DATE: 6/26/23

TO: Robert Gleason, Director of Purchasing

THRU: Scott Brunner, P.E., Director, BCTED and Richard Tornese, P.E., Director, BCHCED

FROM: Manuel Fontan, P.E., Engineering Unit Supervisor, Highway Construction and Engineering Division

PROJECT TITLE: ATCS MAP Project IDs included are: A01, A02, A03,A05, A06, A103, A13, A14, A16, A21

REQUISITION NO.:

SOLE SOURCE/SOLE BRAND REQUEST

I. REQUEST: Provide a description of the features of the product/service or Scope of Work.

SynchroGreen is the Adaptive Traffic Control System (ATCS) software platform developed by Naztec/TrafficWare, which is a subsidiary of Cubic Corporation. The SynchroGreen platform is designed to improve traffic flow and reduce congestion by coordinating traffic signal timings. The system utilizes real-time data from various sources, such as traffic sensors, cameras, and connected vehicles, to dynamically adjust traffic signal timings at intersections. By optimizing the signal timings based on current traffic conditions, SynchroGreen aims to improve traffic efficiency, reduce travel times, and enhance overall transportation network performance.

II. JUSTIFICATION: Please check all boxes that describe your reason(s) for determining that only one source or brand is reasonably available.

Only Sole Source/Uniqueness

☐ Proprietary Item - this vendor/ source has the only rights to provide this service or commodity. A letter from the manufacturer or authorizing entity is included in this request.

☐ Technology Improvements - updates or upgrades to an existing system, software, software as a service (SaaS), hardware purchases.

☐ Engineering Direction - engineering drawing or specification identifies product; "no substitutes or equivalents will be acceptable."

☐ Only qualified supplier - reliability and maintainability of the product or service would be degraded unless specified supplier is used; may void warranty. This request includes a copy of the current warranty information.

☒ Other – the County requires this sole source, sole brand purchase for the following reasons:

The SychroGreen is directly and uniquely compatible with the existing signal timing software platform used by Broward County as it is a submodule of the core signal timing software suite. No other adaptive control system has this unique direct compatibility. SynchroGreen was also recommended as the County's principal adaptive control system through a third-party consultant evaluation. This sole source, sole brand designation is intended for this subject project only, and is not intended to preclude or discourage further evaluations and potential selection of other adaptive systems in the future projects if warranted through competent evaluation of alternate systems.

Business Case (One/Most Reasonable Source or One/Most Reasonable Brand)

☐ Operational Compatibility - replacement parts from alternate suppliers are not interchangeable with original part and causes equipment incompatibility. Previous findings and/or documentation is included with this request.

☐ Ease of Maintenance - maintenance or retooling prohibits competition. Section III, Comparative Market Research includes estimated costs associated with changing current source and/or brand.

☐ Follow-On - potential for continued development or enhancement with same supplier and eliminates costs incurred by using different supplier. Section III, Comparative Market Research includes estimated costs for replacing current or existing system.

☐ Complies with existing community and safety standards, and/or laws, rules, and regulations.

☐ Exempted from the Procurement Code – per Section 21.5 of Broward County Administrative Code.

☐ Other/or additional information – using this sole source, sole brand purchase benefits the County for the following reasons:

III. COMPARATIVE MARKET RESEARCH: Provide a detailed source or market analysis for justification of sole source/brand or most reasonable source (attach extra sheets as needed).

Estimated project value: $ 2,072,000.00 Contract length (if applicable): N/A

Expenses to date:

Has this commodity been previously provided to the County? _____Yes ✓ No

If yes, when and by whom? N/A

How was item/service procured? N/A

What is the current contract (MA) or purchase order number?

If this is a sole brand, is there an "authorized" dealers list? _____Yes ✓ No

Cost/Benefit Analysis: What would the cost be to utilize an alternate vendor or source? This explanation should include the savings and/or additional costs to the County by not using the preferred vendor or source. Attach additional sheets if needed.

There are other ATCS software platforms available however they would require a new controller be installed at every intersection within the County or an additional processing unit with proprietary video detection devices installed at every intersection. New controllers, assuming they are compatible with the existing cabinets, at approximately 1,500 intersections would cost approximately $15,000,000 or $10,000 per intersection per intersection. That does not include the cost for the ATCS software licenses which can vary by manufacturer. The additional processing units and detectors would cost approximately $40,000 per intersection which is $60,000,000 total and this does not include the software costs. Additionally, with any other solution than SychroGreen there are are operational challenges since those solutions would require an additional software that BCTED would have to operate/maintain. The SychroGreen software works seemlessly with the existing ATMS.now software.

CERTIFICATION: I have thoroughly researched the sole source or sole brand justification and fully understand the implications of Section 838.22 of the Florida Statutes:

(2) "It is unlawful for a public servant, with corrupt intent to obtain a benefit for any person or to cause unlawful harm to another, to circumvent a competitive bidding process required by law or rule by using a sole source contract for commodities or services."

(5) "Any person who violates this section commits a felony of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084"

Manuel Fontan	MANUEL FONTAN Digitally signed by MANUEL FONTAN Date: 2023.06.26 09:37:24 -04'00'	6/26/23
REQUESTOR/EVALUATOR (PRINT)	REQUESTOR/EVALUATOR (SIGN)	DATE
Scott Brunner	Scott Brunner, PE Digitally signed by Scott Brunner, PE Date: 2023.06.29 17:49:16 -07'00'	06/29/23
Richard Tornese	RICHARD TORNESE Digitally signed by RICHARD TORNESE Date: 2023.07.05 15:28:18 -04'00'	7/5/23
DEPT./DIV. DIRECTOR OR DESIGNEE (PRINT)	DEPT./DIV. DIRECTOR OR DESIGNEE (SIGN)	DATE

The Purchasing Agent has reviewed the request and has completed the required due diligence per the Procurement Code Section(s) 21.25 and 21.26. The Purchasing Agent recommends the following:

☑ Sole Source ☑ Sole Brand ☐ Reasonable Source ☑ RFI attached ☐ Rejected

☐ Request Authorization to Negotiate

Additional Information:

A Request for Information (RFI)/Notice of Intent to Designate Sole Source/Sole Brand, TRN2126892F1 Sole Source, Sole Brand Designation for SynchroGreen Adaptive Traffic Control Systems ("ATCS") software was issued on August 14, 2023 and ended on August 21, 2023, with no response, Exhibit 1. The RFI was intended to determine the vendors who are able to supply the commodities or contractual services described in the packet or written explanation or other documentation contesting the proposed designation as a Sole Source, Sole Brand. The RFI did not ask for pricing commitment.

The Purchasing Agent confirms that the required due diligence has been completed through Request for Information and market research, and recommends approval of this request. Upon approval of the Sole Source, Sole Brand designation, the County will seek to establish fixed construction contracts to include the installation of SynchroGreen ATCS to provide signal timing for the mainline, side streets, and pedestrians through real-time adaptive traffic control throughout the County as part of the Mobility Advancement Program ("MAP"). The SychroGreen ATCS software is compatible with the existing signal timing software platform used by various agencies throughout Broward County

JERMAINE M. PINNOCK Digitally signed by JERMAINE M. PINNOCK Date: 2023.09.19 12:35:37 -04'00'

Purchasing Agent Signature

Danea Cohen-Ebanks Digitally signed by PURCHASING MANAGER and on behalf of SONIA M. LOVETT, SENIOR PURCHASING MANAGER Date: 2023.09.19 15:42:30 -04'00'

Purchasing Manager Signature

APPROVAL AUTHORITY

REASON/SUGGESTED ACTION (IF DISAPPROVED):

Robert Gleason Digitally signed by Robert Gleason Date: 2023.09.25 09:47:21 -04'00'

Director of Purchasing Signature

Date: 9/25/23

Solicitation TRN2126892F1

Sole Source/Brand Designation for SynchroGreen ATCS software

Bid Designation: Public

Broward County Board of County Commissioners

Bid TRN2126892F1
Sole Source/Brand Designation for SynchroGreen ATCS software

Bid Number	**TRN2126892F1**
Bid Title	**Sole Source/Brand Designation for SynchroGreen ATCS software**
Bid Start Date	**Aug 14, 2023 2:17:58 PM EDT**
Bid End Date	**Aug 21, 2023 2:00:00 PM EDT**
Question & Answer End Date	**Aug 16, 2023 5:00:00 PM EDT**

Bid Contact **Jermaine Pinnock**
Purchasing Agent
Purchasing
954-357-6066
jpinnock@broward.org

Bid Contact **Sonia Lovett**
Purchasing Manager
Purchasing Division
954-357-8506
slovett@broward.org

Contract Duration	**Not Applicable**
Contract Renewal	**Not Applicable**
Prices Good for	**Not Applicable**

Bid Comments

NOTICE OF INTENT TO DESIGNATE SOLE SOURCE/SOLE BRAND

The Division of Purchasing is publishing this notice pursuant to the Broward County Procurement Code sections, 21.25 and 21.26, Sole Source/Sole Brand. This Request for Information (RFI)/ Notice of Intent to Designate Sole Source/Source Brand is intended to ascertain whether the commodity and/or services specified below is currently available from multiple vendors. The following commodity and/or services are thought to be available from only a single vendor. This RFI/Notice of Intent to Designate Sole Source/Sole Brand will remain posted until the due date and time indicated. **Vendors should submit their response electronically through Periscope S2G.**

THIS IS NOT A REQUEST FOR PRICING OR A COMMITMENT TO PURCHASE.

Commodities and Services Required
SynchroGreen Adaptive Traffic Control Systems (ATCS) software

Quantity or Term
One-Time Purchase.

Using Agency
Broward County Highway Construction and Engineering Division (HCED)

Known Source/Brand
SynchroGreen Adaptive Traffic Control System (ATCS) software platform from manufacturer's authorized distributor for Naztec/TrafficWare, a subsidiary of Cubic Corporation.

Justification for Source/Brand Acquisition
The HCED as part of the Mobility Advancement Program ("MAP"), is installing Adaptive Traffic Control Systems ("ATCS") throughout the County. HCED is seeking an ATCS that integrates with the County's existing system at all traffic controllers for over 1500 intersections that the County currently maintains.

If you are able to meet or capable of exceeding the specification requirements for these products, respond to this RFI/Notice of Intent to Designate Sole Source/Sole Brand through Periscope S2G. Provide product literature for any product to assist in determining if the commodities or services are comparable. Broward County will be the sole determinate of what is comparable.

Prospective Vendors are requested to provide information regarding their ability to supply the commodities or services described or written explanation or other documentation contesting the proposed designation as a Sole Source/Sole Brand. Regardless of any prior communications with the Purchasing Division, all vendors interested in responding to this notice must submit a response to this positing containing complete responses to all of the information requested.

All Vendor responses will be evaluated by the Using Agency which will be the sole determinate power in establishing the approved equal status of the commodities or services offered by the vendor. If it is determined in writing by the agency, after reviewing any information received from prospective Vendors, that the commodities are available only as sole brand, a solicitation will be issued for the sole brand for processing and approval by the appropriate award authority.

The Director of Purchasing shall consider such submittals and notify all submitting vendors of the decision whether to designate a sole source, only reasonable source or sole brand, which decision shall not be subject to objection, protest or appeal under the Broward County procurement code.

Questions and Answers: The County provides a specified time for Vendors to ask questions and seek clarification regarding the requirements of the solicitation. All questions or clarification inquires must be submitted through Periscope S2G by the date and time referenced in the solicitation document (including any addenda). The County will respond to all questions via Periscope S2G.

Please read the entire form very carefully before responding to this notice.

Item Response Form

Item	**TRN2126892F1--01-01 - SynchroGreen ATCS software**
Quantity	**1 each**

Prices are not requested for this item.

Delivery Location	**Broward County Board of County Commissioners**
	No Location Specified
	Qty 1

Description
SynchroGreen ATCS software, collect real-time accurate, lane-by-lane detection at both the stop bar of the intersection and at 250'-500' in advance to the stop bar.

Question and Answers for Bid #TRN2126892F1 - Sole Source/Brand Designation for SynchroGreen ATCS software

Overall Bid Questions

There are no questions associated with this bid.

Bid Tabulation Packet
for
Solicitation TRN2126892F1

Sole Source/Brand Designation for SynchroGreen ATCS software

Bid Designation: Public

Broward County Board of County Commissioners

Bid #TRN2126892F1 - Sole Source/Brand Designation for SynchroGreen ATCS software

Creation Date **Jul 25, 2023**
Start Date **Aug 14, 2023 2:17:58 PM EDT**
End Date **Aug 21, 2023 2:00:00 PM EDT**
Awarded Date **Not Yet Awarded**

TRN2126892F1--01-01 SynchroGreen ATCS software						
Supplier	**Unit Price**		**Qty/Unit**	**Total Price**	**Attch.**	**Docs**
				No Bids		
Agency Product Code: **Agency Notes:**			**Supplier Notes:**			

**

CUBIC

Trafficware

- **Improve Travel Time & Reduce Delays**
- **Improve Safety**
- **Reduce Harmful Emissions**
- **Save Fuel**

SynchroGreen®

SynchroGreen by Trafficware is the industry's premier Real-time Adaptive Traffic Signal Control Technology. Using optimized signal timing and enhanced safety features, SynchroGreen maximizes the use of available roadway capacity. Our field-proven technology reduces travel time, delays, and stops for all road users while simultaneously decreasing fuel consumption and emissions.

SynchroGreen will allocate time to each vehicle and pedestrian phase in real time, without any additional modules, keeping your city moving while meeting all National Standards requirements.

SynchroGreen takes a holistic approach when optimizing traffic signals by considering sidestreet and pedestrian traffic, in addition to mainline traffic.

How Does SynchroGreen Work?

SynchroGreen optimizes signal timings based on demand. If more vehicles demand service for a particular movement, then more time is allocated; if less time is required, less time is allocated. Secondly, SynchroGreen promotes traffic signal coordination and synchronization. SynchroGreen reduces vehicle stops and travel time by analyzing when vehicles arrive at the intersection and increasing the probability that the traffic signals will be green when they arrive.

Operating Features

- The SynchroGreen management information base resides within the signal controller.
- The traffic signal controller remains in charge of the intersection.
- The signal cabinet does not require proprietary hardware or rewiring.
- The agency can choose whether SynchroGreen is hosted on a central server or in a virtual/cloud-based environment.

KEY FEATURES

REAL-TIME ADAPTIVE SIGNAL CONTROL

- Adjusts traffic signal timing plans in realtime based on current traffic demands.
- Optimizes signal timing (cycle, offset and split) for normal traffic flow or unpredictable surges due to accidents, road closures, or special events.

SMART SYSTEM & EASY SETUP

- Designed for easy startup and reliability.
- Accessible from a web-based interface or Windows application.
- Returns traffic controllers to normal time-of-day operation if the system is shut down.

INTEGRATES WITH SYNCHRO & SIMTRAFFIC

- Models adaptive traffic control and provides simulation capabilities.
- Calibrates adaptive settings using actual field data.
- Allows users to preview expected results before implementation.

Cubic Transportation Systems, Inc. | 522 Gillingham Lane, Sugar Land, TX 77478
Tel +1 281-240-7233 | trafficwaresales@cubic.com | transportation.cubic.com

CUBIC | Trafficware

SynchroGreen® Module

Adaptive Traffic Control
ATMS Central Management System

SynchroGreen®

Real-Time Adaptive Traffic Control

522 Gillingham | Sugar Land | Texas | 77478
For more information, call 281-269-6512 or visit www.trafficware.com.

SynchroGreen optimizes for balanced service, maximum progression, and critical movements.

What is SynchroGreen?

SynchroGreen optimizes signal timing for the mainline, side streets, and pedestrians through real-time adaptive traffic control. This field-proven solution is designed to reduce motorist travel time, delays, and stops. SynchroGreen maximizes the use of available roadway capacity, while also decreasing fuel consumption and emissions.

Installs in traffic controllers,
not beside them.

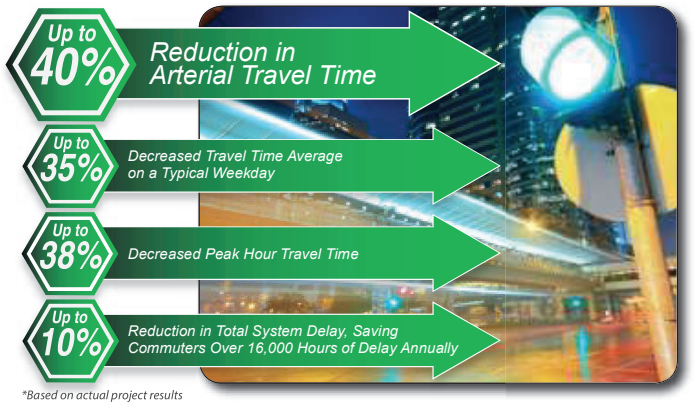
How is SynchroGreen different?

SynchroGreen was designed from the ground up by Cubic | Trafficware, a company with decades of experience in the traffic industry. Cubic | Trafficware's Synchro Studio software is used by tens of thousands of traffic engineers around the globe to simulate and optimize traffic. Cubic | Trafficware's ATMS central management software is utilized by hundreds of cities across the country to manage and control thousands of intersections. Together, this depth of experience provides a reliable and effective foundation to understand the complexity of optimizing traffic signal operations.

SynchroGreen takes a holistic approach when optimizing traffic signals by considering side-street and pedestrian traffic, in addition to mainline traffic. SynchroGreen will allocate time to each vehicle and pedestrian phase in real time, without any additional modules.

Finally, as the only true NTCIP-compliant, real-time adaptive traffic control system, SynchroGreen provides peace of mind.

SynchroGreen has demonstrated...



*Based on actual project results

It's not just about the greenband.

SynchroGreen considers side streets and pedestrians too.

How does SynchroGreen work?

SynchroGreen optimizes signal timings based on demand. If more vehicles demand service for a particular movement, then more time is allocated; if less time is required, less time is allocated. Secondly, SynchroGreen promotes traffic signal coordination and synchronization. SynchroGreen reduces vehicle stops and travel time by analyzing when vehicles arrive at the intersection and increasing the probability that the traffic signals will be green when they arrive.

- The SynchroGreen management information base resides within the signal controller
- The traffic signal controller remains in charge of the intersection
- The signal cabinet does not require proprietary hardware or rewiring
- The agency can choose whether adaptive control is provided from a central location or by using a closed-loop system

REAL-TIME ADAPTIVE TRAFFIC CONTROL

1. Adjusts traffic signal timing plans in real time based on ***current traffic characteristics***
2. Optimizes signal timing (cycle, offset and split) for normal traffic flow or ***uncharacteristic surges*** due to accidents, road closures, or

SMART SYSTEM AND EASY SETUP

1. Designed for ***easy startup*** and reliability
2. Accessible from a ***web-based interface*** or Windows application
3. Returns traffic controllers to ***normal time-of-day operation*** if the system is shut down

INTEGRATES WITH SYNCHRO & SIMTRAFFIC

1. Models adaptive traffic control and provides ***simulation capabilities***
2. ***Calibrates adaptive settings*** using actual field data
3. Allows users to ***preview expected results*** before implementation

SynchroGreen is the only solution that ***analyzes the entire system.***

SynchroGreen is Available in Three Levels.

- SynchroGreen Lean includes the Local Intersection Software and Central Server Software, and provides a web-based interface for monitoring and controlling the system. This option is an economical way for a city to experience the benefits of adaptive traffic control.
- SynchroGreen Premium includes the Local Intersection Software and Enhanced Central Server Software. It provides agencies with the ability to analyze real-time system performance, create detailed reports, log system calculations, and much more. This solution is designed to be easily integrated as part of federally funded adaptive traffic control projects.
- SynchroGreen Enterprise integrates directly with your ATMS central management system and also qualifies for federal funding. It allows agencies to operate any number of adaptive intersections and up to 9,999 total intersections.

SynchroGreen Adaptive Algorithm	✓
SynchroGreen Local Intersection Software	✓
SynchroGreen Web Interface	✓
Enhanced User Interface	✓
Adaptive System Performance Monitoring	✓
Real-time and Historical Adaptive System Reports	✓
Assign User Profiles and Restrictions	✓
Designed for Federally-Funded Adaptive Traffic Control Projects	✓
Supports Adaptive and Non-Adaptive Traffic Signals	✓
Comprehensive Monitoring of Non-Adaptive Traffic Signals	✓
Multi-Year Support and Upgrades available	✓

ABOUT CUBIC | TRAFFICWARE

Cubic | Trafficware specializes in researching, designing, and developing electronic equipment and enterprise software designed to enhance the transportation industry. Our industry expertise comes from:

1. Hands on experience attained while solving traffic management challenges across the country since 1979.
2. Our in-house team including: professional traffic engineers, hardware and software design and development staff, manufacturing personnel, and customer service/field application engineers.
3. Regular dialogue with our customers to address their real-world operational issues and future traffic management requirements.

Cubic | Trafficware manufactures a full line of traffic equipment in its 90,000 square-foot technology center located in Sugar Land, Texas. In over three decades of manufacturing in the USA, our products have earned a reputation for unmatched quality and reliability.