Purchasing Service Agreement
CITY OF AUSTIN
RECOMMENDATION FOR COUNCIL ACTION

AGENDA ITEM NO.: 49
AGENDA DATE: Thu 09/30/2004
PAGE: 1 of 2

SUBJECT: Authorize Amendment No. 3 to the contract with VIEUX & ASSOCIATES, INC., Norman, OK, to increase the current contract period (extension option 1) for the expansion of real-time radar rainfall services for the Watershed Protection and Development Review Department, in the amount not to exceed $17,400; and to increase the two remaining 12-month extension options in an amount not to exceed $34,800 per extension option, for a total revised contract amount not to exceed $250,600.

AMOUNT & SOURCE OF FUNDING: Funding in the amount of $17,400 is included in the Amended Fiscal Year 2003-2004 Capital Budget of the Watershed Protection & Development Review Department. Funding for the extension options is contingent upon available funding in future budgets.

FISCAL NOTE: A fiscal note is attached.

REQUESTING DEPARTMENT: Purchasing for Watershed Protection and Development Review;

DIRECTOR'S AUTHORIZATION: Vickie Schubert

FOR MORE INFORMATION CONTACT: R. C. Hernandez, Senior Buyer 974-6434

PRIOR COUNCIL ACTION: N/A

BOARD AND COMMISSION ACTION: N/A

PURCHASING: N/A
MBE / WBE: This contract was awarded in compliance with Chapter 2-9 of the City Code (Minority-Owned and Women-Owned Business Enterprise Procurement Program). No subcontracting opportunities were identified; therefore, no goals were established for this solicitation.

Vieux & Associates, Inc. (VAI) provides real-time, radar-based rainfall precipitation estimates to the City of Austin. The estimates augment the ground-based rain gage system for the City's Flood Early Warning System (FEWS). The resulting information is used during storm events to provide recommendations for road closings and building evacuations to City public safety responders (AFD and APD). The real-time radar-based data greatly increases the resolution of precipitation information available to the City thus allowing for more accurate determination of the need for immediate/responsive action. The service provides precipitation data every 15 minutes for each square kilometer (0.38 square mile) of watershed area.

The six-month pilot program began in September, 2003. Initially the City and VAI integrated the City's existing ground-based rain gauge network data with VAI's proprietary software, over the Internet. The rain gauge data was transferred to VAI in real-time and used to adjust radar based precipitation values and support the development of accurate radar-based precipitation estimates. The precipitation values were provided every 15 minutes in graphic display and tabular format on a square kilometer basis for the entire Onion Creek watershed. VAI has configured its *RainVieux* software to provide the radar based

precipitation estimates graphically and provide rainfall data for use in the flood forecast model for the Onion Creek watershed. This system provided a significantly higher resolution of precipitation data than what is available through the City's ground-based rain gauge network, resulting in more accurate flood warning predictions. The website displaying the real-time rainfall estimates is now fully functional.

Currently, the pilot program applies only to the Onion Creek watershed (1002 square kilometers) and has proved to be very valuable during the multiple storm events in June 2004, by supporting key public safety action directives issued during those events. On June 9th, City engineers operating FEWS predicted, (with the assistance of the Onion Creek watershed radar-based precipitation information), that the lower Onion Creek basins would peak at levels that would not require emergency action.

This contract amendment will expand the precipitation estimate area by 73%, to include all of Austin's 52 watersheds currently monitored by ground-based gauges in the City's FEWS program, for a total covered area of 3,660 square kilometers. With the increased area coverage, engineers will monitor higher resolution rainfall estimates for all of the estimated number of structures in floodplains (7,000), rather than increased monitoring for the estimated 1,200 structures in the floodplain of the Onion Creek watershed.

There are an estimated 7000 at risk homes in the floodplain within the City Limits. The current Vieux contract covers only the Onion Creek Watershed, providing higher resolution radar rainfall estimates for that area only. Within Onion Creek we've estimated there are 1200 of the 7000 at-risk homes. Currently, when engineers use the radar tool, it is only providing predictive and real time information for the southeastern portion of the City.

When the contract amendment is in place, the City will have the same higher-level resolution radar rainfall information to use for predictive purposes for the remaining 51 watersheds, thereby covering the remaining 5800 at-risk homes (the entire City of Austin.)

The higher-level resolution radar rainfall information will also be used to assist in providing a timely determination on where best to allocate City emergency resources during flood and potential flood events in all 52 if its watersheds.

In addition, the Austin Water Utility (AWU) will use the historic rainfall data to calibrate its collection system pipeline models. The models show flow generation in the collection system as a function of the intensity of the rainfall. Peak flows are checked against the system which provides data on the infiltration and inflows that affect the overall system. This data will allow AWU to study how the pipeline system responds to storm events, as part of the Capacity Maintenance and Operations Management Program (CMOM) and the EPA's oversight in the Clean Water Act. AWU will reimburse the Watershed Protection and Development Review Department for the cost of the rainfall data when the data is transmitted to AWU.

CONTRACT HISTORY

• Original 12-month contract *with three 12-month extension options* in an amount not to exceed $39,600 per option	$23,800
• Amendment No. 1, increase to original contract	$21,000
• Amendment No. 2, exercised extension option 1	$39,600
• Proposed Amendment No. 3	
○ increase extension option 1	$17,400
○ increase extension option 2	$34,800
original extension amount	$39,600
○ increase extension option 3	$34,800
original extension amount	$39,600
Total	$250,600

CIP BUDGET
FISCAL NOTE

DATE OF COUNCIL CONSIDERATION: 30-Sep-04
WHERE ON AGENDA:
DEPARTMENT: Watershed Protection & Development Review

Description: Authorize Amendment No. 3 to the contract with VIEUX & ASSOCIATES, INC., Norman, OK, to increase the current contract period (extension option 1) for the expansion of real-time radar rainfall services for the Watershed Protection and Development Review Department, in the amount not to exceed $17,400; and to increase the two remaining 12-month extension options in an amount not to exceed $34,800 per extension option, for a total revised contract amount not to exceed $250,600.

FINANCIAL INFORMATION:

Project Name:	**FLOOD EARLY WARNING SYSTEM**
Project Authorization:	2003-2004 Amended Capital Budget
Funding Source:	Drainage Utility Fund
Fund/Agency/Orgn:	4850-617-7002

Total Current Appropriation	$450,000.00
Unencumbered Balance	$27,272.00
Amount of this Action	($17,400.00)
Remaining Balance	$9,872.00

Financial Approval:_____ Date: _____