

TXShare

Your Public Sector Solutions Center

REQUEST FOR PROPOSALS
For
Bicycle Safety Infrastructure
RFP # 2025-091

Sealed proposals will be accepted until 2:00 PM CT, August 8, 2025, and then publicly opened and read aloud thereafter.

ITS Plus, Inc.
Legal Name of Proposing Firm

Rhiannon Brookwell Order Processing Manager
Contact Person for This Proposal Title

562-360-4762 Shipping@itsplus3.com
Contact Person Telephone Number Contact Person E-Mail Address

6220 Trailwood Dr. Plano, TX 75024
Street Address of Principal Place of Business City/State Zip

Mailing Address of Principal Place of Business City/State Zip

Rhiannon Brookwell Order Processing Manager
Point of Contact for Contract Negotiations Title

562-360-4762 Shipping@itsplus3.com
Point of Contact Telephone Number Point of Contact Person E-Mail Address

Acknowledgment of Addenda (initial): #1 RB #2 _____ #3 _____ #4 _____ #5 _____

NOTE: Any confidential/proprietary information must be clearly labeled as "confidential/proprietary". All proposals are subject to the Texas Public Information Act.

COVER PAGE

EXHIBIT 1: CATEGORIES OFFERED AND PRICING PROPOSAL

Place a "X" next to each category you are offering in your proposal:

- ☐ Product/Service Category #1: Customizable Precast Concrete Traffic Lane Barriers
- ☐ Product/Service Category #2: Custom Casting Options for Concrete Lane Barriers
- ☐ Product/Service Category #3: Non-Concrete Lane Barriers and Traffic Control/Safety Products for Bicycle Safety
- ☒ Product/Service Category #4: Bicycle Signal Improvements (Including Furnish/Install Controller and Cabinet, Bicycle Detection Confirmation Indication, Bicycle Facility Regulatory Blank-Out Signs and Warning Beacons, Illumination, and Active and Passive Detection of Bicyclists at Intersections)
- ☐ Product/Service Category #5: Signage Services
- ☐ Product/Service Category #6: Installation Services for any of the products/services listed on this page
- ☐ Product/Service Category #7: Shared Lane Markings (also known as sharrows)
- ☐ Product/Service Category #8: Provide any additional ancillary services or Bicycle Safety Infrastructure Products/Services otherwise not explicitly anticipated in this RFP.

The Respondent shall furnish a total cost pricing model for this RFP pursuant to the guidance provided in Section 5.9. Please delineate pricing based upon Service Category 1 and Service Category 2/3/4/5/6/7/8, and/or a pricing model for "all". Using as many pages as necessary, label your pricing proposal as "Exhibit 1 – Pricing".

Pricing responses are encouraged to be as descriptive as possible. Respondents are encouraged to provide an additional retainage rate based on the hourly rate of each staff member for any future projects otherwise not anticipated by this RFP at this time.

EXHIBIT 3: SERVICE DESIGNATION AREAS

Texas Service Area Designation or Identification			
Proposing Firm Name:	ITS Plus, Inc.		
Notes:	Indicate in the appropriate box whether you are proposing to service the entire state of Texas		
	Will service the entire state of Texas	Will not service the entire state of Texas	
	☒		
	If you are not proposing to service the entire state of Texas, designate on the form below the regions that you are proposing to provide goods and/or services to. By designating a region or regions, you are certifying that you are willing and able to provide the proposed goods and services.		
Item	Region	Metropolitan Statistical Areas	Designated Service Area
1.	North Central Texas	16 counties in the Dallas-Fort Worth Metropolitan area	
2.	High Plains	Amarillo Lubbock	
3.	Northwest	Abilene Wichita Falls	
4.	Upper East	Longview Texarkana, TX-AR Metro Area Tyler	
5.	Southeast	Beaumont-Port Arthur	
6.	Gulf Coast	Houston-The Woodlands-Sugar Land	
7.	Central Texas	College Station-Bryan Killeen-Temple Waco	
8.	Capital Texas	Austin-Round Rock	
9.	Alamo	San Antonio-New Braunfels Victoria	
10.	South Texas	Brownsville-Harlingen Corpus Christi Laredo McAllen-Edinburg-Mission	
11.	West Texas	Midland Odessa San Angelo	
12.	Upper Rio Grande	El Paso	

(Exhibit 3 continued on next page)

(Exhibit 3 continued)

Nationwide Service Area Designation or Identification Form			
Proposing Firm Name:			
Notes:		Indicate in the appropriate box whether you are proposing to provide service to all Fifty (50) States.	
		Will service all fifty (50) states	Will not service fifty (50) states
			
		If you are not proposing to service to all fifty (50) states, then designate on the form below the states that you will provide service to. By designating a state or states, you are certifying that you are willing and able to provide the proposed goods and services in those states. If you are only proposing to service a specific region, metropolitan statistical area (MSA), or City in a State, then indicate as such in the appropriate column box.	
Item	State	Region/MSA/City (write "ALL" if proposing to service entire state)	Designated as a Service Area
1.	Alabama	ALL	
2.	Alaska	ALL	
3.	Arizona	ALL	
4.	Arkansas	ALL	
5.	California	ALL	
6.	Colorado	ALL	
7.	Connecticut	ALL	
8.	Delaware	ALL	
9.	Florida	ALL	
10.	Georgia	ALL	
11.	Hawaii	ALL	
12.	Idaho	ALL	
13.	Illinois	ALL	
14.	Indiana	ALL	
15.	Iowa	ALL	
16.	Kansas	ALL	
17.	Kentucky	ALL	
18.	Louisiana	ALL	
19.	Maine	ALL	
20.	Maryland	ALL	

21.	Massachusetts	ALL	
22.	Michigan	ALL	
23.	Minnesota	ALL	
24.	Mississippi	ALL	
25.	Missouri	ALL	
26.	Montana	ALL	
27.	Nebraska	ALL	
28.	Nevada	ALL	
29.	New Hampshire	ALL	
30.	New Jersey	ALL	
31.	New Mexico	ALL	
32.	New York	ALL	
33.	North Carolina	ALL	
34.	North Dakota	ALL	
35.	Ohio	ALL	
36.	Oregon	ALL	
37.	Oklahoma	ALL	
38.	Pennsylvania	ALL	
39.	Rhode Island	ALL	
40.	South Carolina	ALL	
41.	South Dakota	ALL	
42.	Tennessee	ALL	
43.	Texas	ALL	
44.	Utah	ALL	
45.	Vermont	ALL	
46.	Virginia	ALL	
47.	Washington	ALL	
48.	West Virginia	ALL	
49.	Wisconsin	ALL	
50.	Wyoming	ALL	

End of Exhibit 3



Certificate of Offeror and Statement of Understanding

ITS Plus understands this RFP is looking for information and products/services that provide Bicycle Safety Infrastructure to be hosted on the TXShare Cooperative Purchasing Program. ITS Plus is happy to offer our ITS Plus Thunder system, a proven system used for detection and data collection that can help with detecting bicycle users and providing valuable data that can help end users analyze and make changes to improve bicycle safety in all 50 states.



Key Personnel

ITS Plus has a fully trained sales and technical staff, all of whom have installed and programmed ITS Plus Thunder units in the field for bike safety, detection, and classification. All sales staff have worked for the company for at least two years, and all technicians are at least level 1 IMSA bench certified.

Company President, Staci Ingram, has worked for ITS Plus for over 10 years, giving her experience with all different types of detection equipment used in the field. She was hands-on in conducting our White Paper study done by TTI on classification and counts, helping to verify that the ITS Plus Thunder system has a 99% count accuracy. Internally, replicating the study, Mrs. Ingram found the systems detection and classification accuracy of 99%.

Two of our company technicians, Joseph Winton and James Novack, previously worked for city transportation department in several states. Joseph Winton has a level 3 IMSA Field and Bench certification with over 25 years of experience, while James Novack has his level 2 certification with 8 years of experience.

Angel Williams, Mona Morris, and Zack Mueller are all Outside Sales with at least 7 years of experience and assist with installation and training of our products. As the ITS Plus Thunder system is interoperable with most other cameras (both for basic detection and standard PTZ), the staff is capable of working with most items already installed in the field.

Rhiannon Brookwell has worked both as sales and as internal support over the course of 8 years and is available to assist with technical support as well as any questions regarding shipping, repairs, and billing.



References

1. Delmas McElhany - Pittsburgh Department of Transportation
Delmas.mcelhany@pittsburghpa.gov
1-412-255-2873
2. Kyle Simpson - Pinellas County
ksimpson@forwardpinellas.org
3. Christopher Falcos - Massachusetts Department of Transportation
Christopher.falcos@dot.state.ma.us
1-857-292-0229
4. Sudhir Murthy - TrafInfo Communications, Inc.
Sudhir.murthy@trafinfo.com
1-888-710-5380



Project-Related Experience and Qualifications

ITS Plus has been in the detection world for 20 years. Our original ITS Plus Lightning system had unique Circle Zone Technology that was great for bicycle detection. The ITS Plus Thunder system only improved ITS Plus's ability to detect, and now classify, bicycles. The system has a Deep Neural Network that has been learning for 13 years and has an unparalleled ability to classify between bicycles and motorcycles – along with 15 other types of road users and pedestrians.

The ITS Plus Thunder system has been utilized in many states in the field for over three years in the United States, with previous use of the DNN being utilized outside the country.

A White Paper study was done by TTI, finding the ITS Plus Thunder system to have 98% count accuracy.

For count accuracy, the study found a slight over-count stemming from the system tends to count bicycles or motorcycles in a truck bed as their own object.

We replicated the TTI study using their models across three other locations and throughout the testing we saw zero misses and zero false detections. For classification using 16 different road user classifications including bicycle, motorcycle, and scooter, the system classified at 99% accuracy.

The ITS Plus Thunder system can be utilized for both pedestrian and vehicle detection, both in the field and at the TMC.



Technical Proposal

The system can be used for presence detection, classification, counts, near misses, Origin/Destination, as well as a wide array of other data. It uses an open API, so it can be programmed as needed. Since the system is also used to vehicle detection, this also gives the ability to offer wrong-way detection, u-turn detection, blocked vehicle detection, light violations, speed, conflict-detection, and traffic data collection among other things.

The system is interoperable and will work with analog or digital cameras already deployed in the field or with ITS Plus's POE or analog cameras if none are currently available. Interoperability allows agencies to save money that could otherwise be used for other projects.

ITS Plus Thunder comes with a slide in card for SDLC configuration, but we offer a shelf mount option should there be no card rack present in use cases at the intersection that need to output connection to a controller. NTCIP can be used in some scenarios, depending on what equipment is available on site. Otherwise, the system itself can be used without SDLC at the TMC with the sole purpose of data collection if there is no need for the unit to assist in running the intersection.

The system can provide statistical data in different aggregation modes such as whole history, time blocks, and defined time intervals. The system has different visualization tools, from live view, to tables and statistical values, to trajectories, etc.

ITS Plus does not use a cloud-based model. All data is stored on the device at your fingertips with no extra fees or hidden costs.



Other

ITS Plus is well known for its customer service. We like our staff to be present for at least the first installation to offer training and assistance. Technical support is available free of charge no matter what day or time.

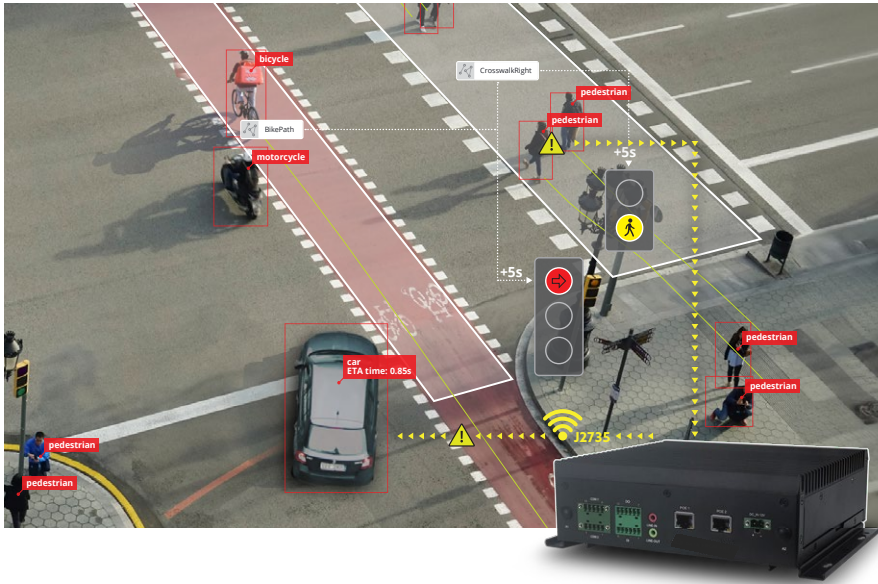
Typical diagnostic/repair turn around time is 2 – 3 business days. All items have at least a 1 year factory warranty. Cameras have a 2 year warranty. Cameras can be repaired or replaced outside of warranty for \$399.

Product shipping is stock to 30 days, though typically within 1 – 2 weeks depending on order size and product availability.

Invoices are usually sent via email once the items have shipped.

Product Pricing Warranty

Supplier Part No	Price	Description	Warranty
ITSP-VR600-O	\$14,495.00	Thunder Series Processor w/ accessories	1 Year
ITSP-PMPOE-AI-4	\$19,495.00	Thunder PLUS Kit including POE Cameras	1 Year
ITSP-SDLC-L	\$1,995.00	Shelf Mount Thunder Series SDLC	1 Year
ITSP-DIT	\$1,495.00	Deluxe Installation Kit	1 Year
ITSP-PMPOE-8-2	\$1,249.00	Standard POE Camera	2 Year
ITSP-PMPOE-110	\$1,649.00	Wide Angle POE camera	2 Year



ITSP-V600-O

The ITS Plus ITSP-V600-O unit is a video analytics embedded computer designed for real-time detection tasks for dynamic control of traffic light signaling and the collection of traffic data from IP cameras. It has a powerful NVIDIA Jetson Orin NX processor that runs the AI-based detection and tracking algorithm which turns any video stream into high quality trajectory data about road users. The system is powerful enough to analyze data from up to 6 connected cameras in real-time with an operating range of more than 80 meters. The highly optimized and fully configurable trajectory processing engine is able to evaluate dozens of detection tasks in each camera view in parallel.

Detection task configuration is performed using the traffic framework called FLOW, which involves the parallel or serial connection of spatial, temporal, or attribution filters, or other operators. Emulating an inductive loop at any location in the camera view is just a matter of a few clicks, as is the case for more complex scenarios such as U-turn detection, blocking vehicle detection, queue detection, or average speed measurement. The system is fully interactive and responds live to new settings configurations.

The system is also able to provide statistical data about the events in different aggregation modes such as whole history, time blocks, floating window or defined time interval. This data can be visualized on a user defined dashboard using interactive widgets for heatmap data, tables, trajectories, statistical values etc. The historical data together with the real-time detected events are available via open APIs for 3rd parties or can be exported in various formats.

The unit offers multiple connectivity options with traffic controllers, including data communication protocols like NTCIP, J2735, UDP, SDLC, etc. The actions/outputs are scriptable and can react to any single detected event in the video or user-defined performance metrics. The operating temperature range is from -40°C to 75°C. Two GigE PoE ports allow for easy connection of IP cameras and other network devices. Its compact size facilitates easy installation into the traffic cabinet. The system supports remote configuration, including updates, if internet connection is available.

Thunder is a multifunction traffic analyzer prepared for the new era of dynamic traffic control.

Dynamic control

- Vehicle presence
- Speed data, level of service
- Queue length / occupancy
- Gap -time & space, ETA

Traffic violations

- U-turn detection
- Wrong-way detection
- Illegal lane change
- Red-light violation

Vulnerable road user protection

- Pedestrian/cyclist presence
- Conflict detections
- Jaywalking
- Personal safety messages / J2735

Powered by FLOW, the most powerful traffic framework

FLOW is a fully interactive video analytical traffic framework designed for real-time driven applications. It is the fastest and the most efficient way to transform any video stream into a stream of actionable insights. The first tool ever which visualizes traffic data live right at your fingertips and communicates with the other parts of your smart infrastructure using open APIs. FLOW is built for all thinkable traffic scenarios thanks to the powerful combination of unique visual traffic programming language, trajectory-driven design and AI-based image processing. Take the advantage of the one unified solution for smart traffic, parking, retail and security, which runs everywhere.

Video detection features

FLOW is powered by a proprietary developed and globally trusted video analytical engine utilizing deep-learning. This engine is capable of detecting and tracking hundreds of objects in multi-camera environments simultaneously.

Interactive data visualization

FLOW allows you to visualize the extracted information and analyses using interactive widgets on the customizable dashboards. Create a beautiful and live visualization of the current traffic situation.

Traffic analysis functions

FLOW supports various traffic analytic functions and operators that can be combined into a comprehensive traffic analysis running in real-time. Thanks to the unique visual traffic programming language, you will be a designer of a monitoring solution tailored to your specific needs.

Data interfaces

FLOW was born for integration with other parts of smart infrastructure. Any type of extracted traffic insights can be continuously delivered to 3rd party systems using an open API which supports multiple communication protocols including UDP, NTCIP, J2735 and REST.

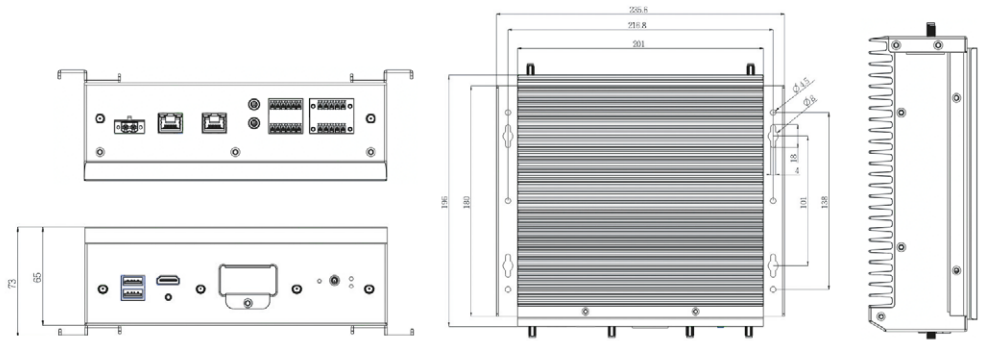


Model

ITSP-V600-0

Description

Fanless unit designed for real-time video analysis, intended for installation in a traffic controller cabinet.



General properties

Processor	Orin NX 8 GB
Memory	8 GB 128-bit LPDDR5; 1 TB NVMe SSD storage
Expansion slots	1x M.2 304(5)2 B-KeySocket (USB 3.0) or 5G; Sub-6With Dual SIM Socket Reserved; 1x M.2 2230 E-Key Socket (USB2.0 & PCIe) for WiFi
Ethernet	2x GigE PoE LANs With Support For IEEE 802.3af/at; PoE(+) Under Max. 30W (Surge Protection Up To 2KV)
Video output	1x HDMI 2.0 A/B @ 4Kp60 With Screw Lock
Power supply	System Power Input Rated DC 12V
Dimensions	W201 x D65 x H196mm / 7.91" x 2.56" x 7.72"
Gross weight	~2.6 kg
Operating temperature	-40°C ~ 75°C (-40°F ~ 167°F) (without LTE)
Storage temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Relative humidity/Storage Humidity	5% ~ 90% Operating; 5% ~ 95% Non-Operating
Certification	CE/FCC Class A, UL

Video analytics

Video analytic engine	exact object traces, 17 categories, built-inALPR for LP with alphanumeric characters (EU, USA, UK), traffic light state recognition, dynamic and static anonymization, georegistration, no-detection zones, color recognition
Processing power in FPS (B/B+A/B+LP/B+LP+A)*	@640x384: 218/162/92/83 (B = basic detection, A = add-ons img. processing modules, LP = license plate recognition)
Camera support	IP cameras with H.264 or H.265 codec and RTSP or ONVIF cameras. PTZ cameras, 360 cameras, thermal or visible light spectrum; capable of processing up to 6 cameras in the real time; detection range at least 80 meters.

Traffic analytics

Multifunctional engine	fully configurable trajectory processing pipeline via visual programming language FLOW; ability to evaluate multiple detection tasks in parallel (100+)
Available filters	zone, gate, directional gate, directional zone, movement, duration, time of occurrence, category, LP, color
Other operators	level of service, union, intersection, complement, volume, near misses
Data statistics	incremental / whole history, time blocks, floating window, fixed interval
Outputs	events, actions / commands, statistics, tables, histograms, images
Possible tasks	presence detection, u-turn detection, blocking vehicle detection, red light violation, average speed, detection of specific traffic events, OD matrix, conflict detection, traffic data collection

Interfaces

Visualization	fully configurable dashboards with interactive widgets
Data interfaces	NTCIP / SNMP, J2735, UDP, REST, WEBHOOK, MJPEG
HW interfaces	support for IO expanders (relay / digital outputs), SDLC expanders

Other features

- User management - admin, analyst, viewer
- NTP time synchronization
- Remote updates - over-the-air
- Data reduction profiles for remote configuration
- Evidence - excel reports, images, video
- Visibility detection
- Georeferencing & undistortion
- Multi-camera tracking

Packing list

Optional

- SDLC expander - 16 channels / 4 BIU
- IO expander - 16 relay / digital outputs

ORDERING CODES

ITSP-V600-0

Unit with Orin NX 8 GB and 1 TB storage.

ITSP-V600

Unit with Jetson NX 8 GB and 16 GB storage.

All specifications are subject to change without notice.

ITS Plus, Inc. | 6220 Trailwood Dr, Plano, TX 75024

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