Exhibit “A”
(May 10, 2011)

Arterial Traffic Management System (ATMS)
Central System Software

1. PROJECT BACKGROUND

This Request for Proposal (RFP) is soliciting a Proposal for services to supply, install, integrate, and fine tune the selected components, technology, systems and improvements as described herein for a complete, turnkey deployment of a commercial-off-the-shelf (COTS) Arterial Traffic Management System (ATMS) for the Regional Transportation Commission of Southern Nevada (RTC) Freeway and Arterial System of Transportation (FAST) and the local member entities (city of Las Vegas, City of North Las Vegas, City of Henderson, and Clark County). The ATMS proposed by the PROPOSER should be “off-the-shelf” to the largest degree possible; RTC does not want to acquire a customized system or a system that needs any completion of development. Upon completion of the Project, RTC FAST and all local member entities will operate the ATMS.

RTC FAST performs signal timing with the local member entities, operating and maintaining over 1500 traffic signals within its current traffic signal system. These traffic signals are currently operated by M-53 or 2070N controllers (manufactured by Siemens, Eagle, or Econolite) running Siemens NextPhase version 1.4.5a thru 1.7.6c software, in NEMA TS-1 cabinets. All controllers that have communication back to the RTC FAST Traffic Management Center (TMC) are currently managed with Siemens’ i2 central system software. Current communication is achieved through a mixture of copper interconnect, data radios and fiber optic cables running over Serial AB3418E and Ethernet protocols.

As part of this Project, RTC desires to replace the Siemens i2 Central System Software and eventually NextPhase local controller software. In addition, RTC desires to eventually replace all existing local controller software and hardware if needed. The Central System Software must be able to interface with the new controllers as well as the existing M-53 or 2070N controllers in the field. If the Central System Software cannot interface with the existing Siemens Nextphase software, then the PROPOSER must include local controller software in this submittal with training, installation, configuration, cost and unlimited software licensing requirements.

The required end result of this Project is a seamless system where the Central System Software will be able to communicate through both Serial and Ethernet communication lines with the new traffic signal controllers and the existing 2070N and M-53 traffic signal controllers deployed throughout the Las Vegas valley and Southern Nevada. In addition, RTC desires the selected PROPOSER to complete all configuration aspects of the new central and local software at 100 signalized intersections, including but not limited to database conversion/configuration, graphics setup, detection monitoring, alarm logging and configuration, and signal timing split monitoring.

1.1 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (FAST)

The Freeway and Arterial System of Transportation (FAST) is a department of the Regional Transportation Commission (RTC) of Southern Nevada. FAST is one of the first truly integrated Intelligent Transportation System (ITS) organizations in the country that is designed to both monitor and control traffic across
jurisdictional boundaries. The traffic control component of the system consists of freeway and arterial management, which is achieved through the use of traffic signals, ramp meters, dynamic message signs (DMS), closed-circuit television (CCTV) cameras, flow detectors, trailblazer signs, static travel time signs and future lane use control signals (Active Traffic Management).

1.2 ARTERIAL TRAFFIC MANAGEMENT SYSTEM (ATMS)
The RTC FAST existing ATMS consists of all Southern Nevada traffic signals and their local controllers (a majority of which are 2070N and M-53 with Siemens NextPhase firmware), existing communication network (combination of copper signal interconnect cable, fiber optic cable, and wireless communication), existing auxiliary traffic control equipment such as video detection systems, and the existing Siemens i2 with NextPhase local controller software.

1.2.1 Traffic Signal System
The following section will describe the traffic signal system in the Southern Nevada region. Each section will describe the existing and proposed conditions. The traffic signal system will be discussed through the following categories:

- Traffic Signal Subsystem
- Communication System
- Traffic Management Center

1.2.1.1 Traffic Signal Subsystem
The traffic signal subsystem refers to the traffic signal controllers, detection system, and ITS elements that assist RTC FAST and the local member entities with the operation of their traffic signals.

There are approximately 1500 signalized intersections within the Southern Nevada area that operate with Siemens controllers (a mix of 2070N and M-53 with NextPhase firmware). Exhibit C depicts the locations of signalized intersections and communications infrastructure.

A figure of the existing communication status at the signalized intersections is provided in Exhibit D. The new system is intended to connect to all Southern Nevada intersections.

There is no single standard type of vehicle detection used in Southern Nevada. A mixture of loops, video and radar has been deployed. In the past ten years, video detectors have become much more commonplace at newer signalized intersections throughout the urban area, providing local intersection detection for phase calling and extension. Some of the entities have standardized using only video detection for new signals, while the others are using some combination of loops and/or video. Very little radar has been deployed and used primarily for system detectors.

1.2.1.2 Communication Systems
The FAST ATMS uses a combination of communication media to carry the data between the system and field devices. Starting with the twisted wire pair (TWP) copper cables that were the original sole media, fiber optic (FO) cable and microwave radio have also been successfully implemented. The original radial network of TWP cables was reconfigured in 1995 to divide the coverage area into 11 smaller sections, each equipped with a very high-speed microwave communications hub. Towers were built to elevate the microwave dishes high above terrain and foliage to achieve a clear line of sight to the adjacent tower sites,
so as to establish a microwave backbone ring network. As of January 2011, all the hubs have been connected to the FAST TMC with fiber optic connections, completely eliminating the microwave paths.

**Exhibit D** depicts the locations of the communications media in use, and also the empty conduit systems that have been constructed (mostly with new road construction) solely for FAST’s future communication circuit deployments.

1.2.1.3 Traffic Management Center (TMC)
The TMC is a 70,000-square-foot building that houses RTC FAST and the Nevada Highway Patrol (NHP) Southern Command Headquarters. Approximately 16,000 square feet is dedicated to FAST operations including a 36-monitor (50” DLP) video wall, 4,000-square-foot Control Center and media room. RTC FAST operates and maintains its personnel and equipment at the TMC for traffic monitoring, incident management, road condition reporting, traveler information dissemination and advisory communication.

Multiple client workstations, located at the TMC and at Jurisdictional Management Centers (JMCs) at local member entity offices and shops, are currently connected to the existing ATMS server. Each such workstation is equipped with the *i2* system client software program, which provides for a large number of users to interact with the system at all levels of monitoring, programming, maintenance, and database manipulation. In addition to the dozen workstations present in the TMC control room, each FAST staff member who interacts with the ATMS will have two programs, Freeway Management System (FMS) and Arterial Management System (AMS), loaded on either a laptop computer, or their desktop computer. At remote sites such as city halls, traffic signal maintenance shops, and JMCs, additional workstations have been placed, or are planned for development and connected to the *i2* computer network with dedicated high-speed communication circuits. The dozen TMC control room workstations have 2 computers, 1 for the Freeway Management System and 1 for the Arterial Management System. The proposed ATMS will also need to share the same laptop computer, desktop computer or client workstation.
2. SCOPE OF WORK

While RTC is flexible with respect to certain elements of its proposed relationship with the Arterial Traffic Management System (ATMS) and Related Services Provided, RTC does have certain preferences for that relationship and has developed the following proposed model for that relationship. The purpose of this RFP is to present requirements for RTC’s procurement of an Arterial Traffic Management System (ATMS) Central System Software, traffic signal local controller software, and if necessary, traffic signal controllers. This RFP outlines general specifications and desired capabilities for the ATMS software, local controllers and local controller software. In keeping with recent findings and recommendations from the Federal Highway Administration (FHWA), the selection and procurement process is not intended to follow past practices of rigid specifications followed by a bid process for the selection of a Vendor; rather it follows more recent examples of ITS procurement using a modern comparative cost / capability evaluation of preferably “off-the-shelf” systems. This method is intended to eliminate issues related to the rapid growth and change in software technology, and to help ensure RTC is satisfied with the final product.

RTC is seeking a Vendor to supply, install, configure, integrate, and fine tune a commercial-off-the-shelf (COTS) Arterial Traffic Management System (ATMS) software capable of serving both current and future requirements for efficient management of the RTC FAST Arterial Traffic Management System and Related Services. As such, the general specifications which follow are intended to provide PROPOSERS with an understanding of the capabilities which are of major interest to RTC.

In response to the required functions and optional features stated in this RFP, the following project tasks are identified. The PROPOSER shall describe the approach for each of these project tasks in accordance with the directives in the Task descriptions below.

TASK 1 PROJECT MANAGEMENT

The PROPOSER shall designate a Project Manager for this project. The Project Manager shall be the single point of contact with RTC FAST and local member entities. The Project Manager shall be responsible for coordinating all efforts involved in this project. The Project Manager shall be responsible for their team.

Under the Project Management task, include the following information in the Proposal:

- **Organization Chart:** Include an organization chart listing all key staff that would be involved in this project (also include the names of staff from sub-consultant/subcontractors that might be involved). In addition, provide a table with the names of each key staff member proposed for this project, their title, area of expertise, role on this project, years of experience, years with the Company, percent available and office location.

- **Proposed Schedule:** It is required that all tasks included in this project, including the Acceptance Test (Task 8), be completed within a maximum of 120 working days from the Notice-To-Proceed (NTP). However, if the PROPOSER can complete the project sooner, please highlight that in the schedule as RTC would like to complete this project as soon as practical. Describe your approach in meeting this schedule. Provide a detailed schedule in your Proposal to include both a beginning and an end for each of the tasks. It should be noted that RTC wishes to bring the signals on-line to the new ATMS at a manageable pace such that there are enough RTC and/or local member entity resources available to assist. The project schedule developed should reflect this. The PROPOSER is encouraged to provide any alternative schedule duration, if necessary and/or appropriate. Upon award of the project, the PROPOSER must define the timeline for
conducting each work activity, and develop an overall project schedule in Microsoft Project, or approved equivalent, that will be updated and submitted monthly to RTC FAST. Identify those activities that will require input or product from RTC and/or local member entities, and highlight those in each monthly submittal. With each monthly submittal, note and explain any changes in the previously submitted schedule that forecast a delay (or, alternatively, acceleration) in completion of the project.

Throughout the development and implementation period, the PROPOSER will be required to prepare and submit monthly written progress reports to the RTC Project Manager. The monthly reports shall, at minimum:

- Update the Project Plan indicating progress for each task; percent complete, and milestone dates;
- Identify and report the status of all tasks that have fallen behind schedule and the reason and cure period;
- Identify and summarize all risks and problems with costs identified by the PROPOSER which may affect the Project;
- For each risk and problem, identify the action and person(s) responsible for mitigating the risk, resolving the problem, costs and the completion date;
- For each risk and problem identified, state the impact on the Project Plan; and
- Identify all changes in the Project Plan that affect personnel, equipment, facilities and resources of RTC and/or the local member entities, which will be required for the PROPOSER to perform the Services a minimum of 2 weeks in advance of the need.

**TASK 2  TECHNICAL PLANS**

After award of the project, the selected Vendor will be responsible for developing the specific technical plans necessary for the successful execution of this project. The selected Vendor will be responsible for developing (and revising in response to comments on) the following technical submittals:

- System Integration & Deployment Plan, including a Conversion Plan from the old to new system
- Operation & Maintenance Plan
- Training Plan
- Configuration Management Plan
- Acceptance Testing Plan

In the Proposal, the PROPOSER should provide a description of the approach that the PROPOSER will utilize in the preparation of these technical submittals. This approach should include a high-level outline for each of the documents listed above.

**TASK 3  COMMUNICATION SYSTEM IMPROVEMENTS**

The system shall also support any central or remote communications servers located in field hubs throughout Southern Nevada. The PROPOSER will be responsible for identifying any existing communication issues that would prevent signals from communicating with the initial System deployment. Though the PROPOSER may not be responsible for repairing any existing communication issues, the PROPOSER is expected to cooperate and work with RTC, local member entities and any contracted 3rd party that will be performing the repair (where necessary).
TASK 4  ARTERIAL TRAFFIC MANAGEMENT SYSTEM (ATMS)

The proposed ATMS software shall be commercial-off-the-shelf (COTS) software and already fully developed and fully operational, requiring minimal (if any) modifications to be tailored for this project. RTC desires an Advanced Arterial Traffic Management Software package which is capable of managing not only an Advanced Traffic Controller (ATC) based traffic signal network, but also additional ITS devices which have become typical of traffic management centers. The software, therefore, needs to be flexible enough to provide for the existing system and to accommodate future expansions in both number and type of devices.

The software package must run on modern operating systems, and have the capacity to take advantage of common networking capabilities to allow for multiple simultaneous users (local and remote), advancements in computer processing capabilities (including multi-core and multi-chip processing), remote connections, and automated backups. The software must be user friendly, and provide an interface with local controllers; intersection, corridor, and system graphics; intuitive clock synchronization; fault reporting; asset management; database management; additional device handling, and field access.

The proposed ATMS shall be integrated with the existing M-53 or 2070N controllers running NextPhase version 1.4.5a thru 1.7.6c software, or any new local controller hardware and/or new local controller software proposed by the PROPOSER, in existing NEMA TS-1 cabinets. The PROPOSER shall provide a solution to meet this requirement including the necessary communication end equipment to connect the ATMS to the signal controllers in the field. The ATMS shall have the capability to communicate with the existing or proposed controller software and firmware. It is important for the ATMS, associated servers and other hardware to meet the Technical Specifications / Functional Requirements, in Exhibit B of this RFP.

In preparing the Proposal, include the following discussion items under Task 4:

- Describe the hardware and servers required to operate the ATMS. It should be noted that the ATMS servers will be installed at the RTC FAST TMC in existing 19-inch racks.
- Describe the software operating system, and the type of networking that will be delivered as a part of the proposed system to achieve the desired results.
- Indicate the supported software versions of the operating and server systems and confirm that 64-bit operation is supported.
- Provide a discussion of whether the ATMS fully meets the functional requirements described in Exhibit B. If you propose an alternative solution to any of the functional requirements listed, please provide a detailed explanation of that solution as noted in the functional requirements.
- Approach to "licensing" and "systems upgrade" practices.
- Approach to Warranty and long-term maintenance practices.
- Approach to software upgrades, operating system, and support (Note that software can only be upgraded at the discretion of RTC).

The selected Vendor shall implement, integrate, test, support and warranty the ATMS for a period of 3 years following Final Acceptance of the System.

TASK 5  CENTRAL SYSTEM HARDWARE

It is assumed that the selected ATMS will provide at least 3 servers: one ATMS application server, one communication server, and one database server. These 3 servers will be installed in existing 19" racks to
be provided by RTC FAST, within a specified location at the FAST TMC. If the ATMS proposed by the PROPOSER requires more than 3 servers, it should be noted within the proposal and included within the cost proposal.

The system shall be sized to accommodate an unlimited number of workstations for future expansion. The system and associated local area network (LAN) should also provide for at least 20 simultaneous remote access users with proper firewall security measures (e.g., VPN).

In preparing the Proposal, include the following discussion items under Task 5:

- Itemized list including quantity and description of the required hardware for the proposed system and its function. The hardware shall be configured and equipped for expansion to allow additional future workstations and/or future sites. All required hardware and communication equipment shall be provided and installed by the PROPOSER. It shall also list recommended spare components. The details of the hardware requirements are included in the Functional Requirements.
- Schematic detail delivered in electronic form in a standard format (i.e., Visio, AutoCAD, etc.) identifying how the individual hardware components functionally fit into the overall proposed ATMS.
- Expansion capabilities and limitations.

**TASK 6 LOCAL TRAFFIC CONTROLLER SOFTWARE AND LOCAL TRAFFIC CONTROLLER HARDWARE (OPTIONAL)**

It should be noted that funds are not available for wholesale local traffic signal controller change-outs. The need to upgrade any or all of the controllers in the project (hardware and/or software) will be determined by the PROPOSER as part of the preparation of this Proposal. The Proposal must identify the controller hardware and software needed to interoperate with the proposed ATMS such that it meets the functional requirements as listed in Technical Specifications / Functional Requirements, Exhibit B of this RFP. If any change to the local controller and/or signal cabinet hardware is needed, the PROPOSER shall also explicitly state this in the Proposal.

If specific alternatives for controller upgrades are selected by RTC FAST or local member entities, the PROPOSER may be required to procure the controller hardware and firmware/software. This includes the proper firmware/software unlimited licenses to the appropriate entity. Controller testing and replacement will be conducted by RTC FAST staff. The PROPOSER will then be responsible to integrate the controllers and controller firmware/software with the ATMS. If the PROPOSER procures the controllers, they shall warranty controllers to the manufacturer’s warranty period. It is also the PROPOSER's responsibility to transfer all controller data (i.e. detection settings, timing parameters, coordination information, etc.) from the existing controller to the new controller, under direct supervision of RTC FAST staff. The PROPOSER has 2 options to present controller software/hardware alternatives listed below. For each proposed alternative, the PROPOSER MUST complete the Technical Specifications / Functional Requirements, Exhibit B separately.

<table>
<thead>
<tr>
<th>ALTERNATIVE</th>
<th>CONTROLLER</th>
<th>FIRMWARE/ SOFTWARE</th>
<th>Support AB3418E</th>
<th>Support NTCIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>Existing 2070N or M-53</td>
<td>PROPOSER’s</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>1</td>
<td>PROPOSER’s</td>
<td>PROPOSER’s</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Any traffic signal local controller software proposed by the PROPOSER shall be provided to accommodate an unlimited number of intersection licenses for future expansion.

**TASK 7  SYSTEM IMPLEMENTATION**
The PROPOSER shall bring "on-line" 100 (one hundred) Southern Nevada signalized intersections with existing communication to the TMC. The PROPOSER shall coordinate all activities (i.e. "turn-on", testing, etc.) with the appropriate entities (FAST and local member entities). The details of the system switch-over should be described in the System Integration and Deployment Plan (Task 2).

The COTS ATMS implementation task consists of all of the following work activities:

1. Supply / acquire and implement an ATMS to operate and manage the entire region’s signalized intersections (including the hardware and software).
2. Upgrade local controller hardware at the signalized intersections (if necessary or as an optional task with cost estimate).
3. Upgrade local controller software at the 100 signalized intersections.
4. Convert and implement all existing detection settings, basic timings, preemption sequences, Time-Of-Day (TOD) coordination plans, etc. present at each of these 100 intersections into system and controller database files for the new ATMS and local signal controllers.
5. Develop graphic displays for all of these 100 signalized intersections and their corridors. The time-space diagrams for these corridors shall also be configured.
6. The PROPOSER is encouraged to become familiar with the region’s existing and near-future communication system that will be utilized for this project. The PROPOSER should state in the Proposal that the region’s existing communication system has been reviewed and is (or is not) compatible with their traffic signal control system.
7. If the available interconnect media is inadequate for the proposed ATMS communications needs, then the PROPOSER must identify and recommend a rapidly-deployable communications system upgrade for the corridor as an integral element of the Proposal. Though the PROPOSER will not be responsible for repairing any existing communication issues, the PROPOSER is expected to cooperate and work with the RTC contracted party that will be performing the diagnostics and repair (where necessary). If the PROPOSER is interested in field reviewing any of the existing communication infrastructure, please contact the RTC FAST Principal ITS Traffic Engineer, Shital K. Patel, 702-432-5310 or at patels@rtcsnv.com.
8. The local member entities and RTC understand that during the firmware/controller and system switch-over, coordination could be lost and intersections may be operating free or isolated. **However, in order to minimize impacts to the driving public, the conversion work shall be done at night, and the PROPOSER shall make every effort to keep such downtime duration to a minimum.** Under this task, the PROPOSER will be responsible for developing, at a minimum, a conversion plan for the system switch-over that includes the estimated downtime duration, to be approved by RTC FAST and local member entity staff members. Upon approval, the PROPOSER shall begin the system switch-over conversion process. If the PROPOSER is selected to perform firmware/controller upgrades, the PROPOSER must also supply a conversion plan for the firmware/controller switch-over that includes the estimated downtime duration, to be approved by RTC FAST and local member entities.
9. Install ATMS on multiple client workstations, located at the TMC and at Jurisdictional Management Centers (JMCs) at local member entity offices and shops that are currently connected to the existing ATMS server.

In the Proposal, the PROPOSER should identify and discuss the planned approach for each of the above work activities.

RTC has a number of standards and preferences regarding implementation of new hardware and software. Proposed solutions must adhere to these in the cases where defined standards apply (noted next to the technology categories below) or where specific technology needs are noted in an RFP requirements section. In the remaining cases, adherence is preferred, but not required. Standards documentation for any technology category can be provided upon request. Implementation of any new hardware or software should require minimal changes to existing RTC systems. It is preferred that new software use architectures (e.g. database and reporting solutions) building upon or compliant with those already implemented at RTC. Similarly, where system integration is required, new software installation should include the implementation of these interfaces and the PROPOSER should identify the means of minimizing any changes to the systems being interfaced with. The following table provides a summary of RTC’s current technology environment.

<table>
<thead>
<tr>
<th>Technology Category</th>
<th>Technical Architecture Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephony</td>
<td>POTS</td>
</tr>
<tr>
<td>Telephony</td>
<td></td>
</tr>
<tr>
<td>Networking</td>
<td></td>
</tr>
<tr>
<td>Network Hardware</td>
<td>Cisco, access should be secured by TACACS+ and SSH</td>
</tr>
<tr>
<td>Network Communication Protocol (standards apply)</td>
<td>IP, current protocol is IPv4, but new equipment should also support IPv6</td>
</tr>
<tr>
<td>Data Center</td>
<td></td>
</tr>
<tr>
<td>Server Hardware</td>
<td>HP Proliant DL380 G7</td>
</tr>
<tr>
<td>Server Operating Systems</td>
<td>Windows Server 2008 (64-bit) and above, Red Hat 4 and above</td>
</tr>
<tr>
<td>Virtual Operating Environments</td>
<td>VMware</td>
</tr>
<tr>
<td>Storage</td>
<td>HP</td>
</tr>
<tr>
<td>Backup Software</td>
<td>CommVault</td>
</tr>
<tr>
<td>Backup Hardware</td>
<td>HP StorageWorks MSL4048 Tape Library using LT04 Tapes</td>
</tr>
<tr>
<td>Data</td>
<td></td>
</tr>
<tr>
<td>Database Systems (standards apply)</td>
<td>Oracle Database Server 11g and above, MS SQL Server 2008 and above</td>
</tr>
<tr>
<td>ETL/Data Mapping Services/Data Warehousing</td>
<td>SQL Server Integration Services, SQL Server Analysis Services, BizTalk 2009, Oracle Warehouse Builder (legacy only)</td>
</tr>
<tr>
<td>Business Intelligence / Data Visualization</td>
<td>Tableau, Excel</td>
</tr>
<tr>
<td>Reporting Services</td>
<td>SAP Business Objects</td>
</tr>
<tr>
<td>Application Servers</td>
<td>.NET Framework, Oracle WebLogic</td>
</tr>
<tr>
<td>Application</td>
<td></td>
</tr>
<tr>
<td><strong>Technology Category</strong></td>
<td><strong>Technical Architecture Summary</strong></td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Web Servers</td>
<td>Microsoft Internet Information Services v7 and above, Apache</td>
</tr>
<tr>
<td>Application Languages</td>
<td>MS VB.NET, ASP.NET, C#.NET, PL/SQL, JSP, JavaScript, and Java J2EE.</td>
</tr>
<tr>
<td>Desktop Operating System</td>
<td>64 Bit, Windows 7 and above</td>
</tr>
<tr>
<td>Application Client (standards apply)</td>
<td>Browser-based implementation is preferred. Client operating systems may include Windows 7 and above. Browser clients should support Microsoft Internet Explorer Version 8 and above. If an actual client installation is required, it must be tested by RTC to confirm that it does not conflict with other existing desktop components.</td>
</tr>
<tr>
<td>Portal Services</td>
<td>Microsoft Office SharePoint Services</td>
</tr>
<tr>
<td>GIS Platform (standards apply)</td>
<td>RTC’s Geospatial Platform is based on ESRI’s ArcGIS technology. All spatial databases should be compatible with RTC’s implementation of the ESRI Geodatabase using ArcSDE. Web-based GIS tools, components or extended custom functionality should use ArcGIS Server.</td>
</tr>
<tr>
<td>E-mail Services (standards apply)</td>
<td>RTC uses Microsoft Exchange with the Microsoft Outlook e-mail client.</td>
</tr>
<tr>
<td>Business Productivity (standards apply)</td>
<td>MS Office 2007 and above</td>
</tr>
<tr>
<td>Data Protection</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>Security Access to the Software must be restricted by assigning user credentials to authorized users. Enterprise authentication services are provided by Active Directory.</td>
</tr>
<tr>
<td>Virus Protection</td>
<td>Symantec and LANDesk 9</td>
</tr>
</tbody>
</table>

The spares for the server components require an HP Care Pack extended service agreement for a 3 year on-site 24 hours a day repair.

**TASK 8  ACCEPTANCE TESTS**

The PROPOSER shall be responsible for conducting all acceptance tests for the ATMS and, if procured by the PROPOSER, any controllers deployed under this project. In the Proposal, the PROPOSER shall describe the approach to conduct acceptance testing of the project components. After Notice-to-Proceed (NTP), the PROPOSER shall prepare a comprehensive specific “acceptance test” procedure, including field equipment, workstations, and central systems operation as part of Task 2. All acceptance test procedures shall be approved by RTC FAST and local member entities at least 21 calendar days prior to the commencement of the acceptance testing. Acceptance tests shall include, at a minimum, all the functional requirements listed in Exhibit B.
TASK 9  SYSTEMS SUPPORT – WARRANTY

The PROPOSER shall provide all necessary on-site/off-site support as appropriate during the course of implementation. In addition, following full completion and acceptance of the system, the PROPOSER shall support the software (supplying both error corrections and version updates) for a period of 3 (three) years. If the PROPOSER is not able to meet this required period of support, the PROPOSER shall be required to provide an upgrade, within 6 months of being notified by RTC FAST, free of charge to RTC FAST and local member entities, to a replacement COTS ATMS that the PROPOSER is able to support that meets all the functional requirements listed in Exhibit B, subject to approval by RTC.

In the Proposal, describe the approach to performing this task. Describe your company's policy and ability to provide software and hardware support, including support presence in Southern Nevada (if any), phone help sessions (including 24-hour or extended hour support call operations), remote access diagnosis and maintenance, on-site reviews, and on-site upgrades and updates. Describe hardware warranties per component as well as method, level and timeliness. Describe any hardware, Contractorware, or software required to perform diagnostics and of these, what would be supplied to RTC and local member entities with this turnkey project.

TASK 10 DOCUMENTATION

The PROPOSER shall provide the following system documents in electronic and physical format to support operation of the ATMS, controllers, communication infrastructure, and any other hardware/software deployed as part of this project:

- System operations/configuration manuals
- Users manuals (1 per device)
- Maintenance manuals to include specification sheets for each equipment purchased
- Troubleshooting guides
- Documentation for broad level repair of all electronic modules and assemblies (i.e., schematics and component diagram)
- Provide data connection drawing schematic showing network control head, server and PCs, labeling of any fixed IP addresses and configuration information, master account and password list for any devices or software programs

The outline and content of these documents shall be approved by RTC FAST and local member entities.

TASK 11 TRAINING

The PROPOSER shall provide training for engineering, operations and maintenance staffs during each aspect of implementation and system operations, including while installation is in process. This should include both "hands-on" and classroom training for both field and central system components. This should take place throughout the entire project schedule, and be such that existing RTC FAST and local member entities staff requires minimal support by the PROPOSER after acceptance of the system.

Within the time periods and by the completion dates set forth in the Project Schedule, the PROPOSER shall prepare and provide to the RTC for approval a written comprehensive training program that shall outline the content, sequence and duration of each segment of each training session necessary to thoroughly and comprehensively train RTC FAST and local member entities' personnel to fully utilize the System (the "Training Plan"). The Training Plan will outline all subjects necessary to train RTC FAST and
local member entities staff to fully understand and utilize all user functions of the System, and to train designated "trainers" to effectively train other RTC FAST and local member entities personnel to fully understand and utilize the user functions of such software on the System.

The Training Plan shall require the PROPOSER to provide the operator training and comprehensive "train the trainer" training for RTC FAST and local member entities designated personnel. In the Training Plan, the PROPOSER will schedule the training classes and modules according to their appropriate phase of the Project. For example, the classes for building time-of-day coordination plans must be scheduled before the RTC begins building the plans, and operator training must be scheduled to ensure a smooth transition to live operations. The Training Plans described below will also take into account classroom resources and personnel scheduling.

In the Training Plan, the PROPOSER shall provide the RTC with a written description of the types of the precise training classes that will be conducted, the number of persons that can be trained in each session, and the total number of hours required for each person to be trained. Also, each training session shall be conducted twice on different times and/or days to accommodate rotating shift operations. All training will be conducted onsite in RTC FAST facilities or at local member entities offices and shops.

Without limiting the PROPOSER's obligations hereunder, the PROPOSER will provide and the Training Plan will include each of the following courses, as a minimum, the PROPOSER will elaborate if different:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>LENGTH OF CLASS</th>
<th># OF CLASSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Overview</td>
<td>4-hour Session</td>
<td>2</td>
</tr>
<tr>
<td>System Setup</td>
<td>4-hour Session</td>
<td>2</td>
</tr>
<tr>
<td>Graphics Setup</td>
<td>4-hour Session</td>
<td>2</td>
</tr>
<tr>
<td>Basic Operations</td>
<td>Two 8-hour Sessions</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Operations</td>
<td>Two 8-hour Sessions</td>
<td>2</td>
</tr>
<tr>
<td>Reports and Alarms Generation</td>
<td>4-hour Session</td>
<td>2</td>
</tr>
<tr>
<td>System Maintenance</td>
<td>4-hour Session</td>
<td>2</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>4-hour Session</td>
<td>2</td>
</tr>
<tr>
<td>Local Controller Software</td>
<td>4-hour Session</td>
<td>3</td>
</tr>
</tbody>
</table>

The PROPOSER will provide a documentation template in electronic format so that the RTC can replicate all training material and pass it out to RTC FAST staff, local member entities staff and other authorized users of the System.

The Training Plan provided by the PROPOSER during the Project will include the following information:

- Course summary/outline;
- Duration of training for each module;
- Location of training; and
- Student prerequisites.

After approval of the Training Plan by RTC FAST, the PROPOSER shall prepare and provide to the RTC for approval, the instructor's course notes, which shall contain all information and materials necessary that will be presented in each course to be provided as part of the Training Plan (the "Lesson Plan").
The PROPOSER shall supply all training aids and course materials for the training, for: (i) the "train the trainer" training described above; and (ii) all operator training. For each course referenced in the chart included in this Section, the PROPOSER shall provide, at a minimum, the number of complete sets of all course materials and training aids for each class equal to the number of students shown on the chart.

The RTC shall be entitled (but not required) to video record all training classes provided by the PROPOSER, and to use the recorded video as a permanent training aid as part of the ongoing RTC training program.

The RTC shall have royalty free unrestricted rights to reproduce an unlimited number of copies of the Training Program, the Course Lesson Plan and all PROPOSER supplied course materials and training aids (including the recorded video), for use by the RTC as part of the RTC's and local member entities ongoing training.
3. PROPOSAL FORMAT

The RTC desires all Proposals to be identical in form in order to facilitate comparison. While RTC’s format may represent departure from the PROPOSER’s preference, RTC requires strict adherence to the format. The Proposal will be in the format described below:

a. Cover letter (2-page max);
b. Executive Summary (5-page max);
c. Background and Experience as requested in Section 4 (5-page max);
d. Proposed Work Plan and Solution as requested in the Section 2 - Scope of Work (no page limit);
e. The “Addenda Receipt Confirmation” set forth in Exhibit E - Required Forms, Form Two;
f. The “Proposal Submission” set forth in Exhibit E - Required Forms, Form Three;
g. The “Proposal Certification” set forth in Exhibit E - Required Forms, Form Four;
h. The completed “Supplemental Technical Questionnaire” set forth in Exhibit E - Required Forms, Form Five;
i. The completed “Technical Specifications/ Functional Requirements” set forth in Exhibit B;
j. Exceptions to the RFP. Exceptions to RTC Sample Contract and insurance requirements;
k. Financial Information

All Proposals shall be 8-1/2” x 11” format with all standard text no smaller than 11 points. All submissions shall use double-sided copying and be bound in a three ring binder with tab dividers corresponding to the content requirements specified below. Proposals must also include 1 CD or DVD containing the entire Proposal in a searchable format such as Adobe Acrobat.

PROPOSERs are required to organize the information requested in this RFP in accordance with the format outlined. Failure of the PROPOSER to organize the information required by this RFP as outlined may result in Regional Transportation Commission of Southern Nevada (RTC), at its sole discretion, deeming the Proposal non-responsive to the requirements of this RFP. The PROPOSER, however, may reduce the repetition of identical information within several sections of the Proposal by making the appropriate cross-references to other sections of the Proposal. Appendices for certain technical or financial information may be used to facilitate Proposal preparation.

3.1 PROPOSAL CONTENT (TAB 1)
3.1.1 Cover Letter

The Proposal must include a letter of transmittal attesting to its accuracy, signed by an individual authorized to execute binding legal documents on behalf of the Company. The cover letter shall provide the name, address, telephone number and email address of the PROPOSER along with the name, title, address, telephone number and email address of the executive that has the authority to contract with RTC. The cover letter shall present the PROPOSER’s understanding of the Project, a summary of the approach to be undertaken to perform the Services, as well as a summary of the costs to provide the Services.

Each PROPOSER shall make the following representations and warranty in its Proposal Cover Letter, the falsity of which might result in rejection of its Proposal: “The information contained in this Proposal or any part thereof, including its Exhibits, Schedules, and other documents and instruments delivered or to be delivered to Regional Transportation Commission of Southern Nevada (RTC), is true,
accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead RTC as to any material facts.”

3.1.2 Executive Summary (Tab 2)

The PROPOSER shall submit an executive summary, which outlines its Proposal, including the proposed general management philosophy. The executive summary shall, at a minimum, include an identification of the proposed project team, responsibilities of the project team, and a summary of the proposed Services, depicted as three 1-page summaries: one (1) associated with the proposed Central Software, one (1) associated with the proposed local controller software (or Nextphase if no new local 2070N software is to be submitted); and one associated with the proposed Controllers. The intent of these summaries is to provide the Evaluation Committee with an at-a-glance reminder of each Product’s ability (or inability) to meet the Specifications and Requirements, highly desired capabilities, and other capabilities of interest. This section shall highlight aspects of this Proposal, which make it superior or unique in addressing the needs of RTC. The PROPOSER shall state in the Proposal that the region’s existing communication system has been reviewed and is (or is not) compatible with their traffic signal control system.

3.1.3 Background and Experience (Tab 3)

The PROPOSER shall provide a concise description of the Company, including origin, state of incorporation, background, and current size as requested in Section 4. Include information concerning general organization and staffing as well as experience with similar Arterial Traffic Management System and Related Services projects as described in Section 4. Also include references and past or pending judgments as described in Section 4.

3.1.4 Proposed Work Plan and Solution (Tab 4)

Given the purpose of this Project and RTC’s goals as stated in this RFP, provide a creative solution to meet such goals. Following is a framework and questions to guide your organizations suggested solution. Please address the following as completely as possible. If you wish to add supplemental information, it shall be labeled “Supplemental Information.”

3.1.4.1 Process

What steps will your organization take to ensure that the transition/implementation for the Project runs smoothly?

3.1.4.2 Conversion Plan

The PROPOSER shall prepare and submit to RTC for approval a comprehensive and detailed Conversion Plan, which describes in detail all tasks and resources associated with the conversion of Arterial Traffic Management System and Related Services (the “Conversion Plan”) with minimum disruption to RTC’s operations. The Conversion Plan is subject to the terms set forth in the Scope of Work (Section 2) of this RFP.

3.1.4.3 Project Plan

Prepare and submit a Project Plan (preferably in MS Project format) to describe, to the best of your ability, all times, tasks and resources associated with the performance of Services. The Project Plan is subject to the terms set forth in the Scope of Work (Section 2) of this RFP.
3.1.4.4 Client Relationship Management
Describe the communications scheme that your organization will use to keep RTC informed about the progress of the Project.

3.1.4.5 Risk Management
Describe the risks associated with this contract. What contingencies have been built in to mitigate those risks?

3.1.4.6 Technical Specifications/ Functional Requirements Check-list
Each Proposal must include responses to the Requirements found in Exhibit B.

3.1.5 Required Forms (Tab 5)
To be deemed responsive to this RFP, PROPOSERs must complete in detail, all Proposal Forms listed in Exhibit E of this RFP, items numbered one through five.

3.1.6 Exceptions to the RFP and/or Sample Contract (Tab 6)
List any exceptions to the RFP or to the attached Sample Contract (Attachment 2) that is/are not acceptable. If the proposal includes no reference to any portion(s) of the Sample Contract considered unacceptable to the PROPOSER, it will be assumed the PROPOSER takes no exception(s) to the terms and conditions contained in the Sample Contract. If the PROPOSERS legal council needs to review the Sample Contract before your Company can sign, reviews must be completed and any exceptions noted before your Proposal is submitted.

3.1.7 Price Proposal (Separate Envelope Labeled “ATMS Base Price”)
Regardless of exceptions taken, PROPOSERs shall provide a lump sum price Proposal based on the requirements and terms set forth in this RFP. Pricing must be all-inclusive and cover every aspect of the Project. Price must be in United States dollars rounded to the nearest dollar. Price includes the PROPOSER’s proposed lump sum price for procurement, installation, and implementation of the software and controllers, cost of a base software system with unlimited licenses, cost of workstation/laptop unlimited licenses and of required software modules, cost and timeline for installation and activation of base system plus modules, ongoing support costs, training costs, upgrade costs, 3 year warranty period, central system software setup/configuration, database conversion and local controller software setup/configuration, at a minimum. If the PROPOSER can provide an interface with NextPhase version 1.7.6c software, then state in Base Price Proposal and Base Technical Specifications/ Functional Requirements, Exhibit B. If PROPOSER cannot, then submit Option B Price Proposal and Alternative 1 (per Task 6) Technical Specifications/ Functional Requirements, Exhibit B.
Price Proposal (Separate Envelope Labeled “ATMS Base Price”)

<table>
<thead>
<tr>
<th>PRICE PROPOSAL</th>
<th>LOCAL CONTROLLER</th>
<th>CENTRAL SYSTEM SOFTWARE AND LOCAL CONTROLLER FIRMWARE/ SOFTWARE</th>
<th>Support AB3418E</th>
<th>Support NTCIP</th>
<th>PROPOSER’s PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>100 Existing 2070N and/or M-53 to be provided by RTC/Local Member Entities</td>
<td>PROPOSER’s Unlimited License’s</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

3.1.8 Price Proposal (Separate Envelope Labeled “ATMS Optional Pricing”)

In order to assist the RTC in expanding the proposed ATMS to Southern Nevada, RTC is requesting the following Price Proposal be provided in a separate envelope. Regardless of exceptions taken, PROPOSERS shall provide a lump sum price Proposal based on the requirements and terms set forth in this RFP. Pricing must be all-inclusive and cover every aspect of the Project. Price must be in United States dollars rounded to the nearest dollar. Price includes the PROPOSER’s proposed lump sum price for procurement, installation, and implementation of the software and controllers, cost of a base software system with unlimited licenses, cost of workstation/laptop unlimited licenses and of required software modules, cost and timeline for installation and activation of base system plus modules, ongoing support costs, training costs, upgrade costs, 3 year warranty period, central system software setup/configuration, database conversion and local controller software setup/configuration, at a minimum.
<table>
<thead>
<tr>
<th>PRICE PROPOSAL</th>
<th>LOCAL CONTROLLER</th>
<th>CENTRAL SYSTEM SOFTWARE AND LOCAL CONTROLLER Firmware/Software</th>
<th>Support AB3418E</th>
<th>Support NTCIP</th>
<th>PROPOSER’s PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option A (per year renewal cost for a 3 yr. period)</td>
<td>400 Existing 2070N and/or M-53 to be provided by RTC/Local Member Entities</td>
<td>PROPOSER’s Unlimited License’s</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Option B (per year renewal cost for a 3 yr. period)</td>
<td>400 to be provided by PROPOSER</td>
<td>PROPOSER’s Unlimited License’s</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
4. **PROPOSER’S BACKGROUND AND EXPERIENCE**

Answer the following questions as completely as possible, placing your answer immediately after the question to which it applies. **If you wish to add supplemental information, it shall be labeled “Supplemental Information.”**

**4.1 OFFICIAL NAME**

Provide the legal name and address of the PROPOSER and state of incorporation submitting the proposal. Also identify all subcontractors or joint venture partners.

**4.2 PROPOSER BACKGROUND**

Provide an overview and history of your Company. How long has the Company been providing Services to local governments? Describe the organization and ownership. Include an organization chart.

**4.3 PROPOSING ORGANIZATION’S STRUCTURE**

a. Describe your total organization, including any parent companies, subsidiaries, affiliates, and other related entities;

b. Describe the ownership structure of your organization, including any significant or controlling equity holders;

c. Provide a management organization chart of your overall organization, showing director and officer positions and names and the reporting structure. Provide detailed information for the Arterial Traffic Management System and Related Services business segments of your organization, showing the reporting structures within these segments and among these segments and the overall organization; and

d. Describe any organizational changes such as divestitures, acquisitions, or spin-offs involving your Arterial Traffic Management System and Related Services business segments that have occurred in the latest two years or are anticipated in the future.

**4.4 PROPOSED PROJECT TEAM**

If the PROPOSER’s proposal involves a team composed of more than one company, or if any subcontractor will provide more than 15% of the Services, all participating companies must be identified. Provide a description, which includes the teaming relationships, form of partnership (e.g. joint-venture, prime/sub), each team member’s contribution, and the experience of each team member, which qualifies them to fulfill their responsibility. Provide descriptions and references for the projects on which team members have previously collaborated. Identify the extent, if any, of Small Business Enterprise participation in this Project.

**4.5 FINANCIAL INFORMATION (TAB 7)**

The evaluation of financial viability of the PROPOSER was developed with one primary goal in mind: to protect RTC from risk of default by a selected Vendor due to financial instability. Various analytical techniques will be used to assess the financial strength and stability of each PROPOSER, focusing on profitability, solvency, and efficiency. The analysis will include an evaluation of specific financial indices and ratios in an effort to maximize objectivity and provide measures that are more directly comparable among PROPOSERs.
Other factors which may impact the financial position of a Company, or which provide additional evidence of the financial strength of a Company, will also be assessed. These factors include years of experience in providing similar Services, and demonstration of the ability to obtain sufficient levels of liability and property damage insurance.

Relevant information regarding litigation and bankruptcy filings within the last two years, which may materially affect a Company’s financial position, and any contracts terminated for cause within the last five years, will be examined. In addition to credit ratings and credit reports, bank and vendor references will be used to evaluate the credit worthiness of each PROPOSER.

4.5.1 Requests for Financial Information
Prove the financial information requested in this Section with your Proposal submission.

If your organization does not have the audited financial statements requested, it is the responsibility of the PROPOSER to provide RTC with information of sufficient quantity and with verifiable sources to ascertain that the PROPOSER is financially capable of performing the Services described in this RFP. Failure to provide adequate financial information may result in the exclusion of your Proposal from the procurement process.

The PROPOSER must furnish the following financial information for the PROPOSER, guarantor(s), and any sub-contractor included as having a significant role (defined as providing more than 15% of the services) in providing Services to RTC:

a. Include in the statement of guarantor(s), as described in Section 4.5. Guarantor, evidence of the ability of the guarantor to meet the short-term funding needs of this project;

b. Evidence that demonstrates the ability to obtain the insurance as required in Sample Contract. Such insurance should provide coverage in the stated amount for each occurrence of bodily injury and for each occurrence of property damage with coverage for products/completed operations, personal injury liability, and contractual liability;

c. Annual audited financial reports for each of the past five fiscal years, prepared in accordance with Generally Accepted Accounting Principles (GAAP), and all relevant notes;

d. The most recent Form 10-K and Form 10-Q filed with the Securities and Exchange Commission (SEC); or, if the PROPOSER is not regulated by the SEC, then the most recent quarterly financial report;

e. Description of any material adverse changes in financial position within the past five years; any material changes in the mode of conducting business; any bankruptcy proceedings, mergers, acquisitions, takeovers, joint ventures, and/or divestitures within the past five years. In addition, provide a clear and definitive statement of the following:

- Years of providing similar Services by the PROPOSER and/or predecessor organization;

- Whether or not the PROPOSER (and/or predecessor, guarantor or subcontractor) has declared bankruptcy within the last five years;
• Description of the financial impact of any past or pending legal proceedings and judgments, as identified in Section 4.5.3 that could materially affect the PROPOSER’s financial position or ability to provide Services to RTC. This information will be reviewed and assessed in accordance with the information provided by the PROPOSER, in the above referenced Section;

• All credit reports, credit bulletins, and any other published statements by the most recognized agencies (Standard & Poor’s Rating Group, Moody, Investor Services, Dun & Bradstreet, and Value Line) that have been issued or published about the entity within the past five years;

• The prospectus or offering statement for the entity’s latest security or equity offering;

• The company name, contact person, telephone number, and fax number of at least two references from bank or institutional lenders which have extended credit to the entity in the past five years; or if the entity has not applied for credit in the past five years, the contact person’s name, telephone number, and fax number of at least two references from banks with which the entity conducts business;

• The company name, contact person, telephone number, and fax number of at least two credit references from suppliers/vendors; and

• Any additional information which the PROPOSER believes is appropriate to fully reflect the financial strength of the entity.

Failure to provide such information is cause for rejection of the PROPOSER’s Proposal at the sole discretion of RTC. For any subcontractor providing more than 15% of the Services, RTC reserves the right, at its sole discretion, to reject the subcontractor if it fails to meet minimum financial requirements. In the event RTC’s Evaluation Committee rejects the subcontractor, the PROPOSER must assume the responsibilities of the subcontractor or find a replacement satisfactory to the Evaluation Committee.

4.5.2 Guarantor
The nature of the relationship between the PROPOSER and its guarantor is crucial to protect RTC in the event that the PROPOSER defaults on its obligations. If the parent Company of the PROPOSER is serving as the guarantor, then the parent Company must indicate in a letter its willingness to guarantee all contractual obligations of the PROPOSER. If the Company that is serving as guarantor has a relationship with the PROPOSER other than a parent/subsidiary relationship, then a detailed explanation of all past and present relationships between the PROPOSER and its guarantor must be provided, in addition to a letter from the guarantor indicating its willingness to guarantee all contractual obligations of the PROPOSER.

Any financial information requested of the PROPOSER in the following section must similarly be provided for the guarantor. In the event of a joint submission or Proposal, all proposing entities must provide statements specifying the extent to which each entity will act as guarantor and provide all relevant financial documents for all entities involved in the joint venture. Additionally, if there is more than one guarantor, then the guarantors must be jointly and separately obligated.
4.5.3 Past or Pending Judgments

For purposes of this Section, the term “Related Entity” means any parent, subsidiary, affiliate or guarantor of the PROPOSER. For all matters involving the PROPOSER providing products or services to local, state or federal government, submit declarations of the current status of any past or pending criminal, civil, or administrative litigation against the PROPOSER or any Related Entity. For all matters involving the PROPOSER providing products or services to local, state or federal government, in addition, submit declarations of the current status of all pending criminal, civil or administrative litigation that commenced within the past 2 years in North America, whether or not it involves local governments, against the PROPOSER or Related Entity (For the purpose of the declarations, current officer, shall be defined to include those individuals who are presently serving or who have served within the past 2 years as an officer of the PROPOSER.). State whether there are any cases pending against the PROPOSER, a Related Entity, officer of either, that, if adversely resolved, would pose a material risk of insolvency to either the PROPOSER or Guarantor or materially affect the PROPOSER’s or Guarantor’s ability to perform their obligations.

The respondent may choose not to submit records for matters that were resolved prior to the time that the subsidiary or affiliate became associated with the parent company, as long as that subsidiary or affiliate will not be involved in the provision of Services to RTC. All records for subsidiaries or affiliates of the parent company that may be involved in the provision of Services to RTC must be included.

RTC reserves the right to request additional information to explain any of the above citations/ violations.

4.6 MANAGEMENT APPROACH

a. Describe your organization’s customer service philosophy and describe how it is communicated and reinforced throughout the organization;

b. Describe your organization’s approach to total quality management, and describe your organization’s total quality plan;

c. Describe your organization’s continuous improvement program and how your current customers benefit from your service improvements; and

d. Describe your organization’s experiences in adapting to changing technologies.

4.7 PERSONNEL MANAGEMENT

a. Describe the key individuals, along with their qualifications, professional certifications and experience that would comprise your organization’s team for providing Services to RTC;

b. Explain how your organization ensures that personnel performing technical support services are qualified and proficient;

c. Describe your organization’s approach, policies, and experience with respect to deployment of your personnel; and

d. Has your organization been the subject of a dispute or strike by organized labor within the last 5 years? Describe the circumstances and the resolution of the dispute.
4.8 REFERENCES

The Proposal shall include at least five (5) references with contact information (name, address, phone number, and email address) for central software, local controller software, and local controller hardware with similar deployment requirements and strategies. These references shall be customers that are using or have used the exact model or type of controller and software the PROPOSER is proposing for this Project, unless RTC would be the PROPOSER’s first customer for a certain aspect of the Proposal, and it shall be clearly stated in the submittal if this is the case. RTC and evaluation committee may choose to contact these references if needed. Please consult the REQUIRED Supplemental Technical Questionnaire (Exhibit E) for more information.
5. **SELECTION CRITERIA**

The selection of the vendor is based on a two-step process:

1. Shortlist of firms based on proposal evaluation
2. Interview and demonstrations of shortlisted firms

The Evaluation Committee will consist of RTC staff and local member entities only. RTC’s consultant, Iteris, Inc., who assisted in the development of this RFP, may also assist with Q&A during the interview and any clarifications/ addendums with the RFP. However, Iteris, Inc., its subsidiaries or sub-consultants, will not be submitting a Proposal in response to this RFP, and will not be a voting member.

5.1 **PROPOSAL EVALUATION**

Proposals will be evaluated based on the PROPOSER's ability to meet the performance requirements of this RFP. This section provides a description of the evaluation criteria that will be used to evaluate the Proposals. To be deemed responsive, it is important for the PROPOSER to provide appropriate detail to demonstrate satisfaction of each criterion and compliance with the performance provisions outlined in this RFP. The PROPOSER's Proposal will be the primary source of information used in the initial evaluation process. Proposals must contain information specifically related to the proposed Services requested herein. Failure of any PROPOSER to submit information requested may result in the elimination of the Proposal from further evaluation.

Proposals will be assessed to determine the most comprehensive, competitive and best value solution for RTC based on the criteria below. Proposals will be evaluated on the following major categories:

a. Qualifications, Experience and Approach;

b. Technical Specifications/ Functional Requirements;

c. Project Price;

d. Financial Qualifications;

e. Exceptions to the Terms of the Sample Contract and/or the RFP

5.1.1 **Qualifications, Experience and Approach**

PROPOSERs will be evaluated based upon their understanding, experience and qualifications in performing the same or substantially similar Services, as reflected by its experience in performing such Services. The evaluation will include references regarding work for organizations with needs similar to RTC's, and the feasibility of the PROPOSER's approach for the provision of the Services.

5.1.2 **Technical Specifications/ Functional Requirements**

PROPOSERs will be evaluated based upon their response to the requirements.

5.1.3 **Project Price**

The points for Project Price will be allocated proportionately based on the information provided by the PROPOSER in the submittal. The PROPOSER with the lowest price will be assigned the highest point total for the Project Price. The remaining PROPOSERs calculations for assigned points will be based on the following formula:

\[
\text{Points awarded for Project Price} = \frac{\text{Lowest Project Price} \times \text{possible points}}{\text{PROPOSERs Higher Price}}
\]
5.1.4 Financial Qualifications
This criterion includes an evaluation of the financial qualifications of the PROPOSER. The evaluation will take into account the financial strength of the PROPOSER and its ability to meet the long-term financial requirements of the Agreement.

The Financial Department of RTC will evaluate the Proposal responses and give an opinion to the evaluation team as to the financial strength of each PROPOSER based on the financial information submitted in accordance with Section 4.

5.1.5 Exceptions to the Terms of the Sample Contract and/or the RFP
RTC will evaluate the Proposals for compliance with the terms, conditions, requirements, and specifications stated in this RFP including the Sample Contract language provided in Attachment 2. Regardless of exceptions taken, PROPOSERS shall provide pricing based on the requirements and terms set forth in this RFP.

5.1.6 Evaluation Scoring
PROPOSERS are responsible for ascertaining existing field conditions and operational variables which may impact their Proposal. Further, RTC expects Proposals to explicitly address cost of a base central system software license, cost of workstation/laptop licenses and of required software modules, cost of traffic signal controllers, cost and timeline for installation and activation of base system plus modules, ongoing support costs, training costs, upgrade costs, warranty periods, central system software setup/configuration, graphics setup/configuration, alarm monitoring, detection monitoring, split monitoring, and database conversion and setup, as a minimum.

PROPOSERS are directed to the Supplemental Technical Questionnaire contained in Exhibit E of this RFP. This questionnaire will be used to evaluate PROPOSER's capability to meet RTC's expectations. Response will be used to short list the Proposals for further consideration by RTC. The questionnaire must be submitted as outlined in Section 3 of this RFP. Failure to submit the questionnaire will automatically disqualify the Proposal.

PROPOSER shall submit a package as close to the ideal concept as possible.

5.2 INTERVIEW AND DEMONSTRATION
After evaluation of Proposals and Supplemental Technical Questionnaires, RTC will short list up to 3 (three) Proposals and require a prepared presentation with a demonstration of controllers and software by the PROPOSERS who submitted said Proposals. Presentations will be limited to 90 minutes and will take place at RTC FAST. Immediately after the presentation is completed, PROPOSERS will be required to begin setup for a bench demonstration (1 intersection) of the central and local software for RTC to review and log into in order to evaluate the system. RTC will provide traffic signal plans configuration file and current traffic signal timing parameters to the PROPOSER shortly after the shortlisting process has been completed, to allow sufficient preparation time. The bench controller and cabinet will be provided by RTC as part of this submittal. Modems and Ethernet switches will be provided by RTC to facilitate communications through both serial and Ethernet protocols.

Demonstrations will include a setup period that will require PROPOSERS to set up the central and local software on a PROPOSER-provided computer at RTC FAST for this testing. The PROPOSER’s computer
will be preloaded with the central signal system software and any necessary database editors before arrival, but any intersection integration into the central system, including initial configuration, local and system graphics setup, and database installation, must be performed on-site during this setup period.

Once setup is complete, the PROPOSER will leave all equipment hardware and software required to allow RTC FAST to bench-test the equipment for a total of four weeks (20 business days). This testing will mimic a complete traffic signal system with the central software communicating with the controllers in real time. PROPOSER will also be required to test and demonstrate whether the new central system software can communicate with NextPhase version 1.4.5a thru 1.7.6c software.

The PROPOSER demonstrations will run simultaneously at RTC FAST. At RTC's discretion, PROPOSERs may be allowed access to RTC's equipment and facilities outside of the demonstration time limits established above. Such access is to afford the PROPOSER sufficient time to prepare for said demonstration. Setup performed under such access will be done under the observation of an RTC employee and subject to the availability of RTC manpower and resources.

PROPOSER shall also provide RTC with “Read or View Only” access to other locations where the PROPOSERs software system is currently operating. RTC will contact those agencies for this “Read or View Only” access approval.

5.3 FINAL EVALUATION
Final evaluation criteria will be divided into 4 categories: (1) central software; (2) local controller software (if different from existing); (3) the PROPOSER’s references, reputation and experience; and (4) competitiveness and reasonableness of cost / value. These grades will apply to both the presentation and bench testing phases of the final evaluation.

5.3.1 Central Software evaluation includes the user friendliness, ease of operations, and the capabilities of the proposed central software to satisfy the stated requirements, highly desired capabilities, other capabilities of interest, and any additional unspecified capabilities noted by the PROPOSER. RTC will consider future software development plans as provided by the PROPOSER. However, the current off-the-shelf capability is significantly preferred.

5.3.2 Local Controller Software evaluation (if included in submittal) includes the capabilities of the proposed local controller software to satisfy the stated requirements, highly desired capabilities, other capabilities of interest, and any additional unspecified capabilities noted by the PROPOSER. While RTC will consider future software development plans as provided by the PROPOSER, the current off-the-shelf capability is significantly preferred.

5.3.3 References, Reputation and Experience evaluation includes the PROPOSER’s experience on similar projects, the PROPOSER's availability of facilities and resources for the Project, the PROPOSER’s reputation for personal and professional responsiveness and integrity, the PROPOSER’s proposed implementation plan and schedule, and the PROPOSER’s management and control of the project. Contact with references where proposed products are in use will provide RTC with additional insight into the quality, reliability, and capabilities of proposed products and the PROPOSER 's work standards.

5.3.4 Competitiveness and Reasonableness of Cost / Value is not intended to follow past practices of rigid specifications and bid; rather it will evaluate comparative cost / value of the PROPOSER’s software based on its capability to meet RTC’s and local member entities needs. Cost/ Value criteria includes the
PROPOSER’s proposed lump sum price for procurement, installation, and implementation of the software and controllers, cost of a base software system license, cost of workstation/laptop licenses and of required software modules, cost and timeline for installation and activation of base system plus modules, ongoing support costs, training costs, upgrade costs, warranty periods, central system software setup/configuration, and database conversion and setup.

Proposals will also be compared in terms of the most reasonable, and or most effective pricing options. The Evaluation Committee will also take into consideration any indirect costs associated with the services and administration of the Contract.

The 4 categories will be rated individually by members of the Evaluation Committee based on the PROPOSER’s Proposal and weighted according to criteria set forth by the Evaluation Committee.
EXHIBIT B
Technical Specifications / Functional Requirements
EXHIBIT C
Figure of
Existing Signals
EXHIBIT D
Figure of Communication Status
EXHIBIT E
Required Forms
EXHIBIT E
REQUIRED FORMS – FORM ONE
REQUEST FOR PROPOSAL ACKNOWLEDGEMENT

The PROPOSER hereby certifies receipt of the Request for Proposals for The RTC RFP #11-156, Arterial Traffic Management System (ATMS) Central System Software. This form should be completed upon receipt of RTC’s Request for Proposals and faxed in time for RTC to receive it by or before July 12, 2011 at 3:00 p.m. Please fax the completed Request for Proposals Acknowledgement Form to the attention of:

Debra Coleman, C.P.M.
Purchasing and Contracts Analyst
Purchasing & Contracts Division
Phone: 702-676-1548
Fax: 702-676-1588

Date: __________________________

Authorized Signature: _______________________________________________________

Title: ________________________________________________________________

PROPOSER Name: _________________________________________________________

Contact Name: ___________________________________________________________

Contact E-mail address: _____________________________________________________

Please check the appropriate space below and provide the requested information:

_____We plan to attend the Pre-Proposal Conference and plan on submitting a Proposal

Indicate number of attendees (4 max. per PROPOSER): ________

_____We do not plan to attend the Pre-Proposal Conference but plan on submitting a Proposal

_____We do not plan to attend the Pre-Proposal Conference and do not plan on submitting a Proposal

Please assist RTC in understanding why your company has chosen not to participate:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
EXHIBIT E
REQUIRED FORMS – FORM TWO
Arterial Traffic Management System (ATMS) Central System Software
RFP # 11-156

ADDENDA RECEIPT CONFIRMATION

Please acknowledge receipt of all addenda by including this form with your Proposal. All addenda will be posted to www.rtcsvnv.com

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I certify that this proposal complies with the General and Specific Specifications and conditions issued by RTC except as clearly marked in the attached copy.

(Please Print Name)    Date

Authorized Signature

Title

Company Name
EXHIBIT E
REQUIRED FORMS – FORM THREE
Arterial Traffic Management System (ATMS) Central System Software
RFP #11-156

PROPOSAL SUBMISSION FORM

This Proposal is submitted by:

Service Provider Name: ____________________________________________

Representative (printed): __________________________________________

Representative (signed): __________________________________________

Address: _________________________________________________________

City/State/Zip: ___________________________________________________

Telephone: ________________________
   (Area Code) Telephone Number

Facsimile: _________________________
   (Area Code) Fax Number

It is understood by the Service Provider that RTC reserves the right to reject any and all Proposals, to make awards on all items or on any items according to the best interest of RTC and all participating Agencies, to waive formalities, technicalities, to recover and re-bid this RFP. Proposal is valid for 180 calendar days from the Proposal due date.

_________________________________________  _________________________
Service Provider                     Date

_________________________________________  _________________________
Authorized Signature                Please type or print name
PROPOSAL CERTIFICATION

AGREEMENT TITLE: Arterial Traffic Management System (ATMS) Central System Software

SERVICE PROVIDER: ________________________________

The undersigned Service Provider hereby certifies and agrees that the following information is correct:

1. In preparing its proposal, the Service Provider has considered all proposals submitted from qualified, potential subcontractors and suppliers; and has not engaged in or condoned prohibited discrimination.

2. For purposes of this section, prohibited discrimination means discrimination against any person, business or other entity in contracting or purchasing practices on the basis of race, color, sex, or national origin. Without limiting the foregoing, prohibited discrimination also includes retaliating against any person, business or other entity for reporting any incident of prohibited discrimination.

3. Without limiting any other provision of the solicitation for proposals on this project, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for RTC to reject the bid submitted by the Bidder on this project and to terminate any contract awarded based on such bid.

4. As a condition of contracting with RTC, the Service Provider agrees to maintain documentation sufficient to demonstrate that it has not discriminated in its solicitation or selection of subcontractors. The Service Provider further agrees to promptly provide to RTC all information and documentation that may be requested by RTC from time to time regarding the solicitation and selection of subcontractors. Failure to maintain or failure to provide such information constitutes grounds for RTC to reject the bid submitted by the Service Provider or terminate any contract awarded on such bid.

______________________________
NAME OF FIRM

BY: ________________________________
SIGNATURE OF AUTHORIZED OFFICIAL

______________________________
PLEASE PRINT NAME OF AUTHORIZED OFFICIAL
EXHIBIT E
REQUIRED FORMS – FORM FIVE

Arterial Traffic Management System (ATMS) Central System Software
RFP #11-156

SUPPLEMENTAL TECHNICAL QUESTIONNAIRE

PROPOSER: ________________________________________________________________
Address: _________________________________________________________________
City / State: ______________________________________________________________
Contact Name: ____________________________________________________________
Telephone: ________________________________________________________________

References, Experience, and Reputation

Provide an example of a signal system of at least 500 intersections where you have installed each of the following (it is preferred, but not required, if there is an example where all 3 (three) components of your submittal are in place on one signal system):

- Your Proposed Central System Software:

  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________
  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________
  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________
  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________

- Your Proposed Local Controller Software (if different from NextPhase):

  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________
  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________
  Agency and Number of Intersections: _______________________________________
  City / State: _____________________________________________________________

Page 1 of 9
EXHIBIT E
REQUIRED FORMS – FORM FIVE

Agency and Number of Intersections: _____________________________________________
City / State: ________________________________________________________________
Agency and Number of Intersections: _____________________________________________
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Agency and Number of Intersections: _____________________________________________
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Agency and Number of Intersections: _____________________________________________
City / State: ________________________________________________________________

• Your Proposed Local Controller Hardware:

Agency and Number of Intersections: _____________________________________________
City / State: ________________________________________________________________
Agency and Number of Intersections: _____________________________________________
City / State: ________________________________________________________________
Agency and Number of Intersections: _____________________________________________
City / State: ________________________________________________________________
Agency and Number of Intersections: _____________________________________________
City / State: ________________________________________________________________

Provide five (5) references who can speak to not only your proposed controller hardware, controller software, and central system software (the EXACT hardware/software proposed in this submittal, not just similar) but also to your customer service after the installation.

1. ____________________ Telephone: ___________ Email: _________________________
2. ____________________ Telephone: ___________ Email: _________________________
3. ____________________ Telephone: ___________ Email: _________________________
4. ____________________ Telephone: ___________ Email: _________________________
5. ____________________ Telephone: ___________ Email: _________________________

Provide the name of your primary developer for the central system software you are proposing, and the length of their tenure with your company _____________________________________________
EXHIBIT E
REQUIRED FORMS – FORM FIVE

Provide the name of your primary developer for the local controller software you are proposing, and the length of their tenure with your company ________________________________

Traffic Signal Controllers
Provide the following time estimates for your proposed traffic signal controller (NOTE – if your proposed controller will run the same local software as you are proposing for the 2070N or M-53 controllers, please enter N/A here and move to the next question):

Full Upload via serial communication: ________________________________

Full Download via serial communication: ________________________________

Full Upload via Ethernet communication: ________________________________

Full Download via Ethernet communication: ________________________________

Describe how your proposed traffic signal controller would handle the following situations (NOTE – if your proposed controller will run the same local software as you are proposing for the 2070N or M-53 controllers, please enter N/A here and move to the next question):

A lead+lag left (phase is called twice in the same cycle):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

A leading pedestrian phase:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Rail preemption (both heavy and light rail, and multiple preemptions for “gate down” condition), emergency vehicle preemption, and transit priority:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Flashing Yellow Arrows (with both full- and part-time protected-only configurations):

Pedestrian Hybrid Beacon ("HAWK") functionality:

To provide appropriate pedestrian phase timings and at the same time appropriate cycle lengths, like most we run up against the conflict of pedestrian phases, when actuated, that will violate split settings (force offs). RTC desires to be able to allow the violation of force-offs by pedestrian phases, rather than "work-arounds" to limit splits based on vehicular requirements. Explain how your software capabilities address the accommodation of this conflict with pedestrian phase requirements:

A difficulty in maintaining a high level of system operations at all times is the frequency with which intersections will be "in transition", and the time required to transition. Please describe all of the instances that will cause intersections to "lose sync" and the process for re-establishing the sync, including addressing the time frame. Specifically describe any instances in which phases would be skipped.

Activating/deactivating lane-use/message signs from the Traffic Management Center during event or incident management situations.
EXHIBIT E
REQUIRED FORMS – FORM FIVE
Implementation of special timing plans from the Traffic Management Center during event or incident management situations.

Local Controller Software
Provide one example of a signal system where your local controller software operates on Siemens/Eagle 2070N or M-53 controller hardware:

Provide the following time estimates for your proposed local controller software operating on a 2070N or M-53 controller:

Full Upload via serial communication: ____________________________

Full Download via serial communication: ____________________________

Full Upload via Ethernet communication: ____________________________

Full Download via Ethernet communication: ____________________________

Does your database editor store each individual intersection database as a stand-alone file or as a component of a single master database?

Describe how your proposed local controller software would handle the following situations:

A lead+lag left (phase is called twice in the same cycle):

A leading pedestrian phase:
Rail preemption (both heavy and light rail, and multiple preemptions for “gate down” condition), emergency vehicle preemption, and transit priority:

Flashing Yellow Arrows (with both full- and part-time protected-only configurations):

Pedestrian Hybrid Beacon (“HAWK”) functionality:

An unconventional configuration (More than one intersection on one controller, 16+ phases at one intersection):

To provide appropriate pedestrian phase timings and at the same time appropriate cycle lengths, like most we run up against the conflict of pedestrian phases, when actuated, that will violate split settings (force offs). RTC desires to be able to allow the violation of force-offs by pedestrian phases, rather than “work-arounds” to limit splits based on vehicular requirements. Explain how your software capabilities address the accommodation of this conflict with pedestrian phase requirements.

A difficulty in maintaining a high level of system operations at all times is the frequency with which intersections will be “in transition”, and the time required to transition. Please describe all of the instances that will causes intersections to “lose sync” and the process for re-establishing the sync, including addressing the time frame. Specifically describe any instances in which phases would be skipped.
Activating/deactivating lane-use/message signs through manual assignment during event or incident management situations.

Implementation of special timing plans through manual assignment during event or incident management situations.

Central System Software
Please provide a descriptive account of the effort necessary to configure an individual intersection database on your proposed central system software.

Please provide a descriptive account of the effort necessary to integrate an intersection or series of intersections into the system architecture on your proposed central system software.

Please provide a descriptive account of the effort necessary to set up both individual intersection and global map graphics on your proposed central system software.

How does your graphics interface accurately display the flashing yellow arrow and the leading pedestrian phase?
EXHIBIT E
REQUIRED FORMS – FORM FIVE

How does your graphics interface display preemption and transit priority information clearly?

Do you currently have an example where the proposed central system software performs a regularly scheduled upload and compare procedure and flag changes for the user to address? If yes, where? Does it generate a report?

1. Can the proposed central software automatically save any changes found in the comparison while still informing the user of these differences? (Circle Y or N): Y / N

2. How will your central system software interface with an RTC network to backup data, what is backed up, and how often is this backup performed?

3. Can your proposed central software’s database editor export database information from the central software to a local computer for editing, and/or import it back from the local computer to the central software? (Circle Y or N): Y / N

4. Can your proposed central software be accessed remotely by the following (Circle Y or N):
   - A workstation connected to RTC network (i.e. employee’s desk computer): Y / N
   - A workstation connected to any Internet Service Provider (i.e. employee’s home computer): Y / N
   - A laptop connected to the controller in the field, using the (Ethernet) communication capabilities of the controller (in other words, the laptop has no other Internet connection in the field): Y / N
   - A Smartphone operating on a mobile phone provider’s wireless data network: Y / N

5. Can your proposed central software perform a manual assignment for an individual intersection or group of intersections? (Circle Y or N): Y / N
EXHIBIT E
REQUIRED FORMS – FORM FIVE
Does your proposed central system software provide the end user with detailed detection failure information and compile robust detection failure logs? Please describe how and what is provided.

1. How long is failure information stored?

2. Does your proposed central system software provide accurate, real-time split monitoring for any intersection, regardless of phasing? (Circle Y or N): Y / N

3. How long is historical split information (by cycle) stored (i.e. if a user wants to observe past split information for an intersection, how far back in time can the user search)?

4. Are splits monitored by cycle only in coordinated operation, or are they also monitored while the signal is in free operation?

5. Coordination Only / Free Run and Coordination (Circle one)

6. How does your proposed central software obtain accurate clock information, and how does your proposed central software sync your individual intersection clocks (what is the methodology, and how often does it happen)?

Questionnaire Completed By: ________________________________
(Print)

Signature: ______________________________________ Date: __________________