFW) by reducing the number of stops at traffic lights by freight vehicles (hereinafter “freight optimization solution” or FOS). The selected firm (Consultant) will be tasked with working with local governments and the freight industry to implement the freight optimization solution and then be responsible for maintaining the FOS, providing regular reporting on FOS operation, and working with industry and local jurisdictions to optimize the FOS and maximize benefits to the region.

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS
NCTCOG is a voluntary association of, by, and for local governments, and was established to assist local governments in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development. NCTCOG’s purpose is to strengthen both the individual and collective power of local governments as well as to help them recognize regional opportunities, eliminate unnecessary duplication, and make joint decisions.

BACKGROUND
Due to its well-developed highway system, railroads, and airports, DFW is the nation’s leading “inland port.” Dozens of freight hubs are arrayed across the region. At the center of the region’s freight network is the Dallas-Fort Worth International Airport, a global air freight hub. Many of
these freight hubs are in designated zones for freight-oriented development (FOD) and located along roadways with signalized intersections adjacent to or some distance away from expressways. It is these signalized intersections that offer an opportunity to improve freight movement efficiency throughout the region.

Four developments inspired this FOS project (Project) and are summarized in the presentation attached as Exhibit A.

First, the Texas Connected Freight Corridors (TCFC) project, led by the Texas Department of Transportation (TxDOT), is improving freight transportation on expressways through the use of connected vehicle (CV) and cellular-vehicle-infrastructure (C-V2I) technology on “Texas Triangle” expressways, including installation of multiple C-V2I roadside units on I-30 between Dallas and Fort Worth. During TxDOT’s project outreach, freight industry representatives rated truck signal prioritization as a top priority for the freight industry. This Project complements the TCFC project by improving freight vehicle travel from freight hubs to the expressways that TxDOT is optimizing for freight vehicles through its TCFC project.

Second, the City of Arlington, Texas recently launched an Arlington Connected Vehicle Corridor on Cooper Street that includes CV technology at multiple intersections that is capable of traffic signal priority and preemption. The City of Dallas has partnered with Ericsson on a Connected Urban Transport Solution that includes a Cloud-hosted connected vehicle module. Numerous DFW municipalities have made their traffic signal data accessible to the connected developer community and have participated in the Waze Connected Cities Program. These and other such efforts are indicative of the interest by the DFW public sector in utilizing technology to improve traffic operations through signalized intersections.
Third, developments outside of the Texas, such as the intersection technology collaboration between Georgia DOT and the Atlanta Regional Council, the metropolitan planning organization for the Atlanta region, involving over 1,000 signalized intersections and including freight signal priority applications, are an inspiration for the Project.

Fourth, DFW is an air quality non-attainment region and freight vehicles account for a substantial portion of emissions generated by the transportation sector:

Reducing the number of freight vehicle stops at signalized intersections should yield air quality benefits.

NCTCOG has assembled a set of background materials in connection with this RFP:

- NCTCOG [Freight Oriented Developments Map](#)
- NCTCOG [Freight Congestion and Delay Study Final Report](#)
- TxDOT [Texas Highway Freight Network](#)
• TxDOT Statewide Planning Map
• NCTCOG Transportation Data
• NCTCOG Regional Open Data Portal
• NCTCOG Air Quality Handbook

PURPOSE AND NEED

NCTCOG believes that improving the flow of freight vehicles through intersections has the potential to deliver multiple benefits to the region. Reducing the number of freight vehicle stops at signalized intersections can:

• Reduce freight vehicle delays, increasing the productivity of the region’s freight industry, which faces delay costs of over $1.00/minute according to the American Trucking Research Institute’s Analysis of the Operational Costs of Trucking, and possibly more depending on the value of the cargo;
• Improve traffic flow for all vehicles by reducing the long deceleration/acceleration patterns associated with large trucks stopping and starting at intersections;
• Reduce the number of crashes from vehicles rear-ending stopped trucks or from trucks unable to stop in time for a red light, resulting in a collision, and
• Reduce emissions from trucks idling at, accelerating from, and braking to stop at intersections.

Another aim of the Project is to use data to identify where FOS technology will provide the biggest impact on optimizing freight vehicle movements—e.g., truck travel times savings, improved traffic flow, public health benefits—and identify any adverse impacts of FOS technology on non-freight or cross-street traffic. NCTCOG wants to focus the Project on intersections with the highest potential net benefit where traditional traffic retiming methods will not deliver comparable benefits at lower cost.
The Project will be executed in close cooperation with the local jurisdictions that operate the traffic signals being optimized via the FOS. NCTCOG requires the Project to provide these local jurisdictions the ability to monitor the performance of the FOS, make data-driven interventions in conjunction with the Consultant to optimize FOS performance, and make necessary adjustments promptly in response to unusual events requiring changes in traffic signal operations. The Consultant’s demonstrated ability to work cooperatively with local jurisdictions is of key importance to NCTCOG in evaluating the Consultant’s response to this RFP.

As discussed below, NCTCOG is also pursuing performance-based compensation tied the Consultant’s delivery of freight optimization services at a scale and in ways that result in substantial net benefits relative to the size of the public investment. This Project is not a proof-of-concept study of signal priority or connected vehicle technology. Rather, this Project is intended to deliver significant, measurable benefits to the DFW freight industry and the communities in which the FOS is deployed. A portion of the Consultant’s compensation may be tied to its achievement of that goal, as discussed below.

PROJECT SUPPORT

NCTCOG will serve as project manager to implement a mutually agreed-upon Scope of Work and to monitor progress. NCTCOG will also serve as the contract manager and procurement administrator for the project. Local jurisdictions responsible for traffic signals will be integral to the development, integration, implementation, and on-going maintenance and optimization of the FOS. NCTCOG anticipates a contract arrangement whereby the Consultant is expected to coordinate with such host local jurisdictions and be principally responsible for ensuring their ongoing participation in the development, integration, implementation, maintenance, and operation of the FOS. Based on conversations with representatives from local jurisdictions throughout the region, NCTCOG believes that many local jurisdictions are willing to work with the
Consultant to implement FOS in their jurisdictions. NCTCOG’s goal is to minimize the burden on local jurisdictions while maximizing their benefits from the FOS. Achieving this goal is the Consultant’s primary task. Consultant should prioritize solutions that require little or no involvement or investment by local jurisdictions—e.g., utilizing Cloud storage rather than server capacity maintained by local jurisdictions.

WORK PROGRAM

The work program for the establishment of the FOS is summarized in the tasks outlined in the Scope of Work, which follows this section. Consultants are invited to propose modifications to these tasks and to exercise creativity in responding to this RFP. NCTCOG welcomes Consultant suggestions for how to make the Project a success in their response to this RFP.

SCOPE OF WORK

The Scope of Work to be undertaken by Consultant in this Project includes, but is not limited to, identification of intersections for deployment of FOS technology, outreach to local jurisdictions to secure their agreement to host and coordinate implementation of the FOS, outreach to the freight industry about the FOS, implementation of the FOS in coordination with the local jurisdiction hosts, maintenance of the FOS, reporting on the operation of the FOS, and preparation on an ongoing basis of recommendations for optimizing FOS operations.

Tasks

Task 1: Project Management Plan

The FOS will be a multi-year program. NCTCOG anticipates a FOS Project that includes development, implementation, and testing phases that will run for approximately one year in total
and then five years of continuous operation after the date the FOS technology is installed, tested and fully operational. The Consultant will develop the Project Management Plan that outlines the efforts and schedule for the following components:

- Confirmation of Project goals and objectives
- Task schedule, milestones, and deliverables
- Procuring needed technology for Project implementation
- Weekly updates during the planning and development stages
- Regular updates during the operational phase
- Coordinating with local jurisdictions to obtain the necessary data and information
- Course of action to be followed when incidents and other events could affect the installation or operation of the FOS technology

The Project Management Plan will be drafted and submitted for review by NCTCOG for concurrence before FOS development begins.

**Deliverables**

- Project Management Plan
- Project schedule

**Task 2: System Development**

The purpose of this task is to establish the infrastructure, systems, and organizational relationships necessary to implement the FOS. This task includes the following elements:

**FOS Intersection Identification:**

Working in close cooperation with NCTCOG and local jurisdictions, using information cited previously or otherwise available to the Consultant, and considering the number of FOS intersections possible within the Project budget, the Consultant will prepare a list of recommended intersections for deployment of the FOS. The list should represent the Consultant’s best
professional judgment where the FOS technology will deliver the most net benefits for the region. Consultant’s net benefit analysis will include consideration of the costs and benefits associated with traditional methods of optimizing intersection operations, such as signal retiming, and the FOS technology advanced by the Consultant. NCTCOG intends to target the FOS where it maximizes the positive impact of the public investment.

**Finalization of FOS Intersection Locations:**

The Consultant on behalf of NCTCOG and in coordination with NCTCOG must secure the approval of the local jurisdictions hosting the FOS. Consultant will coordinate its outreach efforts to local jurisdictions with NCTCOG. Consultant will prepare and get approval of a plan (e.g., concept of operations) with each jurisdiction participating in the FOS program. This plan will supply at the appropriate level of detail information about how the FOS technology will operate and integrate with the local jurisdiction’s existing technology and systems.

**Infrastructure:**

The Consultant must finalize the FOS technology solution(s) it has proposed in response to this RFP. As discussed below, NCTCOG is not prescribing a FOS technology solution; rather, it is using this RFP process to evaluate technology solutions offered by industry and select the best overall solution, considering both technology and Consultant expertise, for the FOS Project. It is possible that the best overall solution will consist of a number of technologies customized to the specific needs and conditions at each Project intersection. The Consultant must communicate the FOS requirements to local jurisdictions and coordinate with them for training, installation, maintenance, monitoring, operations, and optimization. The Consultant will have primary responsibility for all such tasks and perform those tasks in close cooperation with the local jurisdiction hosts.
Systems:
The FOS advanced by the Consultant must provide the necessary software, hardware, communications system, and information technology to deliver the freight optimization contemplated by this RFP. Consultant will be responsible for any required integration work with systems and technology maintained by local jurisdictions in close cooperation with those jurisdictions.

System Capabilities:
Consultant must have operating protocols and agreements that comply with data security, cybersecurity, and privacy laws and industry best practices for its FOS. Any data shared by local jurisdictions for the FOS must be used and protected in accordance with the requirements imposed by the local jurisdiction. NCTCOG believes that strong Consultant assurances that its FOS can be successfully and safely integrated with the existing systems operated by the local jurisdictions will be key to the success of the FOS program.

Key Performance Indicators:
Consultant must develop, compile, and publish a set of Key Performance Indicators (KPI) and track performance against the KPIs for the FOS, provided in both snapshot reports and graphical visualization for authorized users. The KPIs must be developed in cooperation with NCTCOG and local jurisdictions and agreed to by NCTCOG before implementation. Such KPIs should cover both the operation of the FOS technology—e.g., equipment uptime and accuracy of vehicle detection and classification—and actual results against performance benchmarks—e.g., dollar value of actual freight vehicle travel time savings against projected savings, percentage of freight vehicle intersection stops avoided against baseline freight vehicle intersection stops before FOS installation, return on investment by intersection. The KPIs should be included in a system of regular performance reports to NCTCOG and the affected local jurisdictions. Consultant should
suggest KPIs in response to this RFP. NCTCOG and the Consultant will finalize the KPIs as part of the contracting process.

**Freight Industry Outreach:**
Consultant will do outreach to affected members of the freight industry to inform them of the FOS and to get any necessary information and cooperation from the freight industry for the successful implementation of the FOS. The nature and extent of this industry outreach will depend on the FOS technology advanced by the Consultant. NCTCOG is aware that some FOS technology solutions require the installation of hardware or software on freight vehicles. Consultant will be responsible for securing the cooperation of the freight industry for solutions involving the installation of hardware or software on freight vehicles. For Consultants advancing solutions that require the installation of hardware or software on freight vehicles, the Consultant’s ability to secure widespread adoption and use by the freight industry of such FOS technology will be a key factor in assessing the merits of such Consultant’s response to the RFP.

**Escrow:**
Consultant must be willing to execute a formal third-party software and data “escrow” agreement to transfer ownership, Intellectual Property (IP) Rights, source code, executable software, documentation, and data to NCTCOG in the event Consultant is unwilling or unable to continue services as described herein.

**Deliverables**

- Analysis identifying intersections that are most suitable for FOS
- Plan for securing the approval of local jurisdictions for FOS deployment
- Specification of infrastructure and systems requirements
- Establishment of KPIs after consultation with partner local jurisdictions and NCTCOG; NCTCOG must approve final set of KPIs
- Plan for installation, maintenance, monitoring, operations, and optimization of the FOS
- Training and communications plan for staff of local jurisdictions hosting the FOS
- Data security, cybersecurity, and privacy plan
• Plan for outreach to freight industry
• Transition plan for NCTCOG or a third party to take over operation of FOS technology in a seamless fashion should that become necessary before expiration of the five-year operational term

Task 3. System Implementation

Implementation of the FOS in close cooperation with local jurisdictions, including bringing all required infrastructure components as outlined in Task 2 into an operational status and initiating FOS maintenance, reporting, and optimization activities. The Consultant will coordinate training related to FOS operations with local jurisdiction hosts.

**Deliverables**

- Installation and activation of all physical infrastructure components
- Installation and activation of all software components
- Preliminary data collection and diagnostic activities completed
- Conduct training for partner local jurisdictions in a variety of formats as appropriate—e.g., virtual, field, physical classroom
- Data stream and reporting

Task 4: System Operation

Operation of the system outlined in Task 2 and implemented in Task 3 will be comprised of long-term operation of FOS technology and processes, analytics, and troubleshooting issues as they arise. These issues could involve hardware, software, reporting, and effective coordination with local jurisdiction partners. The FOS must function in a way that delivers substantial net benefits to the region, including significant, measurable reductions in freight vehicle red light stops and freight vehicle travel times.
Deliverables

- Data collection and analysis
- Established process and points of contact for resolving system issues
- All components (hardware and software) of the system are fully operational
- Facilitation of interagency coordination on freight vehicle optimization

Task 5: System Monitoring & Data Access

The FOS will be monitored primarily by Consultant. NCTCOG staff, and, it is anticipated, staff of the local jurisdiction hosts, will also monitor the FOS. The Consultant will prepare reports on system performance at regular intervals. NCTCOG and the Consultant will coordinate on a set of reporting requirements after consultation with local jurisdiction partners and freight industry beneficiaries. A data portal that can be used by NCTCOG, local jurisdiction partners, freight industry beneficiaries, and other authorized users to review FOS performance in real time is encouraged, as is a dashboard or similar capabilities that users can utilize for historical and comparative analyses. NCTCOG must be able to access and retain any data collected or produced at any stage of this project.

The following System availability, maintenance, and support requirements must be met:

- Maintain full system operation and support for no less than 5 years after implementation.
- Minimum end-user system availability: 98% of the time, 24 hours per day, 7 days per week.
  - Safeguard existing traffic signal operations
  - Provide procedures for planned outages.
  - Describe protocols for reporting any system outages, unauthorized access, or security violations.
  - Provide remedies and actions to be taken in the event of an unplanned outage.
• System Performance requirements:
  o Detection and classification:
    ▪ Accurately detect vehicles approaching FOS-equipped intersections
    ▪ Accurately classify detected vehicles into pertinent classes—e.g., freight vehicle entitled to signal priority versus non-freight vehicle.
    ▪ Accurately track the speed and time of intersection arrival of freight vehicles deemed eligible for freight signal priority
  o Signal priority:
    ▪ Ability to set and adjust signal priority parameters according to the requirements and limits of the operations plan applicable to each FOS intersection in a way that optimizes the travel of freight vehicles eligible for priority at the FOS intersection.
    ▪ Ability of local jurisdiction partners to adjust signal priority settings in response to emergencies, special events, etc.
    ▪ Ability to effectively utilize vehicle detection and classification data to provide signal priority efficiently and accurately for freight vehicles that qualify for signal priority.
• Support requirements:
  o Provide and regularly update on-line documentation and training materials.
  o Provide support services for local jurisdiction partners on a continuous basis.
  o Monitor and resolve FOS performance issues.
  o Monitor FOS operations and establish workflows for addressing interruptions and system failures.
  o Monitor FOS vehicle detection and classification quality and resolve quality issues.
  o Monitor FOS signal priority functions and resolve quality issues.
Monitor and audit user access and security.

- Keep software licenses current and install updates and patches in a timely fashion.
- Logging, data storage and retention requirements:
  - FOS performance data should be retained until completion of the 5-year operations phase of the Project.
  - What constitutes “performance data” for retention will be established through a collaborative process involving the Consultant, NCTCOG, the freight industry, and local jurisdiction partners.
  - Consultant will recommend and where authorized by NCTCOG implement low-cost data storage and reporting solutions with goal of reducing project costs associated with data collection and storage.
  - At the completion of the operational phase Consultant will make the performance data reasonably accessible to NCTCOG and local jurisdiction partners for their download, retention, and use.

- Enhancements and Modifications:
  - Demonstrate ability to respond to reasonable requests for FOS enhancements:
    - Describe process for intake and management of user requests, including requests for data and/or data analysis.
    - Demonstrate ability to estimate level of effort to implement requests.
    - Define level of user-requested system enhancements to be provided under maintenance.
    - Describe change management process for addressing larger approved user-requested system changes beyond support block.
- Business continuity:
  - Describe the Business Continuity and Disaster Recovery Plan to be implemented in the event of any significant unplanned system interruption, including provisions to:
    - Review, test and update the Business Continuity and Disaster Recovery Plan on at least an annual basis using industry best practices.
    - Periodically audit the Business Continuity and Disaster Recovery Plan.
    - Provide all audit reports, showing reasonable evidence that all identified deficiencies have been corrected.
- Allow authorized users secure access to data stores for audit and analytical purposes:
  - Ensure confidentiality of proprietary data is maintained.
  - This requirement may also be fulfilled by providing analytics services, in which case the Consultant must describe the delivery and extent of such services.

**Deliverables**

- Regular system performance reports to include periodic meetings
- Proper use of system mechanisms by partner local jurisdictions and, if applicable, the freight industry
- Data access portal creation

**Task 6: System Optimization**

Working in cooperation with NCTCOG and local jurisdiction partners and utilizing data generated from the FOS or accessible from other sources, Consultant will make recommendations for optimizing the performance of the FOS intersections once they are in operation. Such recommendations may address improvements in technology, changes to the
amount of signal priority, and time-of-day and other adjustments to FOS operations. The goal of this ongoing optimization process is to maximize the net benefit of the FOS for the region.

**Deliverables**

- Consultant in conjunction with NCTCOG and local jurisdiction partners will develop a System Optimization Plan that outlines how Consultant will identify areas of possible FOS improvement and make recommendations for improvements.
- Consultant will execute the System Optimization Plan adopted.

**Task 7: Documentation**

The Consultant will provide final documentation of the Project results in a report. The report will discuss whether and how the Project advanced NCTCOG’s goal of making effective use of public funds to optimize the movement of freight vehicles through FOS-equipped intersections without unduly burdening non-freight roadway users.

**Deliverables**

- Two (2) copies of the final report to NCTCOG
- Electronic copies of the final report will be submitted to NCTCOG and local jurisdiction partners.
- The report will
  - include pertinent GIS and other information about each intersection;
  - include performance data by intersection;
  - calculate net benefit by intersection in vehicle travel time savings and monetary terms;
  - discuss key challenges faced by the Project team and how those were addressed; and
o contain recommendations whether and how FOS technology might be most effectively expanded to other parts of the DFW region.

**NCTCOG’s Technology Neutral Approach**

NCTCOG has purposely avoided specifying a preferred FOS technology or the intersections where the FOS is to be deployed. This is because NCTCOG recognizes that there are multiple technology approaches that can optimize the travel of vehicles through signalized intersections. NCTCOG is using this RFP process to attempt to identify the technology solution that will deliver maximum freight optimization benefits most cost-effectively. While NCTCOG has done its own analysis of which intersections are good candidates for FOS treatment, NCTCOG recognizes that the optimal set of intersections for the FOS may depend on the technology solution utilized. Accordingly, NCTCOG strongly encourages Consultants to describe in detail their proposed technology solution and how their proposed solution will deliver benefits more effectively than other solution types. The quality of the proposed technology solution and Consultant’s ability to secure the support of local jurisdictions and the freight industry for Consultant’s proposed solution will be very important considerations in the RFP evaluation process. NCTCOG wants to avoid a FOS technology solution that fails to gain wide enough use to generate significant benefits for the region.

NCTCOG is open to FOS that include elements other than signal priority. For example, NCTCOG is aware of technology that supplies drivers with information about the optimal speed to maintain to have a green light upon reaching an upcoming intersection. Such technology obviates the need to resort to signal priority interventions. Perhaps there is a FOS that combines vehicle speed recommendations to provide for arrival on green at intersections with signal priority technology as
a back-up solution. NCTCOG encourages Consultants to be creative in putting together their solutions.

In their responses to this RFP Consultants should clearly address the following:

- An estimate of the number of intersections that can be optimized within the Project budget.
- An estimate of the travel time benefits for freight vehicles that can be expected from the proposed FOS.
- Their plan for securing the continuing cooperation of local jurisdictions hosting the FOS.
- Their plan for securing the continuing cooperation of the affected elements of the freight industry for the FOS.

For purposes of this RFP, NCTCOG is defining “freight vehicle” as vehicles that fall within categories 5-9 of FHWA’s Vehicle Classification Definitions. This definition is subject to adjustment as the Project is implemented as a result of consultation among NCTCOG, the Consultant, local jurisdiction partners, and the freight industry. NCTCOG’s current intention is for the Project to optimize the travel of a wide variety of freight vehicle types.

**SCHEDULE AND BUDGET**

Consultants should include in their proposal a schedule of tasks with completion deadlines and budgets. The Project is anticipated to consist of system development, implementation, and testing phases that together will last approximately one year, followed by five years of full-capacity operations. The Consultant will be required to commit to developing and operating the FOS for a minimum of five years once it is fully operational. NCTCOG will reserve the right to terminate the Project after the system development, implementation, and testing phases for reasons that may include the inability to identify a sufficient number of intersections where FOS deployment makes sense. NCTCOG’s anticipated funding available for this initiative is approximately $4.0 million.
from the USDOT Surface Transportation Block Grant Program. This does not include any contributions that may be necessary from local jurisdiction partners who agree to host a FOS deployment. If such additional contributions from those entities are necessary, the Consultant will be responsible for negotiating those contributions as part of the plan referenced above in the section “Finalization of FOS Intersection Locations.” NCTCOG’s goal is to minimize the costs borne by local partners to increase their willingness to host a FOS deployment and accelerate the implementation of FOS technology in the DFW region. In addition, to providing a budget for the approximately one year of FOS development, implementation, and testing, and five years of FOS operation, Consultants should state whether they are interested in continuing to manage the FOS after year 5 of operations and provide indicative annual pricing for such continued operations through year 10 of operations. The anticipated funding for this Project, however, should only be allocated through 5 years of operation.

NCTCOG encourages Consultants to propose different time frames for Project implementation accompanied with an explanation of how the proposed schedule will better achieve NCTCOG’s goals.

Consultants should provide an estimate of the number of FOS intersection they can deliver within the amount of anticipated funding. NCTCOG encourages Consultant suggestions for how NCTCOG can best allocate those funds to achieve Project objectives.

**PERFORMANCE-BASED COMPENSATION**

NCTCOG wants to compensate the Consultant if it delivers a FOS that provides a net positive return on NCTOG’s investment. Consultants are encouraged to propose a performance-based fee structure in an amount of up to $250,000 tied to the achievement of demonstrable positive results. An example of such performance-based compensation would be a payment to the
Consultant when the value of the time-savings realized by freight vehicles traveling through the FOS-equipped intersections, plus any other demonstrable net benefits, exceeds the total cost of the Project. Other net benefits might include the value attributable to reduced emissions, improved traffic flow, and safety improvements. Qualifying benefits must be net of any adverse effects associated with the FOS. Performance-based compensation structures proposed by Consultants will be considered in the “Project Budget” selection criterion described below. NCTCOG will look favorably on proposals where the Consultant takes on a portion of the risk associated with making their FOS a success.

CONSULTANT SELECTION CRITERIA

The Consultant Selection Committee (CSC) will review all proposals and select a firm it considers qualified to undertake the project. The following criteria will be used to evaluate the proposals:

1. Project Understanding 20 percent
2. Freight Optimization Solution 40 percent
3. Project Manager/Staff Qualifications 25 percent
4. Project Budget 15 percent

If the CSC determines that interviews will be required before a final decision can be made, interviews will take place the week of **August 16, 2021**. Firm(s) who are invited to an interview will be notified by the close of business on **Friday, August 13, 2021**. Interviews will occur online via Microsoft Teams. Proposers should be willing and able to attend these interviews, if requested.

Costs for developing the proposal and costs attributed to interviews (and subsequent negotiations) are at the proposer’s own expense and will not be reimbursed by NCTCOG.
CONTRACT AWARD

Following final negotiations of the work plan and costs satisfactory to NCTCOG, the firm(s) will be asked to execute a contract with NCTCOG. If applicable, a Notice to Proceed will be issued upon execution of the contract. The Sample Contract, provided in this transmittal, contains federal requirements which must be included with all proposals submitted. If awarded, Proposers will be asked to agree to the terms identified in the sample contract. Given the unique nature of this initiative, NCTCOG’s preferred contracting method is a Software as a Service (SaaS) type arrangement. NCTCOG will consider contract instruments other than its Sample Contract. Proposers should identify in their response any revisions to the terms or conditions they would like NCTCOG to consider. Appendices C through J of the sample contract contain compliance requirements and certification forms which must accompany the proposals. **Failure to comply with these requirements may result in finding the Proposal non-responsive.**

The Texas Legislature has adopted House Bill 1295. In short, the law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties (Form 1295) to our agency at the time of a signed contract. As part of contract development, the consultant will be asked to complete the disclosure of interested parties electronically and submit through the Texas Ethics Commission website. NCTCOG will provide a specific contract number associated with the award for inclusion in the submittal. Once submitted, the consultant will be requested to return an e-mail confirmation of submittal to NCTCOG. For more information about the process, please visit the following website for Frequently Asked Questions:  
https://www.ethics.state.tx.us/resources/FAQs/FAQ_Form1295.php
NCTCOG reserves the right to reject any and all proposals, to contract for any or all portions of the project with the selected firm(s), or to hire multiple firms. The successful responder(s) to this Request for Proposals is expected to provide qualified personnel to accomplish each portion of the work in this project. NCTCOG will maintain the right to request the removal of any personnel found, in its opinion, during the course of work on this project, to be unqualified to perform the work.

**DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION**

The Disadvantaged Business Enterprise participation must meet the 7.7 percentage goal identified for this type of procurement. Respondents should also include an Affirmative Action Plan in the proposal. **Failure to comply with these requirements may find the proposal non-responsive.**

**QUESTIONS AND ANSWERS**

All questions regarding the services required shall be directed in writing by email to TransRFPs@nctcog.org by the close of business on **June 4, 2021**. A **virtual pre-proposal conference will be conducted via Zoom on Wednesday, June 9, 2021 at 1:00 p.m.** A link to access the Zoom pre-proposal conference will be provided at [www.nctcog.org/rupt](http://www.nctcog.org/rupt) closer to the meeting date. Attendance is not mandatory at the pre-proposal conference but is strongly encouraged to benefit potential proposers from the discussion and answers provided to questions. All questions and responses will be posted on NCTCOG’s website at [http://www.nctcog.org/rupt](http://www.nctcog.org/rupt) by the close of business on **June 11, 2021**. NCTCOG reserves the right to respond to inquiries as it deems necessary.
OVERALL SCHEDULE

This RFP shall be used to accept, review, and score proposals based on the following schedule with the intent of awarding a Software as a Service contract. The follow represents the schedule of procurement activities leading to contract award:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Issue Request for Proposals</td>
<td>May 21, 2021</td>
</tr>
<tr>
<td>Last Day to Submit Written Questions</td>
<td>June 4, 2021</td>
</tr>
<tr>
<td>NCTCOG Q&amp;A Posted to Website</td>
<td>June 11, 2021</td>
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<tr>
<td>*Proposals Due &amp; Proposal Public Opening</td>
<td>July 23, 2021</td>
</tr>
<tr>
<td>Consultant Selection Committee</td>
<td>week of August 9, 2021</td>
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<tr>
<td>Interviews (if needed)</td>
<td>week of August 16, 2021</td>
</tr>
<tr>
<td>NCTCOG Committee Approval</td>
<td>September 23, 2021</td>
</tr>
<tr>
<td>Execute Contracts</td>
<td>October 2021</td>
</tr>
</tbody>
</table>

*Public opening of the proposals will be done via Microsoft Teams on July 23, 2021 at 5:05 p.m. A link to the Microsoft Teams meeting is below. Microsoft Teams is integrated with audio so you will only need to use the conference call number (below) if you are unable to access the Microsoft Teams App. The Teams App is available for download [HERE](#).

Public Opening of Proposals:

**Join on your computer or mobile app**

[Click here to join the meeting](#)

**Or call in (audio only)**

+1 903-508-4574, 632851264# United States, Tyler

Phone Conference ID: 632 851 264#

NCTCOG reserves the right to make changes to the above-mentioned schedule. All such changes shall be made by an amendment to the RFP and shall be posted on NCTCOG’s website at [www.nctcog.org/rrf](http://www.nctcog.org/rrf). It is the responsibility of the Consultant to frequently check this website for information concerning amendments to the RFP.
EXHIBIT A
Optimized Freight Movement Presentation
Optimized Freight Movement Project

Regional Transportation Council
September 10, 2020

Thomas J. Bamonte
Senior Program Manager, Automated Vehicles
DFW, an inland port

Freight hubs linked to expressways

Connections signalized

Optimizing truck flow = opportunity

Truck Travel Time Reliability (PM3) Support
“Implementing connected vehicle technology to enable safe and efficient goods movement through key freight corridors in the Texas Triangle.”

Development #1: TxDOT Connected Freight Corridors Project
Optimization = Freight Industry Priority

**TIERS**

**01**
- Work Zone Warning
- Queue Warning
- Wrong-Way Drivers
- **Truck Signal Priority**

**02**
- Advance Traveler Information System (ATIS)
- Road Weather Warning
- Truck Parking Availability
- Bridge Height Warning

**03**
- Emergency Electronic Brake Light
- Pedestrian & Animal Warning
- Eco-Dynamic Routing
- Border Wait Times

= Highlighted applications are prioritized for development
Development #2: Arlington Connected Vehicle Corridor
Development #3: Georgia Regional Connected Vehicle Program (and other such programs)

• Collaboration between GDOT & Atlanta MPO
• 1000+ intersections
• Dual mode
• Freight priority application
• Recent Request for Proposal
1. **Technology** to optimize the flow of trucks from hubs to expressways

2. **Benefit-cost analysis** to identify where tech will do the most good:
   - Truck travel time savings
   - Improved traffic flow
   - Public health
   - Any adverse impacts—e.g., cross-traffic delay
   - Compare with alternative solutions—e.g., signal retiming

3. **Coordination** with local agencies/freight industry

4. **Monitor** performance and adapt
Action Requested

Approval of:

1. $5 million for Optimized Freight Movement project ($200K RTC Local, remainder federal; RTC Transportation Development Credits); and

2. Staff to administratively amend the TIP/STIP and other planning documents as required to effectuate the project.
Contact

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