



DEPARTMENT OF TRANSPORTATION

DATE: May 16, 2019

TO: WILMA QUAN, City Manager  
Offices of the Mayor and City Manager

THROUGH: GREGORY A. BARFIELD, Director  
Department of Transportation

FROM: BRIAN BARR, Assistant Director  
Department of Transportation

SUBJECT: AWARD A SOLE SOURCE PURCHASE CONTRACT TO  
OPTICOM/GLOBAL TRAFFIC TECHNOLOGIES LLC (GTT) IN THE  
AMOUNT OF \$223,184.33 FOR THE PURCHASE OF 20 ON-BOARD  
VEHICLE TSP UNITS REQUIRED FOR THE SHAW AVENUE TSP  
PROJECT

**Executive Summary**

FAX seeks to improve bus service and schedule adherence along the Shaw Avenue corridor between Willow Avenue and Polk Avenue. FAX intends to achieve this by deploying traffic signal priority (TSP) hardware along this corridor. In order to activate and interface with TSP technology, FAX will need to add on-board vehicle TSP units to 20 buses that travel down this corridor. GTT is the sole-source manufacturer, distributor, and configurator of the patented Opticom technology (software and equipment) used by the City of Fresno TSP systems.

**Background**

In February 2018, FAX implemented a TSP solution along its Bus Rapid Transit (BRT) route to improve bus schedule adherence and transit operational efficiency. FAX accomplished this by installing new and/or upgrading existing GTT TSP equipment at 73 intersections, installed on-board vehicle units onto 20 buses, and implemented system management software.

FAX now seeks to advance on this work by improving bus service and schedule adherence along the Shaw Avenue corridor between Willow Avenue and Polk Avenue by adding TSP technology along the corridor. In order to activate and interface with TSP technology, FAX will need to add on-board vehicle TSP units to 20 existing buses that travel down this corridor.

The on-board vehicle TSP units will include an integrated GPS and radio unit. This unit will receive GPS signals for vehicle location information and radio signals (2.4 GHz ISM band) to communicate with the TSP detection assembly located at designated traffic signals.

If FAX installs on-board TSP units that do not include an integrated GPS and radio (2.4 GHz ISM band), these units will be unable to communicate with the existing traffic signals; therefore, the buses would be unable to use TSP to improve bus service or for schedule adherence.

The City Traffic Operations Center (TOC) wishes to retain control and coordinate operations and maintenance between its existing priority control systems, Emergency Vehicle Preemption (EVP), and TSP. To accomplish this, the on-board vehicle TSP units must be compatible with the current GTT intersection equipment and the present Central Management System (CMS).

The on-board vehicle TSP units are an essential component for these buses to maintain on-time performance levels and for ensuring schedule adherence along this corridor. Opticom Traffic Signal Preemption Equipment is now patented and owned by GTT. As such, FAX needs to maintain interoperability and compatibility with existing Opticom/GTT equipment means the on-board units can only be sourced from GTT.

On October 22, 2018, FAX solicited a Request for Information (RFI) to solicit information on qualified vendors who manufacture on-board vehicle TSP equipment, which is natively compatible with the City existing GTT intersection equipment and CMS.

Advertisements for the RFI were placed in print through the Fresno Business Journal and online with MassTransitMag (<http://www.masstransitmag.com/>).

The RFI closed on November 13, 2018, with two responses. It was confirmed through review that one of the proposers did not meet the specifications of the RFI. A memo documenting the analysis of the two responses have been placed on file.

### **Analysis**

FAX completed an Independent Cost Estimate (ICE) using pricing gathered through online research prior to releasing the RFI to the public (Attachment A). As FAX now intends to purchase this equipment directly from the manufacturer, a comparison of recent purchase from Houston-Galveston Area Council of Governments (H-GAC) (Texas) and the City of New Rochelle (New York) in 2017 and 2018 respectively, was analyzed. The City of New Rochelle used a General Services Administration (GSA) contract to purchase ten units at a price of \$10,278.72 per unit. H-GAC established a two-year contract, which allows participating governmental agencies to purchase traffic control, enforcement, and signal preemption equipment at a predetermined price. Using

the H-GAC contract, an agency could purchase a complete on-board vehicle TSP unit for \$10,347.80 (Attachment B).

To support the Shaw Avenue TSP project, FAX requested cost information directly from GTT to provide the needed individual components, software, software licenses, annual software maintenance, and warranty. FAX received a cost of \$10,334.50 per unit to provide all components, software, software licenses, annual software maintenance, and warranty. The price received from GTT is 1-2 percent lower than the price found with the performance of the ICE and the analysis performed on three recent purchases from outside agencies (Attachment A).

Based upon this cost analysis, FAX concludes the cost to purchase the on-board vehicle TSP units is fair and reasonable based upon recent purchases by FAX and other external agencies.

#### **Recommendation**

FAX is now requesting approval to enter into a sole source contract with GTT for the purchase of 20 on-board vehicle TSP units based on the attached sales quote (Attachment B). This project is funded by a Federal Transportation Administration (FTA) grant.

Staff seeks your approval to request Council award of a sole source purchase in the amount of \$223,184.33 to GTT for 20 on-board vehicle TSP units.

☒ Approve Request:

☐ Deny Request:

  
\_\_\_\_\_  
Wilma Quan, City Manager

  
\_\_\_\_\_  
Date

#### **Attachments:**

- A: Independent Cost Estimate (ICE)
- B: Cost Analysis
- C: Sales Quote

## Attachment "A"

SHAW AVENUE TSP PROJECT - On-board Vehicle TSP Equipment Independent Cost Estimate (ICE) September 4, 2018			
Item	City Of Rochelle General Service Administration (GSA)	City of Houston- Galveston	Palm Beach FL.
Opticom Model 4010 Vehicle Computer	\$1,435.77	\$1,500.00	\$1,435.77
Model 400 GPS antenna/radio	\$1,000.00	\$1,000.00	\$1,000.00
Preemption/priority software	\$957.18	\$1,000.00	\$957.18
Automated Schedule Management (SAM) software	\$1,435.77	\$1,500.00	\$1,435.77
Vehicle Management	*	*	*
5 yr Extended warranty for vehicle computer	\$1,800.00	\$2,065.00	\$1,800.00
5 yr Extended warranty for GPS equip.	\$1,200.00	\$1,250.00	\$1,265.00
Annual SW maint: Preemption/priority	\$1,000.00	\$717.90	\$1,000.00
Annual SW maint: ASM	\$1,200.00	\$1,052.90	\$1,200.00
Annual SW maint: Vehicle management	\$100.00	\$112.00	\$100.00
* Unable to obtain this information at this time. Waiting for agencies to provide pricing paid with their projects.			
	\$10,128.72	\$10,197.80	\$10,193.72

  
 Susan Rogers

  
 September 5, 2018

## ATTACHMENT "B"

SHAW AVENUE TSP PROJECT - On-board Vehicle TSP Equipment Cost Analysis								
Part #	Description	General Service Administration (GSA)	% Diff	City of Palm Beach	% Diff	City of Houston-Galveston	% Diff	GTT Price
76-1000-1298-0	Opticom Model 4010 Vehicle Computer	\$1,435.77	13%	\$1,435.77	13%	\$1,500.00	9%	\$1,650.00
76-1000-1282-0	Opticom Model 400 GPS antenna/radio Kit	\$1,000.00	0%	\$1,000.00	0%	\$1,000.00	0%	\$1,000.00
76-1000-1296-0	4210 Preemption/priority TSP software (per vehicle)	\$957.18	4%	\$957.18	4%	\$1,000.00	0%	\$1,000.00
76-1000-1297-0	Model 4280 Automated Schedule Management (ASM) software (per vehicle)	\$1,435.77	4%	\$1,435.77	4%	\$1,500.00	0%	\$1,500.00
76-1000-1307-0	Vehicle Management (per vehicle)	\$150.00	0%	\$150.00	0%	\$150.00	0%	\$150.00
	5 yr Extended warranty for vehicle computer	\$1,800.00	5%	\$1,800.00	5%	\$2,065.00	-9%	\$1,897.00
	5 yr Extended warranty for GPS equip.	\$1,200.00	-4%	\$1,265.00	-10%	\$1,250.00	-9%	\$1,150.00
	Annual SW maint: Preemption/priority (per vehicle)	\$1,000.00	-33%	\$1,000.00	-33%	\$717.90	4%	\$750.00
	Annual SW maint: ASM (per vehicle)	\$1,200.00	-7%	\$1,200.00	-7%	\$1,052.90	6%	\$1,125.00
	Annual SW maint: Vehicle management (per vehicle)	\$100.00	11%	\$100.00	11%	\$112.00	0%	\$112.50
* Unable to obtain this information at this time. Waiting for agencies to provide pricing paid with their projects.								
Total Cost Per Unit / Percentage Difference Compared to GTT Submitted Price		\$10,278.72	0.54%	\$10,343.72	-0.09%	\$10,347.80	-0.13%	\$10,334.50

*Susan Rogers*  
 Susan Rogers  
 GTT March 2019 pricing used to update cost analysis

*2/11/19*  
 February 11, 2019

Global Traffic Technologies, LLC  
7800 Third St., N.  
Saint Paul, MN 55128  
United States

800-258-4610 or 651-789-7333

Bill To	Customer	NetSuite Opp't	Date	Expires
City of Fresno, California	City of Fresno, California	9647	8-Feb-19	9-May-19

Ship To	Solution/Purchase Type	Term: For Ongoing Services	
City of Fresno, FAX 2223 G Street Fresno, CA 93706 Attn: Susan Rogers	Purchase  Transit	5	
		Intersections	Vehicles
			20

Items	Qty	Description	Part Number	Price Per Item	Extended Price
				USD	USD
Vehicle components:	20	Model 4010 vehicle computer (2 year warranty)	76-1000-1298-0	\$ 1,650.00	\$ 33,000.00
	20	Model 400 GPS antenna/wireless radio (2 year warranty)	76-1000-1282-0	\$ 1,000.00	\$ 20,000.00
	20	Preemption/priority software (distributed - per vehicle)	76-1000-1350-0	\$ 1,000.00	\$ 20,000.00
	20	Automated Schedule Management (ASM) software (per vehicle)	76-1000-1297-0	\$ 1,500.00	\$ 30,000.00
Software:	20	Vehicle management (per vehicle)	76-1000-1308-0	\$ 150.00	\$ 3,000.00
Extended warranties:	20	Extended warranty on 4000 series vehicle computer (years 3-10)	76-1000-1298-0-W	\$ 1,897.50	\$ 37,950.00
	20	Extended warranty on 400 series GPS antenna/wireless radio (years 3-10)	76-1000-1282-0-W	\$ 1,150.00	\$ 23,000.00
Software maintenance:	20	Annual SW maint: Preemption/priority (distributed - per vehicle)		\$ 750.00	\$ 15,000.00
	20	Annual SW maint: ASM (per vehicle)		\$ 1,125.00	\$ 22,500.00
	20	Annual SW maint: Vehicle management (per vehicle)		\$ 112.50	\$ 2,250.00
Proposal notes:					
Quote assumes CVP Vehicle Kit will have internet connectivity for real-time data connection. CVP requires internet connectivity through cellular connection. Quote assumes purchaser will supply complete static GTFS data in the standard static GTFS format. Quote assumes customer is responsible for uploading the new static GTFS data as needed using the GTT provided Static GTFS update tool. Quote assumes real-time route and trip data is available through a web based API which includes current route and trip (tripID) information for all vehicles. The tripID provided through the real-time API is required to match the Static GTFS tripID. Unless otherwise stated, quote assumes purchaser will procure, install, and configure all networking equipment including but not limited to: switch, cellular and/or Wi-Fi modem, antennas, and network cabling. Alternatively, GTT can quote the procurement, installation and configuration of networking equipment required for interface to the proposed priority system on a time and materials basis. Note, these optional services are not included in the above pricing. Quote assumes purchaser will provide a 10" x 18" x 4" hardware installation location on the bus for the CVP Vehicle Kit. Quote assumes GTT has VPN remote access to server side GTT supplied software applications.					
Total before applicable shipping, duties and/or taxes					\$ 206,700.00

To the extent this proposal is a “Budgetary Proposal,” it is to be used for informational purposes only and is not intended to be a binding contract between the Parties. The prices provided in the Budgetary Proposal are estimates only and are based on information and pricing known as of the date of the Budgetary Proposal.

For services, a signed Master Service Agreement (“MSA”) must accompany the order, such agreement is available at <http://www.gtt.com/servicesagreement/>. The terms and conditions that govern the MSA are available at [http://www.gtt.com/sales\\_terms/](http://www.gtt.com/sales_terms/).

When included, intersection installation pricing assumes a standard configuration without complications. Not included in this proposal are the following items, which will require additional cost: 1) crushed conduit or any other issues preventing cable from being installed, 2) lane or road closures, 3) police or other resources needed at the installation area, and/or 4) other third-party costs not known at the time of the proposal.

Proposal assumes the intersection cabinets are in good working order and contain wiring diagrams.

Vehicle installation assumes standard installation and does not include: 1) special mounting brackets, 2) excess wiring, and/or 3) swapping out previously installed (replacement) vehicle hardware.

Project management expenses can increase in instances where development, if required, is not fully scoped.

Proposal excludes any activities associated with: 1) traffic control plan, 2) water pollution control plan, 3) changeable message signs/flaggers, 4) permits/bonds/fees, and/or 5) removal/repair/replacement of concrete, asphalt, conduits or wiring.