



Office of the City Manager

CONSENT CALENDAR
December 8, 2008

To: PK Honorable Mayor and Members of the City Council

From: PK Phil Kamlarz, City Manager

Submitted by: Claudette Ford, Director, Public Works

Subject: Contract: DELTAWRX Management Consultants for Selection of Interoperable Communications System

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to negotiate and execute a contract and any amendments with DELTAWRX Management Consultants for consultant services related to selection of an interoperable communications (radio) system to meet public safety requirements and Federal timelines for implementation, for a total amount of \$82,500 for the period January 1, 2009 to June 30, 2009.

SUMMARY

The City of Berkeley must implement UHF/VHF narrow-banding¹ of communications by January 1, 2013 to meet compliance with Federal Communications Commission (FCC) regulations. The City plans to coordinate its narrow-banding with communications interoperability² for emergency and related services, as specified by the Department of Homeland Security. The Public Works Department released an RFP in June 2008 for a consultant with expertise in the field of communications, UHF/VHF, trunked systems and interoperability to provide technical and analytical support to City staff. Response to the original RFP was insufficient to make a responsible selection, and the RFP was re-bid in August 2008. Six proposals were submitted, and a panel representing City Departments of Fire, Police, Information Technology, and Public Works selected and interviewed three of these vendors.

The final selection process included requests for additional information and materials, vendor interviews, reference calls, and panel deliberations. DELTAWRX was selected from this competitive pool based on its track record, technical expertise, and approach to working with the stakeholders involved in the project. The panel believes DELTAWRX

¹ Narrow-banding reduces the use of communications band-widths from the current 25 KHz to 12.5 KHz.

² Interoperability allows communications devices (radios and mobile units) used by personnel in different operations (Police, Fire, Public Works) and different jurisdictions or agencies (including Cities of Berkeley and Oakland, Alameda and Contra Costa Counties, BART, East Bay Regional Parks, and State OES) to talk with each other directly using their own devices.

will conduct their analysis with the utmost professionalism and provide staff with an appropriate recommendation to submit for City Manager and Council consideration.

FISCAL IMPACTS OF RECOMMENDATION

Budget Code: 860-5405-410-3038 (Internal Services: Equipment Replacement)

With the recent passage of Measure GG to fund fire services, including radio interoperability, the expenditure out of the Vehicle Replacement Fund will be reimbursed by the special tax fund for Measure GG revenue.

Contract Management System (CMS) No. AASPN: DELTAWRX Management Consultants

CURRENT SITUATION AND ITS EFFECTS

This contract is for consultant services to assess City of Berkeley communications operations and needs, and to recommend system and equipment requirements for narrow-banding and interoperability. The consultant services are for the initial phase of a larger project related to the City's emergency response and preparedness capabilities, to acquire and maintain equipment to enhance emergency preparedness, including equipment to allow compatible radio communications throughout the City and with outside public safety agencies. Subsequent phases in this project will be system design, procurement of infrastructure and equipment, and installation that must be implemented by January 1, 2013.

Support from DELTAWRX includes, and may not be limited to:

- Needs assessment, including participation by stakeholders and end users;
- Functional requirements of system/s and components, cost-benefit analysis of operating systems and equipment for consideration, and a recommended option;
- Strategy and timeline for design, procurement, and implementation, with completion no later than January 1, 2013; and
- Assistance with identification of sources for outside funding of the larger project.

DELTAWRX Management Consultants works with public safety and general government clients, and brings a team with credentials and experience in engineering, business management, strategic planning, and organizational systems. The team identified for the contract with the City of Berkeley includes co-founders/principals and senior staff.

BACKGROUND

There is an FCC requirement to narrow-band all radios, mobile units, portables and system "backbone" to operate on 12.5 KHz no later than January 1, 2013.³ After that

³ Further narrow-banding to 6.25 KHz may be required by 2020, however this is not confirmed.

time, any communication initiated from any non-compliant device will incur a \$5,000 fine for each incident, whether or not the communication is completed. Separately, radio interoperability for communications between agencies and jurisdictions is required by 2016 ***if the agency/jurisdiction has received federal funding for upgrades to its communication system.*** Staff recommends addressing interoperability requirements as part of the implementation for narrow-banding by 2013, since it would put all required systems and equipment in place more effectively and efficiently.

RATIONALE FOR RECOMMENDATION

The panel reviewed six proposals submitted in response to the RFP-Rebid for Radio Interoperability Consultant Services. From these, three were identified for further consideration and interviews, and they were requested to submit additional materials. These are all competitive and qualified vendors, and the panel gave serious attention to all of them. DELTAWRX was selected based on its proposal, overall presentation and responses in the interview, and the outstanding support voiced by their references. The panel found their experience and expertise, technical knowledge and approach to engagement with the project to be an appropriate fit for the City of Berkeley.

ALTERNATIVE ACTIONS CONSIDERED

Other vendors were considered and not selected in the final determination.

CONTACT PERSON

Andrew Clough, Deputy Director, Public Works, 981-6661

Attachments:

- 1: Resolution
- 2: Scope of Services from proposed Contract (DRAFT: Subject to Negotiation)

RESOLUTION NO. ##,###-N.S.

CONTRACT: DELTAWRX MANAGEMENT CONSULTANTS FOR INTEROPERABLE
COMMUNICATIONS SYSTEM

WHEREAS, the City of Berkeley must meet Federal Communications Commission regulations that require narrow-banding communications systems and equipment no later than January 1, 2013; and

WHEREAS, the Federal Department of Homeland Security is driving implementation of radio and other communications interoperability, which is required by 2016 if an agency or jurisdiction accepts Federal funding for upgrades to its communication system; and

WHEREAS, the City of Berkeley released an RFP for written proposals from qualified firms or individuals to make an assessment of options, analysis of results, including installation and maintenance costs and possible outside funding to support these expenses, and make a recommendation for selecting an interoperable communications system; and

WHEREAS, following an evaluation of all submitted proposals, including interviews with representatives of three of them, DELTAWRX Management Consultants was judged as the best selection for work with the City of Berkeley on this phase of the project; and

WHEREAS, funds are available in the Internal Services: Equipment Replacement Fund, budget code 860-5405-410-3038, and the contract has been entered into the City's contract database and assigned CMS No. AASPN.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to negotiate and execute a contract and any amendments with DELTAWRX Management Consultants for consultant services on Radio Interoperability for the period January 1, 2009 to June 30, 2009 for a total not to exceed \$82,500. A record signature copy of this contract and any amendments to be on file in the Office of the City Clerk.

DRAFT: Subject to Negotiation

DELTAWRX PERSONAL SERVICES CONTRACT: **EXHIBIT A - SCOPE OF SERVICES**

NOTE: All reporting products (documents and other deliverables) must be written in language understandable by readers unfamiliar with technical terminology, and in a format agreed upon with the Project Management Team.

Task 1 - Initial Project Meetings

- Contractor and City of Berkeley Project Management Team will meet to review the overall Project plan and establish a projected schedule for tasks set forth in this Scope of Services, and dates for future Project monitoring meetings with Consultant and City Project Team.
- Contractor will conduct a planning workshop with key stakeholders to kick-off the Project. The City will invite participants from all relevant departments, including those that rely on the radio systems, and those involved with or impacted by the process &/or implementation. Contractor will discuss any key City initiatives expected to affect communications requirements in the immediate and distant future, and begin to identify priorities for future communications systems.

The first goal of the workshop is for all involved parties to agree upon the project objectives, timeline and deliverables. During the workshop, Contractor will also discuss project logistics and work with the group to identify possible challenges that may arise during the Project.

The second goal of the workshop, using a roundtable format, is to identify radio system factors and priorities and identify both short and long term issues.

Task 2 - Existing Materials

- Contractor will conduct an in-depth review of existing City public safety and related communications systems and devices. The City will provide Contractor with an inventory of its current radio and communications system.
- Contractor will also review any existing materials for systems to be implemented or anticipated in other area jurisdictions, such as the City of Oakland EDACS systems and the East Bay Regional Communications System (EBRCS), which includes Alameda and Contra Costa Counties. The City will provide information and materials it has on these systems at the earliest convenience, and Contractor will obtain additional information and materials from other available resources.
- Examples of materials for review by the Contractor may include, and are not limited to:

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- Planning documents
- Previous studies
- System design diagrams
- FCC licenses
- Coverage maps
- User reports on coverage problems
- Infrastructure and user equipment inventories
- Subscriber unit programming configurations
- Current usage patterns
- Management statistics
- City technology standards
- Maintenance and support procedures
- Systems budget information
- Memorandums of understanding

In addition to these items, Contractor will review any other materials that the City believes may provide insight on the Project.

Task 3 - Stakeholder Interviews

- Contractor will conduct group and one-on-one interviews with end-users, administrators and other stakeholders involved in the Project. This may include participation in ride-alongs and opportunities to observe dispatch, to have a comprehensive understanding of the current operational environment. The purpose of these interviews is to understand the strengths and weaknesses of the current communications systems and to understand user needs, such as improved interoperability or coverage, as well as project constraints, such as budget and timeline.
- Contractor will identify any operational deficiencies that are discovered during its data collection. Findings that may impact the short-term reliability of the system or safety of personnel will be brought to the immediate attention of the Project Team.

Task 4 - Business and Functional System Requirements

Building on the process and previous tasks, Contractor will identify and deliver documented business and functional requirements for radio communications that meet the City's needs, and which will be used as the basis for comparing alternative communications systems. Documented requirements will include: detailed information for expected system demands for voice traffic, along with anticipated system upgrades and growth to handle future demands, in specific areas; the ability for users to communicate with users on other systems, including those required for interoperability with other agencies and jurisdictions outside the City's coverage area; and a technology migration path consistent with industry standards. Contractor will validate the ability of these system requirements to achieve inter-agency communications and meet user demand.

Establishing functional requirements will allow potential vendors to propose the best system that meets the City's needs, based on their own systems engineering and technology. This approach puts emphasis on the actual procurement process, which is meant to provide competition, system performance and protect City interests and provide optimum value for the City and yield a competitive procurement once the City is ready to proceed with development of an RFP.

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In developing these requirements, the Contractor will explore system elements that include, and may not be limited to:

- On-street, mobile and in-building coverage
- Spectrum options
- Modulation scheme
- Portable and mobile subscriber equipment features
- Regulatory standards
- System management
- System configuration
- Reliability
- System interoperability & mutual aid
- Channel loading and capacity
- Console features
- Console electronics
- Shelter and tower enhancements
- Emergency power
- Security and encryption
- Training
- Maintenance
- Warranty

Task 5 - System Alternatives

- Contractor will analyze the options for the City to migrate from its current system to those proposed by Oakland or EBRCS, including evaluation of joint governance structures associated with partnering with the City of Oakland &/or EBRCS.
- Contractor will evaluate the feasibility and outcome of a “partially interoperable” system, and identify the systems and equipment needed to achieve partial interoperability. This analysis will define “partial interoperability” and identify the related equipment, cost and narrowband compliance factors.
- Contractor will analyze other technical alternatives to improve the City’s radio communications systems, and compare the technical merits of conventional, trunked, analog, and digital systems with the functional requirements established for the system.
- The advantages, disadvantages, and interoperability associated with each viable alternative will be compared in an easy to read table, with annotations and attachments as needed.

Task 6 - Cost/Benefit Analysis

Contractor will conduct a cost/benefit and risk analysis for each viable alternative identified in Task 5. The analysis will consider the potential risks of each option in relation to implementation, performance, operation (such as narrow-banded or trunked), ongoing maintenance, flexibility, and expandability/scalability. Contractor will provide budgetary system costs including hardware, software, licenses, engineering, infrastructure, facilities, administration, and maintenance costs. Costs will also be compared to the level of interoperability for each option. Benefits, risks and costs will be summarized in an easy to read table, with annotations and attachments as needed.

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Task 7 - Funding and Financing Options

Contractor will provide information and resources on available funding for public communications projects, including grants, bonds, user fees and other relevant methods of funding. Contractor will work with the City to review system and equipment costs, financing challenges and specific funding opportunities related to the functional requirements and recommended system option/s. This review will evaluate and prioritize the kinds of funds available, including eligibility, requirements and restrictions, application process timelines from submission to receipt of funds, and other factors that address the most critical and immediate funding needs.

Task 8 - Recommendations and Implementation Strategy

- Based on findings, interviews, and Contractor's industry knowledge and expertise, Contractor will recommend an option for the City's communications system, and provide cumulative data obtained in the process. This recommendation will consider the cost/benefit analysis, impact to the project schedule, and best fit with the functional requirements that are established, including: technical, operational, regulatory, financial and administrative issues, as well as impacts on City staffing and personnel costs.
- Contractor will prepare draft documentation, in a format agreed upon with the Project Team, on the recommended options and system. The draft will be presented to the Project Team for review, discussion, and identification of any additional content &/or revisions needed.
- Based on the final recommendation package, Contractor will develop a strategy and timeline to implement the recommended options, with a completion date no later than January 1, 2013. The implementation strategy will identify projected costs, major system development challenges and recommended solutions in the context of community processes, operational and funding challenges and meeting Project goals and outcomes.

Task 9 - Presentations and Reports to City Manager and City Council

- Following Project Team acceptance of "final" documentation on options, recommendations, and implementation strategy, Consultant will lead a presentation on the options and recommendations in a meeting with the City Manager and key stakeholders from Public Safety, Public Works, and other City departments.
- Based on feedback and outcome of this meeting with City Manager and other stakeholders, Consultant will work with Project Team to update all necessary materials and documentation.
- Consultant will support Project Team (designated staff) in preparation of a report to Council. Consultant will also participate in a presentation to the City Council at the scheduled meeting.

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Project Schedule

The Project is expected to start in January 2009, upon signing and final contract processing. Completion of tasks, as described in Scope of Services, is expected to be 90 calendar days after notice to proceed, or by such date as established by agreement of the Contractor and City Project Management Team during initial Project meeting or subsequent Project monitoring.

At conclusion of the contract, Consultant will deliver to the City an organized and clearly labeled set of both printed materials and electronic files. These will contain all documents and other forms of deliverables identified in the list of tasks and work products, including support, back-up, and process materials.

