



**BOARD OF SUPERVISORS AGENDA ITEM REPORT
CONTRACTS / AWARDS / GRANTS**

Award Contract Grant

Requested Board Meeting Date: 02/15/2022

* = Mandatory, information must be provided

or Procurement Director Award

***Contractor/Vendor Name/Grantor (DBA):**

Hydrolynx Systems, Inc.

***Project Title/Description:**

Alert Flood Warning System Parts and Repair Service

***Purpose:**

Amendment of Award: Master Agreement No. MA-PO-21-029, Amendment No. 02. This Amendment is for a one-time increase in the amount of \$850,000.00 for a cumulative not-to-exceed contract amount of \$1,038,000.00 effective 02/15/2022 and increases the annual award amount by \$6,000.00 from \$94,000.00 to \$100,000.00 effective 09/22/22

Administering Department: Regional Flood Control District.

***Procurement Method:**

Pursuant to Pima County Procurement Code 11.12.050, Sole source procurement, on 08/05/20, the Procurement Director approved an award of contract for an initial term of one (1) year and an annual award amount of \$94,000.00 with four (4) one-year renewal options.

Effective 09/22/21, the Procurement Officer processed Amendment No. 01, which extended the termination date to 09/21/22, and added the annual award amount of \$94,000.00 for a cumulative not-to-exceed contract amount of \$188,000.00. Three (3) renewal options remained.

This increase is needed to replace and install over 150 ALERT transmitters with ALERT2 compatible transmitters, install new solar panels, antenna cables and GPS clocks at each ALERT field site. Install ALERT2 receiver and decoders at Admin. West and PECOC. Develop and program the Time Division Multiple Access (TDMA) protocol for the ALERT2 network and integrate ALERT2 data into the existing ALERT database and servers.

PRCUID: 383593

Attachment: Master Agreement.

***Program Goals/Predicted Outcomes:**

Pima County Regional Flood Control District will be able to monitor storm activity and provide notification of flood hazards to County and other agency officials.

***Public Benefit:**

Public will be notified of storm activity and flooding conditions within the County.

***Metrics Available to Measure Performance:**

Department will monitor delivery, repair and billing to ensure contract compliance.

***Retroactive:**

No.

To: COB 2/8/22

Vers: 3

Pgs: 6

FILED 02/15/2022 10:46:13 CLK/DF

Contract / Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e.,15-123): _____
Commencement Date: _____ Termination Date: _____ Prior Contract Number (Synergen/CMS): _____
 Expense Amount: \$* _____ Revenue Amount: \$ _____

***Funding Source(s) required:**

Funding from General Fund? Yes No If Yes \$ _____ % _____

Contract is fully or partially funded with Federal Funds? Yes No

If Yes, is the Contract to a vendor or subrecipient? _____

Were insurance or indemnity clauses modified? Yes No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number? Yes No

If Yes, attach the required form per Administrative Procedure 22-10.

Amendment / Revised Award Information

Document Type: MA Department Code: PO Contract Number (i.e.,15-123): 21-029

Amendment No.: 02 AMS Version No.: 03

Commencement Date: 02/15/2022 New Termination Date: _____

Prior Contract No. (Synergen/CMS): _____

Expense or Revenue Increase Decrease Amount This Amendment: \$ 850,000.00

Is there revenue included? Yes No If Yes \$ _____

***Funding Source(s) required:** Flood Control Tax Levy

Funding from General Fund? Yes No If Yes \$ _____ % 0

Grant/Amendment Information (for grants acceptance and awards) Award Amendment

Document Type: _____ Department Code: _____ Grant Number (i.e.,15-123): _____

Commencement Date: _____ Termination Date: _____ Amendment Number: _____

Match Amount: \$ _____ Revenue Amount: \$ _____

***All Funding Source(s) required:**

***Match funding from General Fund?** Yes No If Yes \$ _____ % _____

***Match funding from other sources?** Yes No If Yes \$ _____ % _____

***Funding Source:** _____

***If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?**

Contact: Procurement Officer: Stephen M. Romero Digitally signed by Stephen M. Romero Date: 2022.02.07 12:33:49 -0700 Division Manager: Troy McMaster Digitally signed by Troy McMaster Date: 2022.02.07 13:22:37 -0700

Department: Procurement Director: Ana Wilber Digitally signed by Ana Wilber Date: 2022.02.07 13:24:08 -0700 Telephone: 520-724-3021

Department Director Signature/Date: [Signature]

Deputy County Administrator Signature/Date: [Signature] 2/8/2022

County Administrator Signature/Date: [Signature] 2/8/2022
(Required for Board Agenda/Addendum Items)

Project Name:	ALERT Flood Warning System conversion to ALERT2		
Project ID:	5ALERT2	Project Manager:	Lynn Orchard
Prepared By:	Lynn Orchard / Deirdre Brosnihan	Phone #:	724-4654

Background:

ALERT is an acronym for Automated Local Evaluation in Real Time, which is a method of using remote hydrologic monitoring equipment to transmit environmental data to a central computer network in real time. ALERT relies on line-of-site radio transmissions using a transmission standard developed by the National Weather Service. Rainfall, streamflow and other weather data generated by ALERT sensors is transmitted via UHF radio to a series of mountain-top receivers and then to receiving stations at two Pima County locations, Admin West and the Pima County Emergency Operation Center (PECOC). Here the data is captured by ALERT receiver/decoders and is incorporated into a database that simultaneously publishes the data to the Internet and sends automated alerts directly to Pima County staff and other cooperating agencies, including the National Weather Service. This system is the backbone of the Pima County Regional Flood Control District's flood warning program and provides essential and timely data to alert the public of impending flood related hazards. Because each of the remote sensors transmits data to the central database on the same UHF frequency, if two or more sensors send data simultaneously the radio waves can collide and cancel each other out resulting in a loss of data. As ALERT systems grow the likelihood of data loss due to radio collisions during active weather events increases. This essentially means that as an ALERT system expands it has the potential to become increasingly more inefficient. ALERT is widely used in the western United States and data loss as systems expand is a recognized problem. To address this, a new transmission protocol named ALERT2 has been developed. ALERT2 utilizes GPS clocks installed on the transmitters to force sites to only transmit data during fixed time intervals assigned to that unit. Because of the accuracy of the GPS clocks hundreds of ALERT2 transmitters can operate simultaneously while never broadcasting at the same instance as another site, eliminating the chance for radio transmission collision errors. The District's ALERT system expands every year to cover more of the county. The network is currently operating efficiently but we recognize that converting to ALERT2 will eventually be necessary to facilitate continued growth.

Scope of Work:

Replace and install over 150 ALERT transmitters with ALERT2 compatible transmitters. Install new solar panels, antenna cable and GPS clocks at each ALERT field site. Install ALERT2 receiver and decoders at Admin West and PECOC. Develop and program the Time Division Multiple Access (TDMA) protocol for the ALERT2 network. Integrate ALERT2 data into the existing ALERT database and servers.

Justification:

The ALERT flood warning system provides an essential public safety function. Data gathered from the ALERT system is used to inform District storm monitors and other essential Pima County staff of impending flood hazards. ALERT data is used to issue MyAlert public hazard notifications and to coordinate with the Pima County Office of Emergency Management and other first responders during active flood events. ALERT data is relayed automatically to other Pima County Departments including the Department of Transportation, Department of Environmental Quality, and Regional Wastewater. ALERT data is also shared directly with a number of other agencies and stakeholders including emergency coordinators for jurisdictions within the county as well as the National Weather Service. The value of ALERT data to provide reliable and timely flood hazard information is recognized and accordingly expanding the network of

**PIMA COUNTY PROJECT MANAGEMENT & GATE PROCESS MANUAL
DESCRIPTION OF NEED**



sensors to cover more of Pima County is a desired goal. Converting to ALERT2 will facilitate expanding the flood warning system while ensuring the data remains reliable during storm and flooding events. Additionally, the industry standard is moving to ALERT2 and availability and support for ALERT hardware is rapidly decreasing. Moving to ALERT2 serves to modernize our system and ensures the availability of hardware and technical support for many years into the future.

Attach a Map of the Area

	FY21-22	FY22-23	FY	FY	FY	Total
Project Development	\$40,000	\$40,000				\$80,000
Design	\$10,000	\$10,000				\$20,000
Right-of-Way						
Construction	\$475,000	\$307,000				\$782,000
Utility Relocation						
Public Art						
Contingency	\$52,000	\$36,000				\$88,000
Total - EXPENSES	\$577,000	\$393,000				\$970,000
RFCD Levy	\$577,000	\$393,000				\$970,000
Total - FUNDING	\$577,000	\$393,000				\$970,000
O&M – All total						

S Shields 12/8/2020

 Director Signature Date

Nancy Cole 12/8/20

 County Administration Signature Date



PIMA COUNTY

MASTER AGREEMENT

PIMA COUNTY, ARIZONA

THIS IS NOT AN ORDER - TRANSMISSION CONSTITUTES CONTRACT EXECUTION

Master Agreement No: 2100000000000000029

MA Version: 3

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Description: Alert Flood Warning System Parts and Repair Service

I S S U E R	Pima County Procurement Department
	150 W. Congress St. 5th Fl
	Tucson AZ 85701
	Issued By: STEPHEN ROMERO
	Phone: 5207243021
	Email: stephen.romero@pima.gov

T E R M S	Initiation Date: 02-15-2022					
	Expiration Date: 09-21-2022					
	<table> <tr> <td>NTE Amount:</td> <td>\$1,038,000.00</td> </tr> <tr> <td>Used Amount:</td> <td>\$155,152.92</td> </tr> </table>		NTE Amount:	\$1,038,000.00	Used Amount:	\$155,152.92
	NTE Amount:	\$1,038,000.00				
	Used Amount:	\$155,152.92				

V E N D O R	HYDROLYNX SYSTEMS INC	Contact: KIMBERLY A. BLAIR
	950 RIVERSIDE PKWY #10	Phone: 916-374-1800
	WEST SACRAMENTO CA 95605-1507	Email: kblair@hydrolynx.com
		Terms: 0.00 %
		Days: 30

Shipping Method:	Vendor Method
Delivery Type:	
FOB:	FOB Dest, Freight Allowed
Modification Reason	
Amendment No. 2 is for a one-time increase in the amount of \$850,000.00 for a cumulative not-to-exceed contract amount of \$1,038,000.00 effective 02/15/2022 and increases the annual award amount by \$6,000.00 from \$94,000.00 to \$100,000.00 effective 09/22/22.	

This Master Agreement incorporates the attached documents, and by reference all instructions, Standard Terms and Conditions, Special Terms and Conditions, and requirements that are included in or referenced by the solicitation documents used to establish this agreement. All transactions and conduct are required to conform to these documents.



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MASTER AGREEMENT DETAILS

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Line	Description	UOM	Unit Price	Stock Code	VPN	MPN
20	ALERT2 Receiver/Decoder (Radio Included)					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$14,400.00			5052RD-K-H
21	12 Vdc Power Supply with 3-pin MS Connector					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$150.00			5030-PS
22	CAT 5e Network Cable for ALERT1 or ALERT2 Data, 7FT					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$55.00			5071C-NET-5E
23	ALERT1 or ALERT2 Repeater in Canister TRADE-Up					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$14,200.00			5052RP2-H/TU
24	ALERT1 or ALERT2 Repeater in a Rack TRADE-Up					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$15,000.00			5052RP-K3-H/TU
25	Upgrade existing 5096 to ALERT 2					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$2,850.00			5096/A2-UP-H
26	Labor to add ALERT2 to existing 5096					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$390.00			5096A2-ADD
27	5096/A2 to 50388/A2 Upgrade Kit					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$3,195.00			50388/A2-UG
28	Transmitter in Round Canister, 1 Precipitation Input					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,290.00			50386/A2-54-H
29	Same as 50386/A2-54 w/Precipitation,1Up/Down Counter					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,490.00			50386/A2-90-H
30	Same as 50386/A2-54 w/Precipitation,1Up/Down Counter					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,990.00			50386/A2-81-H
31	Transmitter in NEMA 4x Enclosure					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,845.00			50386/A2-N-H.
32	Transmitter on Panel with Terminal Strip					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,345.00			50386/A2-PANEL-H
33	Upgrade Existing 50386 to ALERT2					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$2,850.00			50386/A2-UP-H
34	LABOR to Add ALERT 2 to Existing 50386					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$390.00			50386/A2-ADD
35	Transmitter in Round Canister w MS Connectors					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,090.00			50388/A2-90-H
36	Same as 50388/A2-90					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,590.00			50388/A2-81-H
37	Transmitter in 10 x 12 NEMA 4X Enclosure					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$4,795.00			50388/A2-B-H
38	Transmitter in NEMA 4X Enclosure with Terminal Strip					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$5,445.00			50388/A2-N-H



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Line	Description	UOM	Unit Price	Stock Code	VPN	MPN
39	Transmitter on panel with Terminal Strip					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$4,950.00			50388/A2-PANEL-H
40	Upgrade existing 50388 to ALERT2					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$2,850.00			50388/A2-UP-H
41	Labor to add Alert2 to existing 50388					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$390.00			50388/A2-ADD
42	Receiver antenna pigtail cable, 5050LA to TELPS-4502, 3 feet					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$100.00			CRG58-NM/NM3
43	Receiver antenna splitter, 2 ports					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$260.00			TELP5-4502
44	Receiver antenna pigtail cable, TELPS-4502 to 5052RP, 1 foot					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$50.00			CRG58-NM/BNC1
45	Solar Panel, 50 watts (3.0 Amp), 12 Vdc					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$1,080.00			5033-3.0B
46	Ritron ALERT1/ALERT2 Radio Receiver					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$700.00			RTR-LS-V
47	Maxon ALERT2 Radio Transmitter					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$500.00			RTR-MX-V
48	Network Interface for ALERT1/ALERT2 network output					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$595.00			50386-OP14
49	Cellular Network Gateway					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$1,350.00			50386-OP21
50	GPS Antenna Lightning Protection					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$250.00			5050LA-GPS
51	GPS Antenna for ALERT2					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$150.00			5050A-A2
52	GPS Antenna, antenna bracket, 2 cables, GPS lightning arrestor					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$550.00			GPS-ANT/A2
53	ALERT2 HDR Encoder PCB					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$1,250.00			G2012/E-H
54	12 volt 22 amp Hour Gel Cell Battery					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$110.00			5031-22
55	Battery Charger					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$110.00			5030-8
56	12 Vdc Power Supply with 3-pin MS connector					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$125.00			5030-PS
57	CAT 5e network cable for ALERT1 or ALERT2 data, 7 feet					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$55.00			5071C-NET-5E



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Line	Description					
58	ALERT2 HDR Field Transceiver, Basic Package					
	Discount	UOM	Unit Price	Stock Code	VPN	MPN
	0.0000 %	EA	\$6,000.00			5462/A2FX