



SOUTH ALABAMA PURCHASING ASSOCIATION

110 Beauregard Street
Mobile, Alabama 36633

REQUEST FOR BID (RFB) SAPA 2020-05

“Traffic Signal Preemption System”

**COMPETITIVE SEALED PROPOSALS WILL BE
RECEIVED NO LATER THAN:**

Wednesday, August 5, 2020 at 11:00 am, Local Time
At the Following Location:

**DAPHNE CITY HALL
ATTN: Mrs. Suzanne Hinson, Purchasing Agent
1705 Main Street
Daphne, Alabama 36526**

Wayne Smith,
SAPA Coordinator



SEALED BIDS will be received at **DAPHNE CITY HALL, 1705 Main Street, Daphne, Alabama 36526** for the *South Alabama Purchasing Association*, hereafter known as *SAPA*, until Wednesday, August 5, 2020 prior to 11:00 am, local time at which time bids will be publicly opened.

Questions or comments pertaining to this bid must be presented in writing and sent as an E-mail to:

Wayne Smith,
E-mail: waynesmith@sarpc.org

Each bid sent is to be in a separate opaque envelope, clearly marked with the following information:

“Sealed Bid”
“TRAFFIC SIGNAL PREEMPTION SYSTEM”
Bid No: 2020-05
Attn: Suzanne Hinson, Purchasing Agent
Daphne City Hall
1705 Main Street
Daphne, Alabama 36526

Failure to observe the instructions contained herein will constitute grounds for rejection of your bid. SAPA reserves the right to accept or reject all bids or any portion thereof whichever is in the best interest of SAPA.

The company awarded the bid must present proof of having Workman's Compensation Insurance if the company's employee enters the SAPA members' premises. Any firm submitting a proposal must have General Liability Insurance specifying coverage must maintain to hold any SAPA members harmless in event of an accident.

No bids will be considered unless the bidder, whether resident or non-resident of Alabama, is properly qualified to submit a proposal for this type of work in accordance with all applicable laws of the State of Alabama. Where applicable, this shall include evidence of holding a current license from the State Licensing Board for General Contractors, Montgomery, Alabama.

1.0 INSTRUCTIONS TO BIDDER

1.1 AWARD OR REJECTION OF BIDS:

The Bid will be awarded to the lowest responsible bidder complying with conditions of the invitation for Bids, provided his/her bid is reasonable and it is in the interest of SAPA in accepting it. The bidder to whom the award is made will be notified as soon as possible.



1.2 EVALUATION OF BID - BASIS OF AWARD:

All purchases which are based on competitive Invitation to Bids are awarded to the lowest, responsive bidder subject to SAPA's right to reject any or all bids and to waive informality and irregularity in bids and bidding. In addition to price, consideration will be given to the following items determining the lowest, responsive bidder:

- » The best interest of SAPA members
- » The quality and performance of the goods or services to be supplied
- » Conformity to specifications
- » Delivery time (if applicable)
- » Other unique requirements outlined in the bid request

1.3 COMPLIANCE:

All bid components will comply with all Federal, State and Local laws, ordinances, codes and regulations. The awarded Vendor will be responsible for insuring that all items meet specifications before delivery. Awarded vendor will make no substitutions for bid items without prior written approval of SAPA or SAPA member.

1.3.1 ORDERING:

SAPA member will place orders as needed and will not guarantee any particular quantity of equipment will be ordered.

1.3.2 If Awarded Vendor fails to deliver amount ordered within a reasonable amount of time, the SAPA member reserves the right to procure needed, comparable items from another source, and may bill the Awarded Vendor for associated expenses generated by such failure.

1.4 DELIVERY:

1.4.1 All equipment orders should be delivered as soon as possible after receipt of order (ARO). Partial shipments are acceptable if authorized. Items will be delivered to the address on the Purchase Order. All freight charges must be paid by the vendor. If Equipment such as parts are delivered, an itemized delivery ticket including the purchase order will be clearly referenced thereon, to SAPA member receiving personnel for signing such ticket.

1.4.2 All invoices must agree with the purchase order in description and price and include the following information:

- Purchase Order Number
- Ship to department name and address

1.4.3 In order to ensure prompt payment, all original invoices must have a Purchase Order Number.

1.4.4 F.O.B. SAPA Member's location as directed by order.

**1.5 INSURANCE:**

Contractor, at its sole expense, shall obtain and maintain in full force the following insurance to protect the Contractor and the SAPA Member at limits and coverage's specified herein. The SAPA Member may list "additional insured" on all applicable certificates.

1.6 PAYMENT:

Invoices, upon completion of service and delivery of materials specified in the applicable Purchase Order, Awarded Vendor will submit an invoice and signed delivery ticket to the SAPA Member's address as specified by that member. SAPA Member's Purchase Order Number must be written on all paperwork, including delivery tickets along with the invoice. Other reasonable additional instructions may be given by SAPA Member.

1.7 PROOF OF DELIVERY:

It is the responsibility of the supplier to provide proof of delivery of merchandise. Proof of delivery required would consist of:

- A signed delivery ticket by a designated representative of the department
- Whom the item is delivered to and
- Purchase Order Number reflected for the order.

1.8 COLLUSION:

If there is any reason for believing that collusion exists among the Bidders any or all proposals may be rejected, and those participating in such collusion may be barred from submitting bids on the same or other work affiliated with SAPA or the SAPA Member.

2.0 CONTRACT

2.1 The Request for Proposal, Vendors Bid, the acceptance of the bid whether in part or whole, and the Letter of Award to the successful vendor shall constitute a contract unless otherwise noted.

2.2 Term of Contract

It is the desire of SAPA that a contract remain in effect for a period of one (1) year with an option to extend for two (2) additional years, beginning on the first day of purchase of the award subject to funding for the various "SAPA" members on a year-to-year basis if both parties agree.

2.3 PRICE ESCALATION/DESCALATION CLAUSE

Pricing offered shall be firm against any increase for one year from the date of award. It shall be the Contractor's responsibility to send written notification of any requested price changes thirty (30) days in advance prior to the automatic commencement of subsequent renewal periods. SAPA reserves the right to grant or deny the request for a price increase. Pricing will be tied to the PPI Index.



2.4 **Contract Commencement**

Successful vendor shall immediately, upon *Notice of Award* proceed to secure any equipment, services, or other items bid, proceed with the execution of the contractual services of this proposal.

2.5 **Termination of Contract**

If, for any reasons, or through any cause, the Contractor fails to fulfill in a timely and proper manner its obligations under this Contract, or if the Contractor violates any of the covenants, agreements, or stipulations of this Contract, SAPA and/or the SAPA member may terminate the contract by a 30-day written notice, in whole or in part if vendor fails to perform adequately the services, terms or promises vendor proposed in their response to this RFP.

2.6 **Notification of Owner Re: Termination/Expiration**

Each and every policy shall contain an endorsement stating that insurance company will not, prior to completion of the contract of any policy expiration date shown on policy and certificate, whichever occurs first, terminate policy or change, to Owner at whose request the policy and certificates are issued.

- 2.7 SAPA reserves the right to terminate the contract at any time by registered letter to the supplier if specifications and conditions are not met.

3.0 **SCOPE OF WORK**

- 3.1 The successful bidder shall provide GPS-based Traffic Signal Preempt and Remote Monitoring System to the South Alabama Purchasing Association (hereafter referred to as "SAPA") members. Purchase orders will be placed individually by SAPA members who choose to utilize this contract.

- 3.2 The term of this unit price contract shall be one (1) year from the date of award with the option to renew for two (2) additional years.

3.3 **Use of Brand Names in Bid**

The use of any brand name and/or product numbers is to establish industry standards and minimum specifications. Other brands may be considered for review if detailed product information and specifications outlining any and all differences are included in the bid.

3.4 **Minimum Requirements**

All items shall be new and unused. All equipment shall meet or exceed current industry standards.

attached specifications are intended and provided solely as a general and non-exhaustive expression for the intent and purpose of SAPA and the SAPA Member



regarding this bid; said specifications should be so considered by the bidders. The use of specific names is not intended to restrict the bidder or any seller or manufacturer but is solely for the purpose of indicating the type, size and quality of materials, product services, or equipment best suited for SAPA and its members. Accordingly, the bidder admits and agrees that said specifications are not complete in every detail and that the work and materials not indicated or expressly mentioned in said specifications, but which are reasonably necessary for the full and faithful performance of the item(s) bid in accordance with their full and faithful intent, will be included in the bid and incorporated in the work by the bidder and at the bidder's sole expense, the same as if indicated and specified.

- 3.2 No errors will be corrected after bids are opened. No prices shall include State or Federal Excise Taxes. Municipalities or Towns which are SAPA Members are exempt from Alabama Sales Tax by state law.
- 3.3 Any attachments hereto are made and become a part of this inquiry and must be signed by bidder.
- 3.4 SAPA Bid Form must be filled in completely.
- 3.5 All pages of the bid form must be returned including any addendum, if sent. Any substitutions must be noted on a page describing the substituted item and reason for substituting the item.
- 3.6 All documents requested must be attached to the back of page of such request and acknowledgement must be made where blank appears.
- 3.7 A signed contractual agreement must be in place prior to any item/s being delivered.

4.0 MANUFACTURER/ITEM NUMBER:

Vendors must complete the MFR/ITEM NUMBER being bid for each item bid must have a MFR/ITEM NUMBER.

4.1 MATERIALS, SUPPLIES OR EQUIPMENT:

All materials, supplies or equipment being bid and delivered to the SAPA member shall be new, unused, or recent manufacture, first class quality in every respect, and suitable for their intended purpose.

- 4.2 BIDS MUST BE RETURNED ON ENCLOSED QUOTE SHEET WITH TOTAL UNIT COST LISTED.
- 4.3 BIDDER ACKNOWLEDGES WITH THE SUBMISSION OF A BID THAT HE/SHE HAS REVIEWED THE TERMS AND CONDITIONS OF THIS BID AND ACCEPTS THEM.



- 4.4 BID SHEETS MUST BE DATED AND SIGNED BY COMPANY OWNER OR AUTHORIZED PERSONNEL.



SOUTH ALABAMA PURCHASING ASSOCIATION

110 Beauregard Street
Mobile, Alabama 36633

The bidder acknowledges receipt of the following addenda covering revisions to the documents, and states that the cost, if any, of such revisions have been included in the base bid and other prices quoted herein:

Addendum No. _____

Dated: _____

Addendum No. _____

Dated: _____

Note: If no addenda have been received, write in "none."

Company Name

Company Representative

Street Address

Title

City, State, Zip

Phone

Federal Employer ID No. (if no FEIN, enter SSN)

I/We agree to furnish at the prices shown and guarantee that each offered will meet or exceed all specifications, terms and conditions, and requirements listed. This is the total price and includes all delivery or freight charges to the SAPA Member. Any attached hereto is made and becomes a part of this inquiry and must be signed by the bidder. I herein affirm that I have not been in any agreement or collusion among bidders in restraint of competition to bid at a fixed price or to refrain from bidding otherwise.

SWORN TO AND SUBSCRIBED
BEFORE ME THIS DAY OF

Company Name

Authorized Signature (INK)

_____, 2020.

Mail Address

Typed Authorized Name

Notary Public

City, State, Zip

Title

Commission Expires

Phone Including Area Code

Email Address



BID SPECIFICATIONS

A. Scope of Work

The successful bidder shall provide GPS-based Traffic Signal Preempt and Remote Monitoring System to South Alabama Purchasing Association (hereafter referred to as "SAPA") members. Purchase orders will be placed individually by SAPA members who choose to utilize this contract.

B. Contract Term

The term of this unit price contract shall be one (1) year from the date of award and the option to renew for two (2) additional years.

C. Use of Brand Names in Bid

The use of any brand name and/or product numbers is to establish industry standards and minimum specifications. Other brands may be considered for review if detailed product information and specifications outlining and all differences are included in the bid.

D. Minimum Requirements

All items shall be new and unused. All equipment shall meet or exceed current industry standards.

E. Equipment Already Installed

All existing Traffic Signal Preemption Equipment which is already in place within a SAPA member's system must be able to work with equipment which is bid.

Overview

Each participating SAPA Member Agency wishes to procure a citywide Traffic Signal Preempt and Remote Monitoring System. The intention of the GPS-based Traffic Signal Preemption and Remote Monitoring System is to allow the following key requirements to be provided:

1. The system shall track emergency response vehicles and provide preemption and preemption and priority requests to the traffic signal controller.
2. The system shall be capable of configuring preemption and priority request for more than 120 seconds before the vehicle approaches the intersection.
3. A web-based configuration utility shall provide an easy way of preemption and priority zones.
4. The system shall use a GPS position of the vehicle to determine when to send a preemption request to the traffic signal controller.
5. The system shall have redundant communication from the vehicles to the traffic intersections using both 900 MHz radio and cellular communications.
6. The system shall display of the real time fault status of the Agency traffic intersections.
7. The system shall issue real time alerts via SMS and email to the appropriate response personnel immediately when a fault occurs, so that the Agency no longer has to rely on notification by the public.



8. The system shall operate with cloud hosted software with user web based access, and with no software or IT infrastructure for the Agency to install or maintain, with the exception or if the Agency desires to host the software on its own servers. The client user interface will be browser based, with no software to be installed on client computers except for a standard browser.
9. System monitoring shall assure that the preemption devices, both in the vehicles and at the intersections, are functioning correctly and that the system will be available when required.
10. Field devices must be capable of receiving wireless software and security updates. The wireless updates allow new features to be installed remotely without having to physically go to the field devices.
11. The hardware shall be under warranty for as long as the devices have a connectivity and support license and are connected to the remote monitoring system.

Traffic Signal Preemption Remote Monitoring System Client User Interface Requirements

The system software user interface shall provide, at a minimum, features to meet the following requirements:

E-1. General

1. The user interface shall be web-based and shall be able to be viewed using a browser. Internet Explorer, Chrome, and Firefox browsers shall be supported, as well as Safari on Apple Devices. Systems that use remote desktop or similar to view a third-client user interface will not be acceptable.
2. The system shall require a user name and password to log on.
3. The system shall be mobile-friendly and operators shall be able to pen the system on a mobile phone or tablet to access the data and controls. The web-based system shall be viewable on any modern web browser on a mobile phone or tablet and automatically sized for the screen.

E-2. Map Display

1. The system shall include a scrollable, zoomable map display, with intersections and emergency vehicles shown as reprehensive icons on the map. The map shall include the ability to see the intersections using Google Streetview.
2. The alarm status of the intersection shall be clearly indicated on the icon on the map so that the user can see at a glance which intersections are in alarm.
3. The map display shall also include a list of intersections, with the number and priority of alarms indicated on the list. Intersections in high priority alarm shall be moved to the top of the list, followed by medium priority, low priority, and then finally by intersections not in alarm.
4. The map icons shall change to be able to clearly indicate if an intersection is offline.
5. Clicking on the icon on the map shall expose a box with the current parameters of the intersection shown.



6. The default map display position and zoom shall be configurable by the user so that the user's view will default to show the intersections that the user is responsible for managing.
7. The map view shall have the ability to show Google traffic overlays on the map.
8. The map view shall be able to show vehicle trails when the vehicles have been in an emergency or not active.

E-3. Regional Intersection and Vehicle Grouping

1. The system shall provide for intersections and vehicles to be logically grouped into regional groupings (for example, North, South, Fire 1, Fire 2).
2. The system user login shall be configurable so that if a maintenance or operational person is responsible for, say, the north intersections and emergency vehicles, then when that user logs on, the user has visibility of only the intersections that belong to the group that the user is authorized to view.

E-4. Intersection Detail Display

1. It shall be possible to drill down, either from the map icon or from the list, to a device level detail for the intersection, which at a minimum shall display the following parameters:
 - a. The alarm status, with priority indicated, and a text description of the alarm is present for this device.
 - b. The time since the last communication with the device.
 - c. The following parameters, to include real time now values, minimum for the day values, maximum for the day values, and average for the day values:
 - i. The AC mains voltage (value)
 - ii. The Battery back-up voltage (value)
 - iii. The cabinet temperature (value)
 - iv. The cabinet humidity (value)
 - v. The presence of AC power (OK or fail)
 - vi. The flashing status of the intersection (OK or flashing)
 - vii. Stop time status (OK or stop time active)
 - viii. The cabinet door status (open or closed)
 - ix. The intersection fan status (fan on or fan off)
 - d. It shall be possible to view each of the value parameters in graph form over the recent two-week period. Real time graph shall include:
 - i. The AC mains voltage
 - ii. The battery back-up voltage
 - iii. The cabinet temperature
 - iv. The cabinet humidity



E-5. Diagnostics and Log Display

1. From the device level detail, it shall be possible to further drill down to view the raw data, the error logs, and the communication logs to allow a technician to fault-find problems in the system.
2. It shall be possible to filter the logs by device, by device type, and/or by group as well as between dates.
3. It shall be possible to print these selected logs to a local printer or a PDF file.
4. It shall be possible to export these logs to Excel or the local computer for further analysis.

E-6. Alarms

1. The system shall have a comprehensive alarm generation capability.
2. It shall be possible to configure alarms to be generated on any parameter being out of tolerance including analog values, digital values, and enumerated values.
3. Alarms shall be configurable to be low, high, or critical priority.
4. The alarm priority shall be displayed through the system on all displays using color codes such as red-critical, yellow-high, and amber-low to indicate the priority of the alarm.
5. The current active alarms shall be accessible for view via an expandable window to see which alarms are active and when the alarm occurred. The highest priority alarms shall rise to the top of the list.

E-7. Alerts

1. The system shall have a comprehensive alerting capability, to enable the response personnel to be notified when an abnormal situation has occurred.
2. It shall be possible to configure alerts to one or more personnel for each alarm. This will cause, as selected, a text and/or email to be sent to the person when an alarm occurs.
3. The alert shall be configurable to optionally send via text and/or email when an alarm clears.
4. The intention is that the system provides the alerts to the user in real time. The text and/or email shall be issued within 30 seconds of the occurrence of the event which results in an alert being issued.

E-8. Reports

1. It shall be possible to view reports on the device screen, in the system browser, and, if desired, to print the report to a printer or a PDF file.
2. Alarm Activity Report



- a. The system shall include a report which shows the alarms activity for a period.
 - b. The Alarm Report shall indicate the time the alarm occurs, by color or priority of the alarm, whether it is still active, and, if not active, then the time that the alarm cleared.
 - c. It shall be possible to filter the alarms by device type, by device, by device group, and by date and time in order to view, for example, the alarm activity for a particular intersection or controller type over a three-month period.
3. User Activity Report
 - a. The system shall include a report which shows user activity for a given period, to enable an audit report of a user's response to an alarm.
 - b. The report shall show which screens the user viewed, when the screen was viewed, and the IP address of the device from which the screen was viewed.
4. Preempt System Operational Availability Report
 - a. The system shall include a report which shows the overall operational availability of the Agency's intersections. The intersection is available when not in an alarm condition such as flashing or power fail.
 - b. The availability report shall be detailed for each intersection for the period (for example, one month) and summarized by group/region, for each controller type, shall result in a KPI (Key Performance Indicator) for each region, for each controller type, and an overall system KPI for the intersection system availability.
 - c. Using this report, it shall be possible to determine if system availability is trending up or down for the overall intersection system, by region and/or by controller type. It shall also be possible to compare the system availability by region, and also to compare system availability by controller type.
5. Fault Occurrence by Controller Type Report
 - a. The system shall include a report which shows the number and type of faults that have occurred in each intersection, which can be summarized by region and/or by controller type.
 - b. This report will allow the user to compare the frequency of faults by region and/or by controller type.
6. Response Time for Fault Repair Report
 - a. The system shall include a report which shows the response time to clear faults for a given time frame (for example, one month).
 - b. This report will allow the user to determine the number of faults, and the total and average time to clear the fault.
 - c. The report will show response times to emergency call outs and how quickly the vehicle arrived.



E-9. Vehicle Trails

1. The map display shall show live information of the preempt status of the emergency vehicles in the system.
2. The user shall have the option to select which class of emergency vehicles to display on the map via the information overlay menu.
3. The information overlay will provide the option to select the number of hours of live data the operator would like to see, with a range from one to 24-hours. The user shall have the option to fade out older data.
4. The information overlay shall provide the ability for the user to display the device names on the map for easy identification of both intersections and emergency vehicles.
5. Operators will have the ability to display legends and explain emergency vehicle trail color codes, including idle, preempt service requests, left turn indicator, and right turn indicator, so that it is easy to see the behavior of the emergency vehicle.

E-10. Vehicle Playback

1. The system shall include the ability to playback the activity of the emergency vehicles, so that retrospective fault finding of the preempt system can be carried out.
2. Playback shall support the same controls for panning and zooming the map, as well as using the information overlay to select the type of data being displayed on the playback menu.
3. Users shall have the additional functionality of controlling which devices are displayed by selecting the checkboxes on a selection panel on the map.
4. The playback screen should provide the user with the option to select a date range via a drop down menu. The menu will provide a full calendar and the option to select the exact start time and end time for the playback.
5. The bottom section of the map screen shall display the timestamp based on the location within the playback.
6. The user shall have controls that allow one click access to start from the beginning, rewind, play, fast-forward, and scroll to end.
7. The user shall have the option to use a slider that is operated by click and drag to the time of interest in the playback.

E-11. Remote Power Cycle

1. The system shall include the ability to remotely cycle power to the outlets on the back of the field device. In this way it shall be possible to cycle power to ancillary connected equipment such as network switches, cameras, and similar equipment.
2. The user shall display the status of the outlets and provide confirmation via an assorted input whether the sockets are energized or not.



Preempt System Functional Requirements

The Traffic Signal Preempt System shall conform to the following requirements:

E-12. Overall Requirements

1. When an emergency vehicle requests preempt service; the system shall reliably request a preempt from the traffic controller by activating a digital output connected to the preempt inputs on the traffic controller when the circumstance of the emergency vehicle (for example, location, speed, estimated time of arrival) comply with the rules established by the configuration of the intersection.
2. The preempt activation shall be managed by implementing the following rules/parameters:
 - a. The approach area of a rule shall be bounded by a left and right direction, and a minimum and maximum distance. A preempt shall only be activated if the vehicle is within this boundary and approaching the intersection.
 - b. If enabled, the preempt shall be activated when the estimated time of arrival (ETA) for the vehicle is less than the set parameter.
 - c. If enabled, the preempt shall be activated when the vehicle is less than the minimum distance to the intersection.
 - d. If enabled, the preempt shall only be activated if the vehicle has the left turn signal, or right turn signal, active as configured.
 - e. If enabled, the preempt shall be activated early if congestion is detected in front of the emergency vehicle so that the early activation of the preempt can help clear the congested traffic out from in front of the emergency vehicle. Congestion shall be detected by the emergency vehicle traveling below a threshold speed.
 - f. Each rule shall cause a particular preempt to be activated. Multiple rules shall be able to be associated with a particular preempt.
 - g. If configured, a preempt rule shall stay active until the vehicle is detected at a safe distance away from the intersection and moving away from the intersection.
 - h. The preempt shall be released once all active rules that triggered the preempt have become deactivated.
3. The preempt system shall support a minimum of eight (8) preempt or pulsed low priority outputs. All inputs shall be optically isolated.
4. The status of preempts shall be indicated by LET's on the front of the in-cabinet preempt unit.
5. It shall be possible to test each of the preempts by pressing a test button with an associated selector switch which will cause each preempt to be triggered. This will allow for the wiring and operation of the signal controller to be tested without physically driving a vehicle down each approach.
6. The system shall be able to support service calls on a first-come-first-serve basis.



E-13. Communication Requirements

1. The system shall support both radio and cellular communications.
2. The radio system shall operate on unlicensed bands, and shall not require user certification.
3. The radio shall have a range in excess of 2,500 feet.
4. The system latency shall support real time communications on a second-by-second basis from the vehicle to the intersections.
5. Data paths shall be established, if configured, to operate via radio and via cell network. In this way, the preemption request packets from the vehicle will potentially arrive at the intersection from both communication paths. The intersection shall process the packet that arrives first, and ignore the packet that arrives subsequently.
6. The system shall continue to operate correctly in the event of radio or cellular failure.

E-14. Central Configuration Requirements

1. It shall be possible to configure the parameters required to implement the desired rules on a browser client connected to the central computer.
2. Setting of left and right directional limits and distances shall be accomplished by clicking and dragging of lines on a map of the roads.
3. Other rule parameters shall be entered on the user interface and saved and/or sent to the intersection as required.
4. Systems that require the installation of software onto client computers will not be acceptable.

E-15. Local Configuration Requirements

1. It shall be possible to edit the preemption rules at the roadside by connecting a laptop computer to the controller with an Ethernet cable.
2. The editing of the rules shall be accomplished by using a local website hosted by the preempt controller using a browser.
3. Systems that require the user to load custom configuration software on the laptop for the purpose of editing the preemption rules will not be acceptable.

E-16. Intersection Device Requirements

It is a requirement that the system operate independently on the brand/type of intersection controller deployed at the intersection. The system contractor shall install a small field device into each intersection cabinet which connects to the terminal strip in the cabinet via a wiring harness that enables the system to function independently of controller operation. The system field device shall conform to the following requirements:

1. The system field device shall function correctly between -34°C and + 74°C.



2. The system field device shall be sized suitably for placement in a traffic cabinet.
3. The system field device shall be provided with appropriately rated connections that allow the device to be exchanged by unplugging connectors without tools.
4. The system field device shall incorporate an integrated GPS and cell modem.
5. The configuration of the system field device shall be accomplished by accessing the internal web server with a browser. It shall be possible to configure the device without any special software.
6. The system field device shall be powered via standard 120V input power.
7. The system field device shall allow for the routing of the controller configuration packets to and from the controller, either by Ethernet or serial communications, for each type of controller utilized by the Agency. In this way, it shall be possible to configure the controller and to utilize the controller specific software to interrogate the controller. The system shall provide the communication method which allows this to be accomplished.
8. The system field device shall utilize field initiated communications. This allows for a low cost cellular data plan to be used with infrequent polling. However, when an abnormal event occurs and is detected by system field device, then the device will immediately initiate the transfer of a data packet to the system to enable real-time alerting of response personnel to take place.
9. The system field device shall, within the size limitations above, include a battery and battery charging/monitoring circuit to allow the system to function correctly even when all power to the intersection has failed. The battery shall continue to power the device for a minimum of five hours after all power has failed to the intersection.
10. The system field device shall incorporate an integrated GPS which will allow the device to geolocate itself on the map without configuration.
11. The system field device shall operate without requiring a static IP address. The only configuration required at the device shall be to enter the URL of where the system central software is hosted.
12. In the event that the cell service is interrupted or is not available, the system field device shall store any events that occur in internal memory and forward these events automatically to the system when the cell service is restored. In this way, a complete record of events at the device can be maintained even if cell service is interrupted for a period. The system will store a minimum of 5,000 events.
13. The system field device shall utilize HTTP and HTTPS protocols and XML data structures for communications with the system. In this way, the data will be open for future expansion and competition. The use of secret proprietary protocols is not permitted.
14. The system field device shall be a 1U 19" rack mount device with all connections on the rear and LED indicators, power switches, and selector switches on the front.
15. The system field device shall include Ethernet communications with RJ45 connector.
16. The system field device shall not use self-tapping screws.
17. The system field device shall have powder coated aluminum enclosures.
18. The system field device shall include weather proof antennas if installed externally.



E-17. In-Vehicle Device Requirements

The Traffic Preempt System Vehicle Device shall conform to the following requirements:

1. The system vehicle device shall function correctly between -34°C and + 74°C.
2. The system vehicle device shall be capable of being mounted inside a vehicle either under a seat or strapped under the dashboard. The unit shall include all wiring needed to connect the system to the vehicle.
3. The system vehicle device shall interface to a non-invasive road sensor for environmental measurements via either RS485 or Bluetooth connection.
4. The system vehicle device shall be provided with appropriately rated and keyed connectors that allow the device to be exchanged by unplugging connectors without tools.
5. The system vehicle device shall incorporate an integrated GPS and cell modem.
6. The configuration of the system vehicle device shall be accomplished by accessing the internal web server with a browser. It shall be possible to configure the device without any special software.
7. The system vehicle device shall utilize field-initiated communications. This allows for low cost cellular data plans to be used with infrequency polling. However, when an abnormal event or significant change in road conditions occurs, then the device will immediately initiate the transfer of a data packet to the system to enable real-time road condition information to be displayed on the device.
8. The system vehicle device shall incorporate an integrated GPS which will allow the device to geolocate itself on the map without configuration.
9. The system vehicle device shall operate without requiring a static IP address. The only configuration required at the device shall be to enter the URL of where the system central software is hosted.
10. In the event that the cell service is interrupted or is not available, the system vehicle device shall store any events that occur in internal memory and forward these events automatically to the system when the cell service is restored. In this way, a complete record of events at the device can be maintained even if cell service is interrupted for a period.
11. The system vehicle device shall utilize HTTP and HTTPS protocols and XML data structures for communications with the system. In this way, the data will be open for future expansion and competition. The use of secret proprietary protocols is not permitted.
12. The system vehicle device shall support Ethernet, cellular, and license-free radio communication.
13. The system vehicle device shall have the option of being supplied with an enhanced GPS, which provides GPS coordinated based on dead-reckoning even when the GPS signal is shielded from the vehicle, such as under an overpass, in a tunnel, or between tall buildings. The dead-reckoning system shall include accelerometers, gyroscopes, and distance measure that will provide accuracy of better than 20 feet in 1,000 feet when there is no information from the GPS satellites. The enhanced GPS shall have the option of being connected to the vehicle OBD-II port, the J1939 ECU port for heavy vehicles, or a wheel tick sensor as the project requires. The enhanced GPS



shall self-calibrate the wheel tick input.

E-18. Installation

All installation work in the Agency's traffic cabinets shall be carried out by personnel certified by the Agency for work in the Agency's traffic cabinets.

E-19. Hosting, Connectivity, and Service

The system contractor, as part of the bid pricing, shall include annual pricing for connectivity and service. Connectivity and service shall be available at this pricing for a minimum of five years.

The Connectivity and Service Agreement shall include at a minimum:

1. Cellular connectivity
2. Upgrades for the cellular modem if the technology is not supported by cellular networks
3. Telephone and email support
4. No cellular overage charges
5. Extended warranty on the hardware for the period of the Connectivity and Service Agreement
6. Over-the-air software updates
7. Over-the-air security updates
8. Future connected vehicles service

E-20. Commissioning, Training, and Documentation

The system contractor shall configure the system and reports, and train the Agency in the correct operation of the system to enable the Agency to utilize the system for the objectives outlined above.

E-21. Extensibility

The system shall be designed to be extensible to cover the monitoring, maintenance, and operations of additional ITS systems such as:

1. School beacons
2. Speed feedback radars
3. Dynamic message signs
4. Mobile systems such as maintenance vehicles and remove weather tracking vehicles
5. Traffic detection systems
6. ITS cabinet monitoring systems



7. Remote Weather Information Systems (RWIS)
8. Over-height vehicle detection and warning systems
9. High mast lighting control systems

E. Bid Pricing

Unit pricing shall contain the cost of all items including handling and shipping charges. SAPA members are tax exempt. Prices shall be firm against any increase for one (1) year from the date of award. Prior to the commencement or subsequent renewal periods, it shall be the Vendor's responsibility to send written notification thirty (30) days in advance of any requested price changes. SAPA reserves the right to grant or deny the request for a price increase.

***PLEASE BREAK DOWN ALL PRICING FOR EACH ITEM BID, THEN GIVE TOTAL PRICE OF ENTIRE SYSTEM.**

***A SEPARATE PRICE SHEET MAY BE ATTACHED TO THE BACK OF THIS PAGE. INCLUDE PRICING ON ALL ITEMS AND TOTAL PRICE OF ENTIRE SYSTEM.**

ITEM:	PRICE:	ITEM:	PRICE:
		TOTAL PRICE OF SYSTEM:	

**F. Quantities**

The items listed on the bid form will be furnished at such time and in such quantities as they are required. SAPA members reserve the right to purchase any varying amounts with no change in unit prices.

G. Business License Requirements

It is the successful bidder's responsibility to ensure proper business licensing is obtained when required by participating SAPA members.

8.1 Prices shall be firm, net, delivered prices, F.O.B. destination of SAPA Member.

8.2 QUANTITIES: The SAPA Member does not guarantee that they will procure any set quantities.

BID RESPONSE FORM

Bid Number: 2020-05 "Traffic Signal Preemption System"

Date: _____

Out of State: _____ or _____ If yes, _____
Yes No Registration Number

Company Name: _____

Address: _____

City/State/Zip: _____

Company Representative: _____
(Name Typed or Printed)

Position: _____

Phone: _____

Email: _____



Financing through another agency beside yourself _____ or _____
Yes No

SAPA or its members do not guarantee that any set quantity will be purchased.

Bid Form must be filled in completely.

- All pages of this Bid Response Form, and additional requested pages, if any, must be returned.
- Any attachments hereto are made and become a part of this inquiry and must be signed by bidder.

NOTE: Awarded vendor must hold bid pricing for a minimum of 90-days.

The undersigned agrees to furnish the goods/services as requested by you for SAPA in your invitation to bid, and certifies that they will meet or exceed the specifications called for. The undersigned has read all information pertaining to this bid and has resolved all questions. It is also understood and agreed that all prices quoted are F.O.B. described in the bid documents and specifications.



THIS MUST BE NOTORIZED
(See next page)

Bid Number: 2020-0005 - "Traffic Signal Preemption System"

Notary for Individual or Corporation

STATE OF _____}

COUNTY OF _____}

I, the undersigned authority in and for said State and County, hereby certify that _____

as _____ respectively, of _____ whose name is signed to the foregoing document and who is known to me, acknowledged before me on this day, that, being informed of the contents of the document they executed the same voluntarily on the day the same bears date.

Given under my hand and Notary Seal on this _____ day of _____, 2020.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES: ____ / ____ / ____

Seal:



9.0 INSURANCE

9.1 INSURANCE REQUIREMENTS

Awarded Contractor, at its sole expense, shall obtain and maintain in full force the following Insurance to protect the Contractor and SAPA and its members at limits and coverages specified herein.

All insurance will be provided by insurers by admitted carriers in the State of Alabama, shall have a minimum A.M. Best rating of A-VII and must be acceptable to SAPA. Self-insured plans and/or group funds not having an A.M. Best rating must be submitted to SAPA for prior approval.

9.2 IF PRODUCT IS DELIVERED, NO WORK IS TO BE PERFORMED UNTIL PROOF OF COMPLIANCE WITH THE INSURANCE REQUIREMENTS HAS BEEN RECEIVED BY SAPA.

9.3 Worker's Compensation and Employer's Liability

Part One: Statutory Benefits as required by the State of Alabama

Part Two: Employer's Liability: \$100,000; each accident: \$100,000; each employee: \$500,000 Policy Limit

9.4 Commercial General Liability

Coverage on an Occurrence from with a combined single limit of (Bodily Injury and Property)

Damage combined as follows:

Each occurrence: \$1,000,000

Personal and Advertising Injury: \$1,000,000

Products/Completed Operation Aggregate: \$2,000,000

General Aggregate: \$2,000,000

Coverage to include:

Premises and operations

Personal injury and Advertising Injury

Products/completed operations

Independent Contractors

Blanket Contractual Liability

Explosion, Collapse and Underground hazards

Broad Form Property Damage

Railroad Protective Liability Insurance if work involves construction, demolition, or maintenance operations on or within 50-feet of a railroad.



9.5 **Automobile Liability**

Covering all owned, non-owned and hired vehicles with a limit of no less than \$1,000,000 combined single limit of Bodily injury and property damage per occurrence.

9.6 **Certificates of Insurance**

A Certificate of Insurance evidencing the above minimum requirements must be provided to and accepted by the City PRIOR to commencement of any work on the contract. Each policy shall be endorsed to provide ten (10) days written notice of cancellation to SAPA and its member using contract.

10.00 **Alabama Immigration Act Contract Requirements**

10.1 **Background**

The Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No 2011-535, as Amended by Act No 2012-491, Code of Alabama (1975) Section 31-13-1 through Section 31-13-30 (also known as and hereinafter referred to as “the Alabama Immigration Act”) is applicable to contracts with SAPA. All business entities entering into contracts with SAPA or its members will comply with the Alabama Immigration Act.

10.1.2 Definitions

ALIEN. Any person who is not a citizen or national of the United States, as described in 8 U.S.C. § 1101, et seq., and any amendments thereto.

10.1.3 BUSINESS ENTITY

Any person or group of persons employing one or more persons performing or engaging in any activity, enterprise, profession, or occupation for gain, benefit, advantage, or livelihood, whether for profit or not for profit. Business entity shall include but not be limited to the following:

10.1.4 Self-employed individuals, business entities filing articles of incorporation, partnerships, limited partnerships, limited liability companies, foreign corporations, foreign limited partnerships, foreign liability companies authorized to transact business in this state, business trusts, and any business entity that registers with the Secretary of State.

10.1.5 Any business entity that possesses a business license, permit, certificate, approval, registration, charter, or similar form of authorization issued by the state, any business entity that is exempt by law from obtaining such a business license, and any business entity that is operating unlawfully without a business license.

10.1.6 CONTRACTOR

A person, employer, or business entity that enters into an agreement to perform any service or work or to provide a certain product in exchange for valuable consideration. This definition shall include, but not be limited to, a general contractor, subcontractor, independent contractor, contract employee, project manager, or a recruiting or staffing entity.



10.1.7 EMPLOYEE

Any person directed, allowed, or permitted to perform labor or service of any kind by an employer. The employees of an independent contractor working for a business entity shall not be regarded as the employees of the business entity, for the purposes of this

chapter. This term does not include any inmate in the legal custody of the state, a county, or a municipality.

10.1.6 EMPLOYER

Any person, firm, corporation, partnership, joint stock association, agent, manager, representative, foreman, or other person having control or custody of any employment, place of employment, or of any employee, including any person or entity employing any person for hire within the State of Alabama, including a public employer. This term shall not include the occupant of a household contracting with another person to perform casual domestic labor within the household.

10.1.7 E-VERIFY

The electronic verification of federal employment authorization program of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, P.L. 104-208, Division c, Section 403 (a); 8 U.S.C. §1324(a), and operated by the *United States Department of Homeland Security*, or its successor program.

10.1.8 STATE-FUNDED ENTITY

Any governmental entity of the state or a political subdivision thereof or any other entity that receives any monies from the state or a political subdivision thereof; provided, however, an entity that merely provides a service or a product to any governmental entity of the state or a political subdivision thereof, and receives compensation for the same, shall not be considered a state-funded entity.

11.1.9 SUBCONTRACTOR

A person, business entity, or employer who is awarded a portion of an existing contract by a contractor, regardless of its tier.

10.1.10 UNAUTHORIZED ALIEN

An alien who is not authorized to work in the United States as defined in 8 U.S.C. § 1324a (h) (3).

11.0 Mandatory Clause

All contracts or agreements, to which the state, a political subdivision, or state-funded entities are a party, shall include the following clause:

"By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom."



For purposes of this section, "contract" shall mean a contract awarded by the state, any political sub-division thereof, or any state-funded entity that was competitively bid or would, if entered into by the state or an agency thereof, be required to be submitted to the Contract Review Permanent Legislative Oversight Committee.

11.1 Contracts Involving Business Entity, or Employer

As a condition for the award of any contract, grant, or incentive by the state, any political subdivision thereof, or any state-funded entity to a business entity or employer that employs one or more employees, the business entity or employer shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama.

As a condition for the award of any contract, grant, or incentive by the state, any political subdivision thereof, or any state-funded entity to a business entity or employer that employs one or more employees within the state of Alabama, the business entity or employer shall provide documentation establishing that the business entity or employer is enrolled in the E-Verify program. During the performance of the contract, the business entity or employer shall

participate in the E-Verify program and shall verify every employee that is required to be verified according to the applicable federal rules and regulations.

11.2 Contracts Involving Subcontracting

Any subcontractor on a project paid for by contract, grant, or incentive by the state, any political subdivision thereof, or any state-funded entity shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama and shall also enroll in the E-Verify program prior to performing any work on the project. Furthermore, during the performance of the contract, the subcontractor shall participate in the E-Verify program and shall verify every employee that is required to be verified according to the applicable federal rules and regulations. This subsection shall only apply to subcontractors performing work on a project subject to the provisions of this section and not to collateral persons or business entities hired by the subcontractor.

11.3 Proof of E-Verify documentation will be in the form of a copy of the signed Memorandum of Understanding (MOU) generated upon completion of the E-Verify program.

**INVITATION TO BID SUMMARY****Bid Number SAPA 2020-05 - "TRAFFIC SIGNAL PREEMPTION SYSTEM"**

Issue Date: July 15, 2020

Deadline for Questions Date: August 3, 2020 at 12:00 Noon, local time

SAPA Web Site: www.sarpc.org
Choose SAPA BIDS

Copies of Bid: One (1) original, One (1) copy

Contact: Wayne Smith
SAPA Coordinator
Email: waynesmith@sarpc.org

SAPA address for BID submittals by courier
or hand delivered (UPS, FED EX, etc.)

Suzanne Hinson, Purchasing Agent
Daphne City Hall
1705 Main Street
Daphne, Alabama 36526

END OF INVITATION SUMMARY**BIDDER INFORMATION**

Bid No. SAPA 2020-05 - TRAFFIC SIGNAL PREEMPTION SYSTEM

NOTE: This Section must be printed, completed and turned in with your bid response

Business Organization

Name of Bidder (exactly as it appears on W-9): _____

Doing-Business-As Name of Bidder: _____

Principal Office Address:

Telephone Number: _____ Fax Number: _____

Email address: _____



Form of Business Entity [mark one ("X")]

Corporation _____

Partnership _____

Individual _____

Joint Venture _____

Other (describe): _____

Corporation Statement

If a corporation, answer the following:

Date of incorporation: _____

Location of incorporation: _____

The Corporation is held: Publicly _____
 Privately _____

Partnership Statement

If a partnership, answer the following:

Date of organization: _____

Location of organization: _____

The partnership is: General _____
 Limited _____

Joint Venture Statement

If a Joint Venture, answer the following:

Date of organization: _____

Location of organization: _____

JV Agreement recorded? Yes _____
 No _____

Contact
Name _____ E-mail _____

Cell Phone _____ Office Phone _____

END OF BIDDER INFORMATION SECTION



This contract will be available to all current SAPA members and any new members upon approval by SAPA Chairman.

Members:

Rachel Keith	City of Foley
Rustee Karolyi	City of Robertsdale
Tammy Smith	City of Bay Minette
Kathryn Saucier	South Alabama Regional Planning Comm.
Susan Holland	Mobile County Commission
Vicki Miller	City of Satsuma
Suzanne Henson	City of Daphne
Wanda Gautney (<i>SAPA Vice-Chair.</i>)	Baldwin County Commission
Earl Bolden/	Daphne Utilities
Renee Eberly (<i>SAPA Chair.</i>)	City of Orange Beach
Temple Smith	City of Gulf Shores
Lisa Russell	Mobile Area Water & Sewer System
Dee Dee Brandt	City of Fairhope
Thomas Waters	Baldwin County Board of Education
Tracy Rogers	North Baldwin Utilities
Paige Walding	City of Saraland
Tiffany Lynn	Town of Summerdale
Jason Franklin	City of Semmes
Jeremy Asarisi	Riviera Utilities
Chad Green	Gulf Shores School System