1.0 TRANSMITTAL LETTER

SAIC

10 December 2012

Deanna Santana
Office of the City Administrator
150 Frank H. Ogawa Plaza, 8th Floor
Oakland, CA 94612

Subject: SAIC Proposal # F00262.A.2013.114.000

Reference: 1) Joint Domain Awareness Center RFP – City Project #20710-1 dated 14 Oct 2012

Dear Ms. Santana,

Science Applications International Corporation (SAIC) is pleased to submit its proposal in response to the RFQ request received in Reference 1. SAIC has assembled an elite team comprised of domain knowledge, technical skills, and capabilities that will meet the Joint Domain Awareness Center requirements. Our on-site program manager will provide daily technical direction and clarification. Immediately following this signed transmittal letter cover page, we include an attachment that serves as our transmittal letter executive summary.

The subject proposal is submitted with ten (10) hard copies consisting of this transmittal letter and our proposal response. Our proposal will remain valid for sixty days (60) days from the date of this submission.

This proposal is predicated upon the issuance of a Time and Materials (T&M) contract with mutually agreeable terms and conditions. No other use of the information and data contained herein is permitted without the express written permission of SAIC.

In the meantime, should you have any questions, or require additional information, please contact the undersigned at (614) 473-8821, via facsimile at (614) 573-6396, or by email at thomas.a.elliott@saic.com.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Thomas Elliott
Contracts Manager

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION
1710 SAIC DRIVE
MCLEAN, VA 22102
www.saic.com

1.1 Transmittal Letter Attachment: SAIC Executive Summary

The SAIC Team understands and has relevant capabilities supporting the national issues associated with Federal/State/Regional/Local Emergency Operations, Fusion Centers, Incident Response, and Maritime Domain Situational Awareness, as well as experience leveraging the use of advanced systems and technologies to support the goals and objectives of each initiative. As substantiated by our Team's successful installations of Physical Security Information Management (PSIM) solutions at [redacted] we are recognized as a technology-agnostic system integrator with paramount experience in the design-build, implementation, and maintenance of these solutions as well as the integration of external data systems and field sensors to realize the goals and objectives of the Joint Oakland City-Port Domain Awareness Center (DAC). Additionally, and specifically relevant to this project, SAIC's wholly-owned subsidiary, Benham, holds an active California Class-B General Building Contractor's License (#872860), offering the City-Port customer and stakeholders the unique capabilities associated with working under a single prime contractor to perform both the PART-A Technology Linkage System (TLS) and the PART-B Existing Building Improvements (EBI) work scope.

SAIC has assembled an experienced team that is uniquely qualified to support the design-build, implementation, commissioning, and maintenance of the DAC for the City and Port of Oakland. SAIC and its team members possess the necessary technical understanding, capabilities, and past experience to effectively execute this project. The SAIC Team's depth and breadth of experience enables it to provide the City-Port DAC with the lowest risk, highest quality, most capable solution available.

The SAIC Team provides the best value in delivering the goals and objectives of the DAC work scope, supported and based on our qualifications, experience, and talent, highlighted as follows:

- The SAIC Team has past experience in the design-build, system integration and implementation of PSIM solutions for Federal, State, and local government agencies, as well as maritime port authorities for domain awareness and incident management.
- SAIC has provided similar design-build system integration services for the [redacted]
- We have prior experience and the ability to work closely and collaborate with government, community groups, and other stakeholders to build consensus vital to realizing the DAC objectives.
- SAIC selected team members who have both previously worked together on similar projects and bring unique qualifications for this design-build work scope, addressing building infrastructure as well as system integration and solution delivery of a DAC-PSIM.
- SAIC has developed a structured its team organization to optimize the staff delivery focus for both PART-A and PART-B, while also facilitating collaboration across the different disciplines through the Project Manager, Mr. Taso Zografos.
- Mr. Zografos is a local Project Manager who knows the operational domain environment, is based in the Bay Area, and has the right qualifications and experience to ensure successful DAC delivery.
- Our proposed staff will be 100% dedicated to getting this job done right on time and within budget, with the flexibility to perform duties on short-term notice and under changing time constraints.
- Mr. Zografos will adhere to SAIC industry best practice cost control methods, leveraging tools and procedures for successful design-build delivery of the project.
- Our Team has a clear understanding of the DAC Concept of Operations, PART-A, and PART-B work scope, and we are ready to hit the ground running on day one to deliver the Oakland DAC.

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2.0 PROJECT TEAM

SAIC has a long history of performing a variety of work efforts in the construction of secure facilities, implementation of port surveillance infrastructure, and integration of multiple systems required for coordinated domain awareness and incident response operations. In the last 10 years, SAIC has designed and built 14 command and control centers and, more recently, implemented physical security information management (PSIM) products as part of integrated systems for access control and synchronized operations at the [redacted]

In order to conduct tasks associated with this scope of work for the City of Oakland-Port of Oakland (City-Port) Domain Awareness Center (DAC), SAIC has assembled a team of qualified firms and staff that fulfill the diversity of expertise required for completion of this effort. SAIC and many of its team members have successfully carried out previous contracts for the Port and City of Oakland, in addition to various other local stakeholders, and these existing relationships and collaborations will be invaluable to this project. SAIC understands that in order to carry out this scope of work, we need the following:

– **A qualified systems integrator with a background in port security systems; multi-level government security initiatives; PSIM implementation and integration; and design-build construction. The company must be a local, certified Oakland local business enterprise (LBE) with experience in Bay Area traffic information systems, who has worked with the [redacted] and possesses a California Contractor's license**	✓ **SAIC**
– **A premier PSIM solution vendor that offers technical support, solution enablement, and education services to see the project through**	✓ **VidSys**
– **A local General Contractor (GC) with a [redacted] who possesses a Class A/Class B GC license in the State of California**	✓ **BBI Construction**
– **A video display wall system specialist experienced in designing and installing emergency operations and command control center display systems**	✓ **Anderson Audio Visual**
– **An architect with a local presence and experience in [redacted] facility design**	✓ **MWA Architects**
– **Experts in GIS who have in-depth knowledge of the [redacted]**	✓ **URS** ✓ **NorthSouth GIS** ✓ **TSG Solutions**

- A firm with experience in federating and providing video analytics and storage capabilities for the [redacted] ✓ Genetec
- A firm with expertise in [redacted] traffic camera, traffic management center, and closed-circuit television (CCTV) systems ✓ Kimley-Horn
- A pool of subject matter experts (SMEs) who offer emergency operations and domain awareness operational expertise ✓ Cosmo Perrone ✓ TEECOM ✓ CH2M Hill

Table 2-1 below introduces the key members of the SAIC Team and summarizes the responsibilities of each team member.

Table 2-1. SAIC PART-A Team Members and Responsibilities

Team Member	Responsibilities
Science Applications International Corporation (Prime) 1710 SAIC Drive McLean, VA 22102 Phone: 650.343.8276	• Program/Project Management • Systems Integration • Construction Management • Software Integration, Design, Maintenance • Training • Stakeholder Outreach
Cosmo Perrone & Associates, LLC (Subcontractor) 660 Havana Ave Long Beach, CA 90814 Phone: 562.481.2494	• On-call subject matter expert (SME) technical support
Genetec, Inc. (Subcontractor) 2280 Alfred-Nobel Blvd, Ste 400, Montreal, Quebec, Canada H4S 2A4 Phone: 949.742.2063	• Video Integration Support Services • Integration of CCTV, Intrusion Detection, Traffic Cameras, and ITS
Halcrow, Inc. a CH2M Hill Company (Subcontractor) 155 Grand Ave, Suite 800, Oakland, CA 94612 Phone: 510.251.2426	• On-call subject matter expert (SME) technical support
Kimley-Horn and Associates, Inc. (Subcontractor) 1300 Clay St, Suite 325 Oakland, CA 94612 Phone: 510.625.0714	• City of Oakland CCTV and Video Surveillance Integration
NorthSouth GIS (Subcontractor) 312 E. First Street, Suite 300 Los Angeles, CA 90012 Phone : (310) 606-2783	• GSMS/GIS Integration Support
TEECOM (Subcontractor, SLBE, MBE) 1333 Broadway St, Suite 601 Oakland, CA 94612 Phone: 510.250.6607	• On-call subject matter expert (SME) technical support
TSG Solutions, Inc. (Subcontractor, MBE) 2701 Loker Ave West, Ste 110	• GSMS/GIS Integration Support

Team Member	Responsibilities
Carlsbad, CA 92010 Phone: 909.725.7338	
URS (Subcontractor, LBE) 1333 Broadway St, Suite 800 Oakland, CA 94612 Phone: 510-893-3600	• GSMS/GIS Integration Support
VidSys, Inc. (Subcontractor) 8219 Leesburg Pike, Suite 250 Vienna, VA 22182 Phone: 703.883.3730	• PSIM Solution Vendor • Technical Support • Training • Solution Enablement

Table 2-2. SAIC PART-B Team Members and Responsibilities

Team Member	Responsibilities
Science Applications International Corporation (Prime) 1710 SAIC Drive McLean, VA 22102 Phone: 650.343.8276	• Construction Management • Program Management
BBI Construction (Subcontractor, LBE) 1155 3rd St, Suite 230 Oakland, CA 94607 Phone: 510.286.8200	• Design and Construction • Construction Management • Contractor Oversight to Beaman's and MWA Architects
Beaman's, Inc. (Subcontractor to BBI, SLBE) 3978 Piedmont Avenue Oakland, CA 94611 Phone : 510-658-0361	• Electrical Systems Engineering and Installation • Contractor Oversight to Anderson Audio Visual
Anderson Audio Visual East Bay, LP (Subcontractor to Beaman's) 904 Pardee Street Berkeley, CA 94710 Phone: 510.652.5030	• Video Wall and Display Design and Installation • Display Equipment Supplier Coordination
Michael Willis Architects (Subcontractor to BBI, LBE) 471 Ninth Street Oakland, CA 94607 Phone : 510-287-9710	• Architectural Design Engineering

2.1 Firm Descriptions

SAIC

SAIC is a FORTUNE 500® scientific, engineering and technology applications company that uses our deep domain knowledge to solve problems in information technology, national security, energy, environment, critical infrastructure, and health. Consistently ranked among the top federal systems integration contractors, SAIC is the company that "pulls it all together" for customers from Federal to local government. As the lead integrator for the Global Command and Control System (GCCS), for example, we help give customers an integrated picture of their operating space and commanders greater capability to deploy a U.S. fighting force around the globe at any time and provide it with the information and direction to complete its mission. Relevant to this proposed work, SAIC has designed and implemented regional, city-wide, and waterside security systems for the [redacted] in the last 5 years. Additionally, the SAIC Team's Project Manager, Mr. Taso Zografos, is an experienced local transportation information technology (IT) implementation expert who will lead a core staff of IT and system integration experts in the development of the DAC.

Anderson Audio Visual (Subcontractor)

With offices across the state, Anderson Audio Visual (AV) is a regional expert in audio visual system design, integration and support in a manner that facilitates information sharing and collaboration. From more than 14 years of industry experience, Anderson AV has established strong partnerships with industry leading manufacturers and suppliers that instill confidence in the reliability and warrantee of implemented equipment. Anderson AV's staff has established a practice of collaborating with architects, consultants, designers and other contractors in the earliest stages of architectural design through the final system integration to ensure seamless alignment with customers' business environments and technical needs.

For this project, Anderson AV will support SAIC for the installation of a video wall for advanced monitoring and display capabilities.

BBI Construction (Subcontractor)

BBI Construction is a mid-sized company with an established presence and service record in the Greater San Francisco Bay Area. In almost 40 years of operations, BBI Construction has managed and supervised over $600 million in construciton projects, including industrial, office, retail and special use projects. Relevant to this project, BBI Construction built a new, three story, 14,500 sq-ft Emergency Operations and Fire Dispatch addition to an existing firehouse, which required sophisticated electrical and electronic control systems to ensure continutiy of operations in case of a citywide emergency.

Tom McCoy, co-founder of BBI Construction, will bring more than 35 years of industry experience to the project, and will lead his staff to support SAIC in the project building improvements.

Beaman's, Inc. (Subcontractor)

Located in Oakland, CA, Beaman's is a contracting firm serving all major industries, including commercial, industrial and residential applications. With over 60 years of experience, this firm has conducted work in partnership with BBI Construction. They will be delivering electrical system engineering and installation services for this opportunity.

Cosmo Perrone & Associates, LLC

Cosmo Perrone and Associates (CPA) will provide consulting services to SAIC as an SME for various elements of the overall DAC project. This subcontractor has a national reputation as an innovator and creative force in developing DACs, as well as experience in DAC construction. CPA will assist SAIC in validating the types of City, Port, and external stakeholder systems to be accessed in the DAC, incorporating stakeholder input and implementing best practices from first-hand experience.

Cosmo Perrone, founder and Principal of CPA, was the Director of Security at the Port of Long Beach from 2005 and 2011, and created a new approach to Maritime DACs that included concepts such as system and regional integration and virtual port models. These integration concepts received national and international recognition and were benchmarked by domestic (including the Port of Oakland) and international ports. EUCOM chose the Port of Long Beach model as a template to be applied to ports in the countries of the former Soviet Union. The concepts have received full Coast Guard support both at the local level and at Coast Guard Headquarters in Washington, DC.

Genetec, Inc.

Recognized in 2011 and 2012 as the North America Application Development Partner of the Year by Axis Communications, Genetec has a reputation for developing state-of-the-art video surveillance and access control solutions for both transportation and city-wide surveillance deployments. In just 15 years, Genetec has become an industry leader by working around the inherent limitations of analog security systems through development of multipoint to multipoint networked architectures. To promote integration of multiple solutions, Genetec's solutions maintain open architecture that allows customers to leverage investments and lower total cost of ownership.

Genetec will provide support to SAIC for video server integration and the installation of the Plan Manager GIS mapping solution as part of the Technology Linkage System (TLS). The subcontractor will provide highly feasible, low-risk solutions, including a base Enterprise Security Center system to integrate various Port systems, including the waterway surveillance system, Intrusion Detection System (IDS), Port Road Video Surveillance System (VSS) and Marine Terminal Perimeter Intrusion detection, using video plug-in architecture.

Halcrow Group, a CH2M Hill Company

Mr. Rob Andrews of Halcrow prepared the conceptual level scoping and design of the proposed DAC facility, which was the basis for gaining City and Port approval to proceed and securing Port Security Grant program grant money to pay for the implementation. Mr. Andrews brings significant project knowledge and subject matter expertise to the SAIC team and brings the important perspective of understanding the basis of the project and the objectives of the Port and the City in developing the DAC.

As part of the DAC SME Advisory Team, Halcrow will support SAIC in scoping and project development meetings with the City and the Port and will provide background information as needed from preliminary design development prepared during the grant application process. Halcrow will further provide specific consulting regarding compliance with the Marine Transportation Security Act and the Port Security Grant Program (PSGP) to assure that the project remains in compliance with the objectives of the Act and the PSGP as well as other national security guidelines, such as the National Infrastructure Protection Program.

Kimley-Horn and Associates, Inc.

Kimley-Horn and Associates, Inc. ("Kimley-Horn") is one of the premier design consulting firms in the country and delivers innovative solutions aimed specifically at cost savings. Their experience in the needs of security and safety awareness at large, critical seaports and other facilities includes access control, biometrics, video surveillance, automation, and command centers. Relevant to this work effort, their staff completed the plans, specifications, and estimates [redacted] and managed the integration of the [redacted] which required many of the same skills that will be necessary for the DAC and cultivated collaborative partnerships between Kimley-Horn and regional stakeholders.

Kimley-Horn will support SAIC to plan and scope, implement, and maintain the DAC TLS. This subcontractor will provide subject matter expertise support in reviewing the TLS requirements and Concept of Operations and will assist in the Proof of Concept design, ensuring stakeholder buy-in. They will further provide system integration support for the City's CCTV system infrastructure and support maintenance of the deployed solution.

MWA Architects

MWA Architects is a collaborative design practice located in Oakland, California with design expertise in emergency operation centers. In 1999, the firm completed renovation to the [redacted] and added the [redacted] to the complex. MWA has also done design work for the [redacted]. Designed to meet LEED Gold standards, this new 30,000 sq-ft facility will provide flexible office and emergency coordination space for a number of the [redacted] emergency management and security entities. It can also be used as a temporary location for the City Council. The nature of the building requires it to have a high level of self-sufficiency, allowing it to operate "off the grid" during emergency situations. MWA will provide architectural design work for the renovation of the DAC.

NorthSouth GIS, LLC

NorthSouth GIS (NSG) is part of an international GIS solution consultancy known for their innovative enterprise GIS solutions based on ESRI technology, the global leader for supplying GIS software. NSG LLC is a small, privately held company that specializes in geospatial technologies for ports and airports. Daniel Elroi has been the president of NSG LLC for more than 7 years, and has experience relevant to this

effort from several projects – notably the design and implementation of the Enterprise GIS for the [redacted], the largest container port in the U.S. NSG LLC has also supported the integration of GIS databases into servers, specifically to support PSIM software for two major projects in the last three years. Vikas Srivastava, NSG's project manager for the [redacted] Geospatial Security Mapping System (GSMS) project, has been managing the design and implementation of all the systems and software engineering and implementation on that project, managing as many as ten NSG staff for this purpose.

NSG will provide technical support related to GIS to SAIC for the DASTLS. This subcontractor will support SAIC in reviewing and revising the existing Concept of Operations based on identified stakeholder needs. NSG will further assist in the Proof of Concept design, working with City Staff to ensure owner approval, and will contribute to the TLS Implementation and systems integration, as well as provide management training on the configuration and maintenance of the GIS data connectivity.

TEECOM

TEECOM is a small, privately held company with diverse capabilities and project experience, including specific understanding of integrated technologies incorporating controls, security, audiovisual, and telecommunications systems. Staffed with accredited engineers from multi-disciplinary backgrounds, TEECOM has experience in project management, security engineering, surveillance, and video infrastructure. TEECOM is headquartered in Oakland and has direct knowledge of the flow of information from various facilities across the region to the [redacted] Utilizing their familiarity with the regional IT network, SAIC will consult with TEECOM on various aspects of the TLS to ensure development is consistent with existing infrastructure and operations.

TSG Solutions, Inc.

TSG Solutions, Inc. is a private, veteran owned small business focused on security solutions for a broad range of industries and customers. They have both collaboratively and independently delivered a wide range of internet, desktop, enterprise and field-based GIS solutions, using cutting edge products for GIS data collection, integration and consulting, as well as programming and development services. Their staff has regional experience through the [redacted] Digital Mapping and GIS project that included integration of Digital Mapping data into the GIS for the [redacted], with additional experience from similar projects undertaken in the last five years at the [redacted].

TSG will provide support to SAIC for implementation of the DAS TLS, specifically system integration support, review of construction plans and design documentation.

URS Corporation

In 2008, URS was ranked the #1 Global Design Firm by the Engineering News Record and has appeared in the Top Three Design Firms for more than a decade. With more than a century of global project experience with ports and harbors, URS staff offers creative applications of GIS methods to develop innovative and practical solutions for port infrastructure development.

Christian Raumann, URS Senior GIS Analyst/Project Manager, will lead the GIS integration tasks for the DAC project. Mr. Raumann is currently the URS Team's project manager for the [redacted] Geospatial Security Mapping System (GSMS) Project.

Lee Rosenberg, URS Senior Homeland Security/Emergency Management Planner, will provide emergency operations center subject matter expertise to assist during the initial planning and scoping process to further refine and/or validate the Concept of Operations and/or TLS specs. Mr. Rosenberg has worked extensively with [redacted], providing security and emergency preparedness solutions such as contingency plans, emergency operations plans, and HSEEP-compliant exercises.

VidSys

The VidSys Professional Services Organization will provide project advisory and product expert services to assist SAIC with deployment of the VidSys PSIM Platform, VidShield and RiskShield applications, and designated subsystem connectors. VidSys will support the provision of situational awareness capabilities over the subsystems, cameras and other devices in place at its Security Operations Center (SOC). Additionally, this subcontractor will automate up to 20 situations as action plans managed by the RiskShield application, which will support up to 20 Standard Operating Procedures (SOPs) in place at the SOC. Finally, VidSys will facilitate knowledge transfer to City staff to independently expand its library of action plans to meet additional operating requirements post-deployment.

The PSIM solution will be implemented using a typical software development life cycle approach of requirements confirmation and system design followed by software installation, configuration, and testing in advance of cutover to production operations. Solution delivery will include operator and administrator training.

2.2 Support from Related Stakeholders

The SAIC Team has also received letters of support from stakeholders for future integration work with the DAC. Redflex has agreed to cooperate with the SAIC Team if the City-Port decides to integrate City photo enforcement systems into the DAC at a later date. Similarly, our letter of support details support from Iteris, the City of Oakland's traffic camera technology provider, to work with the SAIC Team in integrating these systems if the City-Port chooses to execute such a plan in the future. We are able to provide these letters upon request and are also able to discuss these integration efforts as possible extensions to the scope of work during the execution of the PART A scope of work.

2.3 Current Business Licenses for LBEs/SLBEs

BBI Construction

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CITY OF OAKLAND
BUSINESS TAX CERTIFICATE

ACCOUNT NUMBER
946133

The issuing of a Business Tax Certificate is for revenue purposes only. It does not relieve the taxpayer from the responsibility of complying with the requirements of any other agency of the City of Oakland and/or any other ordinance, law or regulation of the State of California, or any other governmental agency. The Business Tax Certificate expires on December 31st of each year. Per Section 85.04.190A, of the O.M.C. you are allowed a renewal grace period until March 1st the following year.

EXPIRATION DATE
12/31/2012

BBI CONSTRUCTION

BUSINESS LOCATION 1155 3RD ST STE 230
OAKLAND, CA 94607-2617

BUSINESS TYPE H Construction Contractors

NAME BBI-C0N INC
MAILING ADDRESS 1155 3RD ST STE 230
OAKLAND, CA, 94607-2617

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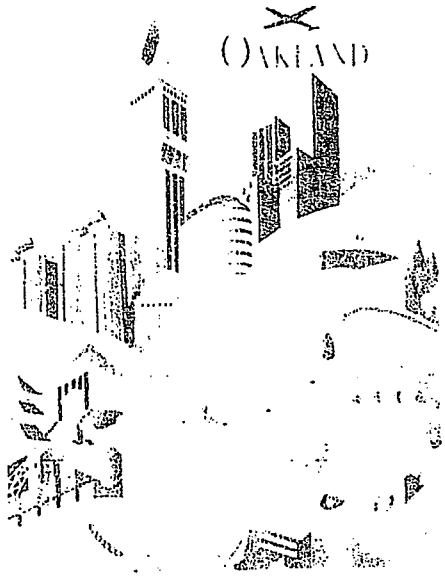
Department of Contracting and Purchasing, Division of Social Equity

Local Business Enterprise

Presented to:

BBI-CON, DBA BBI CONSTRUCTION



Services Provided:

B — General Building Contractor

4439	31-Mar-14
Certification Number	Expiration Date

Shelley Darensburg 3-27-12

Shelley Darensburg, Senior Contract Compliance Officer — Date

CITY OF OAKLAND

Beaman's, Inc.

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CITY OF OAKLAND
BUSINESS TAX CERTIFICATE

ACCOUNT NUMBER
3571436

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EXPIRATION DATE
12/31/2012

BUSINESS LOCATION
BEAMAN'S INC
3978 PIEDMONT AVE
OAKLAND, CA 94611-5352

BUSINESS TYPE
H Construction Contractors

NAME
MAILING ADDRESS
BEAMAN'S INC
3978 PIEDMONT AVE
OAKLAND, CA, 94611-5352

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Department of Contracting and Purchasing, Division of Social Equity

Small Local Business Enterprise

Presented to:

BEAMAN'S INC.

Services Provided:

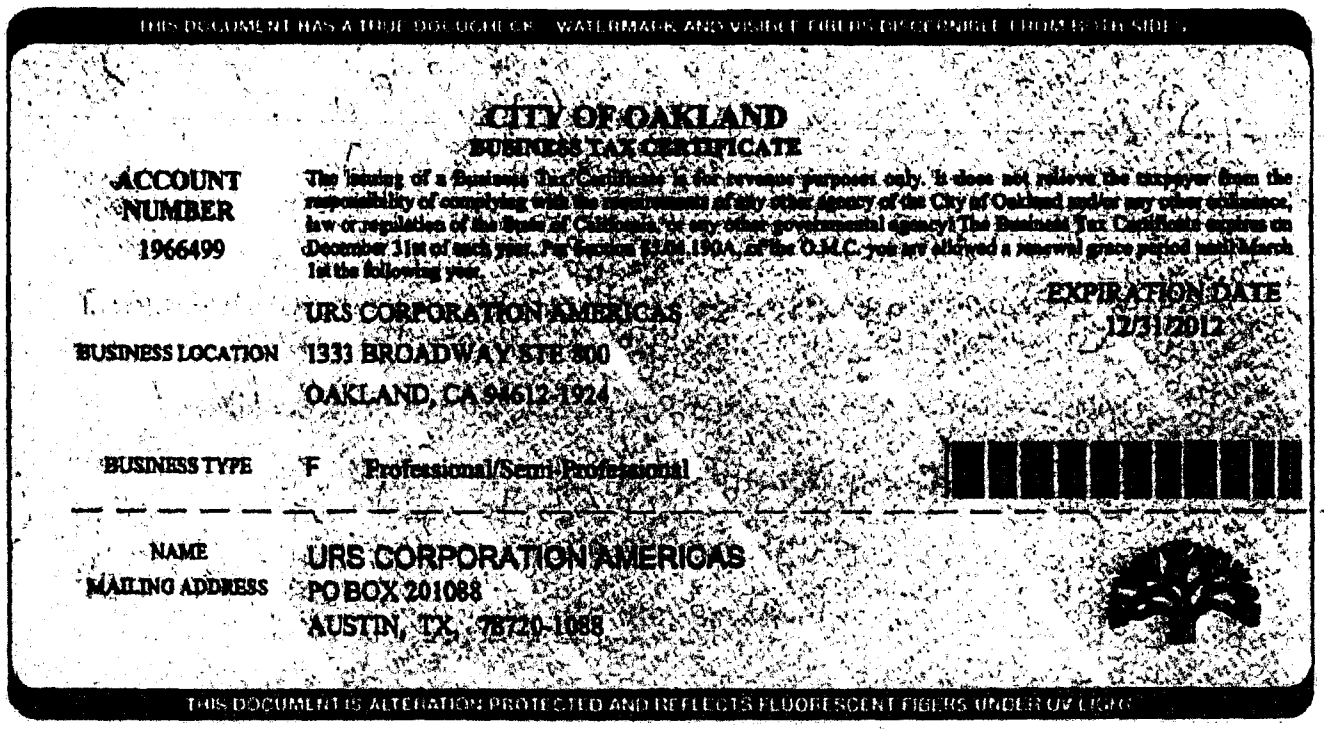
C-10 — Electrical Contractor

6698	30-Nov-12
Certification Number	Expiration Date

Shelley Dannenburg, 11-09-10
Senior Contract Compliance Officer — Date

CITY OF OAKLAND

Kimley-Horn and Associates, Inc.



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CITY OF OAKLAND
BUSINESS TAX CERTIFICATE

ACCOUNT NUMBER
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EXPIRATION DATE
12/31/2012

URS CORPORATION AMERICAS
BUSINESS LOCATION 1333 BROADWAY STE 800
OAKLAND, CA 94612-1924

BUSINESS TYPE F Professional/Semi-Professional

NAME URS CORPORATION AMERICAS
MAILING ADDRESS PO BOX 201088
AUSTIN, TX 78720-1088

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Department of Contracting and Purchasing, Division of Social Equity

Local Business Enterprise

Presented to:

KIMLEY-HORN AND ASSOCIATES, INC.

Services Provided:

541330 Engineering Services

6449	31-Oct-12
Certification Number	Expiration Date

Shelley Darensburg,
Senior Contract Compliance Officer

10/18/12
Date

CITY OF OAKLAND

MWA Architects

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CITY OF OAKLAND
BUSINESS TAX CERTIFICATE

ACCOUNT NUMBER
1031007

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EXPIRATION DATE
12/31/2012

MWA ARCHITECTS INC

BUSINESS LOCATION
471 9TH ST
OAKLAND, CA 94607-4047

BUSINESS TYPE
F Professional/Semi-Professional

NAME
MAILING ADDRESS
MICHAEL WILLIS ARCHITECTS INC
301 HOWARD ST STE 500
SAN FRANCISCO, CA, 94105-6603

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CITY OF OAKLAND

DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA, SUITE 3341 • OAKLAND, CALIFORNIA 94612

Department of Contracting and Purchasing

(510) 238-3970
FAX (510) 238-3363
TDD (510) 238-2007

16-Nov-11

Certification Number 7343

MWA Architects.com
Nan Warren
471 9th Street
Oakland, CA 94607

RE: Recertification with the City of Oakland and Redevelopment Agency Local/Small Local For Profit and Not For Profit Business Enterprise Program

Dear Nan Warren:

Based on our review of documents submitted, the City has determined that your firm qualifies for certification under the above Program as a:

- **Local Business Enterprise**

This certification will expire on **30-Nov-13**

Please refer to the attached certificate to determine your services and NAICS codes. The City reserves the right to reevaluate your company at any time during the certification period to determine if your firm continues to meet the City of Oakland and Redevelopment Agency programs and definitions. You are advised that it is your responsibility to initiate the re-certification process.

Should you have any questions, please contact Ernestine Nettles at (510) 238-6160, and refer to the Certification Number as it appears above.

Very truly yours,

Shelley Darensburg
Senior Contract Compliance Officer

TEECOM

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CITY OF OAKLAND
BUSINESS TAX CERTIFICATE

ACCOUNT NUMBER
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EXPIRATION DATE
12/31/2012

BUSINESS LOCATION
TEECOM DESIGN GROUP
1333 BROADWAY STE 601
OAKLAND, CA 94612-1906

BUSINESS TYPE F Professional/Semi-Professional

NAME
TEECOM DESIGN GROUP
MAILING ADDRESS
1333 BROADWAY STE 601
OAKLAND, CA, 94612-1906

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Department of Contracting and Purchasing, Division of Social Equity

Local Business Enterprise

Presented to:

TEECOM DESIGN GROUP

Services Provided:

517910 Other Telecommunications

561621 Security Systems Services (except Locksmiths)

6374	30-Nov-13
Certification Number	Expiration Date

for Shelley Darensburg,
Senior Contract Compliance Officer

11/9/11
Date

CITY OF OAKLAND

URS Corporation

THIS DOCUMENT HAS A TRUE DOUBLE CUT WATERMARK AND VISIBLE FIBERS OF CERTIFICATE FROM BOTH SIDES

CITY OF OAKLAND
BUSINESS TAX CERTIFICATE

ACCOUNT NUMBER
1966499

The issuing of a Business Tax Certificate is for revenue purposes only. It does not relieve the taxpayer from the responsibility of complying with the requirements of any other agency of the City of Oakland and/or any other ordinance, law or regulation of the State of California or any other governmental agency. This Business Tax Certificate expires on December 31st of each year. Per Section 5.04.190A. of the O.M.C. you are allowed a renewal grace period until March 1st the following year.

EXPIRATION DATE
12/31/2012

BUSINESS LOCATION
URS CORPORATION AMERICAS
1333 BROADWAY STE 800
OAKLAND, CA 94612-1924

BUSINESS TYPE
F Professional/Semi-Professional

NAME
URS CORPORATION AMERICAS

MAILING ADDRESS
PO BOX 201088
AUSTIN, TX, 78720-1088

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A BUSINESS TAX CERTIFICATE IS REQUIRED FOR EACH BUSINESS LOCATION AND IS NOT VALID FOR ANY OTHER ADDRESS.

YOU MAY BE REQUIRED TO OBTAIN A VALID ZONING CLEARANCE TO OPERATE YOUR BUSINESS LEGALLY. RENTAL OF REAL PROPERTY IS EXCLUDED FROM ZONING.

PUBLIC INFORMATION ABOVE THIS LINE TO BE CONSPICUOUSLY POSTED!

CITY OF OAKLAND

DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA, SUITE 3341 • OAKLAND, CALIFORNIA 94612

Department of Contracting and Purchasing

(510) 238-3970
FAX (510) 238-3363
TDD (510) 238-2007

17-Nov-10

Certification Number 5400

URS Corporation Americas
Linda Pappas
1333 Broadway, Suite 800
Oakland, CA 94612

RE: Recertification with the City of Oakland and Redevelopment Agency Local/Small Local For Profit and Not For Profit Business Enterprise Program

Dear Linda Pappas:

Based on our review of documents submitted, the City has determined that your firm qualifies for certification under the above Program as a:

- **Local Business Enterprise**

This certification will expire on **30-Nov-12**

Please refer to the attached certificate to determine your services and NAICS codes. The City reserves the right to reevaluate your company at any time during the certification period to determine if your firm continues to meet the City of Oakland and Redevelopment Agency programs and definitions. You are advised that it is your responsibility to initiate the re-certification process.

Should you have any questions, please contact Ernestine Nettles at (510) 238-6160, and refer to the Certification Number as it appears above.

Very truly yours,

Shelley Darensburg
Shelley Darensburg
Senior Contract Compliance Officer

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3.0 PROJECT PERSONNEL

The SAIC Team features talented, experienced, and well-qualified individuals who will execute this project as a cohesive team. We propose individuals with impressive credentials in the fields applicable and relevant to the work scope of the Oakland Joint Domain Awareness Center (DAC). Our team is committed to delivering a quality and robust solution designed and implemented by experts to integrate all relevant systems for efficient, reliable and coordinated operations. With multi-disciplinary backgrounds and diverse project experience, our team possesses the following qualifications, which will be essential to the completion of this effort:

3.1 Organization

Figure 3-1 below outlines the SAIC Team hierarchical structure, project leadership, and technical staff organized into teams. Figure 3-1 represents the anticipated staffing level for the technical portions of the project and establishes an "Integrated Project Team" for effective delivery of services during PART-B Existing Building Improvements (EBI) and PART-A Technology Linkage System (TLS) tasks. The SAIC Team has also proposed an on-call DAC subject matter expert (SME) team to aid all task teams by providing expert advice and guidance on carrying out the tasks associated with this scope of work. Project Manager, Mr. Taso Zografos will conduct general project team oversight and will closely coordinate with PART A & B Team Leads, Mr. Tom McCoy of BBI Construction and Mr. Neil Chung of SAIC in order to ensure on-time delivery of the DAC.

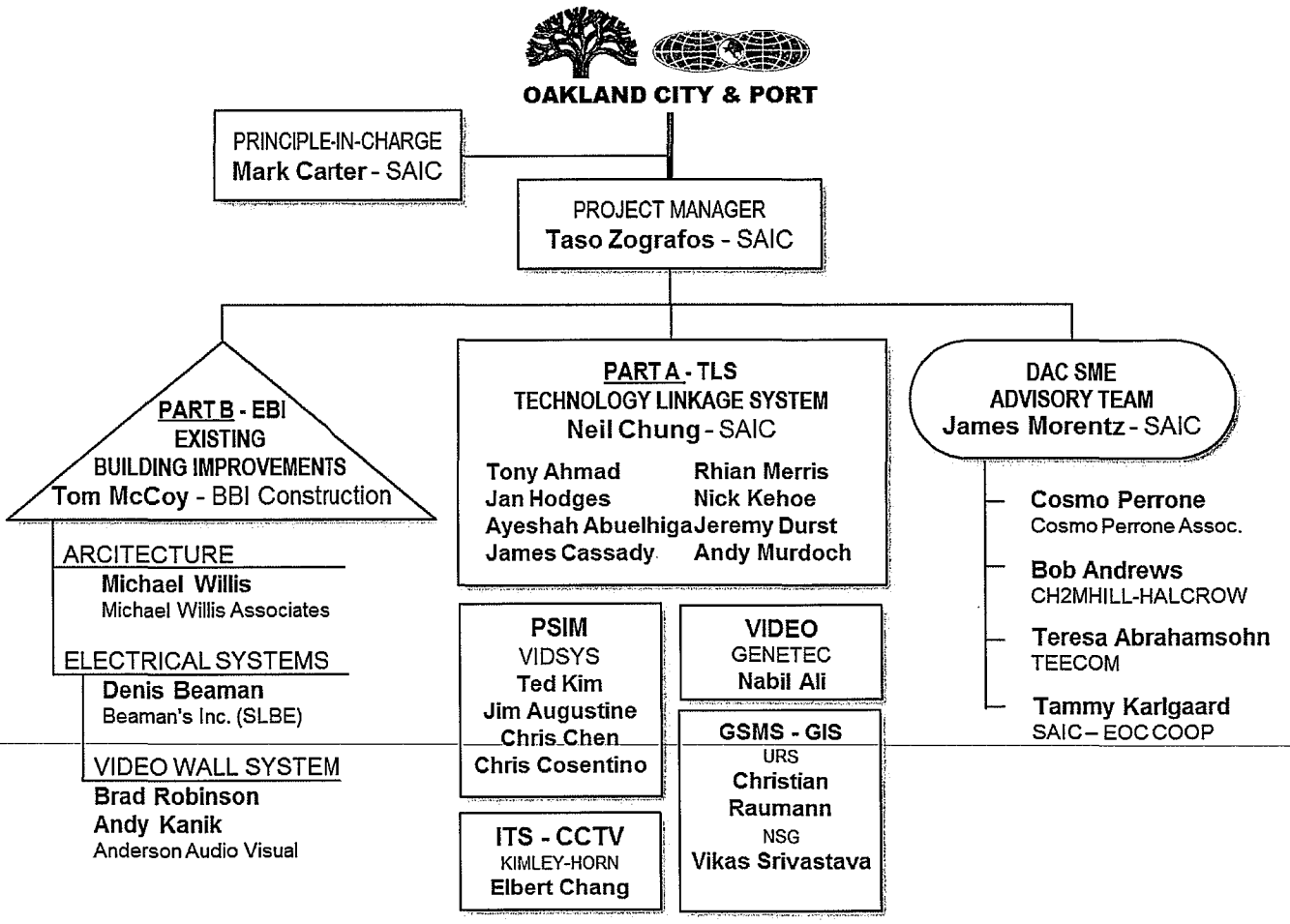

Figure 3-1. SAIC Team Organization Chart.

3.1.1 Current Workload, Available Staff and Resources

The SAIC Team carefully reviewed the requirements presented in the technical documents and request for proposal (RFP). We then considered our past experience in providing similar activities and derived the types, numbers, and level of effort required of staff to complete this scope of work successfully. SAIC Team managers also reviewed current staff workloads and available resources to determine the optimal staff to bid for this effort. From this exercise, we developed our basis of estimate and verified proposed staff availability to fulfill the level of effort assigned to them. We are confident that we have an adequate number of staff available for the work.

3.1.2 Capacity and Flexibility to Meet Schedules and Unexpected Work

SAIC has significant experience in providing staffing resources to complete complicated work efforts spanning multiple months of performance. In addition, we have assembled a large, diversified team of experienced and skilled personnel with significant reachback capabilities to respond to any unexpected task that may come up without causing an adverse impact to performance. Team members SAIC, VidSys, CH2M Hill, and URS alone offer more than 200 individuals who have directly supported similar emergency operations and transportation systems integration programs. Moreover, our proposed on-call SME Advisory Team offers additional insights into identifying efficiencies and suggesting more effective processes for getting baseline scope of work activities addressed in order to free up staff resources to address other unexpected tasks.

3.1.3 Ability to Perform on Short Notice and Under Time Constraints

The SAIC Team is adept at providing technical support and leading large integration tasks such as this under tight time constraints and with short notice. Most recently, the SAIC Team was successful in delivering (and praised by the [redacted] for timely, accelerated delivery of the [redacted] Through careful schedule development, resourceful utilization of available resources and vendor relationships, and dedicated staff with multi-disciplinary skills, the SAIC Team was able to deliver a state-of-the-art laboratory environment complete with ITS system integration and live data feeds from external sources. The project involved a major design-build renovation, command control center lay-out design, network set-up and systems integration activities – all completed within 6 months despite the challenges of working through bureaucratic obstacles. The SAIC Team for this project consists of many of the same experts who worked on that project, including Principal-in-Charge, Mr. Mark Carter and network engineers Mr. Tony Ahmad and Mr. Rhian Merris.

Moreover, Project Manager, Mr. Zografos, was also responsible for delivering a wireless transportation systems integration project for the [redacted] Within days' notice, Mr. Zografos and his team of engineers, including Mr. Ahmad, Mr. Merris, and systems engineer, Mr. Jeremy Durst, were able to deliver a live "connected vehicle" network of roadside hardware and network solutions to run a number of live technology demonstrations – the equivalent of a 6 month level of effort in less than 3 months. Under his direction once again, this team promises to deliver the same resourcefulness and capability to this project.

3.1.4 Cost Control Procedures in Design and Construction

The SAIC Team's cost management and control process includes sound estimating and planning techniques to establish a realistic, time-phased baseline plan that includes all known contractual obligations and reflects our understanding of technical requirements. We will decompose this plan to the lowest work breakdown structure (WBS) level in which we will incur costs. Every company (prime contractor and subcontractors) will receive an authorized budget.

Ultimate responsibility and accountability for contract-level cost management will reside with our Project Manager, Mr. Zografos, who will delegate the responsibility for both PART-A and PART-B tasks' technical, cost, and schedule performance to a single Team Lead who will be responsible for delivering high-quality services and deliverables on time and within budget. SAIC dedicates a project controller (PC) to each Team

Lead to help monitor and control costs. The PC will conduct thorough cost variance analyses to identify whether actual costs deviate from the baseline plan and the reasons for it, and will implement the appropriate corrective measures. The SAIC PC will adhere to the following cost control procedures:

- Develops a cost/schedule plan for project execution consistent with contract requirements.
- Monitors and tracks cost/schedule performance against the plan using performance metrics.
- Analyzes and reports variances and trends of actuals versus plan.
- Supports re-planning/re-baselining efforts.
- Provides timely and accurate project status information and projections to the Project Manager.
- Chairs or supports Mr. Zografos in chairing internal cost/schedule status meetings.
- Supports Mr. Zografos in developing a program management plan.
- Participates in the preparation of WBSs, WBS Dictionaries, Resource Loaded Networks (RLNs), BOEs, Bills of Materials (BOMs), work authorizations, and Project Authorization Notices (PANs), in coordination with other functions, such as Project Management, Systems Engineering, and Subcontracts/Procurement.
- Tracks actuals and open commitments.
- Manages the preparation of Estimates to Complete (ETCs) and Estimates at Completion (EACs) in accordance with Corporate policy.
- Maintains logs of changes in reserves, Contract Budget Base (CBB), etc.
- Maintains configuration control of the cost and schedule baseline.
- Performs critical path analyses, determines float, and tracks other Schedule Performance Indices (SPIs).
- Manages the preparation of Cost Performance Reports (CPRs), Cost/Schedule Status Reports (CSSRs), Contract Funds Status Report (CFSRs), and other contractual reporting requirements.
- Manages the preparation of relevant Contract Data Requirements Lists (CDRLs).

Mr. Zografos, Team Leads Mr. McCoy and Mr. Chung, and project controllers will review performance trends frequently and develop quarterly estimates at completion (EAC) for every task. This will ensure that problems are identified early and corrective actions are taken in time to avert any impact on delivery to the City-Port.

3.1.5 Ability to Perform Numerous Projects at the Same Time

The SAIC Team, as demonstrated in Section 4.0 Relevant Experience and Section 6.0's past related projects, has performed successfully on numerous large-scale systems integration projects of similar size and scope. We are ready to deliver the same level of service or better through our project organization. By dividing our multi-disciplinary staff into teams, we are able to focus the appropriate number of staff resources to all simultaneous tasks. With our reachback capabilities and strong project manager, we are also able to call upon back-up resources in the event that reinforcements are necessary.

3.2 Qualifications

Our staff provides the City-Port a level of proficiency within their respective disciplines that meets the explicit and implicit requirements for staffing with personnel qualified in multiple functional areas, thereby ensuring flexibility in selecting and assigning personnel required to perform the work.

The key features and capabilities of the SAIC Team's staffing include:

- ✓ A strong, qualified, and local Project Manager, Mr. Zografos, with large-scale, complex systems engineering and software development delivery expertise; proficiency in service-oriented architecture (SOA); and domain expertise in port environments and solutions, implementing advanced technology and design-build construction projects.
- ✓ PSIM integration/implementation experts, such as Mr. Chung and Mr. Chris Cosentino, with proven past performance experience in the State of California in port, local, and regional environments.
- ✓ A Construction Manager, Mr. McCoy, with local presence and a background in tenant improvements for both the City of [redacted].
- ✓ Deployment engineers with experience in advanced field traffic equipment integration as well as network infrastructure design, implementation, and testing.
- ✓ Geographic Information Systems (GIS) integration experts.
- ✓ CCTV, sensor, IT, and traffic infrastructure integration experts.
- ✓ The experience, technical competency, and infrastructure needed to successfully execute each task in the full spectrum of physical resources and optimized staff resources, as well as the depth to support ad hoc and urgent tasks.

3.2.1 Prime Contractor – SAIC Resumes

3.2.1.1 Principal-In-Charge – Mark Carter

Name: Mark R. Carter – Division Manager, Transportation Solutions Division

Qualifications/Experience/Skills:

Mr. Mark Carter brings 10 years of program management experience, including management of four large, transportation IDIQ contracts. As a program manager supporting the [redacted] Mr. Carter has successfully led the execution of more than 150 completed task orders (with as many as 70 active tasks at one time) while meeting or exceeding cost, schedule, and performance metrics. As SAIC Program Manager for Technical Support and Assistance to [redacted], Mr. Carter was entrusted to manage work totaling more than $27.5 million across more than 130 tasks with support from a team including 20 subcontractors.

As a transportation systems engineer, he has developed and applied traffic simulation models, built experimental designs, provided technical assistance to State DOTs, co-authored reports to Congress, and conducted independent evaluations of dozens of operational improvements, providing critical benefits information and lessons learned that shaped subsequent deployments.

Credentials (Education, Training, and Certifications):

- M.S., Civil Engineering, Queens University, 1997
- B.S., Civil Engineering, Queens University, 1995

Dates Employed	Duties Performed
1996-Present	[redacted] **Role:** Program Manager (PM) *Mr. Carter currently serves as the program manager for SAIC's support to the [redacted] previously provided oversight and resource management for the transition of the [redacted] connected vehicle test bed from the incumbent contractor to SAIC and continues to provide oversight for the ongoing operation and maintenance of this resource. He identified and applied the necessary resources to help ensure an aggressive, on-time opening for the lab and reviewed and aided in updating demonstration materials. He has and is working with support staff to increase the visibility of the lab (e.g. increased activity and reporting) and to assist in identifying and attracting potential customers and users (including connected vehicle development efforts).* [redacted] **Role:** PM *As SAIC PM, Mr. Carter was entrusted by the [redacted] to manage work totaling more than $40 million (funded) across more than 130 tasks with support from a team including 20 subcontractors. As SAIC PM for the [redacted] managed work totaling more than $24 million across 85 tasks that involved a multi-disciplinary team with subcontractors located across the country. He consistently kept programs on schedule and within budget and provided high-quality products that met the sponsor's expectations. During the final review for IPAS-I, for*

example[redacted] provided ratings of Outstanding, Excellent, and Excellent for quality of service, cost control, and timeliness.

[redacted]

Evaluation of the Hazardous Materials Field Operational Test

Role: PM

For the [redacted], Mr. Carter led the independent evaluation and testing of a suite of technologies intended to provide improved security for the shipment of HAZMAT by commercial vehicles. The test involved 13 deployment scenarios across the United States and used a mix of tracking, theft deterrent, and vehicle disabling and access control technologies. As part of the evaluation effort, Mr. Carter developed a new economics-based security risk assessment model that facilitated the comparison of predicted security benefits with the expected economic impacts of nationwide deployment of the various technologies examined in the test.

USDOT: The Intelligent Transportation Systems (ITS) Research Program–ITS Applications for Traffic Incidents and Events Management ITS for Planned Special Events: A Cross-Cutting Study

Role: PM

For the USDOT, Mr. Carter provided oversight, review, and technical inputs for a cross-cutting study on the use of ITS for Planned Special Events (PSE). This study examined the practices of six agencies in five States and documented their experiences in managing planned special events using ITS technologies. The study resulted in guidance that can be used by the hundreds of local agencies across the country responsible for coordinating planned special events.

[redacted]

Role: PM

Mr. Carter led the evaluation of a national [redacted] project was intended to integrate information pertaining to road conditions (Pavement Management Application and Ice and Snow Routing System), construction project detours (Permits and Plan Review Application), and locations of moving Department of Public Services (DPS) maintenance crews (maintenance management system) into a single database and make it available, dynamically, to Wayne County DPS and the traveling public through use of an Internet application.

[redacted]

From 1997-2008, Mr. Carter served as PM for a series of two IDIQ programs with the [redacted] that focused on assessing the benefits (including impacts on security) of advanced transportation technologies, examining the systems engineering processes used to implement and integrate these experimental systems, and developing best practices and guidance for subsequent wide-scale implementations. During the final review[redacted] Carter's USDOT customer provided ratings of Outstanding, Excellent, and Excellent, for quality of service, cost control, and timeliness.

3.2.1.2 Project Manager – Taso Zografos

Name: Taso Zografos – Business Development Manager, Transportation Solutions Division

Qualifications/Experience/Skills:

Mr. Zografos has nearly 30 years of diverse experience in managing people, processes and technology to deliver results with a proven industry and consulting track record. He is experienced in program management of IT and ground transportation systems, system engineering, and information technology development. Mr. Zografos is a seasoned and proven leader in mainstreaming advanced technologies for commercial application.

Credentials (Education, Training, and Certifications):

- M.S., IT Technology and Systems Management, University of Southern California, 1988
- B.S., Aeronautics Engineering, San Jose State University, 1982

Professional Licenses	Security Clearance
• SAIC Program Management Certification	• DoD Classified, SECRET, Special Access Required (SAR)

Dates Employed	Duties Performed
October 2009 – Present	[redacted]) **Role:** Program Manager (PM) *$2.5M project to implement a new Secure Truck Enrollment Program (STEP) to register trucks servicing the [redacted] on an annual basis to verify safety and security at the [redacted] Directed the design, development and implementation of new technologies to administer the program, including a Drayage Truck Registry and a Truck Management System (TMS); developed, commissioned, and managed a Customer Service Center to administer the program, including the issuance of registration certificates and vehicle decals; designed, developed and implemented a RFID truck location data collection, repository, and reporting capability; worked closely with the trucking industry and other stakeholders to ensure collaboration and acceptance of new business processes; and briefed and communicated progress to local leaders and other State and Federal officials.*
August 2010 – February 2012	[redacted] **Role:** Program Manager *Served as technical program manager for this project where SAIC provided Design-Build-Maintain and Operations support services for next generation advanced Roadside Equipment (RSEs) deployed on a roadway [redacted] Directed system upgrades, system integration and IT migration efforts of data systems and technology sensors to improve the mobility, safety, security, and environmental quality of roadway vehicles. Coordinated with stakeholders and partners alliances to further expand the infrastructure so as to offer more services to potential researchers.*
August 2005 – February 2008	[redacted] **Role:** PM *$130M IT systems modernization and business transformation effort for the [redacted] Directed activities of a matrix organization of nearly 35 FTE with work plan migration activity to deliver a Service Oriented Architecture (SOA). Managed multiple teams performing architecture design, system requirements definition, software design and development, system integration, testing, and deployment. Directed activities to successfully implement and deploy functionality for user single sign-on to existing legacy systems for 10,000 field enforcement personnel [redacted]*
March 2008 – February 2009	[redacted] **Role:** Program Manager *$60M effort to design-build the infrastructure-facilities and implement advanced sensors at nine new safe and secure innovative truck weigh enforcement stations at the state-line borders to identify and verify regulatory compliance of commercial trucks entering the State. Directed the design, development and implementation of new technologies to aid in the operation of the new ports-of-entry; worked closely with the trucking industry and other stakeholders to ensure collaboration and acceptance of new business processes; briefed and communicated progress to senior legislative leaders and other State and Federal officials.*
September 2002 – February 2004	[redacted] **Role:** Program Manager *$40M Regional Program to design, develop, deploy and maintain a uniform fare collection system that leverages smart card and wireless technologies for the [redacted] Managed a multi-disciplinary team of contractors to define the program and system requirements, develop the system architecture, build, integrate, test and deploy system components to schedule, budget and requirements. Supported customer outreach and communications to various user communities. Reported progress to regional governing board, presented problems or areas of concern, formulated risk mitigation or remedy strategies, and provided recommendations and program guidance to transit agency senior leadership and elected officials.*

December 2000 – March 2002	[redacted] **Role:** Program Manager *Directed program planning, system architecture, design and deployment activities, in cooperation with Federal and State agencies and industry stakeholders, to implement statewide Commercial Vehicle ITMS. Formulated operations concept, defined system requirements, assessed current ITS inventory, conducted stakeholder workshops and meetings, and gained consensus on deployment priorities to improve the State's transportation system ability to safely and efficiently move goods and services via commercial vehicles on the highway and arterial [redacted] Oversaw the integration of disparate legacy systems to exchange information amongst various jurisdictions. Directed team to evaluate traffic modeling results and assess performance of statewide corridor system and surrounding key ports and freight distribution centers.*
September 2000 – May 2001	[redacted] **Role:** Program Manager *Directed efforts to implement [redacted] and worked to facilitate adoption of [redacted] program as a regional initiative with other neighboring states. Directed efforts to link State internal disparate legacy system data and information systems to link commercial vehicle safety information with Federal safety systems to ensure compliance of State and Federal regulations of heavy vehicles on highways. Trained various stakeholders on CVISN systems including the use of Commercial Vehicle Safety Exchange Window (CVIEW) and coordinated multi-state CVISN data sharing activities and cooperation amongst stakeholders.*
June 1999 – May 2000	[redacted] **Role:** Program Manager *Led one of the pioneering efforts to implement "red-light camera" photo enforcement technology using license plate reader technology to capture offenders so as to reduce crashes; conducted technology research and business case analysis, evaluated market readiness, and formulated business strategy to deploy premier photo enforcement services in the U.S.; developed business plan, evaluated integration of technologies, coordinated perspective partners; established pricing/funding mechanisms; design-build implemented systems in several major cities nationwide [redacted]*
September 1998 – May 1999	[redacted] **Role:** Program Manager *Managed $30M implementation of FasTrak electronic toll collection solution in [redacted] leveraging California Title 21 compliant technology, license plate readers, traffic cameras, roadway sensors and CCTV. Responsible for contractor team oversight from operations concept, system requirements, and deployment efforts and transition to operations team in cooperation with local, regional and State authorities.*
July 1993 – June 1998	[redacted] **Role:** Program Manager *Directed $110M program to design, develop and implement a national commercial vehicle electronic pre-clearance system that leverages transponders, license plate reader technology, weigh-in-motion sensors, and State legacy system data to identify and verify operational compliance of commercial vehicles on highways. Established the governance of service operation via public/private partnership between State agencies, enforcement personnel, and trucking industry. Responsible for oversight of business activities, communication and outreach, engineering, operations, system maintenance and customer service center.*
January 1994 – May 1995	[redacted] **Role:** Program Manager *Oversaw a $50M Federally funded operations demonstration to employ intelligent system technologies to expedite the movement of goods and services transported via commercial vehicles through border stations. Technologies include weigh-in-motion sensors, retina scanners, smart cards, transponders, CCTV, and on-board computers with GPS.*
March 1988 – October 1991	[redacted] **Role:** Project Manager *Managed $30M, 3 year fixed price contract to design-build, integrate, test, and successfully deliver a contractor operated, secure telecommunications command engineering support center for special access required military security programs. Contract was completed six months ahead of schedule with 18% budget surplus.*

3.2.2 Sub-Contractor Resumes

3.2.2.1 Anderson Audio Visual

Project Manager – Brad Robinson

Name: **Brad Robinson – Partner / VP of Technical Operations - Principal**	
Qualifications/Experience/Skills:	
With over 14 years of experience in the AV industry, Brad brings an extensive knowledge of all aspects of the system design and integration process. He manages a team of skilled engineers and technicians who all bring the same level of detail and care to each project. Mr. Robinson will provide technical oversight to the project to ensure that all systems are built to specification and with the highest level of quality.	
Credentials (Education, Training, and Certifications):	
• B.S., Electrical Engineering, Vanderbilt University, 1998 • Extron School of A/V Technologies • Extron XTP-E Certified • Crestron DMC-E Certified • ClearOne Converge Certified • Biamp Nexia Certified	
Security Clearance	
• Lawrence Livermore National Labs Security Clearance • Oracle Security Clearance	
Dates Employed	**Duties Performed**
2012	[redacted] Emergency Operations Center **Role:** System Designer *3x3 NEC Video Wall with Extron Quantum Video Wall Processor for purposes of camera and emergency system monitoring.*
2010	[redacted] **Role:** Systems Designer *4x1 Interactive Video Wall Display*
2010	[redacted] **Role:** Systems Designer *2x2 Video Wall for Display Purposes*
2009	[redacted] **Role:** System Designer *3x3 Video Wall for Network Operations Center*

3.2.2.2 BBI Construction

Project Manager – Tom McCoy

Name: **Thomas McCoy, Principal**	
Qualifications/Experience/Skills:	
Mr. Tom McCoy is a Principal of BBI Construction, which he co-founded with Mr. Morris Wright in 1974. He has more than 35 years of experience in the construction industry and has managed over $200 million in construction projects. During the last 35 years he has supervised the development of residential, office, and special use projects.	
Credentials (Education, Training, and Certifications):	
• Bachelor of Arts, Architecture, University of California Berkeley, CA	
Dates Employed	**Duties Performed**
March 1998 - November 1999	[redacted] **Role:** Principal in Charge *New construction of a three story, 14,500 square foot steel frame addition upgrade and remodel of an existing 21,000 square foot firehouse for the Emergency Operations and Fire Dispatch centers. Work included the installation of sophisticated electrical and electronic control systems to keep the facility operating at full capacity in the event of a citywide emergency.*
April 2007 – October 2007	[redacted] **Role:** Principal in Charge *Tenant improvement of the 11,000 square foot [redacted] which includes rehearsal space for musicians. The entire scope of work included the demolition and rebuilding of the front section of the building, structural strengthening of the roof, and the installation of a new HVAC system. Special noise reduction measures were taken. The walls and ceiling of each studio space were constructed so that they were independent from the walls and ceilings of adjacent spaces, and have as many as six layers of sheetrock separating them.*
August 2006 – January 2008	[redacted] **Role:** Principal in Charge *The work included major structural, seismic, and historic renovation. Extensive site work took place in the area around the Boathouse. The project added walkway paths, stairs, low retaining walls, and reconstruction of the lake edge wall to the north and south of the building.*
July 1999 – November 2000	[redacted] **Role:** Principal in Charge *Construction and design-assist services for a new 50,000 square foot three-story steel structure. The building contains a full-service cafeteria, a company store, medical facilities, and corporate offices. The building also includes a unique landscape component, a parking lot, an upgrade of the underground communication systems, and re-surfacing of all surrounding streets.*
November 1995 – December 1996	[redacted] **Role:** Principal in Charge *This design-build project consisted of a two-story addition to the electron microscopy building. The steel-frame structure included 4520 square feet of laboratory and office space. A complex concrete floor was built to isolate the lab floors from the foundation. In addition, the work included the installation of complex energy monitoring and controlling systems in order to maintain an optimum environment for the electron microscopes.*
November 1993 - March 1995	[redacted] **Role:** Principal in Charge *This 2,200 square foot laboratory renovation project was completed on a ten-week, fast-track schedule. Day and swing shifts were required to accomplish the scheduled completion date. Located adjacent to other labs involved in extensive research, the work area had limited access and required extensive containment of construction noise and dust materials. Scope included extensive mechanical control systems, including direct digital HVAC system with safety alarms.*
March 2006 - August 2009	[redacted] **Role:** Principal in Charge [redacted] *is located in a former century-old, former orphanage building that is a candidate for local landmark designation. In addition to an accurate historic renovation, construction included a foundation-up structural reconstruction, seismic upgrade, and full accessibility upgrade.*

3.2.2.3 Beaman's, Inc.

Project Manager – Denis Beaman

Name: **Mr. Denis Beaman – President, CEO**	
Qualifications/Experience/Skills:	
Mr. Denis Beaman became a Journeyman Electrician in 1975 and since then has held a wide variety of both labor and management positions within the construction industry. He has led and supported various construction efforts for both public and private customers on various multimillion dollar projects. Currently, Mr. Beaman serves as the President and CEO of Beaman's, Inc., a certified small local business enterprise with City of Oakland, Alameda County, Port of Oakland, Oakland Unified School District, and State of California.	
Credentials (Education, Training, and Certifications):	
• Journeyman Electrician, 1975	
Dates Employed	**Duties Performed**
2007 - Present	**Beaman's, Inc.** **Role:** President/CEO *In this role Mr. Beaman has completed projects for various public and private sector customers. Mr. Beaman has completed multiple projects throughout the San Francisco Bay Area, including work on commercial office tenant improvements, commercial retail improvement projects, and community housing remodels projects.*
2006	**Beci Electric** *In this role, Mr. Beaman has supported various remodeling and security projects. For example, Mr. Beaman supported [redacted] with a conference room remodel and the [redacted] Laboratory with both an office and laboratory remodel. Furthermore, Mr. Beaman supported the [redacted]*
2005	**Jonas & Associates and Contra Costa Electric** *Mr. Beaman supported the development of the [redacted] data center power distribution project and [redacted]*
2000 - 2004	**Sasco Electric** **Role:** General Foreman / Project Superintendent *In this role, Mr. Beaman had responsibility for field operations of multi-million dollar projects, including a 250,000 square foot office space and data center for [redacted]. This project was a fast track project with 30 men, 2 shifts working 6 days a week on a 6 month schedule. Total project value: $6M. Mr. Beaman oversaw the deployment of power, generation and transfer switches on a $2M project for [redacted] in a 50,000 square foot central routing station using a 10 man crew. Also, he oversaw a $2M effort for the complete electrical project on a rental car facility at the [redacted] included main electric service, underground distribution, building power and lighting, car washes, and parking lot lighting.*
1996 - 1999	**Local 595 Journeyman/Foreman** **Role:** Journeyman / Foreman *Mr. Beaman worked in the field as a journeyman and foreman electrician for various companies. He worked on electrical construction sites, includingthe [redacted] throughout the greater [redacted] the [redacted] container refrigeration project, as well as office IT work.*
1983 - 1995	**Beman's Inc.** **Role:** President *Mr. Beaman assumed the day-to-day management responsibilities focusing on Residential/Commercial construction and remodeling, as well as electrical construction, service and repair. In 1988 he completed construction of his personal residence, which he designed and built with the help of an experienced craftsman. During his tenure he computerized operations and received a firsthand education in business finance.*
1979 - 1983	**Alameda County Electrical Joint Apprenticeship and Training Committee** ***Role:*** Training Administrator *He was hired to administrate the training activities of all apprentice and journeyman electricians within the local 595 union's jurisdiction (Alameda County). He was responsible for the day-to-day operations of all training activities. He monitored the progress of all participants, oversaw a teaching staff of 14 with 450 active participants, and created the first hands-on training center of its kind in the East Bay.*

3.2.2.4 Cosmo Perrone & Associates, LLC

Project Manager – Cosmo Perrone

Name: **Cosmo Perrone – Principal**	
Qualifications/Experience/Skills:	
Mr. Perrone is a results-driven homeland security professional with a focus on Maritime/Port Security and Business Continuity/Resiliency, and has extensive expertise in innovative, strategic security and emergency preparedness programs. He directed the Homeland Security Program for the 3,000 acre complex, including 24-hour patrols, anti-terrorism programs and the operation of security systems with a strong emphasis on resiliency. Mr. Perrone's security innovations at the Port of Long Beach led to his recognition by Security Magazine *as a "Port Authority Visionary" and the "most aggressive change agent" in the port security sector.*	
Credentials (Education, Training, and Certifications):	
• JD-Law, Western State University School of Law • B.A., History, Northeastern University	
Professional Licenses	
• Member of the California Bar Association	
Dates Employed	**Duties Performed**
July 2012 – Present	**Cosmo Perrone & Associates** **Role:** Principal *Conducted an assessment of the [redacted] and made recommendations regarding its Domain Center Operations. Recommendations are now being reviewed for possible implementation. The recommendations focus on a System and Regional integration model used at Long Beach.*
April 2005 – April 2011	**Port of Long Beach** **Role:** Director of Security *Created the most advanced Domain Awareness Center in the maritime community and continued to build upon the framework to develop a System and Regional Integration concept that has now evolved into the Virtual Port Model. The center has become the benchmark for other ports, domestic and foreign, and has received the full support of the Coast Guard, both at the local and national level. The DHS Science and Technology (S&T) considered the center far more advanced than it could achieve and asked the Port of Long Beach to help them develop models for the Coast Guard. DHS S&T has also asked to partner with the Port to create new opportunities to further extend the Virtual Port Model.*
1990 – 2003	**McDonnell Douglass and Boeing** **Role:** Director of Security *Created a Domain Awareness Center for the commercial operations of McDonnell Douglas, Long Beach and integrated numerous functional security and fire systems, including fire protection for the airframe assemblies within one control center operation for multiple locations in Southern California. First company to use Wi-Fi for fire alarms on a moving assembly line.*

3.2.2.5 Genetec, Inc

Project Manager – Nabil Ali

Name: **Nabil Ali – Sales Engineer, License Plate Recognition, Video Surveillance, Access Control**	
Qualifications/Experience/Skills:	
Nabil Ali is an industry veteran with 14 years of experience, including 8 years in tech support and 6 years in technical training at Pelco. During this time he has worked on many large systems with thousands of cameras and has gained great insight into how systems are used. He understands how important the right user interface is to company operations. Nabil is NET+ certified, and had been certified by Cisco as CCNA.	
Credentials (Education, Training, and Certifications):	
• B.S., Business Management, 2009 • Cisco Certified Network Associate (CCNA) Certification • Net+ Certification	
Dates Employed	**Duties Performed**
June 2012 - Present	**Genetec** **Role:** Sales Engineer
October 2007 – June 2012	**Pelco by Schneider Electric** **Role:** Internal Trainer *Mr. Ali developed training programs, including classroom lectures, e-Learning courses, Webinars, and one-on-one training for both domestic and international end-users. He possesses a strong knowledge of IP and network principles, analog and IP cameras, video analytics, digital video recorders, matrix systems, and network based systems and an in depth knowledge of RAID configurations and storage devices, such as Storage Area Networks (SAN), and Network Attached Storage (NAS). Mr. Ali developed and maintained extensive knowledge of Pelco's hardware and software solutions, specializing in system configuration and troubleshooting. Finally, he designed creative and professional training programs and e-Learning simulation courses for IP cameras, digital recorders, network video recorders, and Enterprise systems using Captivate, PowerPoint 2003/2007, and Articulate.*
March 2004 – September 2007	**Pelco by Schneider Electric** **Role:** Senior Product Support Engineer *Mr. Ali participated as part of an elite design team to create high-end analog and IP cameras, DVRs, NVRs, and Enterprise systems. He collaborated with the design team to ensure that all product support needs have been met for customers. Mr. Ali has a strong experience with network hardware configuration and troubleshooting. He has assisted with on-site support (installation and troubleshooting) when requested by the Product Support Management team. He has trained service center staff on product service, repair procedures, and business processes. He maintained existing technical support programs as well as participated in the development of new and existing customer-oriented programs.*
July 2002 – October 2004	**Pelco by Schneider Electric** **Role:** International Technical Sales Representative *This role allowed Mr. Ali to work with customers in system design applications, ensuring customer satisfaction. He provided technical assistance to customers for the specifying, ordering, or troubleshooting of equipment and/or systems. He received telephone communications from customers, regarding sales orders, stock, and price checks, and provided order shipment information as requested. Mr. Ali verified the accuracy of all sales order write-ups, including content compatibility with the customer's existing system, and provided technical support for trade shows and conventions.*

3.2.2.6 Halcrow Group, a CH2M Hill Company

Project Manager – Bob Andrews

Name: Robert Andrews, PE

Qualifications/Experience/Skills:

Robert Andrews has more than 24 years of civil engineering experience as an engineer and Project Manager. He is experienced in project planning and design as well as construction of port development projects. Rob has directed diverse interdisciplinary teams responsible for initial project planning scheduling and budgeting, environmental documentation and permitting, as well as design and construction of a diverse range of projects including dredging, rail terminals, roadways, marine container yards, wharves and public shoreline access.

Based in CH2M HILL's Oakland, CA office, Rob has an extensive understanding of the Bay Area Tier 1 ports, their infrastructure, and their operations. He worked at the [redacted] for over 13 years, supervising and managing Port Maritime capital improvement projects for the Port's Engineering Division; including having been responsible for the planning, design and construction of such major maritime projects as the Vision 2000 Development Program. Since leaving the [redacted] he has expanded his knowledge of ports and developed expertise in maritime security. This experience includes managing the port-wide threat/vulnerability assessment for the [redacted], acting as FSO for an automobile importing facility, leading the design of site installation of RPM units at all of the [redacted] marine terminals and management of the [redacted] on-call security consulting work.

Credentials (Education, Training, and Certifications):

- BS, 1985, Civil Engineering, University of California, Berkeley
- SkillPath Seminar of Successful Project Management Skills
- Management Development Series, UC Berkeley Extension

Professional Licenses	Security Clearance
Professional Engineer (1990) State of California, License# 45405	TWIC

Dates Employed	Duties Performed
2011 – Ongoing	**Halcrow Contract:** [redacted] **Role:** Project Manager/Director *Project Manager/Director for Port region-wide Risk Management Plan and Trade Resumption/Resiliency Plan Update for the entire marine transportation system covering the [redacted] Performed all-hazards Risk Assessment, developed a metric for risk buy down, evaluated systemic gaps, and recommended mitigation measures. Revised 5 year strategic plan for mitigating all hazards risks to maritime cargo transport system in the region and commerce resumption.*
2009 – 2011	**Halcrow Contract: As-Needed Security Consulting Services,** [redacted] **Role:** Project Director *Project director for a multi-year contract for as-needed security consulting services, including risk and vulnerability assessments, grant writing and administration support.*
2008-2011	**Halcrow Contract: As-Needed Security Consulting Services,** [redacted] **Role:** Project Director *Project director for a multi-year contract for as-needed security consulting services, including risk and vulnerability assessments, grant writing support and regional security coalition development.*
2008-2009	**Halcrow Contract:** [redacted] **Role:** Project Manager/Director *Project Manager/Director for Port region-wide Risk Management Plan and Trade Resumption/Resiliency Plan for the entire marine transportation system covering the [redacted] Developed 5 year strategic plan for mitigating all hazards risks to maritime cargo transport system in the region and commerce resumption.*
2004	**Halcrow Contract: Port Security Assessment,** [redacted] **Role:** Deputy Project Manager *Deputy project manager for a complete risk and threat assessment of the [redacted] and the various private terminal operations [redacted] within the [redacted] area consistent with the requirements of the Homeland Security Department. The work included conceptual recommendations for security enhancements to address the potential threat.*

3.2.2.7 *Kimley-Horn and Associates*

Project Manager – Elbert Chang

Name: Elbert Chang, P.E., T.E. –ITS

Qualifications/Experience/Skills:

Mr. Elbert Chang has extensive engineering and management experience in a variety of traffic engineering and ITS projects in both the private and public sectors. He has designed and implemented communication networks including interconnecting traffic controllers, CCTV systems, dynamic message signs, HARs, and the connection of central systems over local and wide area networks. His projects have included feasibility studies of current communication medium technologies and the preparation of preliminary design and PS&E documents for all types of networks, including wireless (different RF spectrum), copper, and optical fiber. Mr. Chang's public sector experience includes working at [redacted] County [redacted] City [redacted]

Credentials (Education, Training, and Certifications):

- Master of Science, Transportation Engineering, University of California, Berkeley, 1997
- Master of City Planning, Transportation Planning, University of California, Berkeley, 1997
- Bachelor of Science, Civil Engineering, University of California, Berkeley, 1992

Professional Licenses

- Professional Civil and Traffic Engineer
  State of California, License# C61548 (Civil), TR2244 (Traffic)

Dates Employed	Duties Performed
June 2011 – present	[redacted] **Role:** Project Manager *Kimley-Horn is working with the [redacted] to update their ITS Strategic Plan, identifying projects and priorities for the next 10-15 years. Project participants include the Transportation Services Division, Electrical Services Division, and Police Department. Capital projects identified include corridor improvements (communications infrastructure, upgraded traffic signal controllers, traffic monitoring PTZ cameras, and intersection video detection cameras), improvements to support existing hubs, installation of new hubs, and creation of parking management districts. In addition, the report will include a section with maintenance costs and requirements. The DRAFT Report is scheduled to be completed in December 2012 and the FINAL report (after City comments) completed in January 2013.*
July 2009 – present	[redacted] **Role:** Project Manager *Kimley-Horn provided PS&E construction documents for improving the two major roads that provide access to [redacted] Improvements include intersection vehicle detection cameras, upgraded traffic signal controllers, fiber-optic interconnect, wireless spread-spectrum backhaul, improvements for "mini-TMC" at [redacted] Maintenance Service Center, and installation of video management server at Emergency Operations Center (EOC) Data Center. Kimley-Horn also provided system integration services for connecting the field elements to the City network through existing firewalls. Field construction and system integration was completed in September 2012. Kimley-Horn developed traffic responsive signal timing plans for project corridors and will be assisting the City with implementing these plans in early 2013.*
September 2006 – present	[redacted] **Role:** Project Engineer *Kimley-Horn prepared PS&E construction documents for a local arterial and transit improvement design package to install field elements integrating local roadways with [redacted] freeway corridor. Kimley-Horn coordinated with 10 local municipalities for review, approval and installation of improvements to build upon the previous [redacted] Smart Corridor Project. [redacted] improvements include the installation of fiber-optic network [redacted] PTZ CCTV cameras at 8 locations, arterial Changeable Message Signs (CMS), and traffic signal improvements. Local improvements are scheduled to be completed 2013, and the entire $87M freeway-arterial project is scheduled for operation in 2014.*
July 2009 – September 2010	[redacted] **Role:** Project Manager *Kimley-Horn provided system integration services for creating a new transportation network hub at the [redacted] Emergency Operations Center (EOC) Data Center and integrating it with the City network. The Kimley-Horn team coordinated with IT Divisions for design approval. The Kimley-Horn team installed new firewall, new switch, new virtualization server, and an upgraded traffic signal system central server, and provided direction regarding future expansion for new field channels and servers (VantageView intersection video detection camera, Video Management Server).*
September 2006 – December 2007	[redacted] **Role:** Project Engineer *Kimley Horn provided PS&E construction documents for the Transportation Management Center (TMC) at the Transportation Services Division Offices. This new facility included the installation of video wall, and traffic signal workstations, and the relocation of existing traffic signal central server into the new TMC.*

3.2.2.8 MWA Architects

Name: **Michael E Willis, FAIA NOMA. Michael Willis Architects**

Qualifications/Experience/Skills: Architecture

Michael Willis, FAIA, has 36 years of experience in the industrial utility and public facilities environment. His firm has provided design leadership for a combined hundreds of millions of dollars in built projects. The firm is an Oakland Local Business Enterprise and was the architect for the Oakland Emergency Operations Center. MWA is in the best position to manage the documents through construction from its Oakland office, in support of the SAIC and BBI team.

Credentials (Education, Training, and Certifications):

- Masters in Architecture, Washington University in St. Louis, 1976
- Masters in Social Work, Washington University in St. Louis, 1976
- Bachelors of Art, Washington University in St. Louis, 1973

Professional Licenses

- Registered Professional Architect
- Arizona, 179791198
- California C-15140
- Hawaii 13616
- Louisiana 6539
- Michigan 1301044619
- Missouri 003628
- Nebraska A-3970
- Oregon 4255
- Washington 7868

Dates Employed	Duties Performed
1994-1999	[redacted] **Role:** Primary Project Oversight, Planning and Design Oversight *In response to the 1989* [redacted] *The new Fire Dispatch Center handles fire and medical dispatch for the entire city. The EOC directs citywide crisis management in the event of an emergency. Linked by satellite and land lines with county and State emergency operations centers to coordinate efforts on a regional level, the center runs year-round as a training center. It holds offices for approximately 20 departments and agencies, including the Office of Emergency Services, Police and Fire Departments, the Mayor, City Manager, and City Attorney, Public Works, and Office of Communications and Information Services. Sleeping quarters, conference areas, and a room for the media are provided. Relevance to DAC: Good planning principles shown for staff workplaces and program efficiency for unique requirements.*
2005-2011	[redacted] **Role:** Primary Project Oversight, Planning and Design Oversight *MWA's thoughtful design of this new laboratory building provides functional, intuitive, secure and comfortable space for the staff by integrating important sustainable elements of daylighting and views as well as ergonomic features into the specific programmed laboratory functions. The building was design to meet LEED silver Certification. Relevance to ODAC: Good planning principles shown for staff workplaces and program efficiency for unique requirements. Interior architecture.*
2007-2012	[redacted] **Role:** Primary Project Oversight, Community Outreach, Design and Documentation, Design Oversight *This significant project is the City of* [redacted] *first water treatment plant, which has an initial capacity of 30 million gallons a day (mgd) and will ultimately be expanded up to 160 mgd. MWA Architects and CDM were responsible for the layout of the treatment plant site. The scope also includes slow sand filters, and administration/operations building, maintenance building, membrane building, ozone building and a treated water reservoir. Relevance to ODAC: Site planning and design for a large facility that features community "fit" and operational efficiency. Good and generous spaces for the staff, with natural lighting and access to outdoor views.*

3.2.2.9 *North South GIS*

Project Manager – Daniel Elroi

Name: **Daniel Elroi – Senior Consultant**	
Qualifications/Experience/Skills:	
Mr. Elroi has founded four GIS consulting firms and is currently the president of NorthSouth GIS, LLC. He is a GIS expert and consultant with more than 25 years of experience. Mr. Elroi manages the US operations of the NorthSouth GIS group, as well as key projects overseas, and is the chief architect for most of the technical work performed on US projects. In managerial roles, he maintains strong technical involvement and understanding of projects, and works directly with clients.	
Credentials (Education, Training, and Certifications):	
• B.S., Geography, University of California – Lost Angeles, 1988 (*Summa Cum Laude*)	
Dates Employed	**Duties Performed**
December 2011 – Present	**Project Name:** Geospatial Security Mapping System (GSMS) and PortView Enterprise GIS Data Viewer **Role:** Principal in Charge and Senior Consultant *NSG designed the GSMS for the [redacted], based on our expertise in GIS for their security sensitive application, and NGS led the design of the system, selection, installation and configuration of software, integration of other systems, databases, and live data feeds. Together with URS, the team created and delivered PortView, an intuitive and powerful GIS data portal built with Microsoft, Esri and Latitude Geographics off-the-shelf technologies, enhanced by NSG's own development of tools needed in a multi-user and security-sensitive port environment. NGS also took the lead in writing a five year strategic plan for the implementation of GIS at the maritime, aviation, and the commercial real estate divisions of the port, and finally, delivered all software training, and continues to assist URS and the port during the two year support and outreach phase of the project.* *Mr. Elroi's role was senior consultant to the project, leading most of the Needs Assessment and Requirement Specifications sessions with dozens of participants; making presentations and software demonstrations to Port staff and management; advising the Port's project manager on strategy for implementation of GSMS and its long-term success; and writing the majority of the five year strategic plan.*
December 2010 – December 2011	**Project Name:** Integration of Airport GIS into Situator PSIM Software in Airport Response Coordination Center **Role:** Principal in Charge and Senior Consultant *Starting in 2010, NSG performed and supported the integration of [redacted] Engineering GIS databases into the Esri-based ArcGIS Server infrastructure necessary to support the NICE Situator PSIM software at the heart of [redacted] Airport Response Coordination Center (ARCC), a multi-departmental and multi-agency high-technology command center at [redacted] LUSAD and AVISOFT are Oracle Spatial based repositories for AutoCAD data that describe the exterior and interior spaces at [redacted] airports, primarily [redacted] focuses on utilities and exterior base mapping, such as roads, runways and fences. AVISOFT stores information about walls, staircases, doors and other interior features. While LUSAD and AVISOFT are accessed by either AutoCAD or a MapGuide based web viewer, it did not immediately lend itself to access by Situator. NGS implemented an Esri based file geodatabase to store an extract of the LUSAD and AVISOFT data needed to support Situator and wrote scripts for extracting GIS data from LUSAD and AVISOFT databases into the geodatabase on a scheduled basis. Mr. Elroi's role was to establish communications between the principal participants, the systems integrator, the client, the software vendor and NSG, and reach consensus on approach. He then directed the work and advised the integrator on best ways to leverage the GIS integration for the benefit of the client.*
2010	**Project Name:** Integration of Enterprise GIS into NICE Situator PSIM Software in Port Police Operations Center (subcontract to SAIC) **Role:** Project Manager *NorthSouth GIS supported SAIC to integrate the Port's Enterprise GIS into the Physical Security Information Management (PSIM) and Situation Management software implemented at the Port Police Operations Center – NICE Situator. At the onset of the project, Situator could only read and display simple GIS file formats, principally a single satellite image. NorthSouth GIS facilitated design modifications to utilize the Port's Esri-based Enterprise GIS and automated the data transfer, while maintaining uniformity in the map display. NSG's enhancements enabled users to access the Port's own geographic information from within the Situator, rather than resorting to separate software. As part of the project, Mr. Elroi visited NICE's development center in Israel and reviewed the integration methods between the [redacted] Esri implementation and NICE's Esri implementation. He recommended modifications, advised SAIC and the [redacted] and directed NSG staff in order to accomplish the required integration. Under Mr. Elroi's direction, NSG also developed a reverse data feed from the Situator system into the Port-wide GIS viewer, [redacted] so that Exclusion Zones from the Operations Center can be rapidly distributed geographically to all Port employees, which had a particularly significant ROI for the Port, as this particular piece of information could then be distributed to 1,000 people without incurring additional software licenses.*

3.2.2.10 TEECOM

Project Manager – Teresa Abrahamsohn

Name: **Teresa Abrahamsohn – Principal**	
Qualifications/Experience/Skills:	
Ms. Abrahamsohn has 24 years of experience in the security systems industry and an educational background in both engineering and management. She began her career as an apprentice installer in a decade of service to a prominent security systems integrator, and worked up to her ultimate role as Engineering Manager/Systems Engineer. Consequently, Ms. Abrahamsohn has an unusually well rounded understanding of every level of security systems design, installation, and project management. As a principal for TEECOM, she goes beyond the scope of security systems and provides overall leadership across all disciplines within the firm.	
Credentials (Education, Training, and Certifications):	
• MBA, Management, University of San Francisco, 1999 • B.S., Electrical Engineering, Brown University, 1995 • Certified Protection Professional (CPP)	• Construction Document Technology Certification (CDT) • Senior Professional in Human Resources (SPHR-CA)
Dates Employed	**Duties Performed**
June 2012 - Present	[redacted] **CCTV Upgrade** **Role:** Project Manager *Utilizing a FAA [redacted] retained TEECOM to design upgrades and expansions of its CCTV system. Design included site survey, analysis of existing equipment and infrastructure, review of existing control center, integration options to Terminal 2, cost estimate, and design of a digital network recording system with intelligent video analytics capabilities for the entire airport. Engineering included development of full construction documents for upgrade of over 100 cameras equipment and infrastructure. TEECOM completed a threat assessment to provide recommendations to the [redacted] which integrate the new technology with the existing systems.*
August 2004 – Present (in-progress)	[redacted] **Role:** Project Manager *TEECOM provided security engineering from programming through construction administration for an access control, badging, alarm monitoring, and video surveillance system for the [redacted] and Maintenance Yard, located on [redacted]. A digital video recording system will also be included in the design. The project was funded by the Transportation Security Authority and State of California. The security upgrade to the Ferry Terminal (Gang Plank & Float) and Maintenance Yard (580 acres) met Coast Guard and PVA (Passenger Vessel Association) Regulations and fulfilled approved US Government Grant proposal requirements.*
September 2008 – December 2012	[redacted] **Role:** Project Manager *TEECOM worked with the [redacted] to install a security system for six facilities in the Bay Area. The security system included a card reader system, video surveillance cameras, and security fences and gates. TEECOM also created an overall access control and monitoring system. The system allows local control capabilities, and in addition, the system will be constantly monitored at the Chief of Protective Services desk in the General Offices building.*

3.2.2.11 TSG Solutions, Inc.

Project Manager – Greg Rossler

Name: **Greg S. Rossler – Business Development, Public Safety and Security**
Qualifications/Experience/Skills:
Mr. Rossler brings a wealth of real world experience and education to the table that allow for a premium blend of security knowledge that is directly applicable to the Port of Oakland DAC project. Mr. Rossler has ten years of working experience with TSG Solutions, starting as an entry level technician with TSG's operations group, and working his way up into the operations management chain until settling into his current Business Development Role. Mr. Rossler has played a key role in several TSG projects, including but not limited to Digital Mapping, GIS and Integration projects at [redacted]
Credentials (Education, Training, and Certifications):
• BA, Spanish, California State University San Bernardino, 2001 • MBA, University of Phoenix, 2008

Dates Employed	Duties Performed
September 2010 – May 2012	**TSG Contract:** [redacted] **Role:** Business Development *Mr. Rossler's role on the* [redacted] *Digital Mapping and GIS projects has provided him experience with the following components: Digital Mapping of most interior and exterior areas of the* [redacted] *Headquarters Building, Digital Mapping of Critical intersections at the* [redacted]*, and integration of Digital Mapping data into the Geographic Information System for the* [redacted] *of* [redacted]
May 2011 – May 2012	**TSG Contract:** [redacted] City GIS Mapping **Role:** Business Development *Mr. Rossler supported the* [redacted] *Mapping project, and this effort provided him experience with: Digital Mapping of most interior and exterior areas of the* [redacted]*, an understanding of a robust GIS system integrated into the Digital Mapping System, integration of security cameras into the Digital Mapping System, and software training.*
September 2008 – Present	**TSG Contract:** Port of Hueneme Tasks 1-6 **Role:** Business Development *The Port of* [redacted] *Tasks 1-6 encompassed the following components:* - *Task 1 –Digital Mapping of all interior and exterior areas of the* [redacted] - *Task 2 –Digital Mapping of all interior and exterior areas of a RoRo Vessel and a Reefer Vessel, Conversion of all Digital Mapping data and imagery to a Dynamic (Live) System* - *Task 3 – Integration of security cameras into existing Dynamic Digital Mapping System* - *Task 4 – Configuration, Setup and Integration of a server for the Dynamic Digital Mapping System, others* - *Task 5 – One year Maintenance plan for existing data in the Dynamic Digital Mapping System* - *Task 6 – Collection of data at the port's primary and secondary Joint Operation and Security Centers for integration into the existing Dynamic Digital Mapping System* - *Software Training*
November 2009 – April 2010	**TSG Contract:** [redacted] **Role:** Business Development *Through Mr. Rossler's experience with the* [redacted] *Digital Mapping project, he had firsthand experience with the Digital Mapping of most interior and exterior areas of the* [redacted] *Bay as well as Software Training.*

3.2.2.12 URS

Project Manager – Christian Raumann, GISP

Name: Christian Raumann – Senior GIS Analyst/Project Manager

Qualifications/Experience/Skills:

Mr. Raumann has 15 years of experience developing and applying geographic information systems (GIS) for a wide variety of projects while with the U.S. Geological Survey and with URS Corporation. His project management and technical experience has focused on the mapping and analysis of land-use/cover change, vegetation with an emphasis on forest dynamics, impervious surfaces, critical habitats, surficial geology, natural hazards, sea-level rise, levee failure and dam breech scenarios, and physiography using LiDAR data. His extensive remote sensing experience has come from manual image interpretation as well as digital image processing, including contemporary and historical image orthorectification and classification. He has also coordinated and led large data production efforts both in-house and through subcontractors. His team specializes in data management and systems integration using server GIS and web-GIS applications. He is also experiences in enterprise GIS needs assessment, implementation planning, and strategic planning. Mr. Raumann is a certified URS Project Manager and a Geographic Information Systems Professional (GISP).

Credentials (Education, Training, and Certifications):

- M.A., Geography, California State University, 2000
- B.S., Geography, California State University, 1995
- Flip7 LiDAR Processing and Analysis Software, 2007
- ERDAS IMAGINE Remote Sensing Software Training, 2000

Professional Licenses

- GIS Professional (GISP)
  GIS Certification Institute, License# 00017566

Dates Employed	Duties Performed
2012	**Geospatial Security Mapping System (GSMS),** [redacted] **Role:** Project Manager *Mr. Raumann is leading a team in completing the Geospatial Security Mapping System (GSMS) Project. The objective of this team is to produce an Enterprise GIS comprised of comprehensive data, hardware, software, process documentation, training, and support that will be used by the* [redacted] *improve daily operations, preparing for and managing crisis events, and advising recovery efforts. The team is conducting a stakeholder needs assessment and IT systems analysis to determine the requirements for GSMS functionality, data, and system architecture. The system is based on ArcGIS for Server and SQL Server technology, and the team is converting, migrating, and collecting geospatial data from many sources using Safe Software FME Desktop to populate the Enterprise Geodatabase. New aerial imagery is also being acquired. The primary tool that the team is creating for GSMS users is a web-browser-based map viewer built using Latitude Geographics Geocortex Essentials and Microsoft Silverlight. Primary system integration includes the* [redacted] *intrusion detection system, Automatic Identification System (AIS) for vessels, Tactical Survey, and local weather and traffic. Secondary integration includes Oracle eBusiness Suite ERP. The team is implementing an outreach strategy and conducting formal training sessions for GSMS users. Upon GSMS implementation, the team is providing two years of on- and off-site support, maintenance, and enhancements.*
2011	**Sea Level Rise and Adaptation Study,** [redacted] **Role:** Task Manager *Mr. Raumann led the Coastal Inundation Study task with the goal of providing an estimate of the amount, extent and impact of sea level rise along the* [redacted] *The team used LiDAR and other survey data to visualize inundation levels for the years 2010, 2050, and 2100 provided by their hydrodynamic model of coastal inundation. In order to characterize existing shoreline conditions, the team produced a photographic montage of the Port that included 4,000 photos taken from a boat for an on-the-water perspective of Port facilities. The team also created an interactive Google Earth-based application that allowed for streamlined navigation and viewing of the geo-tagged photos.*
2010	**Earthquate Evacuation Traffic Simulation Model Development Project,** [redacted] **Role:** Project Manager *Mr. Raumann's URS team worked with the transportation modeling software developer* [redacted] *produce evacuation travel demand and traffic simulation models for S*[redacted]*. Utilizing URS's experience in emergency planning and seismic modeling, the team developed a set of tools for ArcGIS that allow a user to extract damage data generated by FEMA's HAZUS-MH model directly to a transportation model network and census tracts. Additionally, the team provided a direct crosswalk function that related HAZUS-MH's unique highway and bridge data layers to the model-specific transportation network. Resulting model functionality included transportation route deletion based on highway and bridge damage as well as transportation demands based on structure damage, human casualties, and commuting populations.*
2009	**Habitat Reserve Program Database,** [redacted] **Role:** Task Manager *Led the building and maintaining of a Habitat Reserve Program (HRP) database for the* [redacted]*. This database is used to track and catalog the various restoration and species conservation actions and their corresponding*

	geospatial data layers on a site-by-site basis. After spatial database development, the database was migrated to a non-spatial RDBMS to provide an intuitive and dynamic tracking and reporting system for habitat compensation credits.
2008	**Crystal Springs-San Andreas Transmission System Upgrade Project,** [redacted] **Role:** GIS Technical Lead *Coordinated project staff and developed techniques and standards for this civil engineering project. A great deal of this project's work involved analysis, manipulation, and visualization of LiDAR data and multi-beam bathymetric survey data. Analysis components included reservoir storage volume calculations, generation of topographic surfaces, and feature extraction from LiDAR and imagery.*

3.2.2.13 VidSys, Inc

Project Manager – Chris Cosentino

Name: **Chris Cosentino – Video Solutions Architect**	
Qualifications/Experience/Skills:	
Mr. Cosentino is an accomplished, results-driven Sales Application Engineer with nearly 20 years of experience. He actively manages the technology evaluation stage of the VidSys design process, and serves as the key technical advisor for VidSys products and emerging technologies. Mr. Cosentino can articulate technology and product positioning to both business and technical users, focused on establishing and maintaining strong customer relationships.	
Credentials (Education, Training, and Certifications):	
• A.A.S., Advanced Technical Studies in Avionics, Southern Illinois University, 1990 • Project Manager Certification • Physical Security Network Associate Certification (PSNA)	
Dates Employed	**Duties Performed**
February 2012 - Present	**Video Solutions Architect** **Role:** Sales Application Engineer *Actively manages the technology and evaluation stage of the VidSys design process, providing recommendations for VidSys products and developing prototype and proof-of-concept solutions. He frequently integrates 3rd party products into VidSys systems and forms strategic technology alliances. He has experience presenting the technology, as well as training users and providing technical support.*
October 2011 – February 2012	**Motorola Solutions** **Role:** Video Solutions Consultant *Selected and designed various types of video management systems, video storage, analytics and PSIM application, as well as cameras and pods complete with both wireless and fiber network connectivity elements. He assessed and analyzed customer environment to ensure developed solutions integrated with their existing systems and user needs. Evaluated vendors and selected installers to coordinate the creation of solution proposals for any specific implementation.*
August 2010 – October 2011	**Siemens Industries** **Role:** Video Solutions Engineer – Security Division *Designed large scale video systems and networks, working directly with customers to compare and tailor solutions for their video surveillance needs. He conducted post-implementation evaluations to ensure that video solutions functioned properly and provided on-site video design and technical support, as well as project management to ensure projects met completion goals. He assisted with testing and diagnostics of reported field problems through site visits, as necessary, to analyze application issues and facilitate problem resolution.*
2006 - 2010	**First Security Systems** **Role:** Engineering Division Director *Mr. Cosentino planned, scheduled and organized the installation team members and coordinated all installation staff, material, labor, documents, drawings, and training from project inception to turnover. He was responsible for $2-4 million annually with minimal deviation and increased division profitability by reducing engineering design time and errors through targeted design strategies.*

3.2.3 Selected Staff Bios

3.2.3.1 Prime Contractor Bios – SAIC

Ayeshah Abuelhiga has more than 8 years of experience in the planning, implementation, and management of transportation programs, policies, and outreach campaigns. Her technical background in transportation planning has led to practical experience in conducting stakeholder engagement and outreach programs and campaigns resulting in increased participation in target transportation programs. Her work experience includes leading the development of and administering transportation-related policy compliance and regulation programs, conducting transportation policy and regulatory analysis, rule-making support, public outreach, communications, facilitation, training, and conference and event planning. Ms. Abuelhiga has a firm understanding of connected vehicle technologies and has spent the last year conducting an extensive outreach effort in support of connected vehicle technology.

Tony Ahmad has 17 years of relevant experience in implementing electronic identification systems for vehicles on roadway and at controlled access points. He served as systems engineer and deployment manager for the [redacted] project to design-build nine new highway weigh stations, installing technology to identify commercial trucks for electronic screening purposes. Mr. Ahmad has implemented electronic toll systems such as [redacted], international border crossing screening systems, and other ITS systems and applications. Mr. Ahmad has hands-on experience in fielding roadside equipment for the purposes of electronically identifying vehicles. His experience and practice knowledge of design-build and roadway permitting and install processes in California are invaluable.

Mr. Ahmad was assigned as the Project Engineer leading the technical design of the [redacted] He designed the overall system and subsystems for the [redacted] and worked closely with the facility designers on the team to coordinate system and network infrastructure and procurement of laboratory equipment to accommodate for a modern lab at the research facility. He is working with researchers and [redacted] operations staff to implement demonstration scenarios for research of ITS based applications and contribute ITS knowledge towards research and transportation studies that will be conducted at the [redacted].

James Cassady is a Software Systems Developer with SAIC's Transportation Solutions Division. He provides technical support and application development to the Government and the transportation industry in improving supply chain operations, freight movement, and security by reducing congestion and vulnerabilities in the transportation system. Specifically, his skills include developing Web applications, websites, and Web Services using programming languages and technologies such as Java/J2EE, HTML, and Java Script. He also has a strong background in database development with MS SQL, Oracle, MySQL, Sybase, and Teradata. He has expertise in the entire lifecycle of software and Web development including requirements gathering, architecture, design, development, and implementation.

He participates in transportation projects to provide technical expertise in support of requirements to include development of software applications to improve technologies in the transportation system and development of software to make intermodal freight and sealift processes more efficient. Mr. Cassady has also participated in the development of Connected Vehicle applications using the OSGI framework. Prior to joining SAIC, Mr. Cassady developed several applications for the [redacted]

Neil Chung is the Chief Systems Engineer for Physical Security Design and Integration and has more than 11 years of experience in the design, integration, test, and management of large scale, international, commercial and government technology projects. Mr. Chung has design expertise in system level

architectures combining multiple disciplines with an emphasis on major integration between varying products and organizations. He is currently the technical lead for the [redacted] operated bridges, responsible for the design and implementation of the surveillance equipment and the software integration of physical security subsystems into a physical security information management (PSIM) common operating picture at the security operations center. His design work for the [redacted] was a key factor in the selection of SAIC to implement a similar security and information integration project for the [redacted].

Jeremy Durst is the Technical Operations Lead for the [redacted] where he maintains the information systems that process data from various safety and mobility applications through wireless communication. In support of the [redacted], Mr. Durst is a leading systems engineer responsible for development, deployment, and testing of wireless technologies and network systems. The [redacted] selected Mr. Durst for the team of experts to overcome the operational challenges of providing vehicles with batches of security certificates that expire every five minutes without disrupting the exchange, monitoring and storage of data being broadcast constantly at 10Hz from in-vehicle and roadside infrastructure. His success in these security projects has been a key component of the program's initiative to get approval of a new federal requirement by the [redacted] that will require all manufactured vehicles to contain new safety-critical communications equipment by 2020. Moreover, Mr. Durst served a critical role in delivering the 2011 [redacted] demonstration connected vehicle system in less than 3 months.

Jan Hodges has 30 years of experience in working with the world's leader in science applications to evaluate, develop, integrate, and implement past, existing, and horizon technologies for use in security, nuclear, transportation, and supply chain domains. He is nationally recognized as an RFID technology expert in Asset Management systems and applications. Mr. Hodges developed solutions for multiple RFID and data capture systems, including active and passive technology for train systems, parts, vehicles, electronics and food products. As the Chief Systems Engineer for the [redacted] Enrollment Program, Mr. Hodges oversaw the integration of the Natoma DTR solution with the Fluensee Asset Visibility Solution.

Tammy Karlgaard is an accomplished professional with ten years of communication, leadership, and emergency management experience. As a regional emergency management planner for the [redacted], she worked with emergency managers and mayors from 16 local governments as well as State and Federal agencies to address regional emergency management activities by researching and preparing planning reports, grant administration and management, and provided recommendations in all areas of emergency management and homeland security for the region and to the [redacted]. Ms. Karlgaard developed the Urban Area Security Initiative (UASI) program for the [redacted] region with a first year award of $7 million, the highest amount for a first year UASI. She developed grant implementation guidance and practices and managed the $7 million in grant funds for all phases of emergency management for grant initiatives in the region. Ms. Karlgaard also represented [redacted] regional interests to state and federal agencies during state level emergency planning activities and participated in multiple state task forces.

Nicholas Kehoe has over 4 years of experience providing technical support to public and private customers in roles ranging from data collection and analysis to outreach and meeting support. Specifically, Mr. Kehoe has supported data collection and analysis efforts including various formats of data sources, such as broadcast data from interstate variable message signs, participant driving behavior and in-vehicle video, and subjective data including surveys, focus groups, and interview results. Mr. Kehoe is skilled in project management and reporting, as demonstrated by his support to the [redacted] the form on on-site support, his role as a Peer Coordinator with [redacted] Peer-to-Peer Program, and his involvement with the [redacted] Road Fee Test.

Rhian Merris has worked as a systems and network administrator for more than 17 years. Starting with Netware and Windows NT, his experience includes VMware, Linux, all versions of Microsoft Windows, Cisco, as well as supporting myriad other network and server environments, including Microsoft Exchange. After working for a number of years for SAIC's internal IT support organization, Mr. Merris now supports the Connected Vehicle Test Bed back-end systems and network, including engineering, design, and planning for next-generation architecture.

James Morentz, Ph.D., has been an innovator in emergency management since 1975. He was the principal investigator for the landmark National Governors' Association (NGA) studies that produced the national strategy known as Comprehensive Emergency Management that was eventually implemented in all 50 states. He was a consultant to the President's Reorganization Project that created the Federal Emergency Management Agency (FEMA) in 1979. He was the lead developer of several training and exercise courses for FEMA and has taught in ten different government and university programs.

Andrew Murdoch is an application engineer with over 17 years of expertise in developing and implementing GIS applications. He has developed Silverlight and ASP.Net websites using ESRI GIS web APIs that interface with server-side web services linking to SQL Server database. Mr. Murdoch worked as part of a team of designers, developers and database administrators to test and deploy a GIS mapping website. He also created custom web services to enable the transfer of geographic database files using VB.NET, Oracle, XML and GML, and developed expert geo-spatial database export tools for government clients. Mr. Murdoch has extensive experience creating custom solutions tailored to meet stakeholder needs through user-friendly interfaces for seamless integration and application of developed tools.

3.2.3.2 Subcontractor Bios

Anderson Audio Visual

Philip Chan has more than 16 years of experience installing audiovisual systems and an impressive resume of projects that he has provided installation services for. He will manage the on-site installation team, provide day-to-day coordination with the general contractor, and ensure that quality of installation services are at the highest level.

James DeLeon has been in the audiovisual industry for over 8 years and brings a sharp attention to detail to the project process. Mr. DeLeon will oversee all aspects of the audiovisual construction process including coordination with the general contractor and client.

Andrew T. Kanik is a 16 year veteran of the audiovisual industry. He provides overall coordination of the Anderson AV Integrated Solutions Team. Mr. Kanik provides primary input during the programming, concept, and design development phases of the project. He serves as the administrative liaison between the contractor/end user team and Anderson AV staff throughout the project's schedule.

Brad Robinson has over 14 years of experience in the AV industry, and brings an extensive knowledge of all aspects of the system design and integration process. He manages a team of skilled engineers and technicians which all bring the same level of detail and care to each project. Mr. Robinson will provide technical oversight to the project to ensure that all systems are built to specification and with the highest level of quality.

BBI Construction

William Rogan has more than 17 years of experience in the construction industry He specializes in pre-construction services for fast-track delivery systems; high end custom finishes; and adaptive reuse spaces. He is responsible for providing preconstruction services, including the preparation of preliminary budgets and construction cost estimates, contract negotiation and administration, project scheduling, and value engineering. Mr. Rogan also provides contract negotiation and administration, as well as purchasing and cost control for Construction Services.

Kimley-Horn and Associates

Kevin Aguigui is a Senior Systems Engineer with 19 years of extensive hands-on experience in Intelligent Transportation Systems, Traffic Engineering and Design, Traffic Signal Timing, Electrical Systems Design, Security and Surveillance Systems and Communication Networks. He also has extensive experience in Transit Management Systems, Adaptive Control Systems and Transit Signal Priority Systems. His wide range of skills focuses on the utilization of systems engineering for the planning, design, deployment and integration of advanced technologies and electrical systems for transportation management.

Kwasi Akwabi is an ITS engineer who works on freeway/arterial ITS and traffic signal design projects. His experience includes freeway ITS design, traffic signal modification work throughout various East Bay cities, network design and implementation, as well as traffic signal and ITS design in other states such as Arizona, Utah, Kansas, and Missouri.

Elbert Chang has extensive engineering and management experience in a variety of traffic engineering and ITS projects in both the private and public sectors. He has designed and implemented communication networks including interconnecting traffic controllers, CCTV systems, dynamic message signs, HARs, and the connection of central systems over local and wide area networks. His projects have included feasibility studies of current communication medium technologies and the preparation of preliminary design and PS&E documents for all types of networks including wireless (different RF spectrum), copper, and optical fiber. Mr. Chang's public sector experience includes working at the [redacted] (interim Traffic Engineer, 2001-2004).

Randal Durrenberger is a Senior Transportation engineer with nearly 20 years of experience in the planning, design, testing, and implementation of freeway and arterial based ITS projects. He has managed several major freeway management systems and Smart Corridors involving all facets of a project from planning to implementation. His experience includes planning (ITS strategic plans, system architecture, communications master plans, implementation plans), design (communications, conduit and cable, plan sets, general traffic, and field device locations), specifications (signal system, ITS devices), and field coordination of multiple contractors on various phases of implementation. Randy is also experienced in developing and implementing traffic signal interconnects and ITS applications on arterials.

NorthSouth GIS

Vikas Srivastava is a GIS expert with over 17 years of experience in all phases of enterprise GIS implementation and the integration of GIS with enterprise systems such as SAP ERP. His experience includes a multitude of projects in developing a GIS delivery organization, project management, as well as business development. Notably, Mr. Srivastava was the Project Manager for NGS's enterprise GIS deployment for the [redacted].

TeeCom

Andrew Gonzales brings a multi-faceted background in the A/E/C Industry to TEECOM, and prior to joining the TEECOM team, he worked at a construction consulting firm that specialized in work as expert witnesses. At TEECOM, he has spent the past 4 years becoming an expert in security systems, working closely with senior staff to design and oversee the design and construction of diverse systems.

TSG Solutions, Inc.

Paul Benne has more than 23 years of professional engineering experience in the security industry, and has been responsible for the design of sophisticated integrated security systems, including personnel and vehicle access control systems, various card access control technologies, biometric verification systems,

interior and exterior/perimeter intrusion detection systems, CCTV video surveillance systems, intercom and emergency telephone systems, turnstiles, fire and building code compliance, and systems integration.

Donald Brower has over 25 years of experience in management and operation of fleet cryptologic systems, military communications, intelligence, and computer security. He has systems engineering knowledge and experience in the installation, configuration, and testing of computer equipment and system networks accomplished through both formal and on-the-job training. Mr. Brower developed, administered, and maintained [redacted] and networks and operated small business for 4 years installing, repairing and upgrading computers and networks. He is a Certified Information Systems Security Professional (CISSP), Microsoft Certified Professional (MCP), and a recognized Information Systems Security (INFOSEC)/Information Assurance (IA) Subject Matter Expert.

Brian Hedges has managed and led a team of engineers responsible for Network Security, Certification and Accreditation, Information Assurance and Multi-Level Security/Cross Domain Solutions. He is the Chief Engineer evaluating the network and security solutions for the [redacted] is the premier network for coalition interoperability in support of maritime operations using a certified security technology solution allowing for confidential, multi-level information sharing over a single network.

Thomas Newton has extensive experience in the design, planning, and implementation of various CCTV, Security and Building Automation Systems in Research and health care setting. Has also served as an IT and infrastructure liaison for two large Information Technology Departments. Former Sergeant in the Military Police, United States Army Reserve.

URS

Tomas Lopes is a seasoned geospatial and GIS integration developer with over seven years of experience in the Bay Area. As a GIS Developer with Farallon Geographics and now URS he has significant experience implementing Enterprise GIS systems and conducting GIS Strategic Plans. Mr. Lopes has managed the development of several mapping web portal projects, integrating ArcGIS Server with external systems and providing spatial intelligence to existing workflows. His education and experience includes ArcGIS Server implementation and administration, Web development, geodatabase design, and spatial data modeling.

Lee Rosenberg is the URS Oakland office Environmental Services Department Manager where he leads a diverse group of 45 staff that provides GIS, Cultural Resources, Air Quality and GHG, Economics and Emergency Managment services for industrial and government clients. He has over thirty five (35) years of success managing increasingly complex organizations of up to seven hundred (700) employees. He has extensive experience leading people and executing a full range of business functions including budgeting, operational policy development, strategic planning, crisis planning, contingency operations and regulatory compliance. Prior to joining URS, Mr. Rosenberg served as a Federal Coordinating Officer for FEMA. He has an extensive background in emergency management operations, planning and exercises, the Incident Command System and coordinating the efforts of State and Federal agencies during disaster response and recovery. Mr. Rosenberg served 30 years on active duty in the Navy and retired as a Captain.

VidSys, Inc.

James R. Augustine has 25 years of experience, including various positions in project management, engineering sales support, as well as low voltage system design and implementation. Mr. Augustine has expertise in various types of systems including CCTV, IP Video, access control, fire alarm, perimeter intrusion, intercom, sound reinforcement, life-safety alerts, and GPS based video analytics platforms. He has also taught Basic CCTV classes for the International Brotherhood of Electrical Workers union as part of their Systems Installer apprenticeship program.

Chris Bledsoe has 16 years of experience and has held positions in professional service and solutions consulting, leading cross-functional teams in providing high quality services to government agencies and private enterprises. Most recently, these include the [redacted] Previously, Mr. Bledsoe has provided video and security services to [redacted] a national company with more than two hundred secure facilities in the United States, [redacted]

Ted Kim has held various positions in Professional Service and Solutions Engineering, providing subject matter expertise to local, state, federal government agencies, and private enterprises for over 15 years. [redacted]. Mr. Kim managed and delivered the first and some of the largest and most complex VidShield and RiskShield project deployments for VidSys.

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4.0 RELEVANT EXPERIENCE

SAIC has more than 20 years of experience in the design, construction and maintenance of maritime surveillance and security systems for both local government operations and international clients and has designed and built 14 command and control facilities in the last 10 years. This experience, coupled with our established local presence and understanding of the Bay Area and its stakeholders, makes SAIC uniquely qualified to provide the services requested by the City of Oakland to implement the Joint Domain Awareness Center.

Our highly skilled personnel have cultivated the capabilities required to develop turn-key information technology solutions and implement integrated systems through extensive experience in the design and construction of facilities for advanced information processing, situation assessment, and event management. Our commercial integrated security projects have ranged from small video efforts at single ports to the integrated security sensor and management system for nine [redacted]

The base of SAIC's business is rooted in systems engineering and integration, and the following projects illustrate our ability to select and assemble cohesive security systems from high-quality, reliable products.

4.1 Relevant Project Experience Working With Local, State, and Regional Governments

4.1.1 [redacted] Waterside Security Surveillance System

SAIC was selected to implement a Security Surveillance System for the [redacted] that required a solution compliant with its conceptual design, in addition to which we bid a best-value option to provide substantial cost savings while maintaining or exceeding the performance requirements of the Request for Proposal (RFP). Using advanced closed-circuit video sensors and video analytic intelligent processing, SAIC reduced the threat of unauthorized waterside access to the [redacted] while supporting physical and logistical interfaces to video, alarm, and access control systems from other monitored locations in order to maintain compatibility with existing systems installed by major tenants at the Port and installed at the [redacted]

Our innovative application of layered intelligent video analytics provided for automated attendant functionality, as well as 3-D graphic mapping and alarm track visualization for advanced situational awareness with minimal long-term operational and maintenance labor requirements. SAIC combined conventional wired systems, point-to-point/multipoint licensed and unlicensed wireless systems, and fiber optic transmission nodes through an array of fixed hubs and relay points to provide the communications backbone system, with further

connectivity to remotely located sensor, alarm, and access control systems. Wrapped within an overarching enterprise-class video and network management platform, the system was completed by a command, control, and communications console that provided a uniform, sophisticated, and simplified user interface.

The final system our team implemented provided aids for event management and documentation in the case that any disruptive activities are perpetrated within the Port's facilities or properties; improved situational awareness; and increased the overall state of security. Successful completion of this project demonstrates SAIC's in-depth understanding of the technical, operational and programmatic issues and processes involved in providing the system tools necessary for improvements to the [redacted] security profile.

Project Details			
Dates	11/2006 – 2/2010	**Location**	[redacted]
Firm Role	Prime contractor	**Project Cost**	$12.6M

4.1.2 [redacted] Electronic Bridge Security System

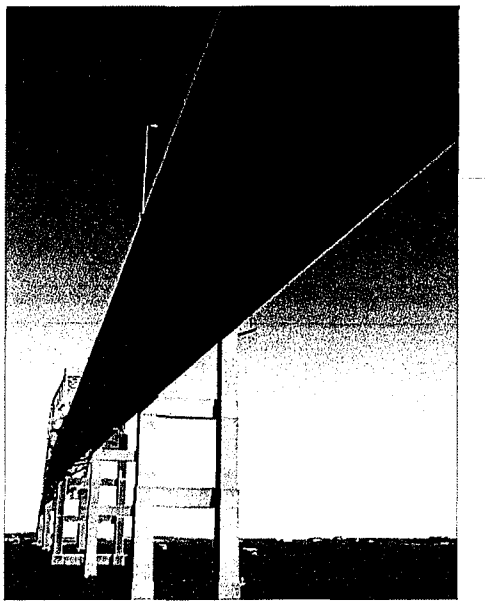
The [redacted] selected SAIC to design, build and install an Electronic Security System (ESS) for [redacted]-operated bridges, including a warranty and maintenance agreement. In addition to the installation of security cameras and surveillance infrastructure, the project includes the provision of workstations and a central software package to fully integrate overall situation and event monitoring with system control activities at multiple locations. Our team developed a well-managed design and coordination plan at the onset of this project for individual bridge installations and subsequent incorporation into the centralized system to optimize completion of the work with minimal impact on traffic and other operations.

Reusing much of the existing equipment, our solution builds on current capabilities through the installation of advanced sensors (including CCTV cameras, video analyzers, and passive infrared sensors) and subsystems (e.g., digital recording systems, incident management systems, and fence protection systems). To effectively integrate the legacy systems with new assets and services into a common, easy-to-use operating platform, SAIC is implementing a PSIM system. Provided by VidSys, the PSIM product interfaces associated devices to a single ESS Central Software package, which employs a modular, plug-and-play approach to device adaptation and connectivity that will allow [redacted] to make any necessary device adjustments without modifying the software configuration or bringing down the system. SAIC's solution also provides an interface with the existing traffic routing system to allow for remote controls from any authorized workstation in the state and will provision a trouble ticket system to automate and document needed maintenance to support consistent operation of supplied equipment.

The selected ESS software aggregates information from several existing security systems for processing and secure dissemination to centralized and local operators through a web browser. Our solution allows [redacted] to create scripted scenarios for practice responding to virtualized events, and the system records responses for review by operators and management to promote continuous improvement. Additionally, the system incorporates a rules filter to reduce the incidence of false alarms and transmit only verified critical events to the operator, and uses redundant servers and VMware to provide high system resilience. The overall system architecture that SAIC developed for [redacted] provides the basis for a high performance and high reliability operation that will be easy to use during both normal and emergency operations and has expansion and extension capabilities beyond what [redacted] will likely require in the future.

Project Details			
Dates	12/2010-11/2015	**Location**	[redacted]
Firm Role	[redacted]	**Project Cost**	$11M

4.1.3 [redacted] Bridge Video Security



Similar to the work being performed for [redacted], SAIC has designed and is currently implementing a bridge video security system for the [redacted] SAIC conducted a design review with the [redacted] security team to assess the concept of operations and better understand [redacted] project goals. Our experienced project team and dedicated project manager are executing this complex and widespread effort on an accelerated timeframe, minimizing risk and maximizing performance by applying practices developed for the [redacted] project and leveraging a full staff of licensed professional engineers to oversee design and installation.

Our proposal for this effort focused on a phased installation approach in which the server systems and first bridge are completed in parallel, and the design/build of subsequent bridge installations in later phases. This approach allows [redacted] to start using the new system as quickly as possible and provides flexible financing options to accommodate the customer's pursuit of grant funding. Towards a similar end, our team also constructed an alternative design aimed at expediting delivery and reducing the customer's costs by approximately $3.2 million by leveraging lessons learned from the [redacted] project.

Project Details			
Dates	7/2012-12/2014	**Location**	[redacted]
Firm Role	Prime contractor	**Project Cost**	$12M

4.2 Team Collaboration in Previous Work Efforts

We have assembled a team of industry leaders and process innovators to ensure that the completed Oakland DAC is equipped with state-of-the-art technology for seamless operations. Our team members have diverse project experiences and come from multi-disciplinary academic backgrounds, but have successfully collaborated on a number of previous work efforts – many for the City of Oakland.

The [redacted] implemented by BBI Construction, Michael Willis Architects, and Beaman's Inc., key members of the SAIC EBI team. Michael Willis Architects (MWA) and BBI Construction collaborated on the design and construction of the new 14,500 sq-ft addition to an existing firehouse. MWA completely renovated the [redacted] the complex, using Beaman's Inc. to implement sophisticated electrical and electronic control systems, including redundant emergency power and communications systems, uninterruptible power for computer systems, and structural strength in excess of essential service facility standards. Through established partnerships with each other's staff, as well as with regional partners and stakeholders, these companies will collaborate to design and build the sophisticated infrastructure necessary to support other technical components of the DAC.

Similarly, URS was selected to develop and implement the Geospatial Security Mapping Systems (GSMS) for the [redacted] and enlisted the assistance of NorthSouth GIS to provide a solution that would improve daily operations, prepare for and manage crisis events, and advise recovery efforts. Both team members were involved in a stakeholder needs assessment and IT systems analyses to ensure that all staff members had a clear understanding of the needs, goals, and objectives, and the team subsequently developed tailored solutions. The GSMS solution provides increased situational awareness of the physical

condition of the Port's emergency response infrastructure system and disseminates information that may affect daily operations in a user-friendly spatial interface. This project enhanced many of the skills and qualifications that URS and NorthSouth GIS bring to the SAIC team for application to the Oakland DAC.

NorthSouth GIS has also partnered with SAIC for a project delivered to the [redacted] SAIC hired NorthSouth GIS to integrate the [redacted] Enterprise GIS into their PSIM solution and Situation Management software implemented at the [redacted] Center. NorthSouth GIS will utilize both the experience from the product implementation and the partnerships created with SAIC staff during this work for the Oakland project.

Finally, SAIC and VidSys have established an effective partnership through work in developing security and surveillance systems in Maryland and Washington, D.C. that demonstrate our ability to collaborate effectively to create valuable products. Together, we are currently delivering an $11 million security upgrade to five bridges operated by the [redacted] including a command center software upgrade to integrate nine disparate, existing technologies into a single, common operational picture for interagency video and event management sharing. Our successful cooperation on the Maryland project helped us team together again to win similar work in Washington, D.C., and consequently, SAIC has included VidSys as a key partner on our team to apply the same collaborative approach toward developing innovative solutions for the Joint DAC.

The high quality products delivered and successful partnerships developed for these projects made it easy to select partners for our team on this effort. SAIC has full confidence in our team members' performance and knows that they bring together the essential skills and qualifications that will make the Oakland DAC a success.

4.3 Experience and Ability to Work Effectively with Stakeholders

SAIC has a track record of uniting stakeholders with diverse perspectives, generating understanding and building consensus on recommended choices. All of the projects we work on are an opportunity to build a partnership with our clients, and SAIC places importance on complete coordination and collaboration with our clients to develop and implement innovative solutions. Through deliberate, continuous, and effective communication and outreach throughout every phase of our projects, we aim to produce valuable and meaningful results and to respect stakeholders' commitments and the demands on their time. The experience described previously in this section attests that SAIC understands the realities and technical issues relevant to situation awareness and incident response that are necessary for successful completion of this work.

Through our previous work with the [redacted] SAIC has established effective working relationships with many of the City's agencies and departments, which may be necessary for coordinating work schedules around concurrent operations. SAIC has successfully interfaced with local stakeholders to mitigate potential conflicts in previous projects; for example, our bridge crews planned work to avoid interference with a Caltrans paint crew and scaffolding contractor such that their scaffolding assembly, tenting, water and grit blasting, and painting did not disrupt scheduled structural inspections and the installation of new equipment. Similarly, SAIC has had to coordinate with [redacted] and other regional authorities to complete installation of the [redacted] minimal disruption to normal traffic and operations.

In 2011, SAIC worked with the [redacted] to update the Citywide Emergency Operations Plan (EOP). The EOP consists of a base plan, 17 emergency support function (ESF) annexes, and six incident-specific appendices. The base plan describes the coordination that occurs between the [redacted] departments, and other response agencies; reflects current emergency response and recovery capabilities; and describes the role of the [redacted] Center (EOC).The EOP also describes how the EOC serves as the focal point for the [redacted] in times of disaster. The ESF annexes group the [redacted] resources and capabilities into functional areas that are frequently needed in a response. The incident-specific appendices address the unique aspects of how to respond to

specific types of incidents. The EOP complies with the National Incident Management System (NIMS), in accordance with the National Response Framework (NRF), the California Standardized Emergency Management System (SEMS), the Incident Command System (ICS), and the California State Emergency Plan.

Additionally, SAIC is currently working with the [redacted] to design and develop a system to consolidate the City's asset management systems with its emergency resource management database. The project team conducted stakeholder interviews and utilized a prototype to help interviewees understand potential system capabilities in order to identify existing systems and to assess critical requirements. Using the stakeholder feedback, SAIC created a report that identifies the business process requirements for an effective resource management system. We are in the process of finalizing a requirements and recommendations report and will ultimately provide a final prototype that incorporates system requirements, business process flow charts, procedures, a final proof-of-concept, and recommended next steps.

SAIC is proud of our ability to effectively engage stakeholders on large urban area planning projects and looks to demonstrate our expertise in the Joint DAC project.

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5.0 PROJECT TECHNICAL APPROACH AND ORGANIZATION

The Port of Oakland (the Port) and the City of Oakland Police Department (OPD) have partnered through a Memorandum of Agreement in order to share information and resources to facilitate law enforcement in the Port Area and therefore improve security for a critical link in the nation's Marine Transportation System. By providing OPD with access to Port CCTV cameras at key entry points to the Port, criminal and dangerous side shows and street racing 'events' have been shut down in the Port area before they had a chance to escalate. This experience points to further opportunities for coordination and interoperability that can be expanded to address emergency response capabilities and leverage available resources to further improve the effectiveness of OPD and the Oakland Fire Department (OFD) on a City-wide basis. A focal point for this coordination and a platform for interoperability is a Domain Awareness Center that will be jointly utilized and operated by the Port, OPD, OFD and the Oakland City Office of Emergency Services (OES).

The objectives of this Joint City-Port Domain Awareness Center (DAC) include:

- Integrate efforts between regional security partners – interoperability. Operational capabilities in the Port and the City can be improved by creating a platform for interagency coordination. A joint coordination center that can allow for participation of OPD, OFD, OES, and the Port (and facilities within the Port), with the potential for expansion of participation to include other regional security partners, will improve operational coordination and mission execution by providing a common operating picture and single focus for prevention, preparedness, response, recovery and mitigation.
- Focus on domain awareness, situational awareness and improved response capabilities. There are currently significant gaps in abilities amongst regional law enforcement to see, understand and share tactical information. Domain awareness is a key component of an active, layered approach to security. It improves Law Enforcement's ability to collect, fuse, analyze, display and disseminate actionable information. Similarly, situational awareness is critical to safe and efficient incident response. Surveillance and monitoring data coupled with information management software and reliable telecommunications provide first responders with the information they need to focus their response. This reduces the number of assets that need to be deployed and improves the safety and efficacy of their response.
- Develop a sustainable technology solution that is guided by leveraging existing initiatives, strengthening linkages between existing command and control nodes. expansion of detection and deterrence capabilities, improving effective information management as a force multiplier, developing detailed concepts of operations (CONOPS), enhancing immediate readiness capabilities
- Support National Preparedness Priorities to include expanding regional collaboration, strengthening information sharing and collaboration capabilities, enhance interoperable communication, strengthening Chemical, Biological, Radiological, Nuclear And Explosive (CBRNE) detection and response capabilities.

The SAIC Team provides the best value in delivering the goals and objectives of the DAC work scope, supported and based on our qualifications, experience, and talent, highlighted as follows:

- The SAIC Team has past experience in the design-build, system integration and implementation of PSIM solutions for Federal, State, and local government agencies, as well as maritime port authorities for domain awareness and incident management.
- SAIC has provided similar design-build system integration services for the [redacted], the [redacted], and [redacted] and our selected PSIM solution has been used at the [redacted]

- We have prior experience and the ability to work closely and collaborate with government, community groups, and other stakeholders to build consensus vital to realizing the DAC objectives.
- SAIC selected team members who have both previously worked together on similar projects and bring unique qualifications for this design-build work scope, addressing building infrastructure as well as system integration and solution delivery of a DAC-PSIM.
- SAIC has developed and structured its team organization to optimize the staff delivery focus for both PART-A and PART-B, while also facilitating collaboration across the different disciplines through the Project Manager, Mr. Taso Zografos.
- Mr. Zografos is a local Project Manager who knows the operational domain environment, is based in the Bay Area, and has the right qualifications and experience to ensure successful DAC delivery. Our proposed staff will be 100% dedicated to getting this job done right on time and within budget, with the flexibility to perform duties on short-term notice and under changing time constraints.
- Mr. Zografos will adhere to SAIC industry best practice cost control methods, leveraging tools and procedures for successful design-build delivery of the project.
- Our Team has a clear understanding of the DAC Concept of Operations, PART-A, and PART-B work scope, and we are ready to hit the ground running on day one to deliver the Oakland DAC.

In this section the SAIC Team presents our technical approach and organization required for this project as well as our understanding of the critical project elements. Herein we provide the following:

- **5.1 Project Understanding** of the overall work scope and the services needed for project success.
- **5.2 Technical Risks and Mitigation Strategies** and our methodology for continuous process improvement.
- **5.3 Key Features of Our DAC-TLS Solution Technical Delivery Approach** that the SAIC Team brings to this effort.
- **5.4 DAC-TLS Proof-of-Concept Architecture Design Framework** describing how the various City/Port systems identified in the Technology Linkage System Document are to be accessed in the DAC and descriptions of any infrastructure/hardware/software improvements.
- **5.5 PSIM Proof-of-Concept Implementation Framework** describing the functionality requirements and what systems we will integrate into the PSIM solution as identified in the DAC CONOPS and Technology Linkage System Documents, based on implementation timeline/budget.
- **5.6 Project Schedule** demonstrating our ability to complete design/build/implementation within 12 months.
- **5.7 Detailed Work Breakdown Structure (WBS)** detailing our approach for technical delivery success.
- **5.8 Technical Coordination and Collaboration** describing how we intend to interface with City/Port staff, technical stakeholder, and the community in achieving project success.

5.1 Project Understanding

The City of Oakland, in cooperation and partnership with the OPD, OFD, and OES, are working jointly together in collaboration with the Port to design, build, and implement a Joint City-Port Domain Awareness Center (DAC). This DAC will be housed at the existing Oakland OES facility where it will consolidate an evolving network of existing and future surveillance and security sensor data to actively monitor critical infrastructure such as City and Port facilities, utilities, roadways, and moving assets.

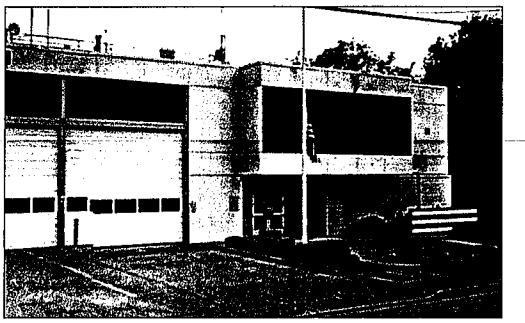


Figure 5-1. Oakland OES Facility.

This project requires existing building improvements to be made to the current OES facility to incorporate the physical attributes that will comprise the DAC. The project will also require design/build system integration expertise to deploy the necessary technology, tools, and interfaces needed to deliver DAC capabilities. As such, this project is comprised of two separate and distinct work scopes described as follows:

- **PART-B EBI: Existing Building Improvements (EBI)** – to the existing OES facility that includes interior infrastructure modifications for the replacement/installation of a new video wall system.
- **PART-A TLS: Technology Linkage System** – for the design/build and implementation, and maintenance support services for the technology, tools, and interfaces to establish DAC capability.

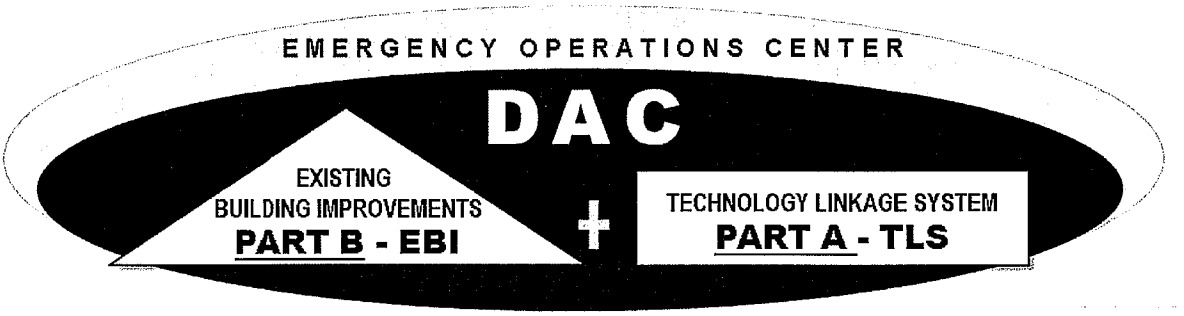


Figure 5-2. DAC Scope Overview.

The SAIC Team reversed the order of our technical approach discussion in order to describe our methodologies more chronologically. Our discussion continues to follow the logic of the RFP; however, we determined that for ease of comprehension and to enhance readability, we will begin our technical discussion with our approach to the PART-B EBI and follow suit with our approach to the PART-A Technology Linkage System.

5.1.1 Understanding of DAC Existing Building Improvements (EBI): PART-B

The SAIC Team understands that the intent of the PART-B EBI is to make the necessary physical structure construction modifications/improvements to the existing OES facility. We understand that PART-B will:

- Require the services of a California licensed general construction contractor and design architecture firm to design/develop the 100% construction design plans/specifications. The contractor will need to perform the necessary demolition, rough-in and finish construction work in order to remove the current curved video wall structure and replace it with a straight wall to support the new video wall system, as well as make tenant improvements to establish the physical DAC layout.

- Require the services of a California licensed electrical contractor and a video wall specialist to design/build, install, and commission a state-of-the-art video wall display and control system situated and supported by the newly constructed physical wall and the necessary infrastructure, networking and electrical support systems. The video system will consist of an array of 12 LCD monitors.

5.1.2 Understanding of DAC PART-A Technology Linkage System (TLS)

This work scope requires the professional services of a qualified prime contractor system integrator with proven experience in implementing security information system technology, tools, and applications as well as integrating data system/sensors for domain awareness/incident management.

The main and critical technical component of the DAC will be the Physical Security Information Management (PSIM) software which will be utilized together with video analytics to efficiently screen and monitor situational awareness data as well as coordinate incident management. The DAC PSIM software will also have the capability to support response capabilities, linking monitoring data with dispatch, as well as the ability to integrate automated access controls at select facilities.

The DAC will offer 24x7 interoperability and coordination of prevention, preparedness, response, recovery, and mitigation efforts through an institutional framework that will establish and enhance new partnerships and coalitions in the region. The DAC will improve regional readiness and response capabilities through information collection and sharing while facilitating a regional Common Operating Picture (COP), as shown in Figure 5-3.

Should a significant transportation security incident or natural disaster occur, responding agencies would convene at the EOC to utilize the DAC and administer the appropriate incident management response. The DAC will feed information and appropriate analysis to the EOC and provide situational awareness information to other regional centers, such as the National Response Center and Intelligence Fusion Centers. The DAC will allow for consolidation of steady-state incident reporting (suspicious activity reports), monitoring of local waterway activity, and criminal activity at key locations, including critical infrastructure and at target zones for focused crime prevention activities.

The DAC will serve as an interface between City, County and State command and control centers and be a primary regional point of contact for the reporting of information from private sector facilities. The DAC will provide for reporting of threat information during heightened Maritime Security (MARSEC) conditions and allow for enhanced presentation and dissemination graphics.

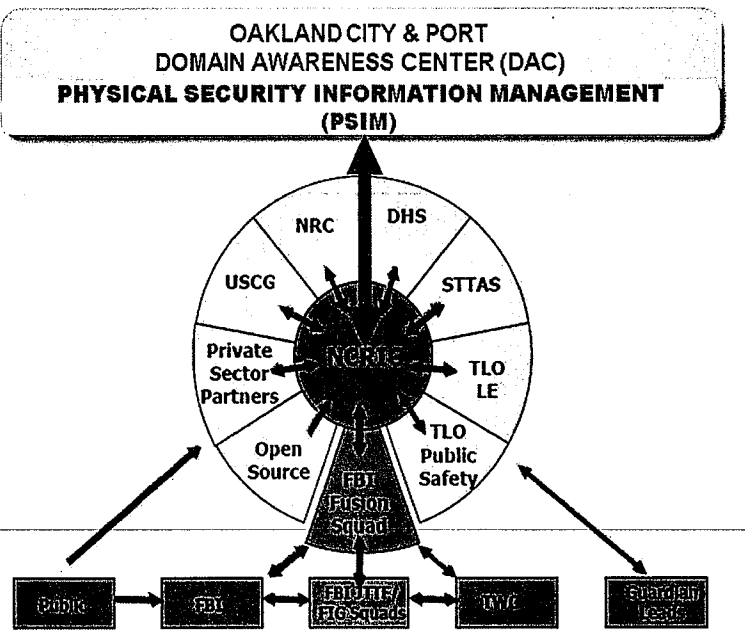


Figure 5-3. Regional COP.

The DAC will serve as a focal point for all-hazard information collection and dissemination within the City and Port of Oakland. Its capabilities will align, integrate, and complement with the multiple security missions of the U.S. Coast Guard, intelligence community, emergency management agencies, other security partners (i.e., UASI), and industry stakeholders to enhance regional readiness and security capabilities.

5.1.2.1 Understanding of Critical DAC TLS Project Elements

The Oakland Bay Area and Northern California region currently has wide array of agencies, data systems and deployed fielded sensors that can enhance the DAC's ability to serve as a centralized location for real-time, linked information/sensor feeds to be viewed collectively by the appropriate jurisdictions.

The City and Port have already made a significant investment in deployed technology that can be successfully leveraged to have an immediate impact on improving domain visibility and security control. This will ultimately enhance their effectiveness in coordinating emergency response to an incident. These information systems/sensors will provide valuable data to the DAC for electronic area surveillance monitoring and detection. Integrating and coordinating these technologies is vital to providing a timely and effective response and is critical to the safety of both the emergency response personnel and the citizens of Oakland.

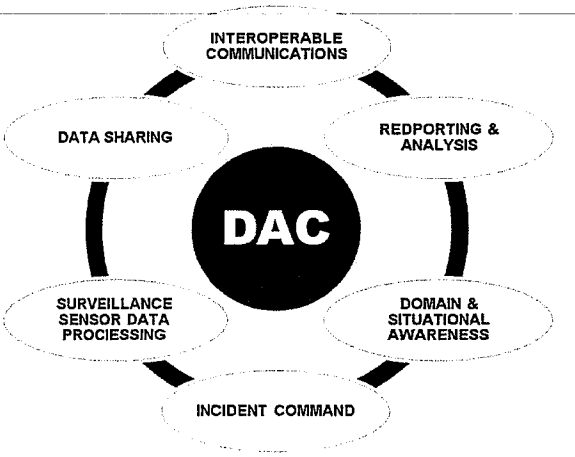


Figure 5-4. DAC Capabilities.

The DAC will provide a focal point for interoperable communications, data-sharing, reporting and analysis, surveillance sensor data processing, domain and situational awareness, and incident command responsiveness.

Figure 5-5 below provides a listing of some of the agencies, data system, and fielded technologies may be integrated into the City/Port DAC to support situational and domain awareness. These components are also delineated following the figure.

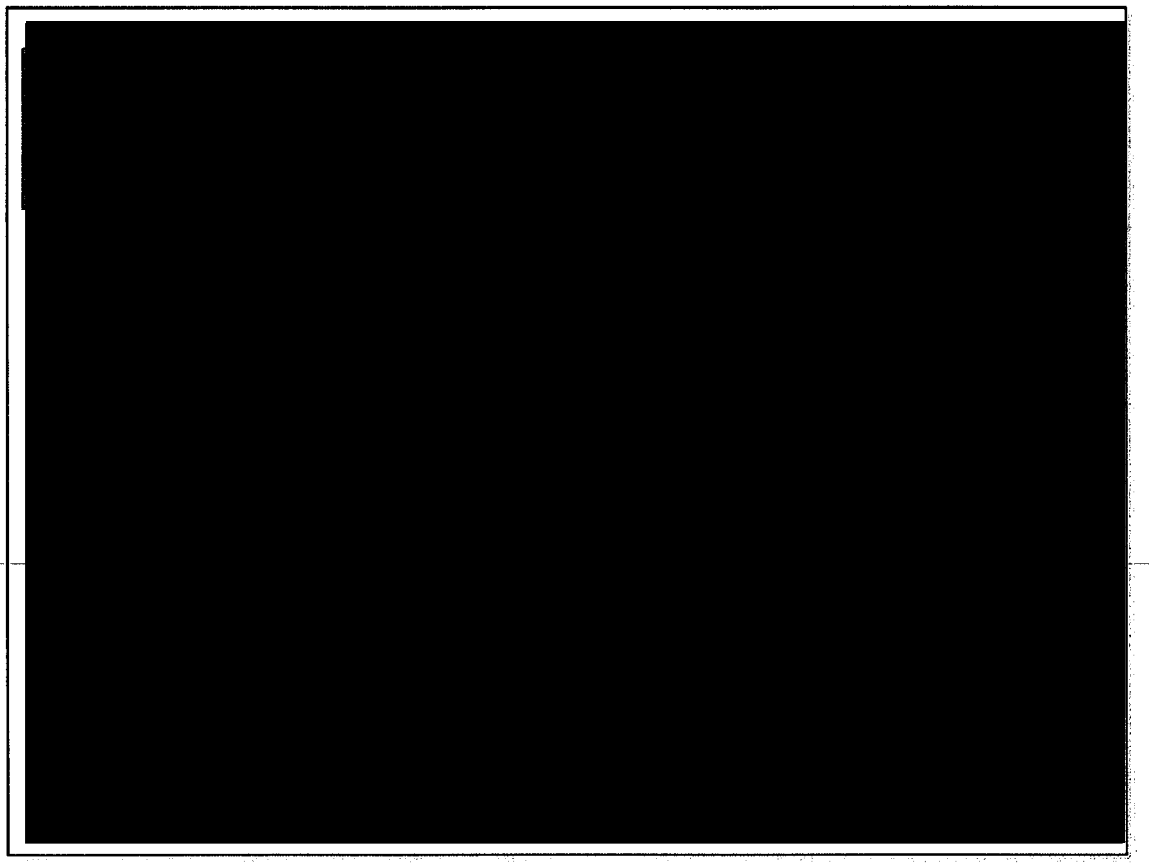


Figure 5-5. Listing of systems to be integrated into the DAC.

- Oakland City CCTV Cameras at Target Locations feeding to a GENETEC Omnicast Server
- Oakland City ITS Network Live Video Traffic Surveillance using ITERIS cameras
- Oakland City Sot Spotter System
- Oakland City Computer Aided Dispatch (CAD) and Law Records Management System (LRMS)
- Oakland Port CCTV and IDS to be federated into a GENETEC Server
- Oakland Port View Geospatial Security Mapping System GIS
- Oakland Port Truck Management System (TMS) maintained by SAIC for the Port
- East Bay Smart Corridor Program Traffic Camera Network
- Oakland City Photo Enforcement System leveraging technology by RedFlex
- Oakland City Schools CCTV Cameras
- Oakland City ESRI Mapping
- Bay Area 511 Traffic Monitoring maintained by SAIC for the Bay Area MTC
- OPD ALPR leveraging 3M Federal Signal PIPS technology
- Oakland City Public Safety Intranets
- Oakland City Police AVL
- Oakland City Fire AVL
- USGS Seismic Monitoring
- NOAA National Weather Service Monitoring
- USGS National Automatic Identification System (NAIS) Vessel Tracking
- Northern California Regional Intelligence Center (NCRIC)
- Chemical, Biological, Nuclear, Radiological, and Explosive (CBNRE) Monitoring
- Contra Costa Automated Regional Information Exchange System (ARIES)

Linkage of these systems will be accomplished through fiber optics telecommunications/data lines or the City's supplemental fiber optics network. Management of the sensor, surveillance, and GIS-based asset/mapping information will be accomplished through the implemented DAC PSIM, coupled with video analytics for surveillance and incident response.

5.1.3 Structured Organization for PART-B EBI and PART-A TLS Delivery

SAIC has assembled and organized a complementary team of talented and qualified experts who deliver unique and specialized capabilities relevant to and vital in meeting the requirements to design/build, implement, commission, maintain/support, and expand the capabilities of the DAC. The following Figure 5-6 depicts how we have structured our SAIC team members to ensure highest quality performance delivery with lowest cost and risk.

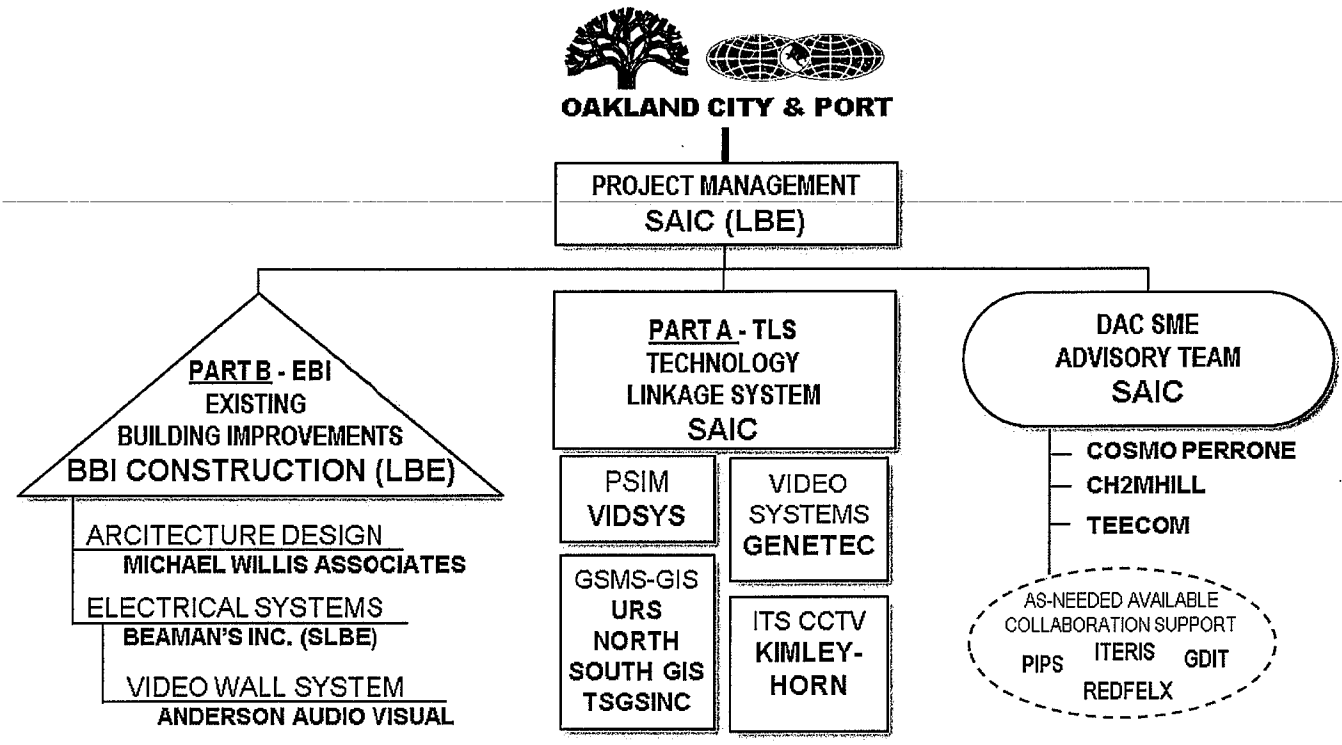


Figure 5-6. SAIC Teaming Structure.

Our team members will provide leadership in the following scope/task elements:

- **Project Management:** SAIC will manage this contract as the prime systems integrator who, through its wholly-owned subsidiary SAIC-Benham, also possesses an active California Class-A General Construction Contractors License (CA Lic#872860). SAIC is also registered as an Oakland Local Business Enterprise (LBE) with an office conveniently located at 1000 Broadway Street in Downtown Oakland, just walking distance from the Oakland EOC where the DAC will be located. Moreover, our SAIC Project Manager, Mr. Taso Zografos, is a Bay Area resident.
- **PART-B EBI:** BBI Construction will lead construction activities together with Michael Willis Architects. They were the original designers/contractor that built the current Oakland EOC where the DAC will reside.
- **PART-A TLS:** SAIC will lead and be supported by VidSys, our PSIM provider; Genetec, our CCTV systems integrator; a URS-North South GIS-TSG Inc. team, supporting integration of the Port GSMS-GIS; and Kimley-Horn, supporting City CCTV and traffic camera systems integration.

The SAIC Team has also organized a **DAC Subject-Matter-Expert (SME) Advisory Team** that brings together experienced individuals with emergency operations expertise to support planning and scoping work efforts, as well as to provide an available pool of as-needed collaborative support personnel standing by ready to assist SAIC on an on-call basis.

5.1.4 Concept and Key Features of the DAC TLS Delivery Approach

SAIC team and our proposed VidSys's PSIM solution can deliver a DAC with capabilities for interoperable communications; data sharing, reporting and analysis; surveillance sensor data processing; and domain and situational awareness for the incident command needs of emergency responders. Our PSIM solution serves as a sound foundation to delivering command and control of the following data systems and/or fielded technologies:

- Port CCTV Genetec SC5.1

- Port Geospatial Security Mapping System (GSMS) GIS
- Port SAIC Truck Management System (developed by and currently maintained by SAIC-Fluensee for the Port)
- City Genetec Omnicast 4.X
- City VIDS System Cameras
- City ShotSpotter
- ESRI Mapping
- Motorola Premier CAD Compliant Interface
- Motorola InfoTrak Compliant Interface
- RedFlex Cameras
- East Bay Smart Corridor Cameras
- NOAA Service
- USGSM Service

Our team understands that the DAC's capabilities and functionality will nonetheless evolve over time, pending the availability and readiness of those systems and technology feeds, as well as other impacting operational priorities, change management impacts, and cost impacts. Given a snapshot of currently available data systems and fielded technology sensors, the diagram below intends to depict the currently envisioned data systems or technologies that we propose to integrate into the DAC TLS.

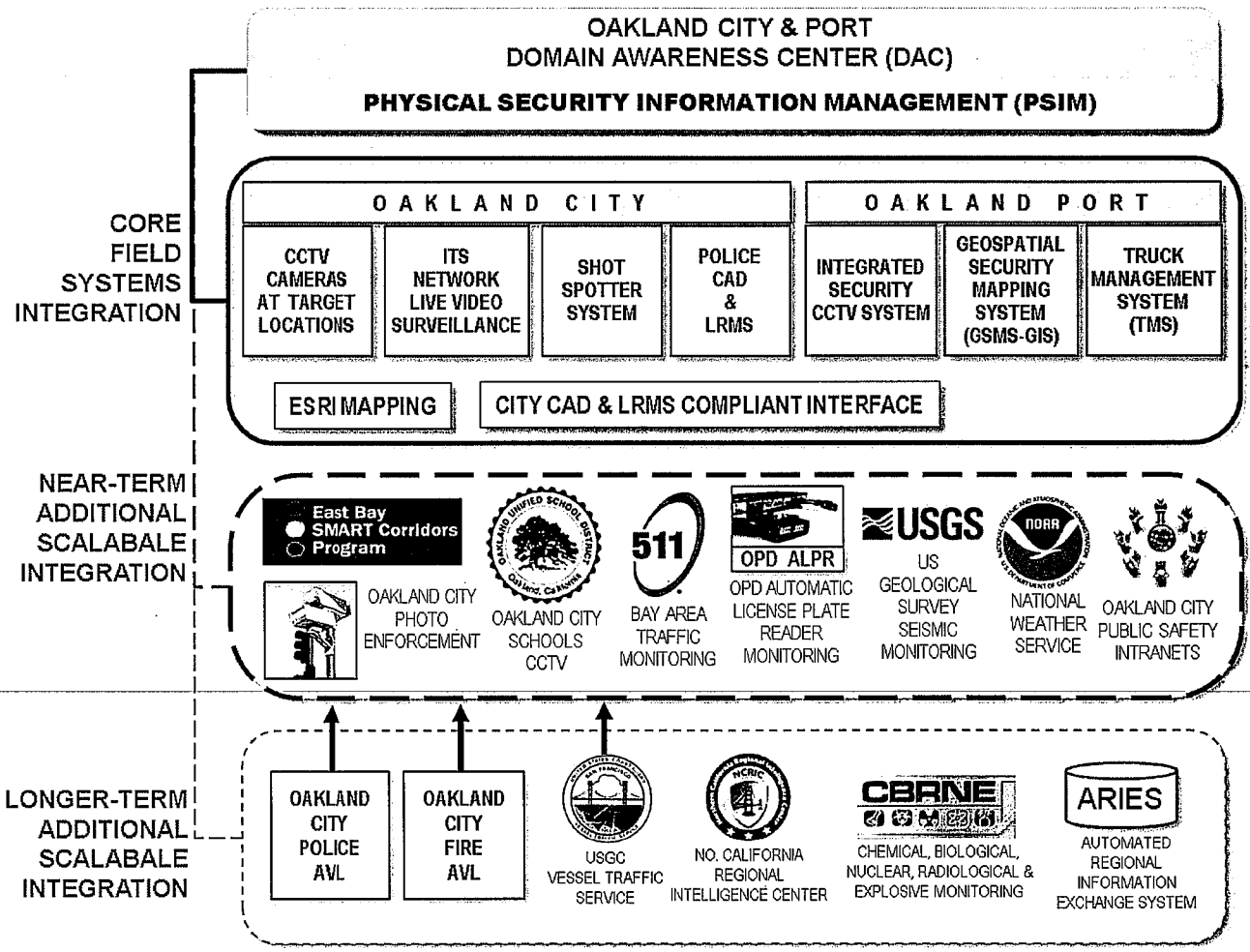


Figure 5-7. DAC Systems Integration Framework.

They are categorized as either:

- **Core Field Integration Systems** – are those data systems and/or technologies which SAIC proposes to integrate into the DAC
- **Possible Near-Term Additional Scalable Core Field Integration Systems** – are those systems/technologies that we would collaborate on with the City-Port for consideration for integration into the DAC in the nearer-term.
- **Future Longer-Term Additional Scalable Field Integration Systems** – are those systems/technologies that we would collaborate on with the City-Port for consideration for integration in the future as part of the DAC Implementation Roadmap.

The following represents what we propose to be Core Field Integration Systems vs. Additional Scalable Future Integration Systems that could be considered and integrated earlier pending many factors.

For **Core Field Integration Systems**, we propose the following:

- Port CCTV Genetec SC5.1
- Port Geospatial Security Mapping System (GSMS) GIS
- Port SAIC Truck Management System (developed by and currently maintained by SAIC-Fluensee for the Port)
- City Genetec Omnicast 4.X
- City VIDS System Cameras
- City ShotSpotter
- ESRI Mapping
- Motorola Premier CAD Compliant Interface
- Motorola InfoTrak Compliant Interface

For **Nearer-Term Additional Scalable Core Integration Systems**, which we may also include for this project pending collaboration and mutually agreeable considerations, are the following:

- RedFlex Cameras
- East Bay Smart Corridor Cameras
- NOAA Service
- USGSM Service
- Bay Area 551 Service (operated and maintained by SAIC for the MTC)
- Oakland City Schools CCTV
- Oakland City Police Department ALPR
- Oakland City Public Safety Intranets

For **Future Longer-Term Additional Scalable Future Integration Systems**, under the currently available budget constraints, we identify as the following:

- Police AVL
- Fire Mobile/AVL

- Integration of alarms to the CAD and RMS systems as required
- USGC Vessel Traffic Monitoring Service
- Northern California Regional Intelligence Center
- Chemical, Biological, Nuclear, Radiological, and Explosive (CBNRE) monitoring
- Automated Regional Information Exchange System (ARIES)

Of these above identified **Future Longer-Term Additional Scalable Future Integration Systems**, we are open to adopting to integrate the Police and Fire AVL and the USGC Vessel Traffic Monitoring Service much sooner, pending collaboration with the City and the Port.

Our proposed DAC-TLS technical approach offers the City and Port the flexibility to consider the additional scalable integration efforts for adoption sooner than may have been anticipated. This is supported by the following basis/substantiations unique to the SAIC Team:

- 3M-Federal Signal –PIPS Technology has communicated to SAIC a positive interest in developing and integrating an interface from the OPD ALPR technology into our proposed PSIM.
- REDFLEX has discussed with SAIC the capabilities and methods by which the current 13-site traffic photo enforcement technology can be leveraged to provide real-time video streaming of the traffic environment.
- SAIC has looked into the methods for integrating with the East Bay SMART Corridor Program, the Oakland City Schools 700+ CCTV camera system, and the Oakland City Public Safety Intranet.
- SAIC is the current prime contractor supporting the Bay Area 511 and has done so for the past 5 years.

5.1.4.1 SAIC Design-Build Methodology and Guiding Principles

The SAIC Team will apply proven systems engineering processes to achieve the Oakland City and Port Joint DAC goals, objectives and requirements via a robust capability to plan, execute, and control total design and engineering efforts. These processes are based on principles and best practices of the Software Engineering Institute's (SEI's) Capability Maturity Model (CMM®) and Capability Maturity Model Integration (CMMI®) models and on engineering processes defined by ISO: 9000. To ensure performance and product quality, our framework offers a phased approach based on our proven EngineeringEdge™ System Engineering and Integration (SE&I) methodology.

Our work is grounded in continuous process improvement to leverage our lessons learned from other projects. The following highlights some of our key guiding principles that will drive a successful design-build project delivery:

- ✓ **Technology Agnostic** - SAIC's business success as systems integrator is founded on being technology agnostic. While we have expansive experience in deploying PSIM solutions, we don't align ourselves with a favorite application or technology.
- ✓ **Sustained and Comprehensive Life-Cycle Support** - SAIC has the financial strength and stability to ensure that we will be there to deliver sustained and comprehensive support to our customers over the entire project life cycle.
- ✓ **Adherence to SAIC EngineeringEdge™ SE&I Methodology** – The SAIC EngineeringEdge™ methodology defines a set of inputs that drive both technical and managerial processes to produce outputs required for any significant systems engineering and integration effort. This consistent EngineeringEdge™ approach is the essence of how we perform our daily work.

- ✓ **Phased Task Order Delivery Process** – The SAIC Team has a deep understanding and delivery execution experience in time-phased task project delivery, and more specifically projects implemented as "design-build". Our structured work plan supports a bottoms-up resource loaded network sequencing of work activity steps to ensure highest quality and cost effective completion of deliverables. Our common approach to defining preparatory artifacts at the end of each task will streamline transitions and to align scope planning with budgets.
- ✓ **Structured and Flexible Work Plan** – SAIC Team has defined a structured work plan to ensure the two major effort components to design-build the DAC (PART-B EBI and PART-A TLS) work together as an "Integrated Product Delivery." Our structured work plan is also built in "modular components" to accommodate asynchronous delivery of the DAC work efforts, mitigating progress impact by shielding the efforts on side from affecting the other.

5.1.4.2 Our Recommended PSIM Solution

SAIC has a broad range of experience in the implementation of PSIM solutions to provide domain and situational awareness in support of incident identification and response management. To that extent, we have knowledge and experience with the various commercial off-the-shelf (COTS) PSIM solutions and SAIC has received quotes from the following PSIM vendors specifically for this project:

- VidSys
- The Mariner Group – Command Bridge
- NICE Situator
- PROXIMEX

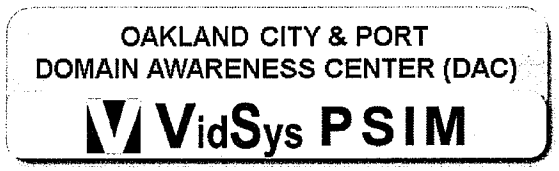


Figure 5-8. The SAIC Team has chosen VidSys as the proposed PSIM solution for the DAC.

Based on our experience with the above PSIM vendor solutions, our evaluation of their respective proposals/quotes, and the requirements set forth by the RFP, the SAIC Team has determined and recommends/proposes herein the **VidSys PSIM** solution platform for the Oakland City-Port Joint DAC. We believe that the web-based user-interface, collaborative environment and expandable central system offered by the VidSys PSIM solution provide the Oakland City-Port Joint DAC the functionality and flexibility desired.

Should the City-Port have an interest or preference to have SAIC re-consider our recommended PSIM solution selection, SAIC offers the City-Port the flexibility to exercise an option to jointly collaborate post-award during the planning and scoping period of the project, to go through our evaluation process again in determining and selecting the PSIM solution for the DAC. This SAIC Team proposal is based on the design/build, implementation of the VIDSYS PSIM for the DAC.

5.2 Potential Problems and Possible Solutions

SAIC has assembled an experienced team that is uniquely qualified to support the design-build, implement, commission, and maintenance of the DAC for the City and Port of Oakland. SAIC and its team members have previously performed similar work successfully. Our key personnel possess the necessary technical understanding, capabilities, and talent to effectively execute this project and are immediately available to begin work upon contract award. The SAIC Team's depth and breadth of experience enables us to provide the City-Port with the lowest risk, experience-driven solution available.

Successful project delivery is predicated on the project team's ability to make early identification and assessment of risks and to outline strategies to mitigate those risks from impacting the project. System performance analysis and problem solving are another important feature of SAIC's broad portfolio of technical engineering services using well-defined, standards-based processes to determine root causes for problems that may impact progress for the delivery of the DAC. SAIC understands that even the best of project implementation plans carry some level of inherent risk due to matters outside of the control of the contractor, system integrator, customer, or other stakeholders.

For that reason, SAIC employs a standard practice of working with team members to discuss, identify, and encapsulate risks that may impact delivery progress. These identified risks are then entered into a risk register and further classified in regards to the level of impact, the probability of occurrence, and an assessment of potential post-impact recovery or remedial efforts. Once all of that has been formalized, the team then works together to identify risk mitigation methods or practices by which to reduce the probability of risk occurrence to the greatest extent possible.

In Table 5-1, the SAIC Team identifies some initial potential technical risks as well as offers our strategies for mitigating these potential technical risks to minimize impact to project delivery.

Table 5-1. Potential Risks and SAIC Mitigation Strategies

TECHNICAL RISK	SAIC TEAM MITIGATION STRATEGY
Unexpected and repetitive delays in meeting delivery schedule work efforts, deliverables and/or project milestones on time and at the service quality expected to meet industry-standard project delivery performance metrics and outcomes.	SAIC will adhere to sound project management techniques and frequent communication. Our project management approach encompasses activities necessary to plan, execute, control, and report on project activities and to perform cost, schedule, risk, and technical management of all DAC services, functions, and tasks, with an emphasis on excellence in execution.
Inconsistent, unclear, and/or vague design - build requirements, actual or derived, that may result in gaps or voids in component or functionality delivery or impacts to project outcomes, goals and objectives.	SAIC will actively engage the customer and stakeholders in a thorough and comprehensive effort to scrub requirements both actual and derived and use iterative design reviews to clearly detail critical features and product deliverables, inputs and outcomes, dependencies.
None or little collaboration/involvement of the DAC user community during the planning, scoping of requirements, and TLS design efforts, especially concerning the DAC TLS Graphical User Display (GUI) design activities.	SAIC leverages technology to engage users and stakeholders through the use of frequent teleconference project updates and webinars for remote and efficient presentation of user interface plans and designs, as well as GUI displays for early feedback and design acceptance
Lack of coordination or involvement of the DAC TLS project stakeholders or other customer technology support vendors maintaining the data systems or technology sensors whose expertise is vital to the integration of data systems or field sensor feeds with the DAC TLS.	SAIC has already made progress on mitigating this risk by reaching out to stakeholders and existing data center and technology sensor suppliers and or system maintainers, and during the project, the SAIC Project Manager proposes to establish a stakeholder working group to discuss ways in which they can participate in the planning, designing, and implementation processes.

TECHNICAL RISK	SAIC TEAM MITIGATION STRATEGY
Unexpected or changes in conditions impacting a rigid project implementation plan and schedule work effort resulting in delivery inefficiencies due to inflexibility to adapt a more effective process or higher quality outcome.	SAIC's approach to technical delivery is based on a detailed "bottoms-up" work breakdown structure that allows for modular assembly of individuals work packets which allows for the greatest flexibility allowing our implementation plan to adopt changing conditions for optimized delivery.
Proof-Of-Concept design that only addresses the near-term integration end points and postpones or defers efforts to investigate the future scalable end points.	SAIC's approach to the POC is to deliver detailed specifications for the near-term deliver objectives but also provide the same spec. detail for any envisioned future scalable integration activity or end point.
Prime contractors capability and experience to address and manage two uniquely different disciplines of work scope 1) being EBI infrastructure construction, and 2) TLS IT systems design-build work and the complexities of getting both deliveries to occur in a seamless integrated manner.	SAIC, through our subsidiary Benham, holds an active California contractor's license as does our partner BBI Construction – so together we double the qualification needed to deliver the EBI objectives. SAIC is also unique in that we are globally recognized systems integrator with the relevant past experience in implementing PSIMs for incident domain awareness.

As a routine and on-going process, the SAIC Team will address Oakland DAC project risk through early identification of potential problems, rigorous assessment of impacts and alternatives, and strategies for rapid mitigation. Risk management is the direct responsibility of our Project Manager (PM), and we empower each member of the SAIC Team to identify and resolve technical issues before they escalate into problems requiring formal risk mitigation procedures. A Risk Management Plan will be included in our delivered project implementation plan.

Once the DAC is implemented and operational, SAIC will use proactive monitoring and early issue detection techniques to ensure that application availability meets or exceeds the 99.5% of performance measurement targets. Detection of trends indicating a degradation of performance and/or reliability will result in a preventive action plan designed to mitigate issues before they become catastrophic. To provide a solid base for risk mitigation, all solution designs and recommendations will always consider system resiliency, operational continuity, failover, and recovery factors.

5.3 Special Features/Resources for Successful Project Completion

SAIC offers the following key features of our solution and technical delivery approach in Table 5-2. We have linked our technical solution closely with DAC core project goals, offering the City and Port the greatest core functionality and expansion under the highest quality/lowest risk design-build implementation, on schedule and within budget.

The following highlights our approach to a successful DAC project completion:

- Work collaboratively with the City-Port and other stakeholders to complete the validation of CONOPS and TLS requirements within 5 weeks from project start
- During the Design Proof-of-Concept (POC) effort, SAIC proposes to implement our PSIM solution in a test environment and validate the network requirements by establishing a baseline interface with a representative element for each grouping of the fielded data system sources and sensor technologies
- During the PSIM implementation work phase, SAIC will follow a structured work plan to systematically make network infrastructure improvements based on outcomes from the Design POC
- Design-build, deploy, integrate, test, and implement the VIDSYS PSIM in a flexible manner that allows for optimization of integration elements based on their availability
- During the implementation and system integration work phase, SAIC will standardize the DAC network access and mediums to allow for information exchange to various endpoints
- SAIC will implement a standardized process for the exchange of information or data and/or video file transfers and will apply methodology, process, and tools for configuration and change management support to ensure newly created images, cameras and applicable security assets implemented within the DAC's viewing layer(s).
- SAIC proposed VIDSYS PSIM platform has a proven plug-and-play working fully functional interface that is compatible with the Motorola Computer Aided Dispatch and Law Records Management System
- SAIC's proposed VIDSYS PSIM platform provides a Motorola compatible CAD interface that will allow the DAC to offer bi-directional communication to first responders as well as other Emergency Operations Centers within the City (e.g. OPD, OFD, EOC, etc...)
- SAIC proposes a robust, integrated, and work-flow oriented enterprise ticket management system to support the capture, response, and investigation of an incident
- SAIC proposes to design accurate, timely and complete information propagation of each TLS system into the DAC
- SAIC will deliver management and user training
- SAIC will provide 24 months of support and maintenance with an option for an extended 3 years of additional support and maintenance

SAIC proposes to design-build-implement VidSys's RiskShield™ PSIM software which is a web-based, open-architecture platform that integrates a wide spectrum of security, emergency response and related systems into a consistent and intuitive user interface. RiskShield™ enables control center operators, supervisors, managers and response teams to work efficiently and collaboratively from a common frame of reference when responding to security and life safety situations due to its ability to correlate and present meaningful information from data provided by different sources.

Key features of our proposed PSIM RiskShield™ are highlighted as follows:

- "Out of the box" support for a broad range of leading industry CCTV, access control, intercom, perimeter intrusion detection, license plate recognition systems, radar, fire, duress and other systems. By integrating many systems into a standardized user interface, RiskShield™ allows personnel to concentrate on their operational tasks rather than managing a variety of sensors, cameras and other devices.
- Advanced capabilities to filter, prioritize and correlate data from multiple sources and relate it to the current operating context to present a common operational picture to all personnel, teams and organizations involved in response operations. RiskShield™ allows response teams to manage situations rather than individual events.
- Automated action response actions to assist operations personnel in performing response tasks efficiently and in compliance with approved operational policies and procedures.
- Web architecture that readily supports personnel – independent of their physical locations - without complex software installation and maintenance. RiskShield™ can be used at fixed locations, such as operations control centers and on mobile devices, including smart phones and tablets. RiskShield™'s adherence to industry standards ensures its support for future new technology and its compliance with information assurance security standards.
- Scalability to support expansions in geographic and operational scope in addition to increased quantities of cameras, sensors, integrated systems and users. RiskShield™'s architecture is inherently scalable from small to arbitrarily large applications. RiskShield™'s ability to ingest, process and present information is limited only by the hardware platforms and network environments where it is installed.
- Reliable and secure operations. RiskShield™ is fully tested for and compatible with leading high-availability server products including virtualized servers, producing economical deployments with near 100% operational availability.

SAIC seeks to deliver a DAC to provide a focal point for interoperable communications; data sharing, reporting and analysis; surveillance sensor data processing and domain and situational awareness for the incident command needs of Police and Fire Dispatch, first responders in the field, and City and Port Emergency Operations Centers. Our proposed PSIM RiskShield™ system integration can provide Command and Control of the following systems:

- Genetec SC5.1
- RedFlex Cameras
- Genetec Omnicast 4.X
- ShotSpotter
- VIDS System Cameras
- East Bay Smart Corridor Cameras
- SAIC Truck Management System
- Motorola Premier CAD
- Motorola InfoTrak
- ESRI Mapping
- NOAA Service
- USGSM Service

The SAIC Team's design-build-implementation of the PSIM RiskShield™ will provide the City and Port of Oakland and DAC stakeholders an extensively customizable directory for users, sites, and systems under the following to be deployed system configurations:

- 20 VidSys user/operator licenses
- 10 VidSys lite/mobile licenses
- 300 VidSys camera licenses
- 500 VidSys two-way sensor/device/video analytic licenses
- 8 VidSys standard connector licenses
- 3 VidSys complex connector licenses

5.4 DAC-TLS Proof-of-Concept Architecture Design Framework

The following section describes the SAIC Team's understanding of Oakland's opportunities for technology linkage. A system architecture diagram has been developed (Figure 5-10) to show our understanding of the Oakland DAC-TLS network of systems available for integration and describes the following design details:

- ✓ How the sensor systems integrate to the DAC-TLS network;
- ✓ The anticipated functionality available from each integrated system;
- ✓ Where the new systems fit into the architecture; and
- ✓ Where software integration interfaces will need to be provided.

5.4.1 Architecture

The following system architecture diagram, as shown in Figure 5-9 and Figure 5-10, is the SAIC Team's recommended DAC system, pending collaboration with the City, Port, and other stakeholders. It shows the technology linkage concept in greater detail and provides a better understanding of how the linkage will occur as well as the new capabilities that will be gained though the integration. This concept will be vetted out during the planning and scoping phase of the PART-A work scope, but in order to discuss system components, we have introduced the architecture early in the technical approach.

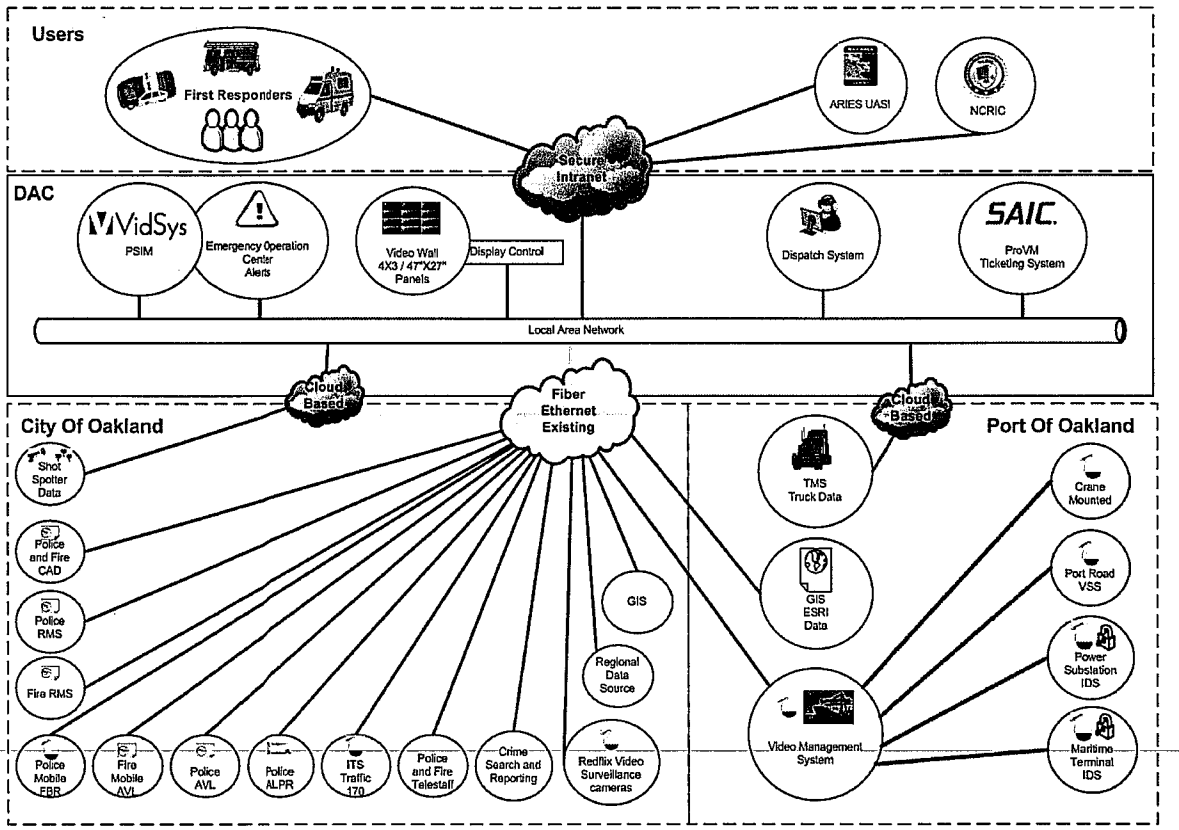
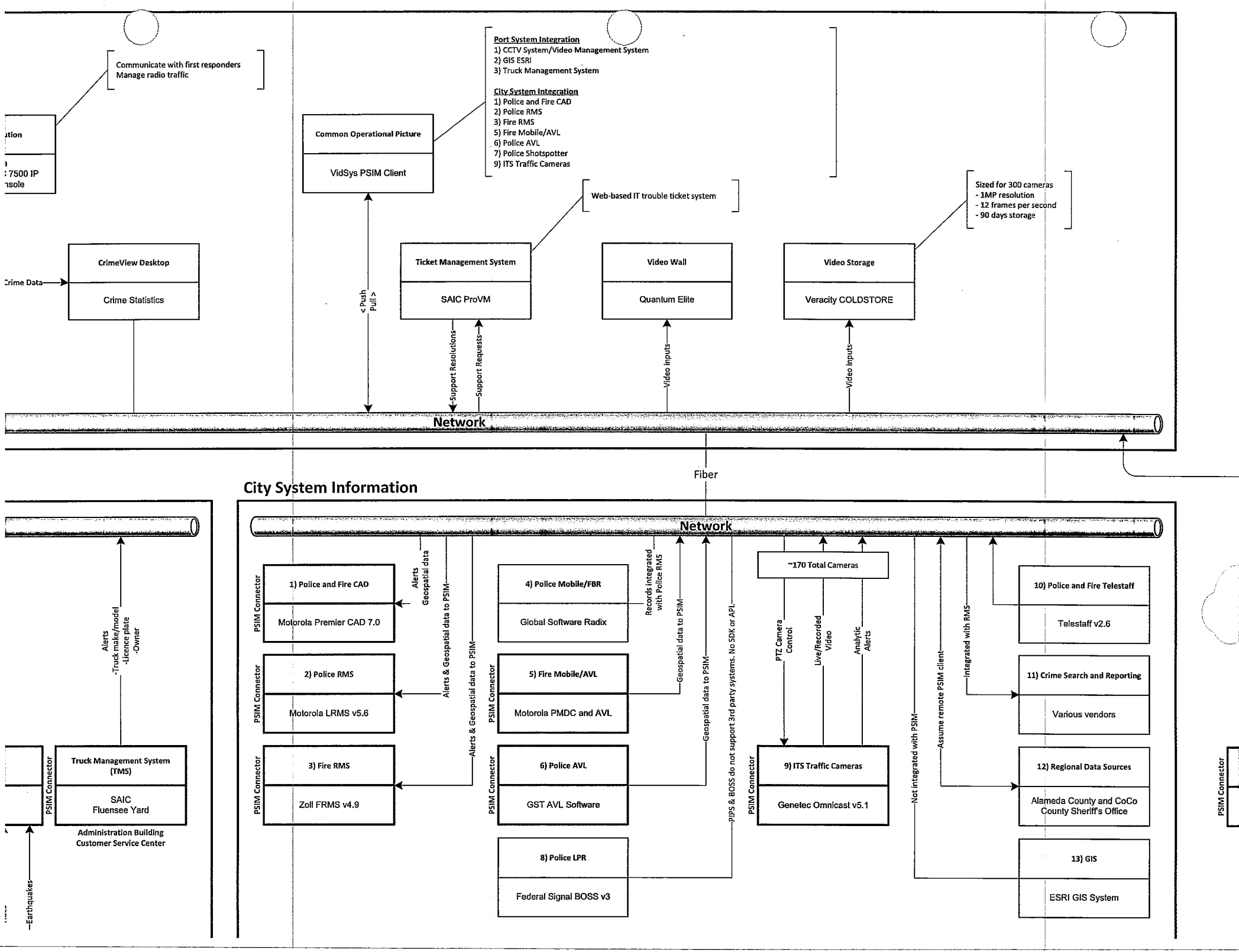


Figure 5-9. Identification of Systems to be Integrated.

Systems that are network accessible through either the Port or the City will be integrated to the PSIM over the fiber optic network. Systems that are not already on the network will require permanent VPN connections to be established between the DAC and the collaborating organization. Once the linkage systems are network accessible, the associated data and functionality will be integrated into the PSIM through the use of an application programming interface (API) or software development kit (SDK) provided by the linkage system manufacturer.


Communicate with first responders
Manage radio traffic
ation
: 7500 IP
nsole
Port System Integration
1) CCTV System/Video Management System
2) GIS ESRI
3) Truck Management System
City System Integration
1) Police and Fire CAD
2) Police RMS
3) Fire RMS
5) Fire Mobile/AVL
6) Police AVL
7) Police Shotspotter
9) ITS Traffic Cameras
Common Operational Picture
VidSys PSIM Client
Web-based IT trouble ticket system
Sized for 300 cameras
- 1MP resolution
- 12 frames per second
- 90 days storage
CrimeView Desktop
Crime Statistics
Crime Data
Ticket Management System
SAIC ProVM
Video Wall
Quantum Elite
Video Storage
Veracity COLDSTORE
< Push
Pull >
Support Resolutions
Support Requests
Video inputs
Video inputs
Network
Fiber
City System Information
Network
Alerts
-Truck make/model
-Licence plate
-Owner
PSIM Connector
Truck Management System (TMS)
SAIC
Fluensee Yard
Administration Building
Customer Service Center
Earthquakes
PSIM Connector
1) Police and Fire CAD
Motorola Premier CAD 7.0
Alerts
Geospatial data
Alerts & Geospatial data to PSIM
PSIM Connector
2) Police RMS
Motorola LRMS v5.6
Alerts & Geospatial data to PSIM
PSIM Connector
3) Fire RMS
Zoll FRMS v4.9
Alerts & Geospatial data to PSIM
4) Police Mobile/FBR
Global Software Radix
Records integrated with Police RMS
PSIM Connector
5) Fire Mobile/AVL
Motorola PMDC and AVL
Geospatial data to PSIM
PSIM Connector
6) Police AVL
GST AVL Software
Geospatial data to PSIM
8) Police LPR
Federal Signal BOSS v3
PIPS & BOSS do not support 3rd party systems. No SDK or API.
~170 Total Cameras
PTZ Camera Control
Live/Recorded Video
Analytic Alerts
PSIM Connector
9) ITS Traffic Cameras
Genetec Omnicast v5.1
Not integrated with PSIM
Assume remote PSIM client
Integrated with RMS
10) Police and Fire Telestaff
Telestaff v2.6
11) Crime Search and Reporting
Various vendors
12) Regional Data Sources
Alameda County and CoCo County Sheriff's Office
13) GIS
ESRI GIS System
PSIM Connector

The following discussion walks through the major components of the System Architecture diagram and further describes existing systems that will be integrated with the DAC.

Port of Oakland

The lower left box in Figure 5-10 represents systems requiring technology linkage within the Port of Oakland. These systems include the crane-mounted camera system, port road VSS and power substation IDS, and marine terminal IDS – all three of which will become part of the Port's "Integrated System," controlled by the Genetec Security Center. Other systems within the port include the Geospatial Security Mapping System (GSMS) ESRI mapping system and the Truck Management System. The data and functionality of each of these systems will be integrated with the VidSys PSIM over the fiber network connection to the DAC.

City of Oakland

The lower right box in Figure 5-10 represents systems requiring technology linkage within the City of Oakland. These systems include four different Intelligent Transportation Systems (ITS) which provide video and alerts, automatic license plate readers (ALPR), Secure our Schools (SOS) CCTV, and ShotSpotter gunshot detection system. SAIC is proposing to integrate these systems with the exception of the ALPR system and the SOS CCTV system. SAIC contacted PIPS Technologies to investigate the possibility of integrating their ALPR system and was told that their system currently does not support third party integration. SAIC is not including the SOS CCTV system as part of the current Technology Linkage plan due to the large number of cameras. We prefer to discuss this linkage with Oakland to better understand the requirements and better focus the DAC budget to a subset rather than the total number of cameras.

Domain Awareness Center

The DAC is where SAIC will install and integrate the new DAC-TLS systems for Oakland. Systems include the Motorola dispatch console, VidSys PSIM, SAIC ProVM ticket management system, and the Quantum Elite video wall. The Motorola dispatch system will integrate with the existing Motorola Premier CAD and Motorola Infotrak law records management system. SAIC envisions the VidSys PSIM integrating with the Motorola systems by sending alerts to notify the dispatch operator of incidents that require police involvement. The VidSys PSIM will provide the COP for a security officer to manage the City's security systems. The operator's workstation will be connected to the video wall which will allow the operator to display maps and video as well as manage an incident as part of a joint collaborative effort between the Port and City. The SAIC Team also proposes to integrate the existing WebEOC/NC4 system with the VidSys PSIM for the purposes of sharing additional alerts.

Collaboration

The DAC Technology Linkage document mentions a linkage with the Northern California Regional Intelligence Center (NCRIC) and the Contra Costa County Regional Data Sharing Portal (ARIES UASI). SAIC assumes that these systems represent data portals for collaboration with the DAC-TLS. The SAIC Team envisions that this collaborative environment will consist of these centers having the capability to access the VidSys PSIM and collaborate with Oakland when managing a large-scale incident.

Table 5-2 summarizes the functionality that is achievable through each technology linkage.

Table 5-2. Technology Linkage Functionality Summary Table

Linkage No.	Technology Linkage Description	Functionality Type			
		Live Video	Recorded Video	Alarms	Geospatial Data
1	Port's "Integrated System"	Yes	Yes	Yes	Yes
2	Geospatial Security Mapping System (GSMS)	No	No	No	Yes
3	Truck Management System (TMS)	No	No	Yes	Yes
4	ITS: Outdoor PTZ cameras	Yes	Yes	No	No
5	ITS: Oakland VIDS cameras	Yes	No	Yes	No
6	ITS: East Bay Smart Corridor (EBSC) cameras	Yes	Unknown	No	No
7	ITS: Redflex cameras	Likely	Unknown	Yes	No
8	Automatic License Plate Reader (ALPR)	No	No	Likely	Likely
9	Secure Our Schools CCTV Project cameras	Yes	Yes	No	No
10	ShotSpotter	No	No	Yes	Yes
11	Computer Aided Dispatch (CAD)	No	No	Yes	Yes
12	Case/Records Management System	No	No	Yes	Yes
13	CrimeView Desktop	No	No	No	Yes
14	WebEOC/NC4	No	No	No	No
15	NCRIC	Yes	Yes	Yes	Yes
16	ARIES UASI	Yes	Yes	Yes	Yes

5.4.2 Description of Anticipated Improvements

5.3.2.1 Infrastructure and Hardware

The SAIC Team proposes to procure the hardware to support the DAC-TLS implementation. Under this section we describe the hardware components and their application use. SAIC team understands that the city of Oakland has Hewlett Packard (HP) hardware deployed for most of the systems to be integrated to the PSIM platform. Our solution is based on Dell hardware; however, SAIC is technology agnostic and open to HP and other hardware solutions that the City prefers in compliance with application needs and specifications. The proposed hardware is selected based on the City-Port systems criteria's to meet or exceed technical, functional and performance requirements.

The following figure is a visualization of the infrastructure and hardware components of the DAC.

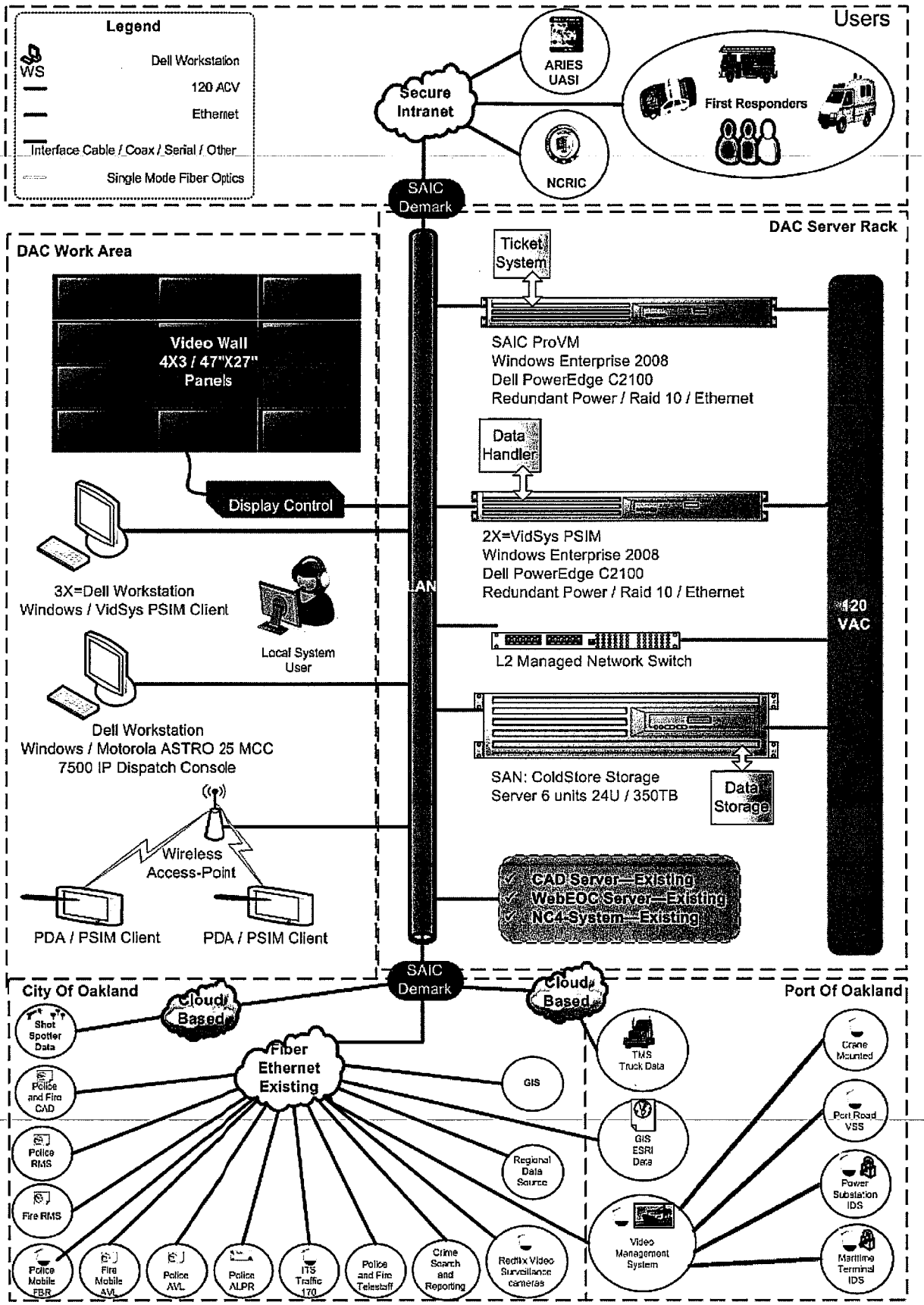


Figure 5-11. DAC Infrastructure and Hardware

Enterprise Application Servers

SAIC proposes Dell PowerEdge C2100 enterprise windows application servers for the development and production of VidSys/PSIM system and the SAIC ticketing system. The selected Dell PE C2100 is configured with the primary requirement of reliability and availability as the driving force. The servers are equipped with dual Intel Central Processing Units (CPU), dual hot swappable power supplies, Raid10 with data storage mirroring and backup capability to increase system reliability and availability. These servers are designed for ease of maintenance with tool-less chassis and modular hardware components to progress repair time therefore improving overall Mean Time to Repair (MTTR) response time.

Workstations

SAIC's proposed Windows desktops are Dell Precision T5600 models. These are the most robust workstations in the market with high speed processing power and high Random Access Memory (RAM) to allow operators to simultaneously work on multiple applications. The Dell Precision workstation has been configured with cutting edge and latest hardware components available in the market to serve users with smooth operation of video management clients installed for the VidSys PSIM system. SAIC will finalize configuration of workstations during the design phase, but based on our understanding of the system at this stage these workstations will meet technical, functional and most decisively performance requirements.

Cisco Switch

The Cisco Catalyst 2960 series managed network switch is proposed to deliver efficient and a cost-effective data communication environment to the DAC PSIM system. The proposed switch is configured with 48 ports to support current and future system needs. It offers high performance and robust communications between IP devices for high speed data. SAIC engineering selected the best communication median between the PSIM and the field data source subsystems which are designed to upload high volumes of video data reliability and near real time.

UPS

SAIC engineering proposes a rack mounted smart Uninterrupted Power Supply (UPS) to be installed in the server rack. The APC MA510 is a proven backup power source used by SAIC on many other deployments, one such case that is of similar scale is the Maryland Bridge Security Project implemented successfully by SAIC. This high-density UPS provided by APC offer a true double-conversion online power protection for servers. It is configured by SAIC to support the power load in the server rack cabinet for a truly uninterrupted power to servers during emergencies. The UPS adds an additional layer of reliability to the equipment installed in the rack and allows for servers to be managed flawlessly during power outages.

Cabinet

The server rack cabinet is a 42U, 19" industry standard to support the proposed hardware required to be installed in the cabinet. It comes with black finish to match the existing cabinets at the DAC server room and most importantly equipped with steel mesh doors for air circulation to help dissipate heat from the servers.

Video Wall

Video wall hardware descriptions are covered in the discussion provided in Section 5.7.3 PART B of this proposal.

5.3.2.3 Software

SAIC will deliver the VidSys PSIM software and connectors to Oakland. A full description of the VidSys PSIM software application is described in section 5.5. Section 5.5.2 provides a full description of the software connectors that will be delivered.

5.5 PSIM Proof-of-Concept Implementation Framework

5.5.1 Overview of PSIM Systems

In response to this RFP, the SAIC Team has conducted a scan of feasible and customizable PSIM COTS software available today to minimize risk to the City-Port. We received quotes from the following PSIM vendors specifically for this project based on our broad experience in the implementation of PSIM solutions in support of incident identification and response management, as we have conducted similar work for the [redacted]

- VidSys
- The Mariner Group – Command Bridge
- NICE Situator
- PROXIMEX

Based on our experience with the above PSIM vendor solutions, our evaluation of their respective proposals/quotes, and the requirements set forth by the RFP, the SAIC Team recommends/proposes herein the **VidSys PSIM** solution platform for the Oakland City-Port Joint DAC. We believe that the web-based user-interface, collaborative environment and expandable central system offered by the VidSys PSIM solution provide the Oakland City-Port Joint DAC the functionality and flexibility desired.

Should the City-Port have an interest or preference to have SAIC re-consider our recommended PSIM solution selection, SAIC offers the City-Port the flexibility to exercise an option to jointly collaborate post-award during the planning and scoping period of the project, to go through our evaluation process again in determining and selecting the PSIM solution for the DAC. This SAIC Team proposal is based on the design/build, implementation of the VIDSYS PSIM for the DAC.

5.5.2 Factors Considered in Evaluation of VidSys

The following factors were considered in the evaluation of VidSys as a suitable PSIM solution for the DAC system:

- ✓ Scalability and versatility;
- ✓ Support and maintenance responsiveness;
- ✓ Robust toolsets;
- ✓ Expansive selection of integration endpoints;
- ✓ Overall system life cycle cost;
- ✓ Hardware and software environment;
- ✓ Development standards;
- ✓ DAC-TLS system requirements;
- ✓ Current and anticipated data volumes;
- ✓ System performance requirements;
- ✓ Access requirements for system users; and
- ✓ Application maintainability.

VidSys outperformed the three other solution vendors in most factor categories. Moreover, the VidSys solution recently replaced a different PSIM vendor system in [redacted] has been successfully operating for over a year.

5.5.3 VidSys Solution and Architecture

VidSys is a leading provider of PSIM software and the only software company that provides truly collaborative situational awareness. Founded in 2005, VidSys pioneered PSIM applications. Today they provide an award-winning software platform to a multitude of public sector and corporate clients worldwide.

The VidSys PSIM software continuously fuses, instantly correlates, and effectively converts vast amounts of data into meaningful and actionable information gathered from virtually any type, brand or generation of physical security system or sensor – and from many other networked management applications. Deployments often integrate large numbers of security cameras, video recorders, access control systems, intruder detection systems and fire alarms, Computer Aided Dispatch (CAD) systems, bollards, and other more exotic or specialized sensors and applications. VidSys provides a single-view security operations platform for visualization – including images in 3-D – and powerful automated incident management tools. These automated tools support safe, effective and timely resolution of events and alarms *and* management of more complex incidents that involve multiple simultaneous alarms at one or more locations. As a secure web-based solution, the VidSys platform allows operators easily to manage assets for a single facility, a large campus or multiple locations dispersed across a city or around the globe. With a true web-based and open architecture, the VidSys platform is also fully enabled for mobile users. This allows decision makers from a single organization or multiple entities to collaborate real-time and to share time-sensitive, actionable information both with executives and incident responders *via* mobile devices.

If selected, VidSys will provide the integration software platform and professional services to support the City-Port DAC and the SAIC Team in a proof-of-concept. They are an integral team member for the requirements gathering and deployment tasks identified by the City-Port. Through the SAIC Team's experience in combining market-specific subject matter expertise and scalable software technology, VidSys will support the DAC with the following:

- Installation and configuration of RiskShield™ PSIM software.
- Overall operational efficiency by enabling seamless integration of disparate security systems to a single, universal management control point.
- Unlimited scalability and vendor independence allowing for best-of-breed selections for both present and future upgrades.
- Security standardization via a prescriptive architecture to achieve enhanced and immediate response capabilities.
- Real-time situational awareness through the correlation of multiple data sources and visual confirmation.
- Video sharing and information sharing capability with designated stakeholders, as required.

VidSys offers a web-based PSIM client user interface, a collaborative environment, and an integrated and expandable central system. By using PSIM integration, all systems can be viewed and controlled from one single interface, with integration capabilities to other Oakland systems, other state systems, and statewide and future systems. The use of commercial off-the-shelf products (COTS) ensures market adaptability. VidSys has designed RiskShield™ and VidShield™ architectures for easily adaptability in the customer environment. Our focus extends across the entire process of diagnosing, verifying, resolving and tracking situations. Other solutions have given minimal attention to the first two items and, as a result, do not have a simple solution for quick integration of new devices, fast diagnosis of situations, quick adaptation to the user's environment to reduce the number of false alarms or the ability to put the appropriate information in front of the user to quickly verify the situation. Instead they have focused on only setting up policies and rules for managing situations, something VidSys also provides.

The following table summarizes some of the key benefits of the VidSys Solution:

Table 5-3. Key Benefits to VidSys PSIM Solution

Feature	Benefits
Open Platform	Provides integration with virtually any known types of security systems and devices. It also supports third party systems such as building management, access controls and other sensors and systems.
Dynamic Geospatial Mapping	Enables precise location mapping and display of situations, people and alarms for fixed and mobile devices, and displays location data supporting incidents in real time for each specific situation or even globally across all situations.
Standardized API's and SDKs	Designed with a set of web services that adhere to standardized, open interfaces, simplifying integration with most physical security devices.
Rules Engine	Provides intelligent correlation of data from various systems, including time and geography, in order automatically to identify situations and then persistently update those situations as events unfold.
Automated Presentation of Standard Operations Procedures	When any situation arises, the VidSys software presents standard operating procedures to the operations center operator along with the information, devices and contact information required for resolution – all within a single user interface.
Modular Platform	Provides dynamic adaptation to changes in situations, devices, configurations, policies and reporting while the system is running. Also supports a distributed architecture of all these for extraordinary transparency.
Browser-based Web Interface	Enables easy access and collaboration among organizations and personnel, also supports mobile and operations center users – across town or around the world.
Dynamic Reporting	Gathers, records, and maintains all information (alarms, video, audio and so on), responses and results into a single folder for policy compliance monitoring, investigative support or post-situation analysis and training.
Expandability and Extensibility	The specified PSIM product has expansion and extension capabilities beyond what we believe would be required by Oakland in the next five years or beyond. Maintenance will provide updated software versions. Expansion is normally achieved without the need to reinvest in additional head end elements.
Mobile Data Sharing	Facilitates real-time sharing of incident data and images between the operations center, the security staff and senior management.

5.5.3.1 Architecture

The VidSys system is based on the **Open PSIM Platform**, an open software architecture that enables organizations to leverage existing or newly deployed networks of physical and virtual security and surveillance assets by integrating them into a single seamless infrastructure. It integrates, manages and correlates massive amounts of data collected from a wide array of detection, monitoring, and control systems or video sources. The unique hybrid architecture utilizes both analog and digital technologies. Users can leverage their entire surveillance network from a single console without the need to understand the underlying technology, enabling them to coordinate swift responses to critical situations.

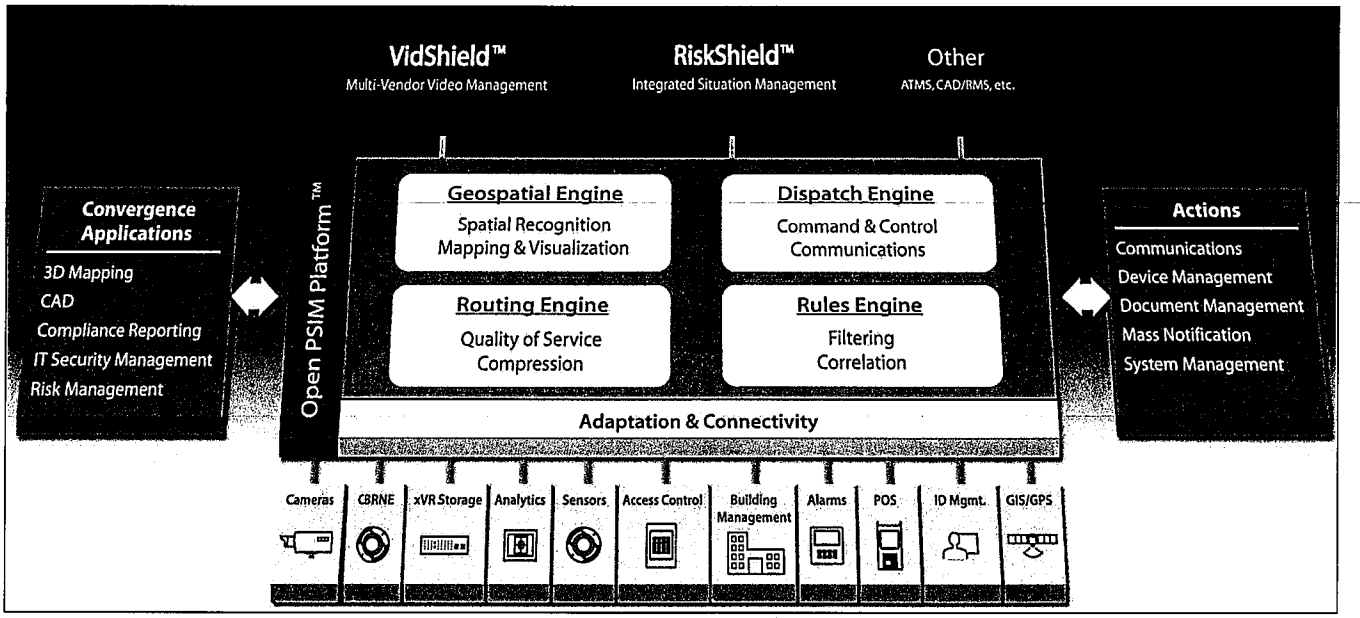


Figure 5-12. VidSys System Architecture.

VidSys provides **Situation Management** software that enables companies to integrate their disparate physical security devices and systems. Using the Open PSIM (platform enables the correlation of data from multiple sensor systems, applies analytics and intelligence through a series of robust engines, and helps filter out irrelevant information such as false alarms. This allows a command center to analyze the information, present to security personnel all the information necessary to verify the situation, and then provides the instructions and tools to resolve the situation. All this is accomplished through a web-based, open architecture platform that can tie into a variety of devices, including video (cameras, recorders, analytics), sensors, access control, Fire, RFID, CBRN, HVAC, Building Management and more. This enables VidSys to create a Common Operating Picture that graphically displays a collection of alarms, video, and data on a single display. Operators and Supervisors are able to view system resources from various locations, allowing for the remote viewing and monitoring of multiple systems simultaneously.

5.5.3.2 Features

The VidSys system also incorporates **VidShield** software – a product agnostic, video management software solution and does not compete with physical security devices or systems, but instead integrates and leverages all of the disparate products into one Common Operating Environment. This allows VidShield to fully leverage existing legacy systems (analog & digital), as well as, proven flexibility to add best of breed solutions in the future. VidShield can simultaneously communicate with nDVRs and cameras from multiple vendors through its unique user interface. For advanced visualization needs, video walls can easily be controlled as well, including preset layouts and drag and drop functionality. In addition to comprehensive video management, VidShield includes Rules, Routing, Dispatch, Mapping and Geospatial engines that allow for unsurpassed Command and Control capabilities within virtually any environment.

For emergency incidents, video can potentially be shared with local Police & Fire Departments, either by operators, or automatically based on a verified alarm. Additionally, should an emergency such as a fire occur, and the site is evacuated, all resources can still be viewed and managed safely from virtually any web-enabled computer. When patrols are performed, VidShield can push video out to police and security personnel on mobile devices such as laptops, PDA's and other handheld devices.

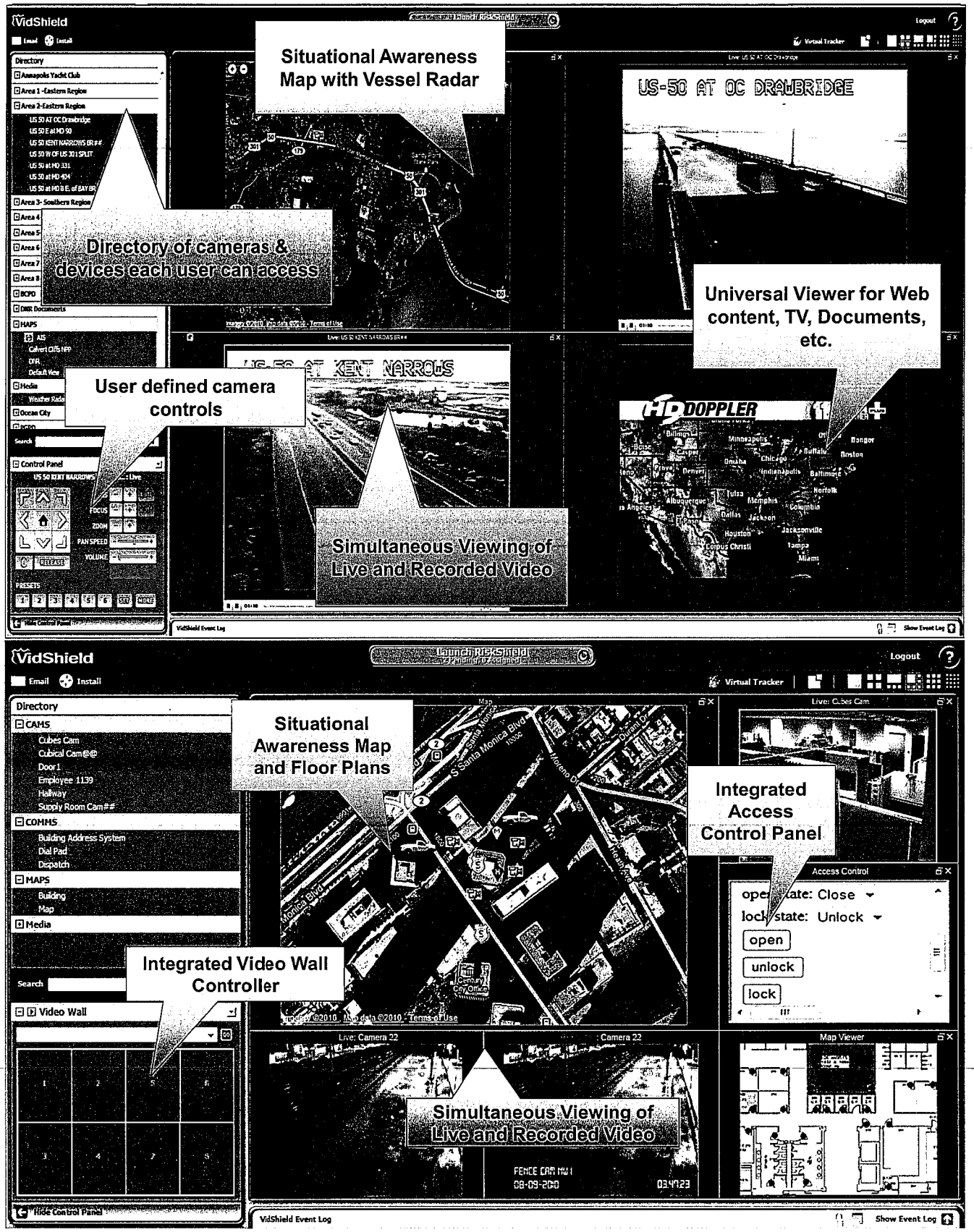


Figure 5-13. VidSys VidShield Video Management and Mapping Screen.

Within VidShield, the system contains the optional capabilities of **VirtualTracker**, a powerful feature that enables easy "tracking" of an object (person, asset, vehicle etc.) in real time, as it moves among a network of security cameras. Virtual Tracker uses the Geospatial Engine to calculate the nearest or best cameras available to view the object based on locations and presets. The video streams from multiple cameras are merged into a single screen view with on-screen controls. The primary camera view is displayed and views from the nearest cameras in each direction form a frame around it. Locations of the cameras involved are simultaneously displayed on a map or building layout. **BackTracker**, another feature within the application, allows operators to go back in time using recorded video for forensic analysis of events and to determine a suspect's point of origin. BackTracker can provide an operator with views of recorded video from multiple nDVR's vendors in one interface, greatly reducing forensic research time.

Figure 5-14.VidSys VidShield screen with VirtualTracker feature.

The DAC will add enhanced **Situation Management** with the implementation of the VidSys RiskShield solution. RiskShield goes beyond traditional event and alarm management systems using our **Open PSIM Platform** to provide event filtering and correlation. Data is filtered from all monitored systems and Situations are presented to an operator, in real time, with associated camera and map views for visual verification. Response plans are then launched, and resolution is achieved through a series of event specific steps. Written response plans are able to be automated within the RiskShield solution to rapidly streamline the security operator's efforts, enabling the efficient management of a situation.

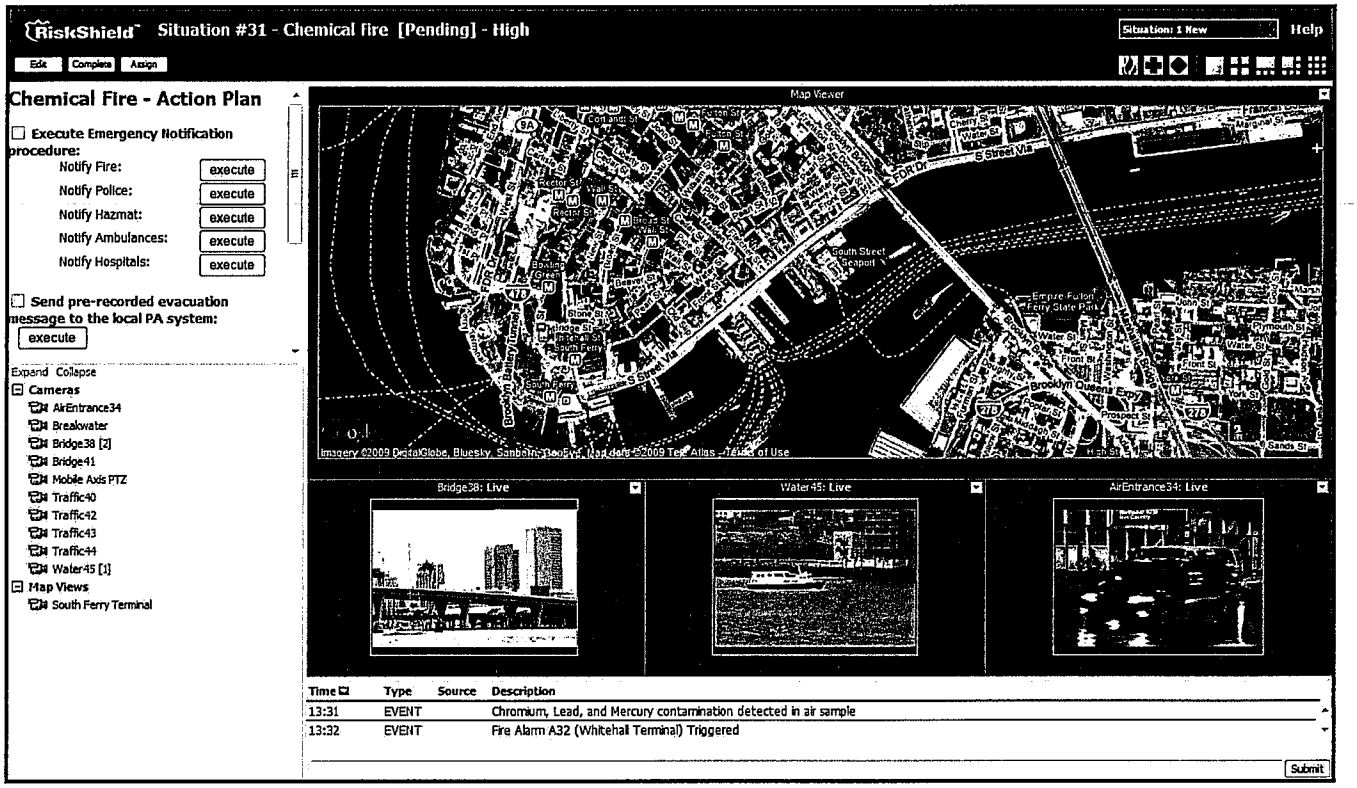


Figure 5-15. VidSys RiskShield screen with example of Chemical Fire situation management

Unlike Event Management systems, which focus on presenting alarm and device summaries, and leave it up to the operator to search for correlations, Situation Management fully correlates all pertinent information for you, including alarms across multiple devices or even systems. First, a situation is a collection of events, devices, maps, icons, action plans, etc. associated with one problem an operator must manage. Each situation brings together the right resources for the operator allowing them to quickly manage the task at hand (for instance, when opening a situation your screen would show where the event is occurring (map and icons), all nearby cameras and devices (allowing control of video, doors, etc.), related events that either created the situation or support it with additional information, operator instructions (Action Plan) allowing shortcuts to correct actions as well as logging and tracking.

The following table highlights some of the important features that show the strength and flexibility of the VidSys PSIM. These features improve the user experience, reduce response time and enhance incident management.

Table 5-4. Features of the VidSys PSIM

Feature	Description
Universal Viewer	Universal live and recorded video playback in the VidShield application to include analog and digital H.264, MPEG2, MPEG4, MJPEG and analog
	Proprietary vendor-specific MPEG4 streams
	Browser based deployment
Embedded Video Controls	Camera and NVR controls appear on selection of camera feed
	Pan, tilt and zoom controls for live cameras
	n/DVR controls to include stop, rewind, fast forward, pause, play and others
Configurable Directory Tree	Configurable to meet specific needs of the customer
	Includes the ability to build multiple layers in the directory
	Custom naming of cameras sources, maps, outputs, etc.
Video Tours	Allows users to display multiple sources in a looping tour

Feature	Description
	Adjustable hold times
	Dynamic tours can be played based on time or day of events programmed using the Correlation Engine
	Display multiple video windows per monitor, simultaneously
	Grouping allows users to view and access only predefined devices
User Grouping & Priority Settings	Priority determines which users have camera control and who can pre-empt lower priority users
	Multiple users can simultaneously access surveillance resources. Based on pre-assigned priority levels, supervisors or managers can take control of different system resources.
Single or Multi-head Support	Support for single or multiple monitors allowing users more comprehensive views of the systems
	Video Walls are controllable through interface
	User access
Audit Trail Logging	Resource usage
	Event handling
Device Adaptation and Connectivity	Integration and interoperability of multiple security assets including video, motion sensors, gunshot detection, analytics, etc.
Rules Engine	Allows for the assessment and filtering of alarms and events to present defined and undefined patterns of activity and to correlate the information and presentation in a common operating picture to the command center user in a single view of a situation across disparate devices.
Geospatial Engine	Provides geo-location of devices and supports the positional representation of cameras, alarms, sensors and other assets on geographic maps, floor plans, etc. Maps and drawings are easily navigated and zoomed to display detailed information.
Routing Engine	Intelligent switch that connects any security device to the command interface and accommodates the transmission of formats and protocols between connected devices
Dispatch Engine	Integrates with communications infrastructure to initiate external transmission of messages, video, data and commands to first responders, mobile users, other command centers, etc.

The VidSys system is an integral part of a DAC. It is comprised of a scalable and extensible interoperability platform as well as surveillance and situation management components that provide customers the ability to deliver complex solutions with a COTS product that are otherwise not possible without extensive and very costly custom services.

Expandability and Extensibility

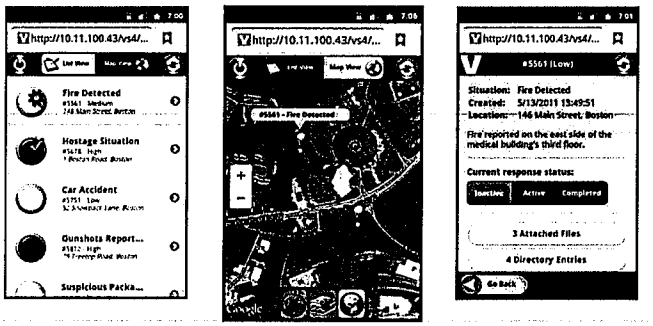
RiskShield™ modular architecture facilitates both horizontal and vertical expansion. As enterprises evolve, so do the requirements to integrate with an increased number of different manufacturers' products. RiskShield™'s component design allows additional RiskShield™ device proxies to be deployed onto additional servers, allowing an increased number of manufacturer devices to be integrated without adversely affecting the existing footprint of device integration. To address increased demand for existing systems or to allow for additional devices within an existing RiskShield™ integration, RiskShield™ can be scaled as needed. Additional RiskShield rules engine instances can also be deployed onto additional servers. Additional rules engines enable more event correlation, filtering and aggregation, allowing for more devices to be integrated.

As server and workstation hardware increases in speed and capacity so does the rate at which they are deployed. RiskShield™ fully supports this vertical scaling by using all processors and cores available on the hosting server. RiskShield™ uses a multithreaded design to facilitate the most efficient usage of hosting hardware. Additionally, RiskShield™ performance can be increased by extending limits on caching and number of simultaneous database connections.

Mobile-Data Sharing: Leveraging Mobile Devices / Smart Phones

Mobile responders can be assigned to RiskShield™ situations and can view details of the situation from their Android or iOS device phones and/or tablets. Situation details include alarms and associated documents such as text or PDF files, snapshot images, or exported video clips. Mobile responder status and

location is passed back to RiskShield™, so that RiskShield™ operators can monitor the responders who are assisting with situation management.



5.5.4 Summary and Evaluation of the Current Environment

The SAIC Team understands the current state of the system provides a facility with telecommunications and network access to the Oakland City security intranet with no DAC capabilities existing today. The City-Port, along with various regional, State, and Federal agencies, have a number of technological components that can be linked and integrated into the DAC. These systems are detailed in the section below:

5.5.4.1 Port Security System

Integrated CCTV System

The SAIC Team understands the following components to comprise the Port's "Integrated System". We also understand that the Genetec Security Center version 5.1 will be the video management application responsible for integrating the existing video systems at the Port of Oakland:

- Crane-mounted camera systems:
  - 34 cameras, color and IR
  - Integrated with Vigilant NVRs
- Port Road VSS/Power Substation IDS:
  - 21 PTZ and fixed cameras
    - Nine (9) ACTi cameras
    - Eleven (11) SightLogix cameras
    - One (1) substation camera
  - Integrated with Verint Nextiva NVR
  - Video analytic alarms from SightLogix cameras
- Maritime Terminal IDS
  - 21 of cameras
  - Integrated with Genetec Omnicast
  - Some cameras sending alarms from video analytics

Based on this understanding, SAIC proposes to integrate Genetec Security Center system capabilities with VidSys PSIM and provide the following functionality via the client user interface:

- Provide live video to the user
- Provide PTZ camera control
- Provide recorded video to the user
- Provide alarms from video analytics

Geospatial Security Mapping System (GSMS)

SAIC's understanding of the existing GSMS system is that the mapping capability is provided by an ESRI server owned and operated by the Port. Based on the CONOPS and Technology Linkage documents, we understand that the following systems are already integrated with ESRI as data layers:

- Vessel traffic
- Road traffic
- Weather
- Tides
- Earthquakes

Based on this understanding, SAIC proposes to integrate the ESRI mapping capability with VidSys PSIM and provide the following functionality via the client user interface:

- Use ESRI as the primary map interface within the VidSys client
- Provide the user the ability to turn mapping layers on/off

Truck Management System (TMS)

SAIC is the systems integrator responsible for the design and delivery of the TMS. As the developer and integrator, we have intimate knowledge of how the Fluensee Yard truck management system work and integrates with 3rd party systems. Based on this understanding, SAIC proposes to integrate the TMS system capabilities with VidSys PSIM and provide the following functionality via the client user interface:

- Send alarms from TMS to VidSys
- VidSys to create a situation for alarm management
- Alarm situation to include truck information: make/model, license plate, owner
- Map to show the location of the alarm event

5.5.4.2 City Security and Law Enforcement Systems

Intelligent Transportation System – Outdoor IP PTZ Cameras

SAIC's understanding of the ITS Outdoor IP PTZ cameras is that these cameras consist of twelve (12) Axis brand HD PTZ cameras at target locations throughout the city of Oakland. Our understanding is that these cameras are integrated to a Genetec Omnicast video recording and management system. Since these cameras are already integrated to the Genetec system, we would integrate Genetec with VidSys to include the capability of these cameras. Based on this understanding, SAIC proposes to integrate the outdoor IP PTZ cameras through the Genetec Omnicast system interface with VidSys PSIM and provide the following functionality via the client user interface:

- Provide live video to the user
- Provide PTZ camera control to the user
- Provide recorded video to the user
- Provide video and snapshot export to the user
- Map to show the location of each camera

Intelligent Transportation System – Oakland Video Image Detection System (VIDS) cameras

SAIC's understanding of the ITS VIDS cameras is that there are approximately 20 intersections with one camera covering each approach for a total of 80 cameras. We also understand that these cameras are integrated with an Iteris video system. Based on our research of the Iteris video system, we believe that the system processes the traffic video with video analytics and creates alarms in the event of a traffic incident. Based on this understanding, SAIC proposes to integrate the VIDS cameras through the Iteris system interface with VidSys PSIM and provide the following functionality via the client user interface:

- Provide live video to the user
- Provide alarms from Iteris to VidSys
- Create an alarm situation based on specific alarm types from Iteris
- Map to show the location of each camera and alarm

Automatic License Plate Reader (ALPR) cameras

SAIC's understanding of the ALPR cameras is that they are PIPS Technology brand cameras and there are sixteen (16) mobile units in operation. The cameras and the Police ALPR Graphical Interface System (PAGIS) that is operated within each patrol car. The system captures color images of each vehicle, as well as an infrared image of the plate, which is converted into a text file that is then checked against onboard databases of interest (stolen vehicles, wanted felons, AMBER alerts, etc.) stored in the local processor. The data from multiple PAGIS systems are fed into the Back Office System Server (BOSS) database application for licenses plate data mining and intelligence purposes.

After contacting PIPS Technology to discuss the potential of 3rd party integration, SAIC was told that PIPS ALPR cameras and the BOSS database do not support the integration of 3rd party systems. PIPS Technology has not developed an application programmers interface (API) or a software development kit (SDK). We have engaged PIPS and they agreed to collaborate with SAIC to identify ways to interface their technology with the PSIM solution and the DAC.

Possible integration functionality may include:

- Alarm integration (location, vehicle snapshot, licenses plate number)
- Information associated with the alarm (driver name, violation)

Intelligent Transportation System – East Bay Smart Corridor (EBSC) cameras

SAIC's understanding of the ITS EBSC cameras is there are approximately 6 intersections with one camera to cover each approach for a total of 24 cameras and some unknown number of cameras provided by Caltrans that monitor the I-80 ICM project, estimated six (6) cameras. We assume that each of these cameras are fixed and do not provide PTZ support. At this time, we are unable to determine if this video is integrated with a network video recorder system. Based on this understanding, SAIC proposes to integrate the EBSC cameras with VidSys PSIM and provide the following functionality via the client user interface:

- Provide live video to the user
- Map to show the location of each camera

Intelligent Transportation System – Redflex traffic system cameras

SAIC's understanding of the ITS Redflex traffic system cameras is that this is a red light camera system that is used to detect vehicles that violate red light traffic lights. Our understanding is that there are thirteen (13) Redflex camera systems within the City of Oakland. We assume that each of these cameras can provide live video and alarms. We have established a working relationship with Redflex and they have agreed to

cooperate with SAIC to integrate the Redflex cameras with VidSys PSIM and provide the following functionality via the client user interface:

- Provide live video to the user
- Provide alarms from Redflex cameras to VidSys
- Map to show the location of each camera and alarm

5.5.4.3 Other Systems

Secure Our Schools (SOS) CCTV Project cameras

SAIC's understanding of the SOS CCTV Project camera is that the Oakland Police Department has viewing access to these cameras from the Oakland Unified School District. Information we have received indicates there is a combination of approximately 900 cameras either installed or under contract to be installed. Our assumption is that these cameras are connected to a network video recording (NVR) system which provides access to recorded video from these cameras. We are willing to work with the City-Port and Police Department to come up with solutions to best integrate these SOS CCTV feeds into the PSIM and DAC and provide the following functionality via the client user interface:

- Provide live video to the user
- Provide recorded video to the user
- School floor plans to show the location of each camera (assumes Oakland can provide school floor plans for integration)

ShotSpotter

SAIC's understanding of the ShotSpotter system is that the City of Oakland has these gunshot detection systems installed around the city. Previous integration experience with this system has provided alarm and alarm location information. Based on this understanding, SAIC proposes to integrate the ShotSpotter system with VidSys PSIM and provide the following functionality via the client user interface:

- Provide alarm on gunshot detection
- Map to show the location of the alarm
- Alarm to create a situation which incorporates Oakland CONOPS for managing a gunshot incident.

CAD System

SAIC understands that Oakland has already purchased Motorola Premier CAD version 7.0 as the CAD system. VidSys has previously been integrated with Motorola CAD. Based on previous integration experience, SAIC proposes to integrate the Motorola Premier CAD with VidSys PSIM and provide the following functionality to the Motorola CAD system:

- Send alarm information to Motorola CAD to notify dispatcher of an incident
- Send alarm location to Motorola CAD to aid in dispatching patrol units

Case/Records Management System

SAIC understands that the City has already purchased Motorola Infotrak Law Records Management System. Based on our understanding of the Motorola Infotrak system, SAIC proposes to integrate the Motorola Infotrak system with VidSys PSIM and provide the following functionality to the Motorola Infotrak system:

- Send alarm information to Motorola Infotrak to add alarm information to an incident report

- Send alarm location to Motorola Infotrak to add alarm details to the incident report

CrimeView Desktop

SAIC's understanding of CrimeView Desktop is that it is used for analysis and mapping of crime activity. CrimeView integration documentation indicates that it is intended for integration with CAD and RMS system. We know that Oakland already owns the CAD, RMS and CrimeView systems. We propose working with the City to evaluate opportunities to integrate these systems into the PSIM.

WebEOC/NC4

The SAIC Team is willing to explore opportunities for integrating the WebEOC/NC4 requirements during the proof-of-concept design phase.

Northern California Regional Intelligence Center (NCRIC)

SAIC proposes to provide a command center user license for NCRIC to use VidSys PSIM at their center.

Contra Costa County Regional Data Sharing Portal (ARIES UASI)

SAIC proposes to provide a command center user license for NCRIC to use VidSys PSIM at their center.

5.5.5 Requirements for the DAC System

Assessment of VidSys as a solution which could address PSIM functional requirements as defined by the DAC ConOps documentation must be taken into consideration.

5.5.5.1 System Usage Requirements

User access to the VidSys PSIM will be granted either through integration with Oakland's Active Directory system or credentials can be developed for local user accounts within the VidSys PSIM. All users must be part of a user group. User groups contain configuration to a group of users, allowing user priorities and privileges to be configured once for a defined group of users. User groups define the access to devices and set permissions for user functionality within the PSIM application. Users can be restricted to device types or geographic region. Users will also be assigned with a priority level where the user with the higher priority can take control of a device from a user with a lower level. This capability is important when the DAC operator needs full control of the system and devices in order to manage an incident. The SAIC proposes to deliver 20 PSIM user licenses for the baseline delivery of the DAC PSIM solution.

5.5.5.2 Operational Requirements

The following table compares the SAIC DAC-TLS solution to the DAC ConOps functional requirements. SAIC understands that some systems have already been purchased by Oakland since the ConOps was written and will indicate our understanding of these areas within the table. For example, SAIC understands that Oakland has already purchased the Motorola Premier CAD and Motorola Infotrak law records management system. Based on the functional requirements in the ConOps and the Technology Linkage documents, SAIC meets the functional requirements as stated.

Table 5-5. DAC ConOps Functional Requirements Checklist

DAC ConOps Functional Requirements	Requirement Satisfied by SAIC Solution
I. Security Management Services	SAIC understands these requirements to be primarily focused on the PSIM system.
1. 1. Specific monitoring of Port security technologies.	**Satisfied: VidSys PSIM**
1.2. Geospatial data integration, including capacity to integrate GIS (Port and City).	**Satisfied: VidSys PSIM**
1.3. Retention of security specific historical data.	**Satisfied: VidSys PSIM**

DAC ConOps Functional Requirements	Requirement Satisfied by SAIC Solution
1.4. Security Management: Ability to house incomplete information records with a process for adding records to primary database when record is indicated complete.	**Satisfied: Existing Police and Fire RMS**
2. Incident Management	SAIC understands these requirements to be primarily focused on the PSIM system.
2.1. Incident specific real-time assessment data.	**Satisfied: VidSys PSIM**
2.2. Retention of incident specific historical data.	**Satisfied: VidSys PSIM**
2.3. Ability to track incident specific information and outcomes.	**Satisfied: VidSys PSIM**
2.4. Ability to share incident level data across agencies, including communication links from the DAC software to 911 dispatch and the City and Port EOCs.	**Satisfied: VidSys PSIM**
3. Service Tracking	SAIC understands these requirements to be primarily focused on the Telestaff system.
3.1. Service/Report Delivery Management: Ability to document and retain history of agency specific services received by an agency from the DAC, including ability to document planning, scheduling and follow up on delivery of services or reports.	**Satisfied: Existing Police and Fire Telestaff**
3.2. Referral Management: Ability to document and retain history of incident specific referrals, including follow up, reminder capabilities, and status/outcome of incident for close-out/archive.	**Satisfied: Existing Police and Fire Telestaff**
4. Information and Referral	SAIC understands these requirements to be primarily focused on the Regional Data Sources.
4.1. Real time link to City or region Information and Referral database of available resources (i.e., 211, 311, 511) OR capacity to build and maintain an integrated I & R within the system	**Satisfied: Existing Regional Data Sources**
4.2. Electronic submission of requests to/from other agencies for data access (Push/Pull capability)	**Satisfied: Existing Regional Data Sources, ARIES UASI**
5. Data and Technical Standard Compliancy	SAIC understands these requirements to be primarily focused on the RMS technology.
5.1. System must meet all Criminal Justice and Privacy compliancy standards for data collection as well as the baseline compliancy standards for privacy and security outlined in federal and state data and technical Standards	**Satisfied: Police and Fire RMS**
6. Reporting Capacity	SAIC understands these requirements to be primarily focused on the RMS systems.
6.1. Capacity to generate security technology-specific, agency, and, collaborative level reports.	**Satisfied: Existing Police and Fire RMS** **Satisfied: VidSys PSIM**
6.2. Standard, built-in reports and forms required by the State of California and the Federal Government, including Incident Command System (ICS) forms for SEMS and NIMS compliance, table shells, data validation reports, an unduplicated incident count report, and basic incident analysis reports	**Satisfied: Existing Police and Fire RMS**
6.3. Integrated ad hoc reporting capacity that maintains user level security restrictions while allowing for user flexibility in choosing tables and fields as well as filtering and conditional report aspects.	**Satisfied: Existing Police and Fire RMS**
6.4. Capacity to import and export data through XML and CSV formats, including ability for regular, user initiated imports and exports and ability to securely strip data of identifiers and manage data transmission while insuring a high accuracy of un-duplication rate.	**Satisfied: Existing Police and Fire RMS**
7. System Security	SAIC understands these requirements to be primarily focused on the RMS systems.
7.1. Integrated technical safeguards to ensure a high level of privacy and security, including:	**Satisfied: Existing Police and Fire RMS**
7.2. Back end server(s), including data encryption and transmission.	**Satisfied: Existing Police and Fire RMS**
7.3. Administrator controlled user name and password access.	**Satisfied: Existing Police and Fire RMS**
7 .4. Automatic timeout/log-off.	**Satisfied: Existing Police and Fire RMS**
7.5. Administrator controlled user level read, write, edit and delete capabilities.	**Satisfied: Existing Police and Fire RMS**
7.6. Administrator controlled user level module and sub-module access.	**Satisfied: Existing Police and Fire RMS**
7.7. Automated audit trail.	**Satisfied: Existing Police and Fire RMS**
7.8. Information Security Industry Standard encryption and SSL certifications.	**Satisfied: Existing Police and Fire RMS**

DAC ConOps Functional Requirements	Requirement Satisfied by SAIC Solution
7.9. All technical safeguards required to be National Information Exchange Model (NIEM) compliant.	**Satisfied: Existing Police and Fire RMS**
7 .10. AU security safeguards required for compliancy to state and federal criminal justice and privacy Data and Technical Standards (including Code of Federal Regulations (CFR) 28 Part 23).	**Satisfied: Existing Police and Fire RMS**
8. System Support	SAIC understands these requirements to be primarily focused on the support and maintenance contract as well as the trouble ticket system.
8.1. Support DAC on complex technical issues including problems related to DAC software system architecture, including networks, servers and workstations.	**Satisfied: SAIC system support and maintenance**
8.2. Respond to requests and inquiries from DAC system operators within the pre-determined timeframe of a service level agreement (2 hour window recommended).	**Satisfied: SAIC system support and maintenance**
8.3. Investigate and resolve problems installing software as a result of complex environmental variables including integration of other technologies to the DAC.	**Satisfied: SAIC system support and maintenance**
8.4. Identify solutions to work around open issues / problems that are under investigation or pending resolution.	**Satisfied: SAIC system support and maintenance**
8.5. Work directly with City and Port technology staff, and end users, to deploy and configure DAC system software.	**Satisfied: SAIC systems engineering and program management team**
8.6. Document and track, case histories, issues, and actionable steps taken.	**Satisfied: SAIC ProVM ticket management system**
8.7. Perform software research, testing, and recommendations.	**Satisfied: SAIC systems engineering team**
8.8. Improve documentation of support policies and procedures.	**Satisfied: SAIC systems engineering team**
8.9. Perform quality assurance testing of new software releases.	**Satisfied: SAIC systems engineering and quality assurance team**
8. I 0 Provided technical support training to other team members.	**Satisfied: SAIC technical training team**
8.11 If system support is integrated with the software solution purchase, grant funding could cover 2 years of post-implementation support. It is recommended that 3-5 years on site support, with technical training band-off to City and Port technology staff prior to support conclusion.	**Satisfied: SAIC system support and maintenance**

5.5.6 Identification of Proposed Systems for Integration into the PSIM

The SAIC Team, through strategic teaming arrangements and partnerships with key vendors and contractors, is proposing to integrate both the Port Security as well as the City Security and Law Enforcement systems into the VidSys PSIM. This includes all CCTV inputs, GSMS/GIS systems, the LPR monitoring system, and City ITS live camera surveillance systems.

The following represents what we propose to be Core Field Integration Systems for this project.

5.5.6.1 Proposed Core Systems for Integration into the PSIM

For **Core Field Integration Systems**, we propose the following:

- Port CCTV Genetec SC5.1
- Port Geospatial Security Mapping System (GSMS) GIS
- Port SAIC Truck Management System (developed by and currently maintained by SAIC-Fluensee for the Port)
- City Genetec Omnicast 4.X
- City VIDS System Cameras
- City ShotSpotter
- ESRI Mapping
- Motorola Premier CAD Compliant Interface
- Motorola InfoTrak Compliant Interface

Nearer-Term Additional Scalable Core Integration Systems that we may also include for this project, pending collaboration and mutually agreeable considerations, are the following:

- RedFlex Cameras
- East Bay Smart Corridor Cameras
- NOAA Service
- USGSM Service
- Bay Area 551 Service (operated and maintained by SAIC for the MTC)
- Oakland City Schools CCTV
- Oakland City Police Department ALPR
- Oakland City Public Safety Intranets

5.5.6.2 Proposed Future Systems for Integration into the PSIM

For **Future Longer-Term Additional Scalable Future Integration Systems**, under the current available budget constraints, we identify as the following:

- Police AVL
- Fire Mobile/AVL
- Integration of alarms to the CAD and RMS systems as required
- USGC Vessel Traffic Monitoring Service
- Northern California Regional Intelligence Center
- Chemical, Biological, Nuclear, Radiological, and Explosive (CBNRE) monitoring
- Automated Regional Information Exchange System (ARIES)

Of these above identified **Future Longer-Term Additional Scalable Future Integration Systems**, we are open to adopting to integrate the Police and Fire AVL and the USGC Vessel Traffic Monitoring Service much sooner, pending collaboration with the City and the Port.

For a diagram overview of the systems, see Figure 5-7.

5.6 Overall Project Delivery Schedule

Herein this subsection the SAIC Team presents our overall project delivery schedule as well as detailed schedules pertaining to specific work efforts.

For simplicity and comprehension ease, the overall project delivery schedule is segregated into 3 separate phase components as depicted in the figure below:

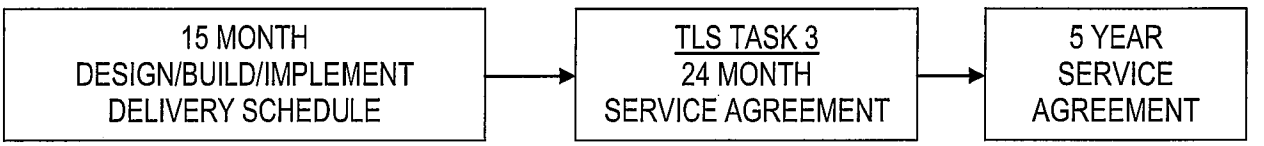


Figure 5-16. Overall Project Delivery.

The 15 Month Design/Build/Implement Delivery Schedule addresses the completion of the design/build/implementation work scope areas within 15 calendar months and is presented with a project start date of January 1, 2013 (pending a customer authorized Notice-To-Proceed) and an end date of March 30, 2014. This 15 Month Design/Build/Implement Delivery Schedule covers the following specific work efforts;

- Project Management and Communications (for Design/Build/Implement work phase)
- PART-B Existing Building Improvements (EBI)addressing the construction tenant improvements and the Video Wall Display System
- PART-A Technology Linkage System (TLS)covering the following two tasks only;
  - TASK 1: Planning and Scoping
  - TASK 2: Implementation

An overall project schedule in MS Project is provided at the end of this section and will be used as our baseline presentation for review with the City-Port of Oakland at the project kick-off meeting and will be maintained and updated during the project. The MS Project Schedule includes the following;

- TLS TASK 3 addressing the 24 Month Service Agreement
- 5 Year Service Agreement

5.6.1 15-Month Design/Build/Implement Delivery Schedule

SAIC Team has developed the 15 Month Design/Build/Implement Project Schedule with specific work flow sequencing showing the relationships between;

- Program Management and Communications,
- PART-B EBI work efforts, and
- PART-A TLS work efforts, specifically TLS TASK 1 and TLS TASK 2

SAIC Team proposes that the PART-B EBI work efforts and the PART-A TLS TASK 1 Planning and Scoping work efforts commence at the project start and our team has worked together to synchronize those two independent work flow activities so that they complete at the same timeframe thereby enabling a seamless workflow for the start of PART-A TLS TASK 2 Implementation work efforts.

Figure 5-17 depicts the work scope areas covered by the 15 Month Project Delivery Schedule and in the specific sequencing previously described.

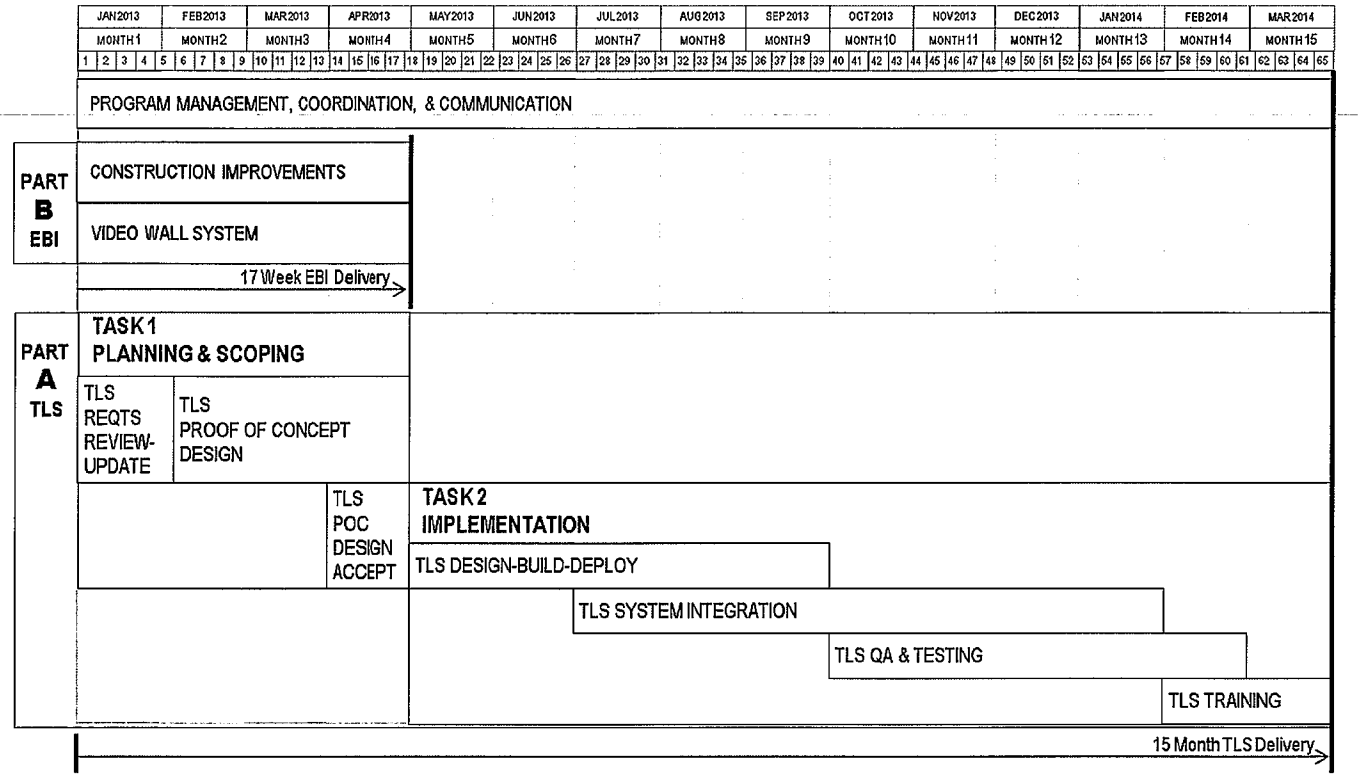


Figure 5-17. 15-Month Design/Build/Implement Project Delivery Schedule

More detail on each of the three major work scope areas are addressed under the 15 Month Design/Build/Implement Project Delivery Schedule is further described as follows:

- **Project Management and Communications** – this specific work effort, which is only separately called-out for and depicted within the 15 month design/build/implement delivery phase, the SAIC Team performs project management duties that include project controls, contracts, resource coordination, risk mitigation efforts, customer communications, and schedule management. After the 15 month design/build/implement delivery phase is complete, the project management and communications work efforts are covered/included under the TLS TASK 3 - 24 Month Service Agreement and also within the 5 Year Service Agreement activities.

- **PART-B Existing Building Improvements (EBI)** - this specific work effort covers the construction tenant improvements within the Emergency Operations Center (EOC) and the Video Display System design, install, and implementation which both efforts commence at project start and scheduled to be completed at the end of week 17 from project start, which is also aligned with the completion of PART-A TLS TASK1 Scoping and Planning.

- **PART-A Technology Linkage System (TLS)** – this specific work effort begins at project start with PART-A TLS TASK 1 Scoping and Planning which is scheduled to be completed by week 17 (aligned with completion of PART-B EBI described above) and then continuing with TASK 2 Implementation which begins at week 18 and ends at week 65 or at the end of Month 15. PART-A TLS includes the following work efforts:
  - **TASK 1** Scoping and Planning
    - TLS Requirements Review and Update
    - TLS Proof-Of-Concept (POC) Design

- TLS POC Customer Acceptance

- **TASK 2** Implementation
  - TLS Design, Build, Deploy
  - TLS System Integration
  - TLS Quality Assurance (QA) and Testing
  - TLS Training

5.6.2 17-Week PART-B EBI Delivery Schedule

SAIC Team has developed the 17 week delivery schedule for the PART-B Existing Building Improvements (EBI) that includes the completion of the construction tenant improvements and the design/build/implementation of the video wall system.

SAIC Team has worked together to also synchronize these two independent work flow activities so that they complete at the same timeframe at the end of the 17th week from project start. This along with the completion of PART-A TASK 1 Planning and Scoping work efforts also completing at the end of week 17 enable a seamless workflow for the start of PART-A TLS TASK 2 Implementation work efforts at week 18.

Figure XX depicts the work scope areas covered by the 17 Week PART-B EBI Delivery Schedule and in the specific sequencing previously described.

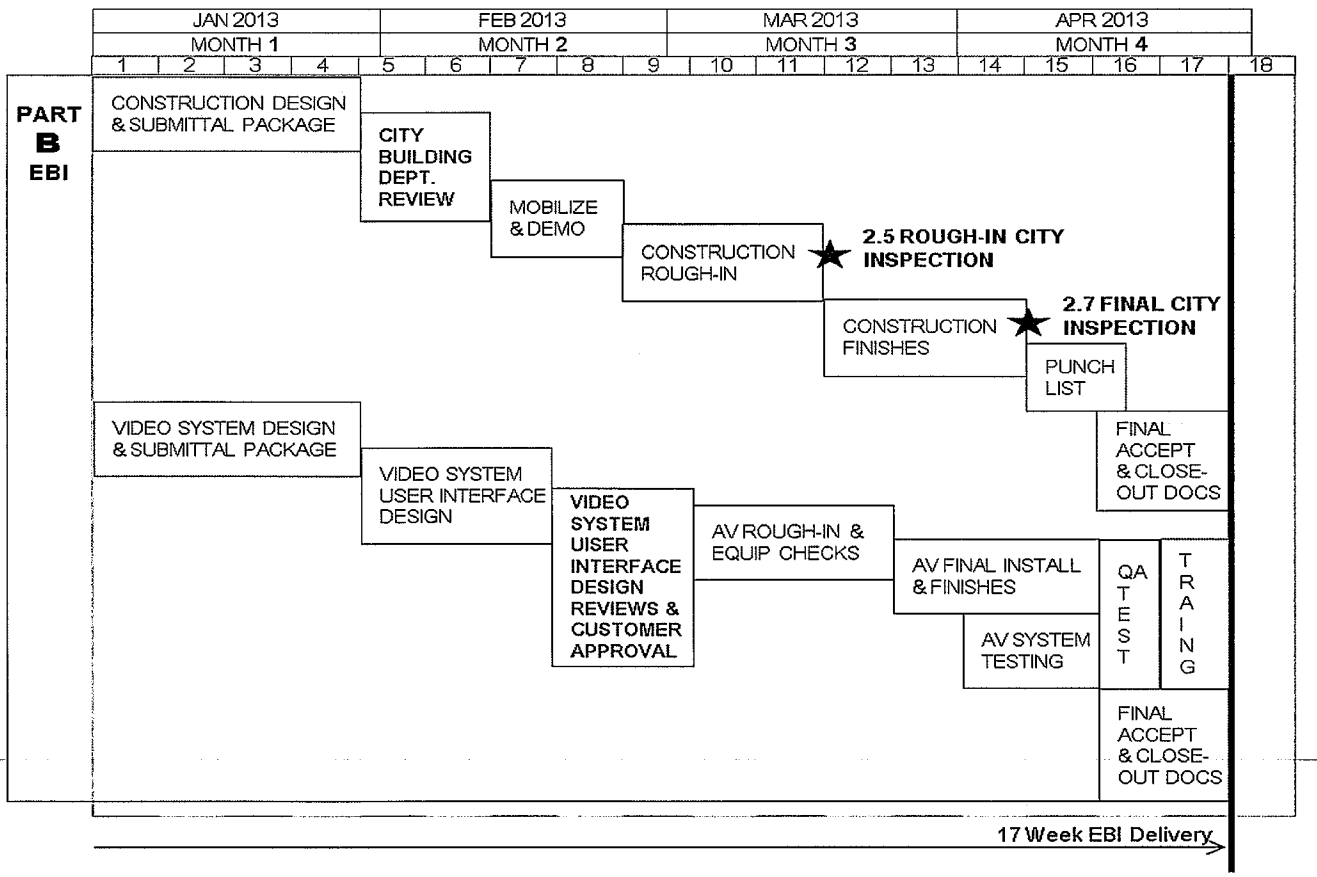


Figure 5-18. 17 Week PART-B EBI Delivery Schedule

More detail on each of the two major work scope areas are addressed under the 17 Week PART-B EBI Delivery Schedule is further described as follows:

- **Construction** – this specific work effort addresses the tenant improvements needed to address the construction requirements to support the video wall system. Specific work steps to be performed

under this construction work effort are outlined here as follows and discussed in further detail in this Section 5, under Sub-Section 5.7.2:

- Construction Design and Submittal Package
- City Building Department Review
- Construction Mobilization and Demolition
- Construction Rough-In
- Construction Rough-In City Building Department Inspection
- Construction Finishes
- Final Construction City Building Department Inspection
- Construction Punch List
- Final Customer Acceptance and Close-out Documents

- **Video Wall System** - this specific work effort covers the design/build and installation of the video wall system in the Oakland EOC. Specific work steps to be performed by the SAIC team are outlined here as follows and discussed in further detail in this Section 5, under Sub-Section 5.7.2:
  - Video System Design and Submittal Package
  - Video System User Interface Design
  - Video System User Interface Design Reviews and Customer Acceptance
  - Audio/Visual Video System Equipment Checks and Rough-In Installation
  - Audio/Visual Video System Final Installation and Finishes
  - Audio/Video System Testing
  - Quality Assurance (QA) Testing
  - Video System Training
  - Final Customer Acceptance and Close-out Documents

5.6.3 17-Week PART-A TLS TASK 1 Planning and Scoping Delivery Schedule

SAIC Team has developed the 17 week delivery schedule for the PART-A Technology Linkage System (TLS) TASK 1 Planning and Scoping activities covering the following subtask work efforts;

- **TLS Requirements Review, Assessment, and Survey** – to ensure a complete understanding of the TLS delivery requirements mapped with the proposed PSIM solution and sensor/system integration plan and the over project implementation plan. This subtask work effort will commence at project start and be completed within 5 weeks.
- **TLS Proof-Of-Concept (POC) Design** – to prototype and bench test the PSIM solution using simulated data the interfaces for remote field devices and data sources establishing the minimum requirements for information exchange and communications. This subtask work effort will commence following the completion of TASK 1 and be completed in 12 weeks, by week 17.
- **TLS Proof-Of-Concept Design Customer Acceptance and Approval** – will be performed through a formal presentation of the proof-concept design, determined project costs, and final field sensor or data exchange end-points to be integrated with the PSIM. This acceptance-approval process is envisioned to take approximately 4 weeks and that the completion of such, the SAIC team will continue and proceed to PART-A TLS TASK 2 Implementation.

Figure 5-19 depicts the work scope areas covered by the 17 Week PART-A TLS TASK 1 Planning and Scoping Delivery Schedule.

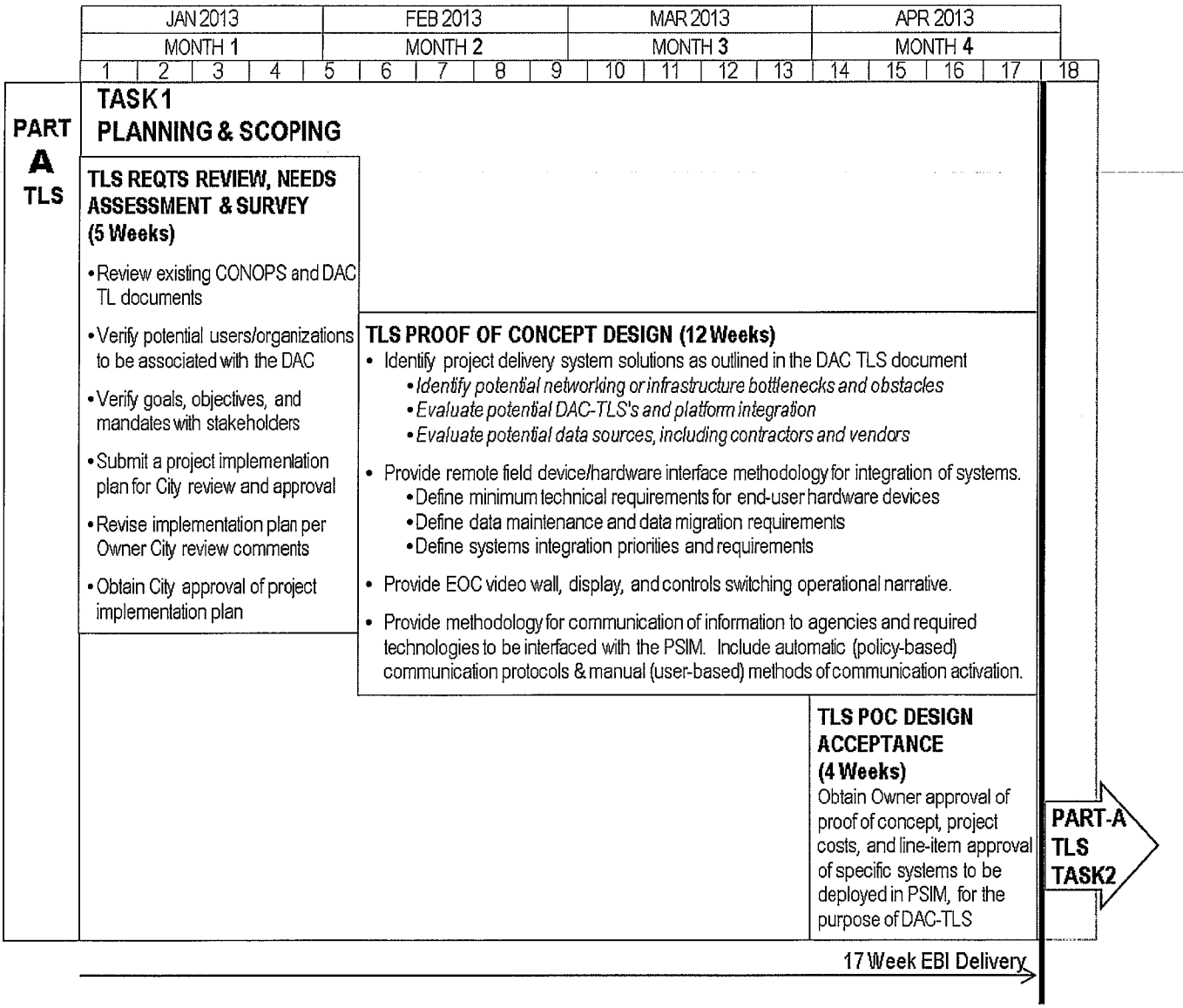


Figure 5-19. 17 Week PART-A TLS TASK 1 Planning and Scoping Delivery Schedule

5.6.4 48 Week PART-A TLS TASK 2 Implementation Delivery Schedule

SAIC Team has developed the 48 week delivery schedule for the PART-A Technology Linkage System (TLS) TASK 2 Implementation activities covering the following subtask work efforts;

- **TLS Design, Build, Deploy** – to ensure a complete understanding of the TLS delivery requirements mapped with the proposed PSIM solution and sensor/system integration plan and the over-project implementation plan. This subtask work effort will commence after PART-A TLS TASK 1 and will be completed within 21 weeks.

- **TLS System Integration** – to establish operational interfaces between the field sensors and/or technology and/or other data sources agreed upon as the baseline and to place such interfaces under configuration management and control so as to maintain the integrity of the data exchange. This subtask work effort will take approximately 30 weeks to complete.

- **TLS Quality Assurance and Testing** – will be performed to ensure the design, build, deployed TLS satisfies the requirements agreed upon during the TASK 1 Planning and Scoping work efforts. This subtask work effort will take approximately 21 weeks to complete.

- **TLS Training** – will be performed to ensure that the envisioned identified users can utilize the TLS. This subtask work effort will take approximately 8 weeks to complete.

Figure 5-20 depicts the work scope areas covered by the 48 Week PART-A TLS TASK 2 Implementation Delivery Schedule.

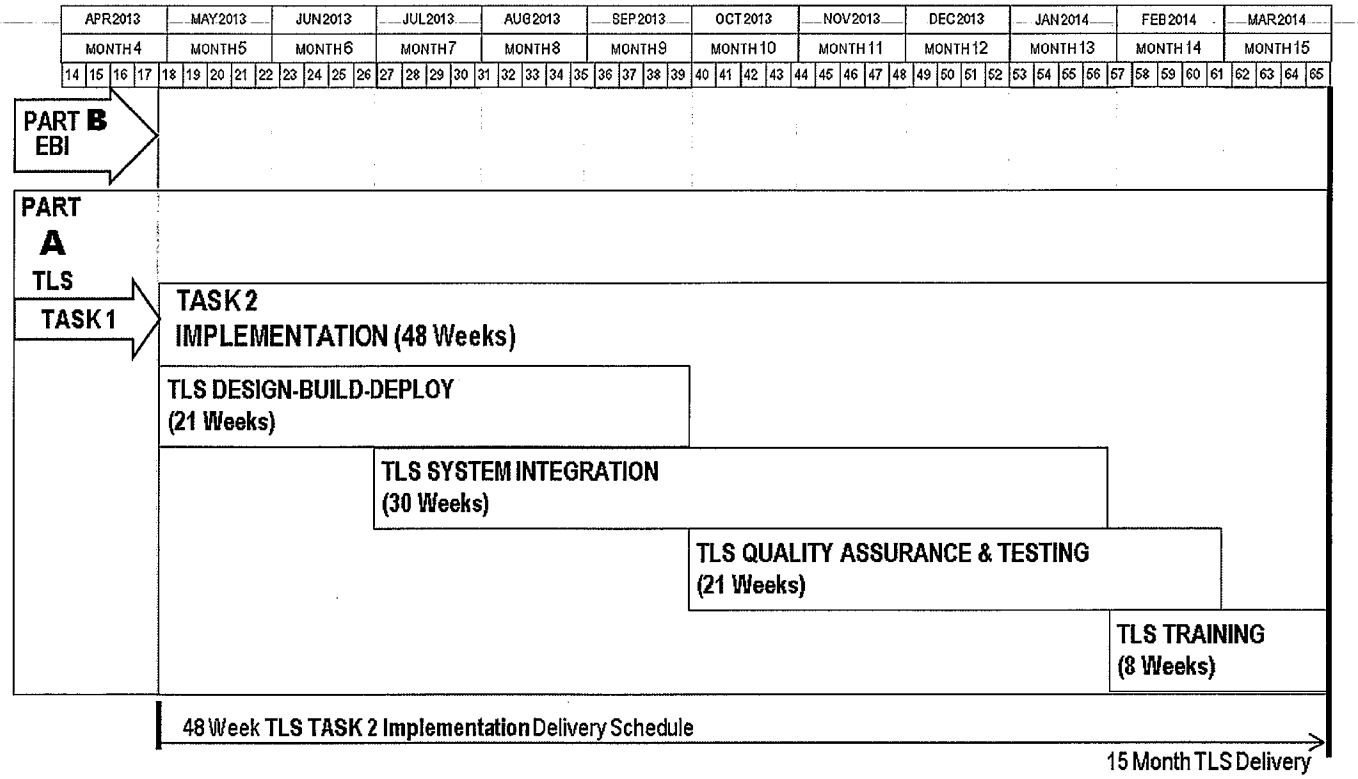


Figure 5-20. 48 Week PART-A TLS TASK 2 Implementation Delivery Schedule

The SAIC Team will work collaboratively with the City of Oakland and the Port of Oakland customer to prepare a project implementation plan to include any final delivery schedule adjustments and will submit the final project delivery schedule in MS Project. This MS Project Schedule will be maintained and updated during the project implementation period of performance.

5.7 Detailed Work Breakdown Structure (WBS)

In this sub-section 5.7, the SAIC Team presents our detailed technical Work Breakdown Structure (WBS) detailing our approach for technical delivery success. This section is broken out into four (4) distinct sub-sections outlining the major work scope task activities.

As the previous section outlining the delivery schedule depicts the Part-B EBI work scope activities start and parallel the Part-A TLS work scope activities, we elected to discuss/cover the Part-B EBI detailed work scope description before discussing the Part-A TLS because the Part-B EBI work activities are to be completed before the Part-A TLS is completed. Otherwise stated, Part-B EBI work scope will be completed before Part-A TLS work scope is completed, and thus we elected to discuss/cover herein the Part-B EBI work scope before discussing/covering the Part-A work scope. So the content herein for Section 5.7 is structured as follows:

Sub-Section 5.7.1 **Project Management and Communication**

Sub-Section 5.7.2 **PART-B Existing Building Improvements (EBI)**

- EBI Construction
- EBI Video Display System Installation

Sub-Section 5.7.3 **PART-A Technology Linkage System (TLS)**

- TASK 1: DAC-TLS Planning and Scoping
  - Needs Assessment-Survey
  - DAC-TLS Proof-of-Concept Design
  - Customer Approval of DAC-TLS Proof-of-Concept Design
- TASK 2: Implementation
  - DAC-TLS Implementation Design, Build, and Deploy
  - DAC-TLS System Integration
  - DAC-TLS Quality Assurance and Testing
  - DAC-TLS Training
- TASK 3: DAC-TLS 2 Year (24 Month) Service Agreement

Sub-Section 5.7.4 **DAC-TLS 5 Year (60 Month) Service Agreement**

5.7.1 Project Management, Controls, and Reporting

Project management involves tightly knit communication and cooperation between the PM and key support staff and subcontractors throughout all phases of this project: design, construction, and maintenance. As depicted in Figure 5-21, effective project management is a continual process of performance, tracking, and metrics, which we will discuss during various meetings throughout the project's duration.

The SAIC Program Manager, Mr. Taso Zografos, will prepare meeting agendas, meeting notes, action item capture and monitoring, and distribution of same to the SAIC Team, the City-Port, and required stakeholders. Meetings to be held include:

- A project kickoff meeting to establish objectives and timing of the project, including finalization of the roles and responsibilities of each team member.

- Monthly meetings with the City-Port will be held, and meeting notes that cover managerial and technical issues will be maintained. The SAIC Team will prepare the meeting notes.
- Internal Technical Interface Meetings: Internal meetings are held when necessary to ensure the continuity of information exchange necessary for the project. Action items will be maintained and monitored using an Action Item Register resident on a project SharePoint® collaboration site hosted by SAIC.

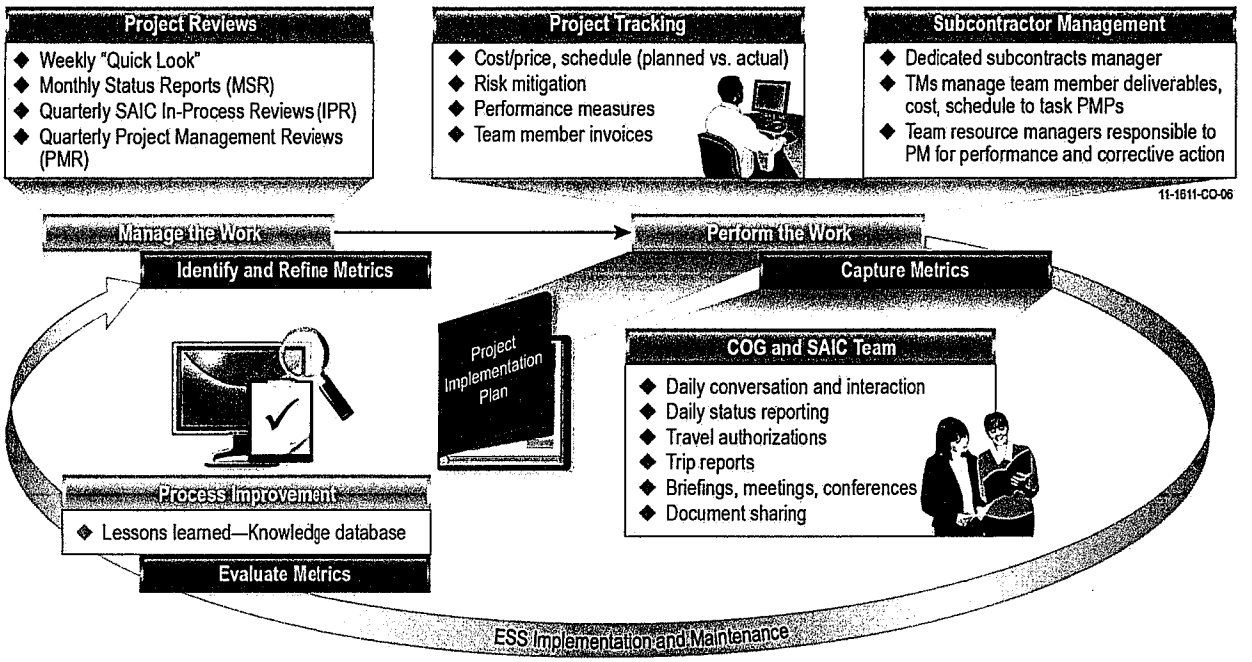


Figure 5-21. Project management combines flexibility with control and design phase management

Kick-Off Meeting

Mr. Zografos will hold a kick-off meeting at a location determined by the customer within 15 days following receipt of the Notice to Proceed (NTP). The kickoff meeting will serve as a working session for the SAIC Team to talk through the project goals, technical challenges, and mitigation options to determine the final and optimal path forward. At least two days prior to the kick-off meeting, the SAIC Team will provide the Oakland customer with a draft project schedule for review. The overall outcome of the kickoff meeting will be a refined and final schedule. The SAIC Key Staff will lead the kick-off meeting on behalf of the SAIC, with attendance from the Task Leads and any task advisors that will have a major role in shaping the development of the DAC.

Following completion of the kick-off meeting, Mr. Zografos will revise the draft schedule to address any comments or concerns raised during the kick-off meeting. He will also submit a final schedule within two weeks of the kick-off meeting.

Project Controls

SAIC's Project Control Mechanisms are built on industry-standard methodologies, specifically the Project Management Institute's Project Management Body of Knowledge (PMBOK). The methodologies have been effective, and we have taught them in SAIC University to the PM, Engineering Managers, QA Manager, Project Controller, Contracts Manager, and Subcontracts Manager assigned to this project.

Weekly Email Progress Updates

The development of the DAC will involve numerous activities spanning different members of the SAIC Team. The ensure that communications are continuously maintained as well as that the City-Port is aware

of all activities occurring on the project, the SAIC Team plans to provide the City-Port with weekly email progress updates throughout the duration of this project. The purpose of these progress updates will be to provide a timely and detailed review of project status, activities, budget, risks, and immediate next steps. Further, these weekly updates will serve as a framework to the monthly meetings, described in Section 0, held between the City-Port and the SAIC Team.

Monthly Progress Reporting

Upon contract award, Mr. Zografos and Project Controllers will establish project charge numbers aligned with the project work breakdown structure (WBS) and project work packages. Mr. Zografos has the flexibility to organize the project charge numbers to achieve the level of granularity and visibility necessary to manage the project budget. SAIC uses the Deltek® Time Recording and Expense Reporting System with daily electronic time card entries. The software helps SAIC automate the collection, validation, approval, and processing of labor, expense, and human resources-related information. Automatic reminders are sent to any employee and his supervisor when timecards are not completed by the end of the business day.

Management Indicators

All SAIC projects use management indicators to help manage project status and communicate status to the customer. Project-level management indicators include status reports and schedules, as determined by Mr. Zografos, which are maintained in the Project Library.

Measurement and Reporting

Project control tracks all projects at the cost line and the revenue line for performance against budget. The PM is responsible for ensuring that all information is correct and maintained as required:

Minimum data requirements to be collected include:

- Contract type(s) used
- Actual costs and revenues (including subcontractor and offline company data) by period and actual cost of work performed (ACWP)
- Planned expenditures by period and budgeted cost of work scheduled (BCWS)
- Open commitments
- Funding per contract and change order
- Special project authorization (SPA) funding (SAIC own risk)
- Unbillable expenditures
- Estimate to complete (ETC)
- Estimate at completion (EAC)

Metrics to be reported include:

- Remaining funding
- Projected overruns
- Cost variance
- Completion variance
- Schedule variance
- Cost performance indices (CPIs).

This data and resulting metrics will be reported to business unit senior management in the project review format quarterly and will be tracked biweekly by the PM's organization.

Communications

The SAIC Team will initiate a monthly conference call with the City-Port to discuss all activities that occurred during the previous month. This call will be attended by the SAIC Team PM as well as any Task or subcontractor leads providing support during the previous month. The purpose of these calls will be to provide an opportunity for a more detailed discussed on the weekly email progress report updates as well as other topics or concerns as required by the City-Port. The SAIC Team will provide meeting summary notes to the City-Port following the completion of each meeting.

Further, SAIC will initiate a weekly conferences with subcontractors to cover the SAIC and subcontractor technical and project management status. The meeting will be chaired by SAIC's PM or his designated representative and attended by representatives from all subcontractors working during activities for that week as well as SAIC's Subcontract Manager. Issues that require resolution will be followed up by e-mail and/or direct contact or discussion.

Additionally, regular Construction Lead meetings will be attended by BBI Construction, SAIC's Program Manager, and, when necessary, the SAIC Technical Lead Systems Engineer. The PART-B Construction Lead, Mr. McCoy will produce meeting notes and will provide the notes to SAIC; these notes also will be discussed at the monthly meetings with the City-Port. Changes to the project schedule will be captured by the Project Controller with input from the applicable subcontractors. The updated schedule will be posted to the SharePoint site and included in the monthly status report to the City-Port.

Deliverables and Milestones

The SAIC Team will produce the following deliverables during Task 1:

- Kick-off meeting and meeting summary notes,
- Final project schedule,
- Weekly progress reporting updates delivered by email,
- Monthly Meetings with the port and meeting summary notes, and
- Monthly progress reports.

5.7.2 PART B: Design-Build Existing Building Improvements (EBI)

In this section 5.7.3 the SAIC team presents our proposed delivery approach to meeting the requirements for the PART-B Design-Build Existing Building Improvements (EBI). As an overview, this sub-section provides detail information as to what we propose to deliver as well as detail on how we propose to get the work completed to satisfactorily meet and satisfy the requirements for the PART-B EBI work scope.

The detailed delivery descriptions and approach information contained herein this sub-section is organized to address the following areas as follows:

SECTION REF.	PART-B EBI	SAIC TEAMMEMBER(s)
5.7.3.1	Construction Services	BBI Construction (LBE)
5.7.3.2	Architecture Design Services	Michael Willis Associates
5.7.3.3	Electrical – Video Wall Display System	Beaman's Inc. (SLBE) SAIC team Audio Visual

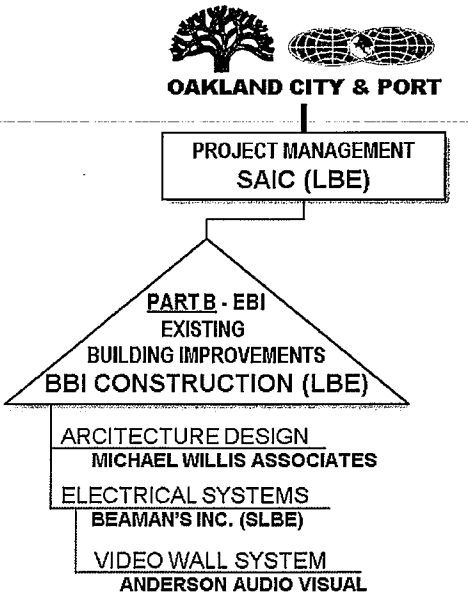


Figure 5-22. PART-B Roles and Responsibilities.

17-Week PART-B EBI Delivery Schedule

SAIC team has developed the 17 week delivery schedule for the PART-B Existing Building Improvements (EBI) that includes the completion of the construction tenant improvements and the design/build/implementation of the video display wall system. Figure 5-23 depicts the work scope areas covered by the 17 Week PART-B EBI Delivery Schedule.

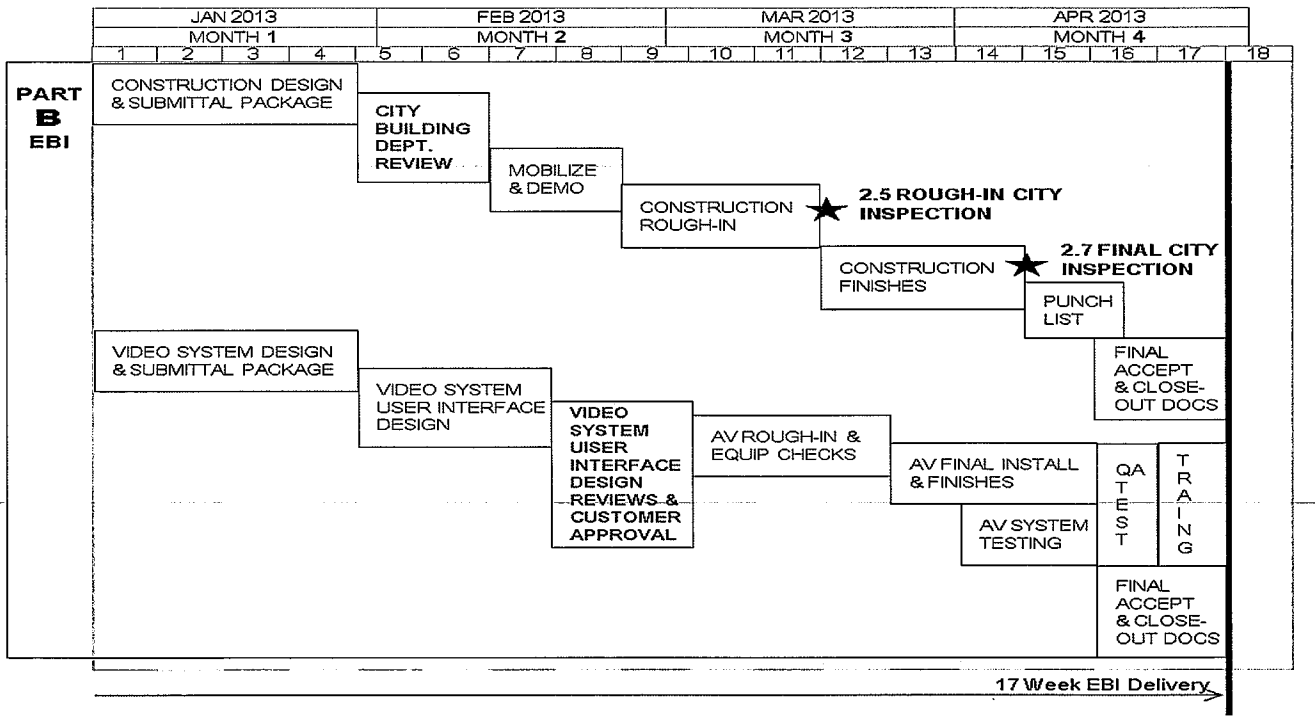


Figure 5-23. 17 Week PART-B EBI Delivery Schedule

5.7.2.1 EBI – Construction Services

As the prime contractor systems integrator for this project, a certified Oakland Local Business Enterprise (LBE), and through our wholly owned subsidiary SAIC/Benham Corporation, SAIC holds an active California General Building Contractor Class-B License (#872860). Our subcontractor who will lead the PART-B EBI work scope for this project BBI Construction holds both active Class-A and Class-B General Building Contractor Licenses (#767890) in California. BBI Construction is also an Oakland LBE and has an office located at 1155 Third Street, Suite 230 in Oakland, in close proximity to the Oakland EOC and the Port of Oakland office headquarters, as well as in close proximity to the SAIC Oakland offices at 100 Broadway Street in Downtown Oakland.

For the PART-B EBI works scope delivery efforts, as a member of the SAIC team, BBI Construction will focus their efforts on oversight and management to satisfactorily complete delivery requirements for the PART-B EBI work scope. The following provides additional detail as to the work efforts per the sub task activities currently planned and programmed in the project delivery schedule. The references made herein to the SAIC team reflect that SAIC as the prime contractor system integrator has primary and overall responsibility for delivery with the support of its team. Specific work steps to be performed under this construction work effort are outlined here as follows:

- Construction Design and Submittal Package
- City Building Department Review
- Construction Mobilization and Demolition
- Construction Rough-In
- Construction Rough-In City Building Department Inspection
- Construction Finishes
- Final Construction City Building Department Inspection
- Construction Punch List
- Final Customer Acceptance and Close-out Documents

Construction Design Preparation and Submittal Package

SAIC team will develop the construction design package and the submittal package and these packages will be submitted to the Oakland City Building Department for expedited review and approval. SAIC team will complete this subtask effort within a three (3) week time period. SAIC team assumes that the City will work collaboratively and efficiently with SAIC team to complete the construction design. SAIC team outcomes for this work effort are that the PART-B EBI Construction Design Package and a Submittal Package delivered for City Review-Approval.

City Building Department Review Support

Following submission of the construction design package and the submittal package to the City Building Department, SAIC team will be available to provide clarifications or changes as may be necessary to obtain approvals. SAIC team assumes the City Building Department will complete their review-approval within a two (2) week period. SAIC team assumes the City will expedite the review process as well as quickly engage the SAIC team for clarifications. SAIC team outcomes for this work effort are for the City to complete its expedited review and provide SAIC team with approvals to proceed with construction.

Construction Mobilization and Demolition

Once design plans/submittals have been approved by the City, SAIC team will mobilize the construction work force and perform demolition at the Emergency Operations Center (EOC). SAIC team proposes to complete this subtask within a two (2) week period. SAIC team assumes the City will make necessary

provisions to provide appropriate EOC access to construction workforce. SAIC team outcomes for this work effort are to complete mobilization and demolition and all construction refuse appropriately removed.

EBI Construction Rough-In

SAIC team will perform the rough-in construction in the Oakland EOC in adherence to the guidelines and occupancy restrictions and/or conditions set forth by the Oakland City/Port customer. SAIC team will complete this subtask within a three (3) week period. SAIC team assumes the City will make necessary provisions to provide appropriate EOC access to construction workforce. SAIC team outcomes for this work effort are to complete construction rough-in and make ready to schedule for City Building Department inspection.

City Building Department Inspection of EBI Post-Construction Rough-In

SAIC team will contact the City Building Department and schedule and coordinate the City's inspection of the completed construction rough-in. SAIC team will be readily available to support the City's rough-in inspection process and will record and remedy any construction deficiencies identified by the City. SAIC team will coordinate with the City to schedule the rough-in inspection on a specific one (1) day date. SAIC team assumes the City will quickly communicate to SAIC team any rough-in construction discrepancies and remedies. SAIC team outcomes for this work effort are to have City complete rough-in inspection and provide SAIC team approvals to proceed with construction finishes and/or a list of issues that need remedy before an inspection approval can be obtained to proceed with next step finishes.

EBI Construction Finishes

SAIC team will perform the construction finishes in the Oakland EOC in adherence to the guidelines and occupancy restrictions and/or conditions set forth by the Oakland City/Port customer. SAIC team will complete this subtask within a three (3) week period. SAIC team assumes the City will make necessary provisions to provide appropriate EOC access to construction workforce. SAIC team outcomes for this work effort are to complete construction finishes and make ready to schedule for City Building Department inspection.

City Building Department Final Inspection of EBI Post-Construction Finishes

SAIC team will contact the City Building Department and schedule and coordinate the City's inspection of the completed construction finishes. SAIC team will be readily available to support the City's finishes inspection process and will record and remedy any construction deficiencies identified by the City. SAIC team will coordinate with the City to schedule the finishes inspection on a specific one (1) day date. SAIC team assumes the City will quickly communicate to SAIC team any finish construction discrepancies and remedies. SAIC team outcomes for this work effort is to have the City complete final inspection of construction finishes and provide SAIC team with an EBI Construction Punch List or final approvals that EBI construction has been satisfactorily completed.

EBI Construction Punch List

If post City Final Inspection identifies discrepancies that require remedy, the SAIC team in collaboration with the City will develop an EBI Construction Punch List describing the items that must be corrected before the City will agree to issue a final approval that the EBI construction has been satisfactorily completed. SAIC team proposes that the remedy of issues on an anticipated Punch List to be completed around ten (10) days, pending the severity and complexity of the discrepancies. SAIC team assumes City will make necessary provisions to provide appropriate EOC access to construction workforce. SAIC team outcomes for this work effort is to have the City's complete Punch List items remedied and City re-inspects and provides final approvals verifying PART-B EBI construction work scope satisfactorily completed.

Final Review and Close-Out Documentation

SAIC team will coordinate a final customer walk-through review of all EBI construction and will prepare and submit documentation as part of this subtask close-out effort. SAIC team proposes to complete this subtask within a two (2) week period. SAIC team will determine acceptance criteria for documentation deliverables in consultation with City. SAIC team outcome for this work effort is to have PART-B EBI construction close-out documents delivered and City-customer acknowledges EBI construction complete.

5.7.2.2 EBI – Architecture Design Services

Under the direction management of SAIC and BBI Construction, architecture and design service will be provided by Michael Willis Associates (MWA) whose firm previously supported BBI Construction in the original architecture-design-build of the current existing Oakland EOC where the DAC is reside under this work scope. The PART-B EBI Architecture Design Services (ADS) are to be completed in conjunction with the other work efforts of the overall PART-B EBI work scope. The architecture design services are detailed herein and can be summarized as to be executed in the following steps:

- Architecture Design Basic Services
- Architecture Design Permit Application and Administration

Architecture Design Basic Services

Based on the bridging documents provided by The Port of Oakland, SAIC team will advance the documents for the design of the Domain Awareness Center from 90% to 100%. SAIC team shall also coordinate the mechanical, electrical and plumbing seismic upgrades. SAIC team will prepare 100% Contract Documents consisting of:

- Construction plan indicating the layout of partitions
- Reflected ceiling plans indicating standard and special ceiling treatment and lighting coordinated with those elements shown on the engineering documents such as sprinkler heads and HVAC diffusers, as applicable
- Finish plans with symbols and legends showing the materials, colors, and their locations
- Details for special conditions
- Specifications for construction items, as required
- Review construction documents
- Coordinate with the engineering consultants, the preparation of engineering contract documents mechanical, electrical, fire protection, and life-safety systems seismic upgrades

Architecture Design Permit Application and Administration

Upon City and Port of Oakland approval, SAIC team shall proceed to issue the contract documents to obtain competitive pricing for their respective work. SAIC team shall also provide the contract documents for submittal to the appropriate governing agencies for building permit review as follows.

Permit application services shall be provided in the following manner:

- Provide, to the selected Construction Manager, architectural documents with "wet signature" for submittal to the appropriate governing agency for building permit application and plan check.
- Clarify all architecturally related questions generated during plan check
- Review all permit comments with appropriate representatives

- Provide permit "back check" services and shall revise construction documents as required to incorporate all plan check comments within documents.

Upon approval of the construction costs, SAIC team will provide construction administration services to insure that construction proceeds in conformance with the Contract Documents.

- Review and approve shop drawings and the General Contractor's material and equipment submittals for conformance with the established design intent and contract documents.
- Prepare a punch list of deficiencies for items relating to the construction trades.
- Coordinate, as necessary, to correct all punch list items.

5.7.2.3 EBI – Electrical and Video Wall Display System

Under the direction management of SAIC and BBI Construction, Electrical and Video Display Wall System services will be provided by Beaman's Inc. an Oakland based firm certified as a Small Local Business Enterprise (SLBE) who has worked previously with BBI Construction on other projects, and with support from their specialty subcontractor SAIC team (SAIC team AV). The PART-B EBI Electrical and Video Display Wall System are to be completed in conjunction with the other work efforts of the overall PART-B EBI work scope.

The City of Oakland/Port of Oakland want to update the DAC video wall display system technology and capabilities by replacing the existing rear screen projection system with a four (4) wide by three (3) high array of LCD monitors to create a video wall. The video wall needs to support eight (8) image windows displays of computer and scaled video content within the video wall. These windows can be moved, resized and arrayed anywhere within the video wall. Additionally, they want to route information on selected windows to be sent to displays in the Office of Emergency Services (RM 203) and Planning/Intelligence (RM 205).

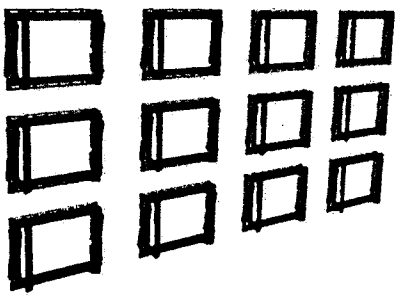


Figure 5-24. Video Wall Configuration.

Based on our careful review of the RFP specifications and drawings package, we are proposing a cost effective, best-in-class solution for the construction of an LCD monitor framework, integration of 4x3 LCD monitor array with a video wall processor and overflow display systems in rooms 203 and 205.

SAIC team proposes to provide a 'turnkey' Audio Visual system as described herein. This includes the design of the systems to ensure that the system meets the requirements of the DAC as set-forth in the RFP. We will also provide a full set of Audio Visual CAD Drawings for coordination with you, your Architect and the General Contractor. One of our experienced staff will manage the construction process from start to finish and will work with all other trades involved to ensure a smooth project delivery.

Installation will be done by local audio visual technicians who are specifically trained in audio visual design-build practices. Our electricians, field engineers, and control programmers will perform duties to ensure that system is tested and calibrated to our highest standards and quality deliverable outcomes. We will also provide user guides and training of the systems for both end users and City-Port technical staff.

The SAIC AV solution proposes designed professional grade equipment that is rated for 24/7 operation. In addition, the video matrix switcher and video wall processor are modular units that provide hot-swappable components (input/output cards, redundant power supplies, fans, etc.) to maintain mission critical operation. Below is a high-level summary description of the DAC Video Display Wall System (VDWS) step-by-step design-build and installation, test, training and delivery plan.

- **VDWS STEP 1:** Technical Design & Finalized Solution

- **VDWS STEP 2**: Infrastructure
- **VDWS STEP 3**: Video Wall Bracket & Rack Install
- **VDWS STEP 4**: Video Wall Install And Trim Out
- **VDWS STEP 5**: Video Processor Configuration
- **VDWS STEP 6**: System Testing & Training

Before we discuss deatails of the our actual proposed work efforts to deliver the VDWS, the SAIC team provides the following key features description of the componentry we propose for the VDWS, broken down by specific EOC facility space environments and the related componentry for each.

VDWS Key Features Description

SAIC team herein describes our proposed VDWS for the DAC in the EOC per our understanding of the RFP. In this section we describe the VDWS in relation to the specific EOC facility space environments and the related componentry for each, such as follows:

- EOC Situation Room
  - Display System, Video System, Matrix Switcher System, Video Wall Processor, Control System, and Support Equipment
- EOC Room 205 Planning & Intelligence
  - Display System, Video System, Audio System, and Control System
- EOC Room 203
  - Display System, Video System, Audio System, and Control System

EOC Situation Room

SAIC team proposed VDWS for the EOC Situation Room is described herein addressing the following componentry:

- Display System
- Video System
- Matrix Switcher System
- Video Wall Processor
- Control System
- Support Equipment

EOC Situation Room Display System

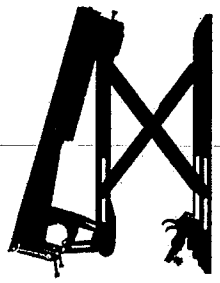
The EOC Situation Room Display System will consist of a wall mounted LCD monitor mounting system and an array of twelve (12) LCD monitors.

Premier LMV Wall Mount System

The LVM is a customizable video wall framing system for flat-panels weighing up to 160 lb. /72 kg with a mounting pattern of 200 x 200 to 600 x 400mm. It features multi-monitor stacking, spring-loaded release, open design, custom spacers, top adjustable mounting brackets and straight scissor-style extension.

The LCD wall mount system consists of twelve (12) independent monitor mounts equipped with a spring loaded locking system. Each independent mounting platform utilizes top-adjustment mounting brackets to

ensure alignment and levelness of displays. Each independent mounting platform is equipped with a scissor design provides easy access to individual monitors for service and allow the monitor to remain in position while being worked on.



Additionally, each monitor mount platform will include an in wall power and AV box to support recessed power and AV connections. Each in wall box is UL approved and includes knockouts for power and AV signals.

NEC X Series Professional Grade, Ultra Narrow Bezel LED Monitors:

SAIC team proposes to provide NEC X series professional grade, ultra narrow bezel LED monitors. The LED monitor supports the latest PC & MAC resolutions displaying a native 1920x1080 computer and NTSC video up to 1080P high definition resolution. The monitor measures 47.8" wide by 27" high, with a viewing area that is 47.6" wide by 26.8" high.

These monitors have ultra-narrow bezel widths of 5.5mm and are specifically designed for video wall applications.

These professional grade monitors utilize an LED direct backlighting source that allows even distribution of light across the panel, resulting in improved uniformity from bezel to bezel. The LED light source reduces energy consumption by 30-50% (depending on screen size) as compared to conventional LCD displays.

The LED monitors are Energy Star 5.1 compliant, meeting the strict guidelines set up the US Environmental Protection Agency and the US Department of Energy.

These professional grade LED monitors are specifically designed for mission critical environments providing 24/7 run times.

These units come with a 3 year parts and labor warranty. SAIC team is augmenting this warranty to include onsite overnight service by the manufacturer. In the event that a failure occurs, the manufacturer will overnight an advanced replacement unit and SAIC team will provide onsite support to replace the problem unit.

See examples of the NEC X series monitors in a video wall array on the following pages.

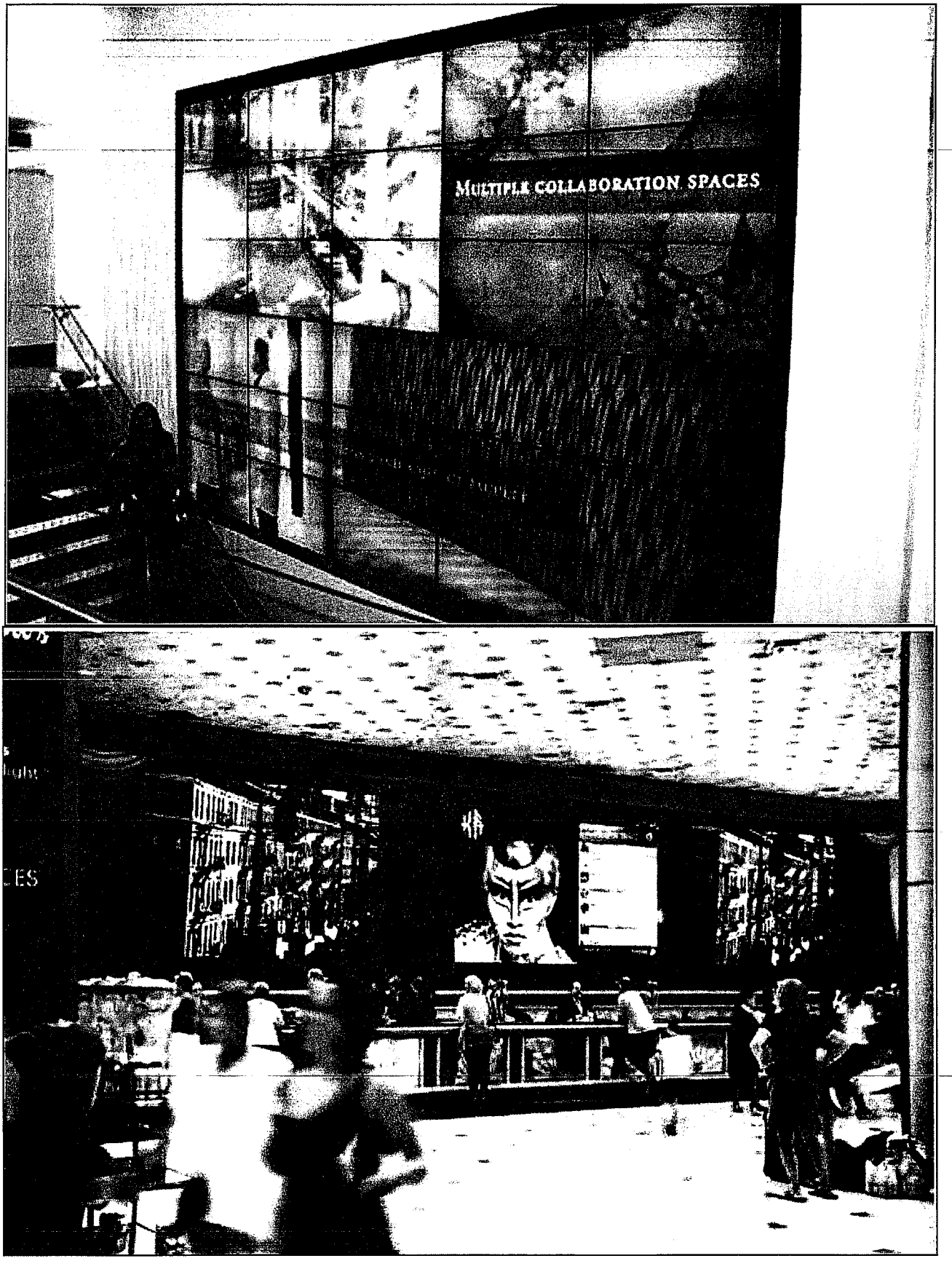


Figure 5-25. NEC X series monitors in a video wall array.

Video System:

The video system will consist of an array of input sources, a matrix switcher system, video wall processor and overflow viewing twisted pair system.

Input Sources:

- Operator PCs (Typical of 6)
- CATV Receivers (Typical of 10)
- Composite Video Feeds from Existing System (Typical of 9)
- Analog VGA Feeds from Existing System (Typical of 3)

Operator PCs:

The bid specs and drawings state that the system must support digital computer feeds from Operator computers. However neither the specifications nor the drawings call out the location or number of connections required. During our onsite visit, the City confirmed that the AV system must support six (6) operator PC connections located in the front row of the Situation Room. SAIC team will provide an input node at each of these six (6) operator computers. The input node supports the external monitor and program audio outputs from the PC, as well as provides a loop through connection for the PC's monitor. The input node is a twisted pair transmitter that provides EDID (Extended Display Identification Data) and HDCP (High-Bandwidth Digital Content Protection) communication from the PC to the display system. SAIC team will provide a 12' DVI-HDMI and 3.5mm audio cable to connect the operator PC to the twisted pair transmitter.

- Incorporating EDID support ensures that the source device and the display device negotiate the best possible signal resolution and aspect ratio for the display device.
- Blu-Ray DVD players, HD SAT TV Receivers, and certain content on laptops (such as professional 3rd Party Training Video's) require HDCP compliance to allow the source signal to be displayed on the display device. This handshake allows the source and destination to establish an encrypted video transmission between them. Without that authentication, the source device will not output High Definition video.

The input node provides amplification to maintain the signal level along the cable path from the 1st row computer locations to the equipment rack within Room 204. Utilizing twisted pair cabling minimizes the termination time/cost, minimizes the conduit/pathway size requirements and supports multiple signal types/resolutions for future proof operations. The input nodes transmit digital computer and audio signals over a single CAT6 cable.

Our install team will pull CAT6 cable from the operator computer locations through existing cable pathways to the Projection Room (Room 204). We will utilize the existing VGA cables as pull strings to pull the CAT6 cables through the existing cable pathway.

- CATV Receivers: The bid specifications call for the AV system to support ten (10) component video feeds from owner furnished CATV receivers. SAIC team will provide component video/VGA connections on our matrix switcher to support the CATV receiver feeds. SAIC team will rack mount ten (10) owner furnished CATV receivers into the AV equipment rack located in room 204. The CATV receiver's component video and program audio outputs are connected to the matrix switcher, also mounted in the AV equipment rack. Our install team will mount the CATV receivers onto rack shelves inside the AV equipment rack. They will neatly dress the 12' component –VGA and RCA audio connection cables to connect each CATV receiver to the VGA/component video card on the XTP matrix switcher.

- Composite Video Feeds: The bid specifications call for the AV system to support composite video signals. However, neither the bid specification nor the drawings identify what devices will be providing these connections or the number of connections required. As a result, SAIC team will support nine (9) composite video inputs to provide input connectivity for the nine (9) existing composite video inputs in the system which currently are connected to the Sony televisions and rear projection systems. We will provide analog video input cards on the Extron XTP matrix switcher mounted in the AV equipment rack located in room 204.
- VGA/RGBHV Video Feeds: The bid specifications call for the AV system to support VGA video signals. However, neither the bid specification nor the drawings identify what devices will be providing these connections or the number of connections required. As a result, SAIC team will support three (3) VGA/RGBHV video inputs to provide input connectivity for the three (3) existing VGA inputs in the system which currently are connected to the rear projection systems. We will provide an analog video input card on the Extron XTP matrix switcher mounted in the AV equipment rack located in room 204.

Matrix Switcher System:

SAIC team proposes to provide an Extron XTP matrix switcher to route the source feeds to the video wall processor and the overflow room monitors.

The XTP matrix switcher is a modular system consisting of input nodes, a configurable card based matrix switcher, and output nodes. We will utilize the XTP transmitters to support the Operator PC signal feeds. The incoming CAT6 cables are connected to CAT6 input cards in the matrix switchers. We will also utilize VGA and Composite video cards to support connections for the CATV receivers and composite video feeds. We will utilize twisted pair output cards to support overflow signal feeds to rooms 203 & 205. Finally, the output nodes will receive the source feeds from the XTP matrix switcher and provide HDMI output to the overflow monitors in rooms 203 & 205.

The XTP system can be configured to suit the current audio visual needs, while providing the flexibility to support additions and future signal requirements. The XTP matrix switcher manages the EDID and HDCP compliance of source signals, while passing digital signal signals and scaling analog signals. The built in EDID minder automatically manages EDID communications between the source and display devices. Key minder authenticates and maintains continuous HDCP encryption between the input and output devices to ensure quick and reliable switching.

The XTP matrix switcher utilizes SD Pro Processing to de-interlace analog video signals (480i/576i) for compatibility with HDMI equipped displays. This approach optimizes the presentation content to match the native resolution and aspect ratio of the display device.

We will equip the XTP matrix switcher with the following card configuration:

- Input Card s 1 & 2: Twisted Pair Receiver Cards to support the six (6) XTP transmitter feeds from the Operator PCs.
- Input Cards 3, 4 & 5: VGA/Component Video Cards to support the ten (10) CATV source feeds and (4) Analog Computer Feeds.
- Input Card 6 & 7: Composite Video Cards to support the (10) Composite source feeds
- Output Card 1 & 2: HDMI Output Cards to feed the eight (8) windows on the Video Wall Processor.
- Output Cards 3 & 4: Twisted Pair Transmitter Cards to drive the selected source to the Overflow Room Monitors

The XTP matrix switcher is a modular card based switcher/signal processor designed for **mission critical 24/7 operation**. The system utilizes **hot-swappable input/output cards** so that the matrix switcher can be serviced or reconfigured without powering down the unit. The system comes equipped with a **redundant power supply** to ensure continuous, uninterrupted power.

Video Wall Processor:

The Extron Quantum video wall processor creates a display palate that stretches across all twelve (12) LED monitors. It disseminates image mapping information to each monitor so that a single window of computer or video content can be stretched across all of the projection cubes simultaneously. The processor also supports eight (8) window displays of computer and scaled video displays within the display palate. The windows can be moved, resized and arrayed anywhere within the video display palate.

Video Wall Processor's Key Components:

The video wall processor consists of a dedicated video/graphics bus, a flash storage unit, a modular card frame chassis and control software

Video Graphics Card: A dedicated, high-speed video/graphic bus maintains real-time performance even under heavy loading of inputs. The Quantum Elite maintains optimal full frame rate performance with a high speed 10 Gbps RAPT - Real-Time Asymmetric Packetized Transfer video/graphic bus allows for simultaneous processing of numerous, high resolution input signals while maintaining real-time operational performance as well as optimal image quality at full frame rates.

Flash Storage Unit: The Quantum Elite features CompactFlash-based data storage for the operating system and image files. This avoids the need for a hard disk drive and delivers continuous system operation and enhanced reliability. Write-protected flash storage eliminates the risk of virus retention, and allows for easy removal of data in secure environments.

CompactFlash storage for the operating system is write-protected to prevent virus retention. It also offers enhanced reliability and quick system recovery in the unlikely event of an operating system failure. Second CompactFlash slot for storing image files

Modular Card Frame Chassis: The Quantum Elite is a six (6) rack unit chassis and utilizes two (2) 500 watt hot-swappable power supplies. The chassis can support up to 15 hot-swappable cards to support input/output assignments. The system is configured to support four (4) hot swappable dual channel HDMI input cards with connections for eight (8) HDMI inputs from the XTP matrix switcher. The system is configured to support six (6) **hot swappable** dual channel HDMI graphics/video output cards. Each card has two (2) HDMI outputs to support resolutions up-to 1920x1200. The output card provides display content to the twelve (12) LED monitors. The system will have five (5) open card slots to support future input or output assignments.

Control Software: The Quantum Elite Control Software is the user interface for setting up, configuring and managing the video wall processor. Utilizing the software, users will be able to set up and recall video wall layouts, create/size and position image windows, assign source inputs to each image window, name each source/window/layout and make adjustments for mullion compensations.

- Input assignment and video wall layout can be recalled from the Quantum Elite Control Software or from a Crestron touch screen control panel.

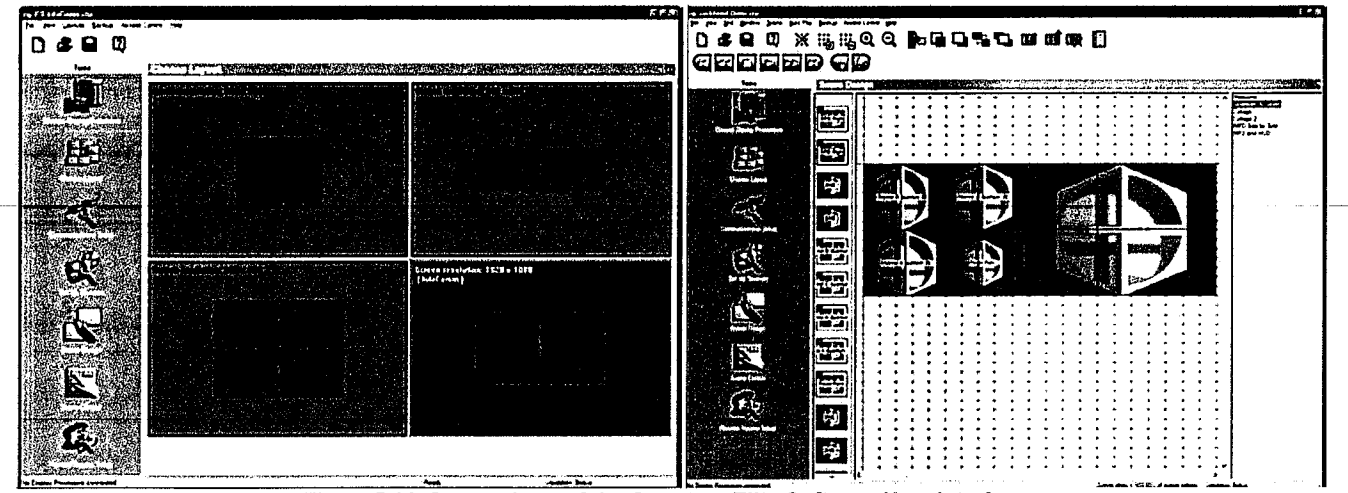


Figure 5-26. Screenshots of the Quantum Elite Software User Interface.

The video wall processor is designed to provide 24/7/365 operation in mission critical environments. The Quantum Elite video wall processor features many hot-swappable and redundant components including: hot-swappable redundant power supplies on the card slot chassis, hot- swappable input, output cards and hot-swappable fans.

The SAIC Team will bring in Extron to commission the system to streamline the last phase of our project the configuration/testing phase. Having the manufacturer assist in the setup and configuration of the video wall will speed up the commissioning/testing period, ensures that the video wall and AV system supporting the wall are tuned to the manufacture's specifications and provides greater reliability and support from the manufacturer.

Audio System:

The audio feeds associated with the eight (8) display windows on the new video wall system will be connected to the existing audio system so that users may continue to listen to audio on the existing console headphone systems and over the existing speaker system.

The current speaker system in the DAC will be connected to a new DSP processor that mix the audio signal from the old system with the new system and provide level controls via the new Crestron control system.

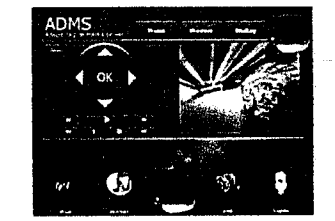


Figure 5-27. Control Panel.

Control System:

The control system consists of two (2) 15" touch screen control panels and a central control processor.

Rack Mounted Touch Panel: One touch screen control panel is rack mounted inside the AV equipment rack in Room 204 (Projection Room). Utilizing this control panel users will be able to recall video wall layouts, control image window source selection, select sources to be transmitted to overflow monitors, select which overflow monitor receives content, raise/lower/mute the selected source's program audio signal, control individual monitor on/off functions and shut down/power up the LED monitor video wall.

Supervisor Touch Panel: One touch screen control panel is located at the Supervisor's position within Room 203 (the Situation Room). The touch panel will have all the control capabilities described in the Rack Mounted Touch Panel description listed above.

For the touch panel we will work with you to add your company's logo's and color scheme. Our typical touch panel layout includes, but is not limited to:

- (Logo Page)

- System - On / Off & Individual Monitor On / Off
- Video Wall - Layout Recall & Display Window Source Selection
- Program Audio Volume - Raise / Lower / Mute
- Speech Volume - Raise / Lower / Mute
- Source Select – Operator PC / CATV Receiver / Composite Video Feed / Analog VGA Feed

The control system will also include **E-Control**, the ability to use a web browser to access and control the control system from any Operator PC with Situation Room. Users who want to access the E-Control control system need to have the IP address and the password to enable control via their device's web browser.

Once authorized, user can access a WEB GUI control panel that mimics the touch screen control panel's controls

Control Processor: The control processor is the brains behind the system and takes the selections from the touch screen control panels and issues the required commands to the audiovisual components. The control processor communicates to the LED monitors, the matrix switcher and display wall controller via bi-directional RS232 ports. It will also control the CATV receivers IR connections. The control processor will be housed in the AV equipment rack.

Existing AMX Control System: The existing DAC and surrounding rooms are currently controlled by an AMX control system. Control functionality includes video/audio source selection, source device control, audio routing and volume control, and other functionality. The current specifications do not outline how this existing AMX control system and its connected hardware shall be incorporated into the new system. Since the existing system currently controls other rooms/areas outside of the DAC, we assume that the system should remain "as-is" and the new Crestron control system will function in "parallel" with the existing system. It is possible to merge the (2) systems together so that they are controlled by a single control system, however this is not currently included in our scope.

Figure 5-28. MRK racks.

Support Equipment:
SAIC team will provide a multi-cabinet equipment rack with a power distribution/conditioning system.

Equipment Rack:

SAIC team will provide and install three (3) Middle Atlantic MRK series equipment racks into the Projection Room (Room 204). The equipment racks have a black metal finish and are 83 1/8" high by 22" wide by 32" deep. The racks will be ganged together to provide a three bay cabinet. We will install two side panels and perforated (vented) front and rear locking doors.

The racks will also be equipped with twenty (10) rack shelves to support the ten (owner furnished CATV receivers). The equipment rack will house the video wall controller, matrix switcher, new digital audio mixer and control processor. All unused rack spaces will be covered with blank panels.

Our install team will pull HDMI and RS232 connection cables to provide signal connection between the video wall processor and the video wall, as well as control over each LED monitor within the video wall. Our team will pull these cables through the existing cable ladder leading from the equipment racks to stub up cable paths running down the wall to each monitor's connection box.

EOC Room 205 – Planning and Intelligence

SAIC team proposed VDWS for the EOC Room 205 Planning and Intelligence is described herein addressing the following

- Display System
- Video System
- Audio System
- Control System

Display System:

The display system will consist of three (3) new wall mounted LED monitors. Per the bid specifications we are providing two (2) 40" LED monitors and a 60" LED touch screen monitor.

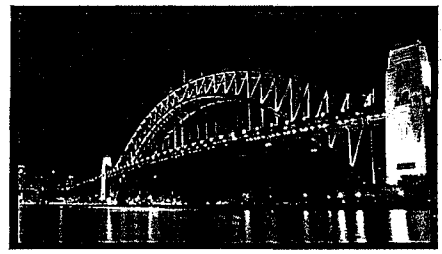


Figure 5-29. Sample Monitor.

The two (2) 40" LED monitors support the latest PC & MAC resolutions displaying a native 1920x1080 computer and NTSC video up to 1080P high definition resolution. Each monitor measures 36.4" wide x 21.1" high, with a viewing area that is 34.9" wide x 19.6" high.

The 60" LED touch screen monitor supports the latest PC & MAC resolutions displaying a native 1920x1080 computer and NTSC video up to 1080P high definition resolution. The monitor measures 56" wide x 33" high, with a viewing area that is 53.5" wide x 30.5" high.

Both the 40" and 60" LED monitors provide the following features:

- These professional grade monitors utilize an LED direct backlighting source that allows even distribution of light across the panel, resulting in improved uniformity from bezel to bezel. The LED light source reduces energy consumption by 30-50% (depending on screen size) as compared to conventional LCD displays.
- The LED monitors are Energy Star 5.1 compliant, meeting the strict guidelines set up the US Environmental Protection Agency and the US Department of Energy.
- These professional grade LED monitors are specifically designed for mission critical environments providing 24/7 run times.
- These units come with a 3 year parts and labor warranty. SAIC team is augmenting this warranty to include onsite overnight service by the manufacturer. In the event that a failure occurs, the manufacturer will overnight an advanced replacement unit and SAIC team will provide onsite support to replace the problem unit.

The 60" Touch Screen LED Monitor:

The 60" LED monitor is monitors designed to operate in 24x7 environments, supports touch screen annotation and mouse control and comes with a three (3) year parts/labor warranty.

The touch screen monitor allows users to control the mouse function on the in-room dedicated PC by simply touching the screen surface. The user can use their finger or included pen to annotate over the PC content and to control mouse functions.

Users will also be able to annotate over overflow video wall content transmitted to the 60" LED monitor.

Neither the specifications nor the drawings describe Room 205's dedicated PC location. As a result, SAIC team will provide a USB extender that will extend the range of the USB mouse control to allow the 60" monitor to control the PC's keyboard and mouse functions from the touch screen surface.

Users can select the display source (Dedicated PC, Videoconferencing feed, or the overflow video wall feed) from the control panel and the selected source image is routed to the display.

- When videoconferencing or overflow video wall feeds are selected, users can annotate over the displayed content.
- When selecting the dedicated PC, the source signal is routed along with the USB communication. At that point the user can annotate and control the mouse functions on the selected source computer.

Video System:

The video system will consist of an array of input sources and an overflow viewing twisted pair system: a) Dedicated Room PC, b) New Videoconferencing Codec, c) Overflow Video Wall Feeds.

Dedicated PC:

Neither the specifications nor the drawings describe Room 205's dedicated PC location. As a result, SAIC team will provide a USB extender and an HDMI extender. The USB extender will extend the range of the USB mouse control to allow the 60" monitor to control the PC's keyboard and mouse functions from the touch screen surface. SAIC team will provide the same HDMI extender utilized in the Situation room system to support the dedicated room PC's external monitor and program audio signal. The transmitter will connect to the Situation room's XTP matrix switcher and we will install an output node at the 60" monitor location.

New Videoconference Codec:

The Polycom HDX-7000 series videoconferencing system will encode and decode the visual images (camera views and computer content) and audio signals (participant speech and program audio) transmitted to and received from the far end site. The codec can participate in high definition and standard definition videoconference calls.

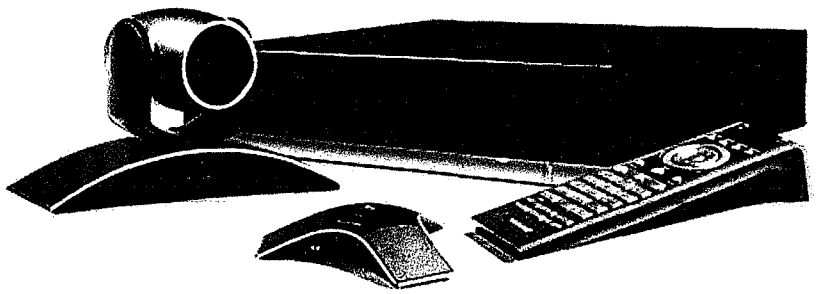


Figure 5- 30. Video-conferencing Equipment.

The codec will be set up in dual monitor mode, so far end will be displayed on the left 40" monitor and the near end camera image and content images will be displayed on the right 40" LED screen.

Neither the specifications nor the drawings call out the codec's required functionality or connections. As a result, we are providing a point-to-point conferencing system. At any time the codec can be upgraded to support multi-point conferencing.

Videoconference Camera:

Our team will install the videoconferencing camera located on a recessed shelf in the front wall of the room. The shelf is located approximately 48" above the floor to provide peer to peer camera views of the in room participants. The shelf is located on the center line of the conference table in between the 60" and the right hand 40" monitor. The camera will provide coverage of the participants located at the conference table. The camera has pan/tilt/zoom controls with preset camera views.

- *IP lines to be located in the equipment rack and QOS and bandwidth provisions to be provided by IT.*
- *We will need to coordinate with DAC's IT Department on the codec's IP connectivity.*

Overflow Videowall Feed:

Each of Room 205's wall mounted monitors is connected to an output node from the XTP matrix switcher located in the Projection Room's AV equipment rack. At any time, operators in the Situation Room can route up to three (3) video wall image window feeds (one feed to each monitor) to the LCD monitors in room 205.

Audio System:

The audio system will consist of two (2) videoconferencing microphones, a table top audio conferencing system and the monitor speaker array.

Videoconferencing Microphones: The codec is connected to two (2) table top microphones that will support seated participant interaction during a videoconference.

Audio conferencing System: Neither the specifications nor the drawings call out the connection top (IP or POTS) connectivity for the audio conference system. As a result, SAIC team will provide and install a wired VOIP tabletop conference phone. The conference phone consists of a conference phone unit that supports both microphone and speaker coverage to support all the seated participants in an audio conference call. The phone unit measures 10.5" wide x 10.5" deep x 3"high.

The VoIP conference phone also offers a suite of SIP features, including:

- 3-way calling - allows for ad-hoc conferences without need for a conference bridge
- VLAN tagging - allows users to manage bandwidth usage on the network
- TLS & SRTP encryption-ready (with future release of first SAIC team re upgrade) - secures voice communications over the network
- Field upgradeability - allows users to easily download firSAIC team re upgrades from ClearOne website and load directly into the conference phone

Note: The table top conferencing system is independent of the videoconferencing and AV system's program audio playback system.

The DAC's IT department will configure the VOIP phone to work with their VOIP infrastructure. The VOIP phone is compatible with the following enterprises with SIP-based VoIP systems listed on the right.

Program Audio Playback: The program audio playback system consists of the monitor array's speakers. The system will be designed so that:

During in Dedicated PC or videoconferencing mode, the center monitor's speaker will be active and will playback the program audio signal. Selecting the dedicated PC will default to the center 60" monitor for program playback. In videoconferencing mode, the 40" monitor will support far end program audio and participant interaction. In room microphone signals are transmitted to the far end and are NOT played back in room.

In video wall overflow viewing mode, users can send the overflow signal to any of the monitors. The selected monitor's speakers will playback the overflow window's program audio signal. In the case of multiple window feeds, the last selected window feed's monitor will become the active audio signal and is played back through that monitor's speakers.

Control System:

The control system consists of a 6" wall mounted touch screen control panel and the Situation Room's central control processor.

Wall Mounted Touch Panel: The wall mounted touch screen control panel will allow users to select what source is to be displayed on which monitor. The panel also will control the audio and videoconferencing functions and program audio raise/lower/mute functions. The touch panel comes in a black or white finish. The white finish is shown on the right.

The touch panels will have basic operation modes: Presentation, Videoconference and Overflow.

In Presentation Mode: The system will default to route the dedicated room PC's signal to the 60" center monitor. This will allow the user to control the computer's mouse/keyboard functions from the touch screen monitor's surface. The 60" monitor's speakers will playback the dedicated PC's program audio signals.

In Videoconferencing Mode: The system will default to route the far end and content signals to the 40" left monitor and near end signal is routed to the 40" right monitor. Selecting this mode brings up the videoconferencing control page. From this page users can access the codec's dialing/menu/camera control selections.

In Overflow Viewing Mode: Users can select which monitor will receive the overflow window feed. In the case of multiple windows selected (the users can select up to three overflow window feeds), the last selected feed's program audio signal is active and is played back through the selected monitor's speakers.

The touch panel also has an **advanced user page** that will allow the user to route any signal to any of the monitors. In this mode, the user can also select which of the three monitor's speakers are active.

EOC Room 203

SAIC team proposed VDWS for the EOC Room 203 is described herein addressing the following

- Display System
- Video System
- Audio System
- Control System

Display System:

The display system will consist of two (2) Existing owner furnished wall mounted monitors.

Video System:

SAIC team will integrate two (2) output nodes from the XTP matrix switcher that will allow the existing monitors to display overflow video wall window feeds. Our team will install two (2) twisted pair receivers, one behind each monitors connected to an HDMI input on the existing monitors.

Audio System:

The existing monitor's speakers will playback the selected source's program audio signal.

Control System:

The existing monitor's remote controls will control input selection, volume up/down/mute and power on/off functions.

5.7.2.4 Detailed Technical Work Scope Approach for Delivery of VDWS

Below is a high-level summary description of the DAC Video Display Wall System (VDWS) step-by-step design-build and installation, test, training and delivery plan.

- **VDWS STEP 1**: Technical Design & Finalized Solution
- **VDWS STEP 2**: Infrastructure
- **VDWS STEP 3**: Video Wall Bracket & Rack Install
- **VDWS STEP 4**: Video Wall Install And Trim Out
- **VDWS STEP 5**: Video Processor Configuration
- **VDWS STEP 6**: System Testing & Training

VDWS STEP 1: Technical Description –Finalized Solution

After receipt of City's Notice to Proceed, SAIC team will initiate a coordination meeting with the DAC project team. This meeting will provide the opportunity for the Consultant and the City to review our planned approach, expected event time line and to explore our value added options. After this meeting, we will begin work on the video systems design and submittal package consisting of drawings and equipment lists to incorporate any requested changes.

Upon receipt of the City's purchase order, SAIC team will begin work on the video system design and submittal package. Our team will create AutoCAD drawings for the video wall's structural platform and audio/video/control signal flow diagrams. Our team will create a complete bill of materials, and equipment cut sheets.

At our follow up meeting, we will deliver the AV system design and submittal package. After the DAC project team reviews our design and submittal package, our engineering staff will prepare the project's programming specifications. Next, our team will issue purchase orders to our equipment vendors & Sub Contractor. We will also procure construction and disposal permits.

We will prepare construction drawings and cable pull lists. He will also confirm the City's planned Network infrastructure to support the video wall and PC sources.

We will submit sample touch panel layouts for Rack, Shift Supervisor and Room 203's wall mounted touch panel.

SAIC team will submit the names of all on site personnel to initiate the security coordination required for site access.

VDWS STEP 2: Technical Description: Infrastructure

VDWS STEP 2 will begin, after the initial kick-off project meeting. After the meeting, our programmer will begin design of the touch panel and web page GUI layouts and our install team will begin the fabrication process.

Based on feedback from our January 28th meeting, our Programmer will begin creating the touch panel layout and WEB GUI layouts. Our programmer will create code for the critical interaction between the Crestron control system and the Extron Quantum Elite video wall processor. He will also be creating code to control the matrix switcher routing schemes and drivers to control the CATV receiver channel selection and guide functions.

We will submit touch panel layouts for Rack, Shift Supervisor and Room 203's wall mounted touch panel. He will also provide GUI layouts for City approval on February 18th 2013. After the City's approval, the programming will be completed March 4th.

Materials will arrive shortly after the meeting. Our install team will begin fabrication of the equipment racks. This will include installing the audiovisual components needed to support the video wall (video wall processor and the matrix switcher).

SAIC team will coordinate with the City on the appropriate dates and site access procedures. He will also coordinate with the City Facilities department and run through the pre demolition plan and execution conforms to the City's guidelines.

VDWS STEP 3: Technical Description: Video Wall Bracket & Rack Install

VDWS STEP 3 will begin shortly after the new wall is complete and will consist of pulling cable from the equipment rack location to the new connection points in the room, video wall mounting bracket installation, and equipment rack installation. Our SAIC team will schedule the delivery of the cable, video wall brackets, and equipment racks.

Cable Pull:

We will utilize the existing and new cable paths to pull the required cabling for the system. Excess cable will be neatly coiled at the equipment rack location and neatly coiled at each pull destination location. Once the video wall and equipment rack installations are complete, our install team will terminate and dress the excess cable. The dressed cabling will be neatly tied into the equipment rack and at the mounting bracket locations for device connection.

Video Wall Bracket Installation:

Our SAIC team will mount the twelve (12) video wall monitor brackets on the new front wall of the room. Manufacturer specific spacers will be used to ensure that the brackets are installed in the correct locations. Two (2) of the LCD video wall monitors will be temporarily delivered to site and test mounted in place to ensure that he bracket spacing is correct. These monitors will then be returned to our shop for safe storage until Phase IV of the project.

Equipment Rack Installation:

During our pre installation meeting, we confirmed the type of equipment, planned equipment positioning and spacing within the equipment rack. In VDWS STEP 3, the SAIC team will coordinate with the DAC team on the delivery of the owner furnished source PCs and owner furnished Cable TV receivers. The equipment rack is delivered to the jobsite at the same time the video wall bracket installation occurs. The equipment rack will be seismically braced to the floor. Our install team will mount the owner furnished Cable TV into the equipment rack. Once this is complete, our team will mount the side panels and locking front and rear vented doors.

SAIC Team processes will ensure that the cable pull, video wall bracket installation, and equipment rack Installations are conducted in close coordination. Constructing the equipment racks off site, and managing the drop ship delivery of materials will ensure a just in-time delivery and assembly of the video wall and equipment racks. This approach will maximize our time on site, while minimizing the overall labor costs for DAC team.

VDWS STEP 4: Technical Description: Video Wall Install and Trim Out

VDWS STEP 4 will begin once the construction site is dust free and will consist of installing the 12 monitor video wall array, installing the monitors in the adjacent conference rooms, and trimming out all connections in the DAC and surrounding conference rooms. The SAIC Team will schedule the delivery of the monitors and miscellaneous accessories.

Video Wall Installation:

Prior to installation, our install team will turn on and test each monitor to ensure that these products arrived at the jobsite ready to be deployed. Our install team will install each of the twelve (12) monitors while

verifying proper placement and alignment. Input cabling and CAT5 receiver devices will be installed at each monitor location with cabling dressed neatly into the pull-out armatures.

Trim-Out Installation:

During our final trim-out, cabling will be terminated at all source and destination locations. CAT5 transmitter devices will be mounted and installed in the front console areas to provide input connections for the computers. CAT5 receivers will be installed in the adjacent conference rooms to provide signal feeds from the DAC system. Inter rack wiring between the new and old systems will be terminated and connected to the appropriate components to allow signals from the existing system to be sent to the new system.

VDWS STEP 5: Technical Description: Video Processor Configuration

VDWS STEP 5 will begin once the video wall's physical installation is complete. STEP 5 will consist of configuring the Extron Quantum Video Wall Processor.

During our initial coordination meeting, we confirmed desired video wall image window layout configurations. In our subsequent pre installation meeting, we will again confirm that the planned layouts meet the DAC project team's approval.

During VDWS STEP 5, SAIC team will configure the Extron Quantum to properly map the video wall and will begin setting up the layout configurations. The programmer will set up the display desktop so that is displayed perfectly across the video wall. He will then build and name the video wall layouts per the input received from DAC project team during the coordination meetings. If required, he label and set up boarders for display windows.

Once the configuration is complete, SAIC team will confirm video wall processor's display operation with an on-site visit from an applications engineer from Extron Electronics who will ensure that all systems are 100% calibrated and tested.

VDWS STEP 6: Technical Description: System Testing & Training

SAIC team will conduct will a full system test to ensure proper system performance. This final system test will follow up on the system testing and system commissioning previously completed in VDWS STEP 5.

In the Situation Room: We propose to conduct test and mock operations utilizing the Quantum Elite Control Software and the Crestron touch panel and WEB GUI. The Engineer conduct thorough testing of the control systems' coordination with the video wall processor to recall video wall layouts, control image window source selection, select sources to be transmitted to overflow monitors. The Engineer will also test out the control system's control over the CATV channel/guide operations and matrix switcher's routing functions, as well as control over the video wall's LED monitors.

In Room 205 (the Planning & Intelligence Room): We propose to test out the videoconferencing system and control system's control/operation of the videoconferencing functions. The Engineer will also thoroughly test out the control system's management over the matrix switcher's signal routing. Our Project Engineer will produce as part of our close out documentation certifying that the installation is in full compliance with the manufacturer's best practices and compliant with the contract documents.

Training: We propose to submit our training plan during our pre construction meeting. This will allow the DAC project team ample opportunity to review our training approach. Once we have approval from the DAC project team that we have successfully demonstrated system operation and compliance with the RFP specified system operation/performance, we will submit our training schedule. We will coordinate with the DAC project regarding training dates, number of the DAC personnel, participants included in the basic and advanced training courses.

5.7.3 PART A: Technology Linkage System (TLS)

In this section 5.7.4 the SAIC team presents our proposed delivery approach to meeting the requirements for the PART-A Design-Build Technology Linkage System (TLS). As an overview, this sub-section provides detail information as to what we propose to deliver as well as detail on how we propose to get the work completed to satisfactorily meet and satisfy the requirements for the PART-A TLS work scope.

The detailed delivery descriptions and approach information contained herein this sub-section is organized to address the following areas as follows:

- **TASK 1 DAC-TLS Planning and Scoping**
  - TLS Needs Assessment and Survey
  - TLS Proof-of-Concept Design
  - TLS Design Customer Acceptance
- **TASK 2 DAC-TLS Implementation**
  - Design-Build-Implement TLS
  - System Integration
  - Quality Assurance Testing
  - Training
- **TASK 3 DAC-TLS 2 Year Base Maintenance Service**
- **Option for Extended 3 Years Additional Maintenance Service**

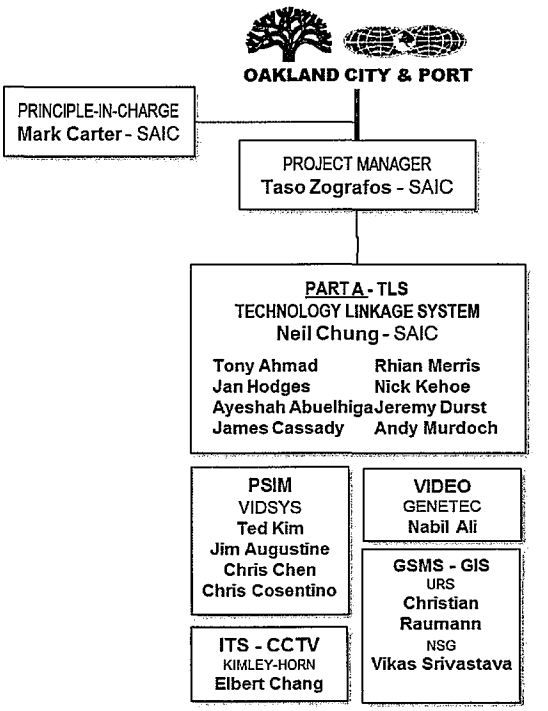


Figure 5-31. PART-A Team.

5.6.3.1 TASK 1 – DAC-TLS Planning and Scoping

Task 1.1 – Perform a DAC-TLS Needs Assessment and Survey

Before the design work begins, the SAIC Team will work with the Oakland Customer to reassess the CONOPS and Technology Linkage documents to determine which elements are still relevant to the DAC-TLS project. The SAIC Team will review the existing technologies and interfaces to make sure they match the proposed expectations. The updated information will be captured in a project concept document that will continuously evolve as the assessment and survey progresses. At the end of the assessment and survey period, we will hold a workshop to present the findings to the project team. The result of this effort will produce a new common understanding of the ConOps and the technology linkage functionality that will be available at the DAC.

Task 1.2 – Proof-of-Concept Design

Before beginning construction, the SAIC Team will perform a DAC-TLS Proof-of-Concept Design. This proof-of-concept design will include the identification of project delivery system solutions as outlined in the DAC-TL document, identification of remote field device and hardware interface methodologies for the integration of systems, and provide a video wall, display, and controls switching operational narrative, as well as a methodology for communication of information to agencies and how these technologies will interface with the PSIM.

The proof-of-concept design will equate to the 90% system design. System design components include:

- Network architecture design;

- Video storage solution design;
- Function definition documents for the technology linkage components that will integrate the VidSys PSIM with the other security subsystems;
- Design of the CONOPS integration into the VidSys PSIM. Design includes operator workflow in the VidSys PSIM; and
- Sensor placement design on floor plans and maps.

The proof-of-concept design also includes an initial technology linkage demonstration to show the capabilities of the VidSys PSIM system. In parallel to the paper design work, VidSys will be developing the technology linkages to many of the security subsystems. Where the technology linkage design already exists (e.g., Genetec Security Center and ESRI GIS), VidSys will create the linkage with the security subsystem, add the new sensors, and configure them within the PSIM application. This will provide the City-Port with an immediate proof-of-concept of the PSIM application and provide the first opportunity for Oakland to touch and feel a real system.

Identification of DAC-TLS Project Delivery Systems

As part of planning and scoping activities, SAIC team will collaborate with the City and Port and other DAC stakeholders to ensure that our proposed system integration plans for project delivery systems will meet the needs of the DAC. We will work to identify potential networking or infrastructure bottlenecks and/or technical design or integration obstacles and develop strategies to mitigate or overcome for successful delivery. Furthermore, we will evaluate potential DAC-TLS and platform integration end points and establish standard data exchange and interface protocols and schema to ensure proper seamless technical interface. As a final step in identifying the project delivery systems solution, we will evaluation potential data sources, including contractors and vendors whom with their cooperation may be required to effectively and efficiently complete the system component integration effort.

Remote Field Device/Hardware Interface and Integration Methodology

For remote field device and hardware interfaces integration efforts, we will leverage our proven methodologies based on lessons learned from numerous similar projects to ensure the most optimized use of technical resources and capabilities delivery the desired outcomes. To provide the remote field device and hardware interface methodology for the integration of systems, we will define the minimum technical requirements for end-user hardware, define the data maintenance and data migration requirements, and define systems integration priorities and requirements. We propose to also bench test the interfaces in a lab environment using simulated data so as to prove-out intended interfaces actually work as envisioned. In the lab environment using simulated data, troubleshooting efforts can be cost effectively applied supporting an optimized use of resources to achieve accelerated delivery and subtask completion.

EOC Video Wall, Display, and Controls Switching Operational Narrative

SAIC Team member Anderson Audio Visual will provide instruction to the SAIC Task 1 Team regarding the functionality, use, and control of video wall, display, and control switch equipment. The narrative will provide the proof-of-concept design team, Anderson Audio Visual, with basic information including operational characteristics and space requirements necessary for the development of schematic plans, to be developed in coordination with BBI Construction. The narrative will accompany the initial submittal of 90% system design plans, to provide the City-Port with an understanding of video wall/display planning and design concepts, thus providing a basis for plan evaluation.

PSIM Communication Interfaces and Information Exchange Methodology

A reason for using the PSIM system is the ability to integrate information sources from various agencies into one location. In addition to collecting information from various sources, the rapid evolution of technology used to capture and disseminate this information makes it important that the system designed

for the DAC not only integrates the information sources available at the completion of this project, but is designed in a way that is easily scalable for other and future information sources. The SAIC Team will provide the methodology for the communication of information to these agencies including both automatic (policy-based) communication protocols and manual (user-based) methods of communication activation.

To design this methodology, we will define the proof-of-concept design, including hardware, software, database, licensing, networking, services, and security. Once the overall design is established, we will define the characteristics of the data used on the system such as the data type, format, accuracy or resolution, attributes, amount, source, and maintenance. With the data characteristics understood, the SAIC Team will establish methodologies and standards for data mapping, the metadata, and database maintenance. Finally, we will define the conceptual data model, including structure, relationships, base layers, security, and data acquisition, conversion and/or migration, administration, maintenance, control, backup, archive, and retrieval and/or distribution.

Once design and data characteristics are established, the SAIC Team will design the systems integration processes. First, we will define systems integration framework and then we will define the business integration model. The systems integration framework will include database methods, data, and/or systems interfaces, imports, and any other links or connections while the business integration model will include people, processes and procedures, and the usability and application of the technology. The proof-of-concept design will include several items related to the base layer design, including defining and design a records/case management system relevant, defining a communications dispatch application, and defining the service contract. The service contract will include information on the guarantee, support, maintenance, management, and monitoring.

Further, the SAIC Team will develop a project plan to include milestones, deliverables, sequences, timelines, budget, and resources required. In the development of this project plan, all assumptions, constraints, opportunities, benefits, issues, and risks will be clearly defined and explained to the Oakland Customer to ensure complete transparency. Lastly, we will develop a cost menu that will describe the costs related to implementation, customization, and ongoing support costs associated with the deployment of each system into the PSIM.

Task 1.3 – Owner Approval

The SAIC Team will conduct design reviews during the project design phases to ensure stakeholders are able to provide feedback throughout the development process and to ensure that all operational and integration requirements are considered and addressed. The review process will cover the technical design, project costs, and line-item review of technology linkage systems. We will conduct a preliminary design review (PDR) to present our initial design and provide the entire set of Oakland stakeholders with an opportunity to provide feedback. After the feedback has been incorporated and the design has fully matured, the SAIC Team will conduct a final design review (FDR) to ensure the design is consistent and true to Oakland's concept of operation and technology linkage plans. Upon satisfactory approval of the FDR, the City-Port would grant the SAIC Team approval to proceed with the project implementation.

5.6.3.2 TASK 2 - Implementation

Task 2.1 – Design Build and Deploy the DAC-TLS

The design, build and deployment of the DAC-TLS begins with setting up the PSIM server hardware. The SAIC Team will deliver two servers: a production server and a development server. VidSys will develop and test the technology linkages on the development server first. When the linkage functionality has been tested an approved by SAIC quality assurance, the linkage will transition to the production server. Once a linkage is transitioned to the production server, the technology linkage will be configured with the applicable

devices from the security subsystem. The first two systems to come online and be configured will be the Port's ESRI GIS system and the Port's Genetec Security Center system.

VidSys has already developed linkages for these systems as part of other projects. The integration of these systems will provide the Oakland customer with immediate usage of the system and return on their investment.

The DAC-TLS system capability will continue to grow as each new technology linkage becomes available and gets configured on the production server. The SAIC Team considers a spiral development to be the most effective means of providing customer satisfaction and receiving customer feedback. A spiral development process combines both design and delivery in stages or iterations. A cyclical approach improves customer satisfaction by allowing the customer to evaluate early results. The process also reduces technical risk by allowing engineers to identify potential issues at an early stage. Waiting for one large delivery at the end of the project increases the risk for not meeting customer expectations and overlooking key system requirements.

During the technology linkage deployment, the SAIC Team will work closely with the technology linkage partners to acquire the system configuration data and network connections for integration into the PSIM. The process and the data will be fully documented to provide a framework for the City-Port for future reference, management, and maintenance of the system.

Task 2.2 – Systems Integration

The most important aspect to a successful PSIM integration is a strong early start at collecting the necessary interface information to complete the linkage. Necessary information includes the linkage system software version and the linkage system API/SDK. SAIC has been responsible for integrating PSIM systems for a variety of customer and we have consistently found the initial preparation to be the most important driver for delivering an on-time solution. Once VidSys has reviewed the interface documents, they can determine the functionality that can be made available to the user. The linkage system API/SDK is always the limiting factor and determines how much or little integration can be achieved. For example, SAIC contacted Federal Signal who is the manufacturer of the Police LPR system and found out that they do not have an API or SDK and do not support 3rd party integration. Other systems like Genetec encourage 3rd party integration and have a very good interface for developers to use.

SAIC will coordinate with the security system manufacturers to help solve any technical issues that may arise during the system integration process. SAIC has teamed with many of the security system manufacturers and integrators to ensure a successful integration process for the Oakland Customer.

Task 2.3 – Quality Assurance and Testing

The SAIC Team will thoroughly test the system to ensure that the infrastructure and the solution's major components (VidSys, Motorola Dispatch Solution and SAIC ProVM) achieve the expected level of quality and durability as specified in the system requirements during the design phase of the DAC. All system changes will be fully tested before introducing them into the production environment. The system will be fully documented to ensure ease of use and facilitate servicing and upgrading.

The SAIC Team will perform integration tasks and confirm results during pretests before each scheduled project testing milestone. The most important part of the integration and pretest effort centers on the video interfaces to exterior applications. We will work closely with VidSys, Genetec and other major subsystem custodians to ensure that the required interfaces have been validated before formal testing at the DAC. We will also inspect, configure, integrate, and perform testing of equipment before it goes to the installation site. The SAIC Team will work closely with the VidSys development team at their offsite facilities for development to simulate a typical project installation. We will integrate systems by connecting sensors through the network to servers and workstations at these facilities.

These typical sites are used for system integration and testing with sensors, interface equipment, servers, and workstations and have been used to test project hardware for deployments in past projects.

Before testing, the SAIC Team will prepare and obtain approval of the project test plans and procedures from the City-Port. All proposed systems and other equipment will be tested and inspected at the suppliers' sites during Factory Acceptance Tested (FAT) before delivery to the SAIC Team. The PSIM software will initially be checked and tested at the DAC as well as VidSys sites, to be considered as FAT, where integration with interface equipment or software will also be checked. Field checkout will be performed after installation for each piece of equipment. System Acceptance Testing will be performed at the DAC by proceeding through the test procedures after all the equipment and software are checked and tested individually.

DAC-TLS Test Plan, Procedures, and Acceptance Criteria

To enable test activity, the SAIC Team Test Manager, Mr. Tony Ahmad, will develop a comprehensive plan which details the strategy and the criteria that determines the success of the test exercise. For each test category, our test engineers will develop detailed test scripts from the system requirements for each of the major components. These engineers will methodically execute the test scripts and record defects in the problem tracking database. We will manage defect correction using our change control management process, which involves assessment/prioritization, planning/scheduling, developing and implementing correction. After correction, we will execute the test scripts again and, depending on the test phase, we will conduct regression tests. Upon completion of each category of testing, Mr. Ahmad will prepare and submit test results in the form of test reports to enable the City-Port Information Technology Division to inspect and verify that the system meets all requirements. Tests will be conducted during all major milestones of the DAC (System Integration, User Acceptance and Performance). These tests are described below.

Implement Configuration Management and Control Processes

SAIC is certified Capability Maturity Model Integration (CMMI) Level 3. We understand and will implement our proven Change Management (CM) processes, tools, and methodologies in regards to any system configuration changes or patches once the systems are operational to maintain high system performance. Configuration Management methods will be applied throughout integration, implementation and system operation to ensure tractability of system changes and revision control.

Conduct Software Integration Testing

The SAIC Team will test the integration of all major system components, thus validating that the entire system functions properly and that all processes, including customizations and interfaces, work together to support the required business functions as specified in the requirements. When defects are corrected, we will execute regression tests to ensure that implemented changes do not adversely affect correct operation of other functionality. Testing between the major components of DAC-TLS to the VidSys PSIM system will be documented for analysis and City-Port reviews and approval prior to any system changes as result of testing.

Conduct System Integration Testing

The SAIC Team will test the integration of all major system components and physical infrastructure and devices similarly to system software integration testing, thus validating that the entire system communicates and functions properly, furthermore that all processes, including customizations and interfaces, work together to support the required business functions as specified in the requirements. When defects are corrected, we will execute regression tests to ensure that implemented changes do not adversely affect correct operation of other functionality. Testing between the major components of DAC-TLS to the VidSys PSIM system over the communication infrastructure will be documented for analysis and Oakland Customer reviews and approval prior to any system infrastructure changes as result of testing.

Conduct 30 Day Acceptance Test

The SAIC Team will develop the System Acceptance Test (SAT) plan and test scripts. These will be submitted for review and approval of the City-Port Information Technology Division. The SAT will be conducted at the DAC environment during the implementation phase and final system delivery. SAIC will use staff and pre-selected set of City-Port operation staff to execute the test cases. Results will be documented while we continue to track and correct any defects. Configuration Management will be employed for version control synchronization. The Port's Information Technology Division will review all test reports and validate the completeness of SAT.

Prepare and Submit Final Test Report

The SAIC Team will document all phases of the test and the final acceptance test along with the data collected during the 30 day acceptance to provide system performance data in compliance with the system requirements. As indicated in the previous test steps upon completion of each category of testing, the SAIC Team will prepare and submit test reports to enable the City-Port Information Technology Division to inspect and verify that the system meets all requirements. The SAIC Team will deliver a final detail acceptance and performance test document per the requirements and project milestone to the City-Port for sign-off.

Task 2.4 – Training

The SAIC Team will provide training material in accordance to the requirements and based on industry standard practice. Training material will consist of procedure manuals, workflow documents and system documentations. Our team starts on the preparation of training material from day one system design with end-user operation and system maintenance in mind throughout the duration of the project. This method ensures ease of system operations with intuitive ways of system interaction by end users.

Training materials will be provided in soft and hardcopies, hardcopies are organized in a binder to deliver a complete system detail operation and maintenance document. The documentation provided will contain the following:

- System specifications
- System cut sheets
- System reliability matrix with error resolution
- Subsystem user and maintenance manuals
- System software, hardware and network architecture
- Event handling and response procedures
- System Administration procedures
- System configuration guide

All training material will be provided to the Oakland Customer review team for approval for all aspects of the system. Post approval SAIC team will schedule small group training sessions at the DAC in class rooms using a designated room provided at the facility for the training to cover the material with the end users. SAIC will break down training by end user needs and cover material and teach each group within their system operational domain. Post class room style training a practical approach of training will occur with the users using production system. System operators at the DAC will be trained behind the command and control system. It is important to note that SAIC is flexible and will work with City-Port to determine the optimal location for personnel training.

Important operational procedures will be documented on one page instructional manuals for operators to utilize as cheat sheets during system operations.

Develop PSIM User Procedures Manual

SAIC will deliver VidSys PSIM system documentation covering all aspects of the system from configuration, operation to maintenance. Below showcases snapshots of the VidSys User Guide that will be provided to City-Port users.

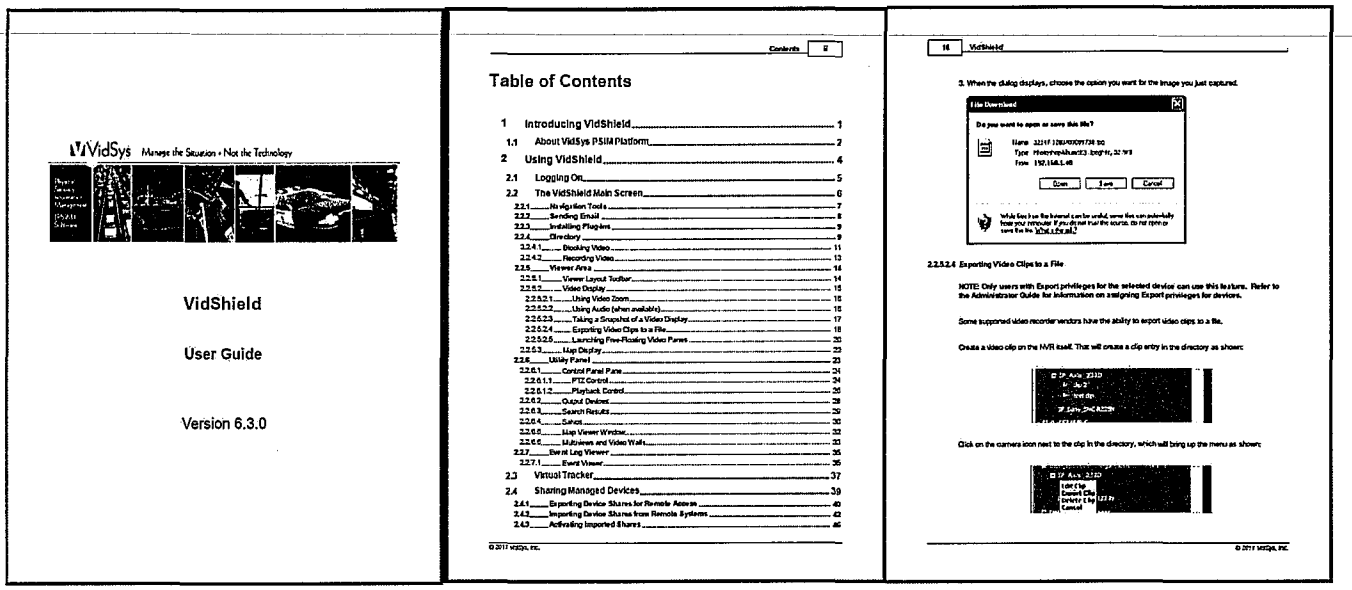


Figure 5-32. VidSys Sample User Guide.

SAIC engineering will create simplified User manuals that cover system operations pertaining to each system user group. A system login matrix will be created working together with the Oakland Customer to assign proper attributes to system users of different groups.

Document users can follow the user matrix to review areas of importance and functionality for their main user group base. System backup and maintenance procedures will pertain to technical staff and system users whereas system operators will only be interested in system monitoring and using automated events configured on the system to display alarms.

Users will be provided with a document containing a list of system support personnel contact information. Users will be provided documentation and training on the SAIC ProVM to submit IT trouble tickets. The SAIC ProVM is designed to route trouble tickets to the proper support staff, however SAIC will also provide system users with technical support staff contact information comprising of phone numbers and email addresses.

Develop PSIM User Workflow Document

As part of the CONOPS integration into the PSIM, SAIC will develop a workflow document for the Oakland Customer. The workflow document will be used to create an "Action Plan" in VidSys that will help the operator manage an event by incorporating standard operating procedures with dynamic links to respond to different types of events. In addition to programming the first set of workflows for Oakland, SAIC will provide detailed procedures for Oakland to add, edit or delete a workflow in the VidSys PSIM.

Develop Training Plan

SAIC will deliver a training plan to accompany the PSIM user manuals. The training plan will include a training schedule that will designate training activities by user and administrator. The training plan will be submitted to the City-Port for review and approval.

Conduct PSIM Management Training

Training will be conducted by both members of the VidSys educational services team as well as skilled facilitator, Ms. Ayeshah Abuelhiga of SAIC. The SAIC Team will provide both classroom and hands-on training for proper operation, maintenance, and troubleshooting of the system. This training will include hands-on demonstrations and hands-on operation of advanced tools and functions. The primary objective of the configuration training is to educate advanced operators/managers in the proper methods for registering new system sensors and devices, creating work flows, and performing basic troubleshooting and maintenance of the system.

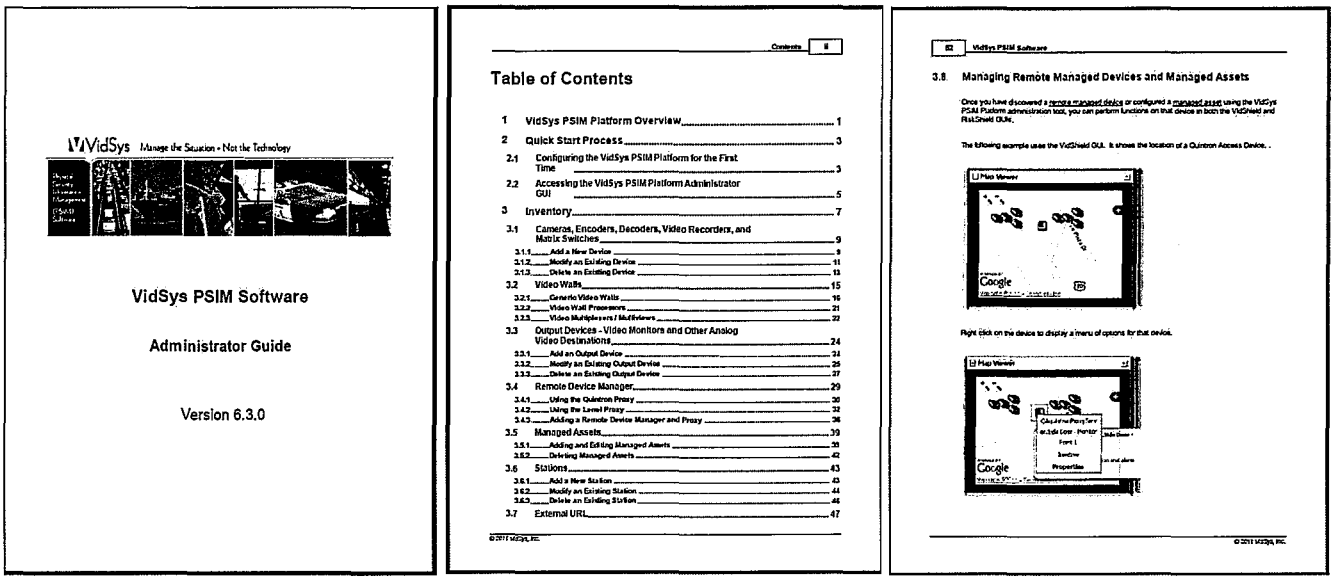


Figure 5-33. VidSys Administrator Training Manual Sample.

The administrator training will also occur as classroom and hands-on training. Classroom training will provide much greater system detail, and the hands-on training will include exercises for each of the major functional areas. The classroom instruction will include: link capabilities and topology; sensor inventory; server inventory; intelligent video analytics (IVA), video management system (VMS) and sensor management system (SMS) administration; configuration management, troubleshooting methodology and procedures; system component troubleshooting; and recommended preventive maintenance. The exercises during the hands-on portion of the class will include: system component (server, camera, etc.) configurations, installing a server, setup of a camera or door sensor, setup of a monitor, maintaining user accounts, maintaining analytic rules, network maintenance, network security procedures, familiarization with the baseline system performance (i.e., how to validate proper operation), responding to trouble reports and correcting problems (problems to be introduced by the instructor.) A test will be administered at the completion of training.

Conduct PSIM User Training

Operator training will occur as both classroom and hands-on training. Classroom training will provide the foundational information that the hands-on training will build upon. The classroom instruction will include at a minimum: system overview, sensor locations and capabilities, sensor control, alarm management, incident management, problem reporting, and emergency procedures. The user training will consider alarm and event scenarios that are relevant to the Oakland Customer. The actual DAC-TLS systems will be used as the training workstations to provide the user with the actual operating environment. The user displays will be shown on the video wall so that other users in the training class can easily observe and learn from the system interaction by their peers.

The training will be delivered to the departments as specified by the Oakland Customer. The training sessions will be recorded on video for future reference and provided in DVD format.

5.7.3.3 TASK 3 - DAC-TLS 2 Year (24 Month) Service Agreement

The SAIC Team can provide initial post-deploy maintenance services for the installed-implemented DAC-TLS systems for a 2 year (24 month) base period that can include technical support and maintenance of the deployed DAC-TLS solution products, including hardware, software, database, and any other necessary components for the fully functional DAC- TLS solution.

In this subsection, for the initial 2 year (24 month) base period maintenance service agreement, we discuss the additional sub-level topic areas in the following sub-task sequence order:

- **Task 3.1** Support and Maintenance
  - Product Quality Assurance Program
  - Product Maintenance and Services
  - Product Configuration Change Management
  - Issue and Incident Management
  - Monthly Service Performance Reporting
- **Task 3.2** Management and Monitoring
  - Infrastructure Management
  - Security and Compliance
  - Network Assurance
  - Technical Support and Help Desk
  - Configuration Change Management
  - Day-to-Day Database Maintenance Administration Services
  - Monthly Performance Reporting
- **Task 3.3** Enhancements and Upgrades
  - Future Planning Strategies, Cost Impacts, and Change Management
  - Future Systems Integration Development
  - Future Database Maintenance Administration Services
  - Future Report Development Requirements

Following the initial 2 year (24 month) base period maintenance service agreement, SAIC team also offers an option to extend any or all of the maintenance service agreement for an additional extended 3 year (36 month) period term.

SAIC can use EngineeringEdge™ to facilitate the integration of our resources to complement those of our customers, covering the entire program life cycle, from project planning through startup, execution, and closeout. SAIC has integrated Information Assurance (IA) capabilities and best practices into the EngineeringEdge™ system, allowing IA requirements to join with enterprise requirements, ensuring they are incorporated seamlessly throughout the whole engineering effort.

System security test and evaluation activities are integrated into the overall system test effort, to ensure that the security features function as designed and that they do not degrade functional efficiency as depicted in Figure 5-34below for another major project maintenance support effort SAIC is performing.

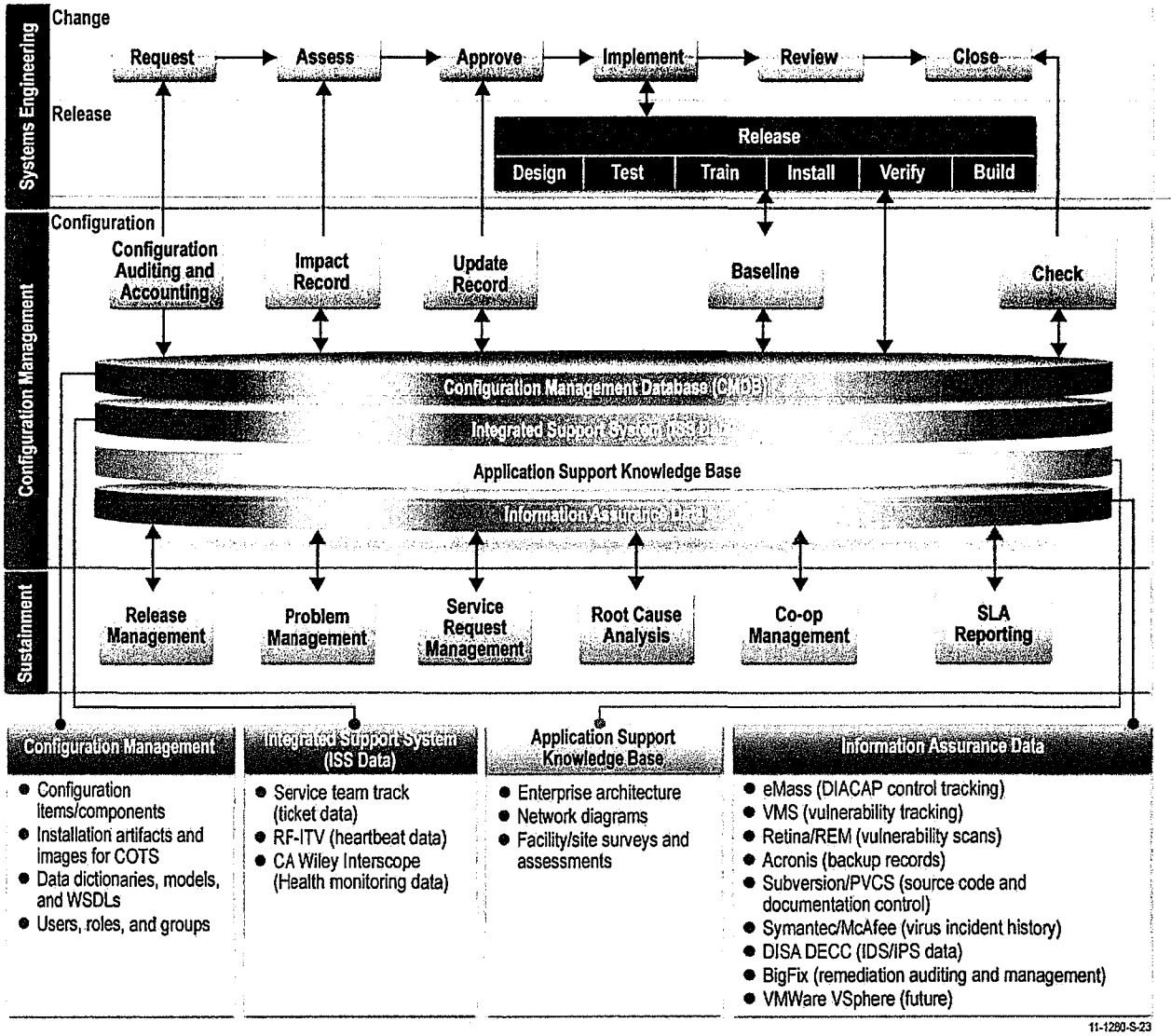


Figure 5-34. System Maintenance Support Overview.

Task 3.1 – Support and Maintenance (24 months)

Support and maintenance activities cover the deployed DAC-TLS solution products, including hardware, software, database, and any other necessary components, including development of user workflows in the PSIM for the fully functional DAC- TLS solution. The sub-work efforts under this Task 3.1 include:

- Product Quality Assurance Program
- Product Maintenance and Services
- Product Configuration Change Management
- Issue and Incident Management
- Monthly Service Performance Reporting

Product Quality Assurance Program

SAIC can provide a guarantee of minimum "business day" service level (8 hours x 5 days a week, excluding public holidays) for a 24-month period, through the leveraging of both on-site and remote technical staff resources. We can follow the established processes and procedures that are documented in the software development plan (SDP) to ensure that the software code is consistent and conforms to the standard style and format. At the functional level this step supports resolutions and the operational support

of the DAC-TLS. We can ensure that the implemented products conform to the specification defined in system, database, user interface, and external data interface design documents.

Our system engineers can leverage our team's experience to maintain the DAC-TLS infrastructure in all development, test, and production environments including conducting integration testing of COTS hardware and software as required. SAIC can develop and document criteria for testing and evaluating any modifications (software units, components, and configuration items) of the system also ensuring that regressions are not introduced adversely affecting the original requirements. Our development process includes unit level testing and assembly testing.

This testing can also include component testing that integrates tested software units to identify and resolve interface errors and unit incompatibilities. Figure 5-35 outlines our process for development of test plans.

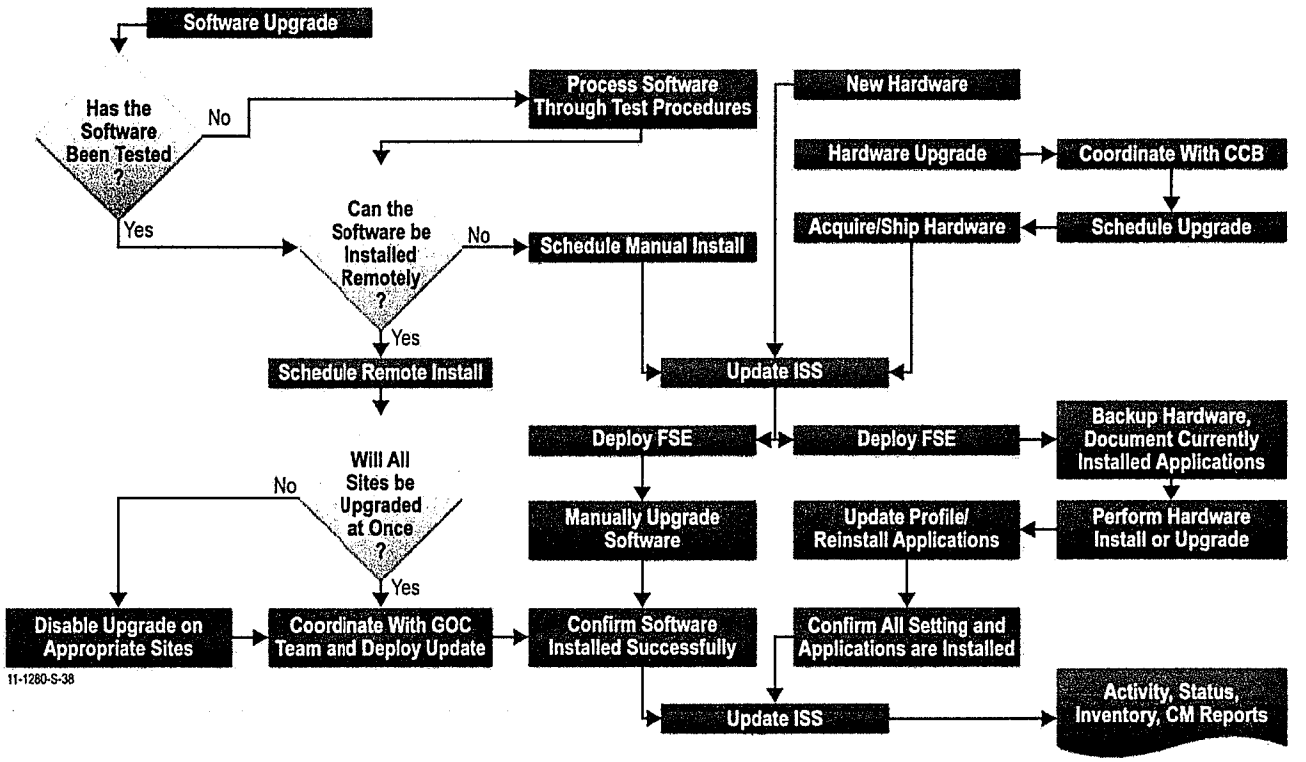


Figure 5-35. Test Plan Development Process.

Our system testing approach includes test plans for regression, information assurance (IA), performance, and any Section 508 compliance. The SAIC comprehensive testing strategy includes load/stress, volume, performance, reliability/availability, degradation and recovery, configuration, compatibility, security, QA, IA, install-ability, and serviceability, and function testing.

Product Maintenance and Services

The SAIC Team understands the importance of providing a quality DAC-TLS solution whereby all components of the solution; hardware and software, are fully functional and perform to the highest level of the City of Oakland's expectations and satisfaction.

The SAIC Team's approach to maintenance support includes pro-active management of our subcontractors. We can manage them through formal subcontract agreement and semiannual vendor performance reviews. All project management control originates from SAIC's prime contract with the City of Oakland. Adherence to these requirements is enforced with tools and systems that document work planning and identify deviations from the plan. Our Team can oversee all subcontractor support, maintenance, and warranties. The SAIC Team can provide service reports documenting support activities to DAC within 24 hours of all

performed service. We can furnish necessary devices to test, calibrate, maintain, and configure the DAC system for proper operations. We propose to provide field service engineers (FSEs) to meet the DAC's onsite and field support needs. Following determination that remote support cannot resolve an issue, onsite response time can be within eight hours for non-critical support and four hours for critical support (system downtime affecting performance).

Monitoring, maintaining, and improving the health of the DAC system and infrastructure is the centerpiece of our mission. We can leverage and tailor the existing tools in the DAC software and provide additional tools at no direct cost, with a focus on improving our capability to predict, identify, diagnose, isolate, and resolve problems as early as possible.

Our teams installed DAC network uptime is measured based on reliability communication factors to ensure that packet transmissions reach their destinations uncorrupted. The networks are deployed to interoperate with other networks within a protected environment, even when there are other similar networks operating on the same frequency band nearby. We can demonstrate interoperability with a wide range of vendor hardware and software. As our past performance displays, we have executed several projects where we have interfaced to a variety of middleware products, including SAP XI, SAP netweaver, Tibco, IBM MQ series, Oracle Fusion, and Microsoft BizTalk.

Provide Software and Hardware Updates As Issued By the Systems Manufacturers

The SAIC Team can update software on an annual basis. Software updates include major releases to the VidSys PSIM and software updates to the video wall system as necessary. SAIC can only update the Windows operating system of the servers and workstations twice per year. We suggest updates twice a year versus as they are released because Windows operating system updates have been shown to cause a conflict with video drivers or other parts of the PSIM system that could result in a temporary failure. SAIC can work with the City-Port's information technology points of contact if updates are required to be applied on a more frequent basis.

Product Technical Support and Help Desk Support

As DAC capabilities and components are implemented, the SAIC Team can provide 24/7/365 help desk services that are accessible via phone, email, or through a web-interface. We can use BMC Remedy as our help desk tool to track issues from notification to closure and to support incident reporting requirements. Service incident metrics can be monitored for help desk Tier 1, 2, and 3 support.

The DAC can be able to call a toll-free number 24 hours a day, 7 days a week, 365 days a year to request support. Additional methods of requesting support include email and web portal. The ISMC can respond to all calls from DAC technical support staff no later than 2 hours after receiving a call, at least 95% of the time. Pending additional support service needs, SAIC can leverage our Integrated Service Management Center (ISMC) which can be able to provide remote support as needed and our Remote Control Software is FIPS 140-2 Compliant. We can complete a DAC interim security agreement/memorandum of understanding (ISA/MOU) at any time after contract execution so that we are ready to provide remote support as quickly as possible.

The SAIC ISMC implements consistent processes that can provide reliable, efficient support to the DAC. Taking advantage of the SAIC ISMC allows the DAC to leverage experienced, knowledgeable resources when needed thereby increasing system availability. The SAIC ISMC can retain ownership of problems until they are resolved, including following up with support teams and subcontractors. We can engage directly with all required support teams to obtain resolution on all tickets.

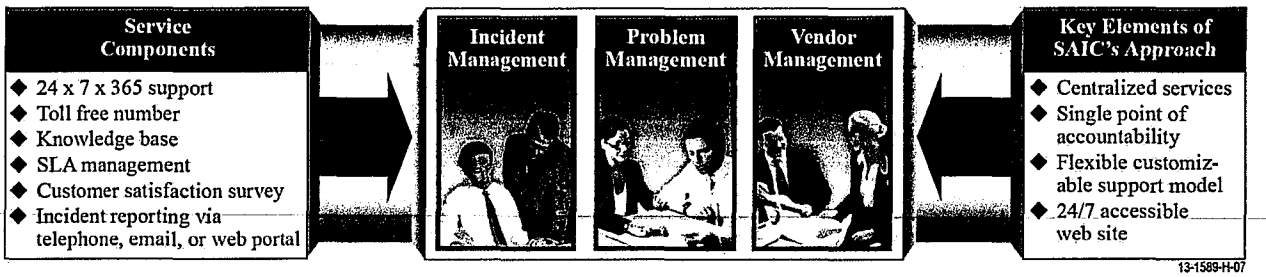


Figure 5-36. SAIC's ISMC Processes Provide Reliable, Efficient Support to the DAC-TLS.

The SAIC ISMC uses the Remedy call logging system as the principal problem management tool of our support offering. The benefits to the DAC are the ability to share call information and the ease of use, in that DAC personnel with access to the SAIC ISMC's Remedy system. It also provides immediate access to important information that may be required to provide quality support or to make decisions. The Remedy database can include all calls received, action taken, and track user calls for troubleshooting assistance, and capture the following information: incident ticket number, failed component, customer point-of-contact, area affected, date, problem, and resolution. This information can be available to authorized DAC staff members on-line and on request.

Issue and Incident Management Tier 1, 2 and 3 Support

Our approach is to create an environment in which all three support tiers completely document all incidents received, focus on problem resolution, and close the incident once the customer is satisfied. All tickets can be acknowledged by assigning a ticket number and immediately providing it to the requestor. SAIC in cooperation with the City and Port can establish metrics for each DAC mechanisms to track and report any discrepancy incident. All issues can be extensively documented, resulting in a knowledge database. Upon acceptance of the system, we understand Tier 1 support can be handled by DAC's technical staff.

Product Configuration Change Management

The SAIC Team can ensure that all changes are properly documented and managed in accordance with an approved Configuration Management Plan (CMP) for both Major and Minor Engineering Change Proposals (ECPs). We understand that technological changes over time may result in the need to update the Hardware being provided to the DAC. The SAIC Team can submit a CMP for City of Oakland approval as part of the PMP. We can provide a structured ECP methodology and CENTER IDE-based tool suite to support development and management of ECPs. We base our ECP methodology on the Change Control Process component of SAIC's EngineeringEdge™ process. We can manage Major and Minor ECPs in accordance with the requirements of the PWS.

Monthly Service Performance Reporting

The SAIC Team solution has the capability to deliver the complete range of enterprise reporting including operational reports, graphical business reports, and ad-hoc statements via popular user interfaces including Web browsers, Microsoft® Office applications, networked printers, mobile devices, and email.

Task 3.2 – Management and Monitoring

Management and monitoring activities cover the installed-implemented DAC-TLS systems for a 24 month period. The sub-work efforts under this Task 3.2 include:

- Infrastructure Management
- Security and Compliance
- Network Assurance
- Technical Support and Help Desk
- Configuration Change Management

- Day-to-Day Database Maintenance Administration Services
- Monthly Performance Reporting

Infrastructure Management

SAIC can provide a wide variety of services to monitor and manage elements of DAC IT infrastructure to include data center management, network management, end-user support (Service Help Desk), on-going available system engineering support, database management, storage and backup management, and IT security management.

Security and Compliance

The SAIC Team has been applying these activities to other major programs we maintain such as SARSS-MROCs, SAAS-MOD, AIDC, WPS, Base Access, e-Security. Impact on operations staff can be minimized through use of automated inventory, compliance, patch, and configuration management practices via agent-based tools such as IBM BigFix, augmented with Retina REM security audits. To assure the necessary system security and resource requirement expectations, DAC-TLS security personnel can perform an impact assessment for all proposed changes under review by an Oakland-Port DAC Configuration Control Board (CCB) and if also established, an Engineering Review Board (ERB), and can participate in physical security assessment activities as necessary. This assessment can include the review of system interface diagrams, system architectural diagrams, software, network and communications services, hardware or firmware changes and upgrades.

Network and Information Assurance

SAIC's network and information assurance process begins with the enumeration and classification of the information assets to be protected. Then we can perform a risk assessment for those assets. Vulnerabilities in the information assets can then be determined in order to enumerate the threats capable of exploiting these network and information assets. The assessment then considers both the probability and impact of a threat exploiting the vulnerability in an asset, with impact to the asset's stakeholders.

Once the risk assessment complete, SAIC then develops a risk management plan. This plan proposes countermeasures or mitigation strategies that support addressing, eliminating, accepting, or transferring the risks, and considers prevention, detection, and response to threats. SAIC follows and adheres to the frameworks already established by standards organization, such as Risk IT, CobiT, PCI DSS, ISO 17799 or ISO/IEC 27002. Mitigation strategies may include technical tools such as firewalls and anti-virus software, policies and procedures requiring such controls as regular backups and configuration hardening, employee training in security awareness, or organizing personnel into dedicated computer emergency response team (CERT) or computer security incident response team (CSIRT). SAIC will work with the City to determine the best method seek to manage risk in most effective way. After the risk management plan is implemented, SAIC can test, evaluate, and support network and information assurance audits. SAIC network and information assurance process is an iterative one, in that the risk assessment and risk management plan are periodically revised and improved based on data gathered about their completeness and effectiveness.

Configuration Change Management

The SAIC Team can ensure that all changes are properly documented and managed in accordance with an approved Configuration Management Plan (CMP) for both Major and Minor Engineering Change Proposals (ECPs). We understand that technological changes over time may result in the need to update the Hardware being provided to the DAC. The SAIC Team can submit a CMP for City of Oakland approval as part of the PMP. We can provide a structured ECP methodology and CENTER IDE-based tool suite to support development and management of ECPs. We base our ECP methodology on the Change Control Process component of SAIC's EngineeringEdge process. We can manage Major and Minor ECPs in accordance with the requirements of the PWS.

Day-to-Day Database Maintenance Administration Services

SAIC will collaborate with the Oakland City and Port to perform day-to-day database maintenance and system administration services that ensures activities and duties are performed in a scheduled manner to improve the life cycle of the DAC.

Monthly Performance Reporting

SAIC will collaborate with the Oakland City and Port to identify and establish the IT performance monitor data elements per any agreed to service level agreements and then use tools to capture the trends of the IT monitoring data parameters and record and report those trends and alarms where parameters exceed the threshold limits to the City and port of Oakland.

Task 3.3 – Enhancement and Upgrades

SAIC team herein discusses enhancements and upgrades for the following topic areas:

- Future Planning Strategies, Cost Impacts, and Change Management
- Future Systems Integration Development
- Future Database Maintenance Administration Services
- Future Report Development Requirements

Future Planning Strategies, Cost Impacts, and Change Management

SAIC proposes to work with the City and Port on a routine basis to conduct planning strategies to develop a roadmap for future implementation efforts outlining rough-order-magnitude cost impacts with any proposed future candidate upgrades or system modifications. As part of any envisioned changes planned in the DAC Implementation Roadmap, SAIC will work with the City and Port to address any change management impacts, risks, and mitigation strategies. The DAC Implementation Roadmap will address the following future impact areas:

- **Future Systems Integration Development:** SAIC proposes that any future systems integration and development activities take into account the existing systems and infrastructure and that a migration strategy will be developed to address how new future systems and in what sequence will offer the City-Port the most optimal delivery for realizing the DAC objectives
- **Future Database Maintenance Administration Services:** SAIC proposes that any future systems integration and development activities take into account the existing systems and infrastructure and that a migration strategy will be developed to address how new future systems and in what sequence will offer the City-Port the most optimal delivery for realizing the DAC objectives
- **Future Report Development Requirements:** SAIC proposes that any future systems integration and development activities take into account the existing systems and infrastructure and that a migration strategy will be developed to address how new future systems and in what sequence will offer the City-Port the most optimal delivery for realizing the DAC objectives

5.7.4 Ensure System Integration in the PSIM - 5 Years (60 Months)

SAIC has proposed a 2 year (24 month) base period of maintenance support, and subsequent to that, pending the interest of the City and Port to extend the maintenance support services provided, we also submit an option to extend for 3 more additional years of maintenance support services. In addition, at the discretion and interest of the City and Port, SAIC is also prepared to offer additional more expanded support services on an as needed, as requested task order basis.

5.8 Technical Coordination and Collaboration with City Staff and Community

The SAIC Team understands that close technical coordination and collaboration are a necessity to not only successfully complete the technical approach, but engage the surrounding community. As such, the SAIC Team will develop a robust communication and collaboration plan to ensure efficient communication both internally within the project team and the City-Port as well as externally with the wider community. We will identify available channels of communication that will allow us to: detect project problems early; identify issues, concerns, and corrective actions; manage stakeholder expectations; and implement strategies to improve quality of project deliverables. This communications plan will be integrated into the project management plan delivered as part of the project management task.

5.8.1 Coordination and Collaboration Strategies for Communicating with City Staff

The development of the DAC-TLS includes multiple agencies (e.g., the City of Oakland, the Port of Oakland, etc.), multiple subcontractors, and multiple activities simultaneously in motion (e.g., design, construction, and maintenance). The number of stakeholders coupled with the close interactions required between the different tasks could quickly affect the project schedule or budget without clear and concise communication. To assist in recording and managing our communication efforts, the SAIC Team, led by Project Manager Mr. Zografos and communications lead, Ms. Abuelhiga, will prepare a project collaboration website based on our iCenter tool, an application that allows multiple users to share project and project management-related documents and project documentation including project management reports. We will make this site securely accessible by all project team members and the City-Port as well as other project stakeholders to enable information sharing related to project management activities and documentation. The SAIC Team has successfully implemented iCenter for dozens of applications including a recent design and build-out of a transportation operations research laboratory for the Federal Highway Administration.

In addition to the archived information readily available through the iCenter website, Mr. Zografos will be delivering weekly email progress reports delivered to the City-Port ensuring that the City-Port stays apprised of all activities being conducted on the project. While the weekly progress reports will serve a quick and concise reminder of progress, together these reports will naturally serve as talking points for the monthly meetings between the SAIC Team and the City-Port. These monthly meeting will provide a dedicated, reoccurring opportunity for an open dialog between the SAIC Team and the City-Port. Further, with numerous internal stakeholders and subcontractors, the SAIC Team will hold regular project meetings with design, construction, and maintenance task leads to ensure close coordination among the different tasks. Finally, the SAIC Team will develop and submit monthly management reports to the City-Port providing a review of all activities that occurred in the previous month with an updates estimate to completion.

5.8.2 Coordination and Collaboration Strategies for Communicating with the Community

In addition to collaborating and communicating with internal stakeholders, the SAIC Team will establish multiple modes of communication and collaboration with external stakeholders and the surrounding community. Coordinating and collaborating with the community benefits this effort in multiple ways. First, by actively keeping the public apprised of the project, the SAIC Team can provide opportunities for public input. Secondly, collaboration and communication with the community will allow the City-Port to generate buy-in and support from the community that may be critical on both this and future projects. The SAIC Team proposes the use of technical briefs, public service announcements, and town hall-style meetings to communicate with the public.

Because much of the work completed on this project is technical in nature, we propose to develop short technical briefs which can describe recently completed and upcoming activities in lay terms which can be disseminated to the public electronically (e.g., on a project website). We also propose to develop public service announcements in a format decided on by the City-Port (e.g., electronic, paper, radio, etc.). These

public service announcements can be developed using input from the technical briefs providing time and cost savings. Finally, we propose hosting public meetings for anyone interested to learn more or discuss the project. The monthly management reports and technical briefs will serve as talking points during the workshop, and the SAIC Team will ensure that these workshops are interactive by soliciting questions and comments from the participants. These workshops allow the community a direct line of communication to project staff.

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6.0 REFERENCES

6.1 Prime Consultant References

SAIC believes there is no stronger evidence of our skills and experience than the validation of our clients' satisfaction. We are proud of the relationships we have developed throughout the years, and we strongly encourage the City of Oakland to contact our references to obtain comments on the quality of our services.

[redacted]

[redacted] following references are professional references for SAIC Project Manager, Mr. Taso Zografos.

[redacted]

6.3 Pertinent Past Related Projects

The SAIC Team describes below 10 of our most recent relevant project experiences. All but one of our project descriptions are current or were completed within the last 5 years. The SAIC Team has included a project description for our General Contractor Team – BBI Construction – that is over 5 years old only to demonstrate that for this proposal, we have recruited the contractor team that is most intimately familiar with the [redacted] Emergency Operations Center's construction and design elements and requirements. We seek to provide continuity and ensure proven delivery through utilizing the same contractor for the DAC building improvements.

1. Emergency Operations Center Continuity of Operations Plan

Contractor Name: **SAIC (Prime)** [redacted]

Dates: June 2012 – December 2012

SAIC was chosen by the City [redacted] to develop a citywide Continuity of Operations (COOP) plan. The project created the framework for [redacted] COOP and recovery actions to ensure tha[redacted] prepared to manage all hazards, thereby protecting its employees and reducing the risk of loss and disruption of its operations. The project also clarified the COOP and recovery roles and responsibilities of the City of [redacted] agencies and departments and provided a reflection of current emergency COOP and recovery capabilities. SAIC's approach was based on our proven collaborative planning process, which is shown to build capacity and develop quality plans. During the development stage, critical information regarding plan development was discussed and agreed upon through a series of working group sessions. SAIC conducted three working group sessions with the City of [redacted] establish key elements of the overarching COOP program and to define the City of [redacted] long-term goals, ensure development was consistent with expectations, and review the final plan and discuss plan implementation and the strategy for maintenance. The final COOP plan provides a consistent approach for all departments to respond to emergencies or disasters and thereby improve the City of [redacted] overall preparedness.

2. [redacted] Program

Contractor Name: **SAIC (Prime)** *Customer:* [redacted]

Dates: September 2005 – Present

SAIC was selected as the Prime Systems Integration Contractor for the [redacted] integration, modernization, and transformation of the [redacted] system. This is a performance-based contract for the delivery of IT system development and integration activities to support the transformation of [redacted] business practices. It will result in improvements to a broad range of [redacted] business services through the use of modern and flexible IT solutions. SAIC provides Solution Architecture and Transition Planning, Requirements Analysis & Management, Software Design, COTS, Software Development, Software Testing, Software Deployment, Release Planning & Retirement of Current Systems, Infrastructure Requirements and Implementation Support, Knowledge Transfer and System Transition, Project Management, Performance Management & Metrics, Software Development Lifecycle Implementation (SDLC), Business Process Reengineering, Operations and Maintenance, Communications, Organizational Development, and Data Management Strategy & Architecture. This project requires web accessibility, business rule identification implementation in support of truck and driver tracking, and implementation of an IT approach that will support the integration of applications and data years into the future.

3. [redacted] Laboratory

Contractor Name: **SAIC (Prime)**

Customer: [redacted]

Dates: March 2012 – December 2012

Under contract with [redacted], SAIC led the design-build effort of a state-of-the-art [redacted] at the [redacted]. The SAIC team delivered the TOL facility in advance of project schedule and under budget. This laboratory combines data environments, simulation tools, and a real-world outdoor test environment into one integrated location for testing innovative transportation concepts for applications in living laboratories across the United States. SAIC worked with stakeholders from academia and within [redacted] to apply a systems engineering approach to design the laboratory, develop a concept of operations, enhance research capabilities, and complete construction in six months from the contract award to the ribbon-cutting ceremony, held on September 29, 2011. SAIC won the re-competed bid for five years of continued support to lab operations and maintenance, including expansion of existing network capabilities to accommodate emerging ITS technologies.

4. [redacted] Security Operations

Contractor Name: **VidSys (Subcontractor)**

Customer: [redacted]

Dates: 2011 (Implementation) – Present (Operation)

The [redacted] selected the VidSys PSIM software and Quantum Secure's Physical Identity and Access Management (PIAM) technology to manage the complex security operations of the new [redacted]. Serving as the basis of the center's Situation Awareness Platform (SAP), the joint solutions deliver an integrated, holistic approach to site-wide security, providing visibility and common correlation of identities and situations across the entire campus. To manage overall security and ensure collaboration across multiple stakeholders – public and private – the [redacted] security team is building a site-wide operations coordination center that connects individual command centers within the campus. Operations and security personnel will work collaboratively with members of the [redacted] to enable complete situation awareness and management across the entire [redacted] site, ultimately ensuring the safety and security of city residents, tourists, first responders, and critical infrastructure. The VidSys PSIM software system brings together all of the disparate security and building systems throughout the [redacted] for continuity and real-time situational awareness. It enables the integration and correlation of data from multiple video assets, devices, and sensor systems, including access control, CCTV, fire, CBRNE, elevator, building management systems, and HVAC. The VidSys PSIM software pro-actively applies analytics and intelligence to the data in order to present security personnel with all the information necessary to verify a situation, and then provides the instructions and tools to coordinate activities across agencies and organizations to resolve the situation quickly.

5. [redacted] Transportation Management Center

Contractor Name: **VidSys (Subcontractor)**

Customer: [redacted]

Dates: 2008 (Implementation) – Present (Operation)

The [redacted] is focused on around-the-clock coordination and communication among the [redacted] other partner agencies in the metropolitan area to manage daily transportation incidents and reduce congestion on some of the busiest expressways in the world. Additionally, it is designed to safely and efficiently move people, goods, services and information vital to the economy through the [redacted] VidSys implemented their PSIM software at the heart of the [redacted] Central Video and Control System (CVCS). The CVCS monitors and manages all incidents within the [redacted]

[redacted] sub-region. The software collects, correlates, and analyzes information from across multiple devices from different vendors and presents intelligent views of the situation to the center operators. The CVCS provides one common operating picture for the multi-agency coordination, empowering the [redacted] operators to effectively manage complex technologies and emergencies by enabling them to focus on the management of situations instead of technologies.

6. [redacted] Security Enhancement

Contractor Name: **VidSys (Subcontractor)** [redacted]

Dates: 2011 (Implementation) – Present (Operation)

To support the City of [redacted] in hosting the [redacted], VidSys extended the City's PSIM platform to [redacted], which had already been providing the City of [redacted] software and strategic counsel as part of a public safety initiative for four years. Less than two weeks before the events, the City installed additional outdoor cameras and integrated those cameras, existing security devices at [redacted] cameras at the center's Metro Rail stop with the VidSys PSIM software. The system provided a complete view of activity in and around the event area and information exchange capabilities between multiple organizations to jointly manage security and safety situations through multiple command centers, established for each security team [redacted] Officials at each command center and near the basketball court shared access to the 300 cameras located throughout areas affected by the event's activities in case of an emergency response requiring full interagency collaboration.

As security concerns were reported, the VidSys PSIM software enabled [redacted] officers to pull up cameras at the concourse level and inside the arena to monitor and search for suspects who matched the descriptions of reported situations. With the VidSys technology, operators were able to track and deliver real-time information on the whereabouts of suspects to officers being dispatched. Following any incidents, they could continue to monitor individuals outside of the stadium and downtown for continued safety. Additional key Public Safety and Homeland Security stakeholders in the region were able to view the same video sources from command centers located in the city.

7. [redacted] Emergency Operations Center

Contractor Name: **BBI Construction/MWA Architects (Subcontractors)** [redacted]

Dates: 1999 (Construction Completed)

Recognizing its susceptibility to earthquakes and other natural disasters that would disrupt operations, the [redacted] selected the SAIC team to build an Emergency Operations Center (EOC) to provide a location for immediate coordination and management [redacted] during a period without normal power or communications. Michael Willis Architects (MWA) and BBI Construction collaborated on the design and construction of the new 14,500 sq-ft addition to an existing firehouse. MWA completely renovated the existing Fire Dispatch Center and added the EOC to the complex, using Beaman's Inc. to implement sophisticated electrical and electronic control systems, including redundant emergency power and communications systems, uninterruptible power for computer systems, and structural strength in excess of essential service facility standards. MWA's architectural design included features to reduce staff member stress, such as daylighting, spatial openness, and noise mitigation. The completed EOC is equipped to coordinate with various [redacted] departments and other response agencies, and serves as a focal point for the City in times of disaster.

8. [redacted] Geospatial Security Mapping System

Contractor Name: **URS/NorthSouth GIS (Subcontractors)** [redacted]

Dates: December 2011 – Present

URS was selected to develop and implement the Geospatial Security Mapping Systems (GSMS) for the [redacted] to produce and enterprise GIS comprised of data, hardware, software, process documentation, training, and support to improve daily operations, prepare for and manage crisis events, and advise recovery efforts. URS conducted a stakeholder

needs assessment and IT systems analysis in order to determine the requirements for GSMS functionality, data, and system architecture. The system is based on ArcGIS for Server and SQL Server technology, and URS converted, migrated, and collected geospatial data from many sources, often using Safe Software FME Desktop, to populate the enterprise geodatabases. NorthSouth GIS (NSG) led the design of the system, selection, installation, and configuration of software, integration of other systems, databases, and live data feeds. NSG also created and delivered PortView, an intuitive and powerful GIS data portal built with Microsoft, ESRI and Latitude Geographics technologies, enhanced by a custom developed tool to facilitate a multi-user and security-sensitive port environment. The GSMS provides increased situational awareness of the physical condition of the [redacted] emergency response infrastructure system and disseminates information that may affect the daily operation plan, security, business continuity, and incident response in a user-friendly spatial interface. In order to raise awareness and educate users of the GSMS at the [redacted] the team implemented an outreach strategy and conducted formal training sessions for GSMS users. After Phase I of the GSMS implementation was completed in June 2012, the team began providing two years of on- and off-site user support and system monitoring and maintenance along with selected enhancements and upgrades. NSG took the lead in writing a five year strategic plan for the implementation of GIS at the maritime, aviation, and commercial real estate divisions of the [redacted], delivered all software training, and continues to assist URS and the [redacted] during the two year support and outreach phase of the project

9. [redacted] Transportation Management Center System Integration

Contractor Name: **Kimley-Horn (Subcontractor)** *Customer:* [redacted]
Dates: July 2009 – September 2010

Kimley-Horn provided system integration services for creating a new transportation network hub at the [redacted] Emergency Operations Center (EOC) Data Center and for integrating the Center with the City network. The Kimley-Horn team coordinated with IT divisions for design approval. Kimley-Horn also installed new firewall, new switch, new virtualization server, and upgraded traffic signal system central server, and provided direction regarding future expansion for new field channels and servers (VantageView intersection video detection camera, Video Management Server).

10. [redacted] Airport CCTV Upgrade

Contractor Name: **TEECOM (Subcontractor)** *Customer:* [redacted]
Dates: June 2012 - Present

Utilizing a Federal Aviation Administration (FAA) grant, [redacted] Airport retained TEECOM to design upgrades and expansions to its CCTV system. The design elements included a site survey, an analysis of existing equipment and infrastructure, a review of the existing control center, integration options to Terminal 2, a cost estimate, and design of a digital network recording system with intelligent video analytics capabilities for the entire airport. Engineering work included the development of full construction documents for upgrading equipment and infrastructure for over 100 cameras. TEECOM also completed a threat assessment to provide recommendations to the [redacted]t to integrate the new technology with the existing systems.

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7.0 FEE PROPOSAL AND BILLING RATES

As specified in the City of Oakland's request for proposal (RFP), Science Applications International Corporation (SAIC) has developed a time and material cost estimate. The price is based on SAIC's experience performing Joint Domain Awareness projects of similar scope and complexity. The price is derived from estimating the number of work hours for each task; estimating the cost of materials, printing, and administrative expenses; and budgeting for reasonable and customary travel expenses.

Exhibit 7- 1 shows the estimated price for each project task. The price for each task includes labor, travel, materials, and other direct costs. The proposal is valid for 60 days after the date of submittal.

Part A - Design/Build/Maintain Technology Linkage System		
Item	Description	Total (Lump Sum)
1	Professional Services	$ 988,718
2	Hardware (servers, storage, netwrok, audio/visual system, etc.)	$ 832,637
3	Software	$ 307,452
4	Training	$ 126,133
5	Support and Maintenance	
	Year 1	$ 134,808
	Year 2	$ 23,235
Part B - Design/Build Existing Building Improvements		
1	Professional Services	$ 67,612
2	Construction (Labor, Tools, Appliances, Equipment, Transportation and Services)	$ 172,795
3	Furniture	$ 5,297

Exhibit 7- 1. Estimated Time and Material Price by Task.

Exhibit 7-2 shows the detailed man-hour breakdown for each project task.

	Prof. Services	H/W	S/W	Trg	MT - Yr1	MT - Yr2
Labor Category	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**	**Hours**
Project Manger OT11A	940			100	30	30
System Engineer 09A	860			140	30	30
System Engineer 08A	64			140	0	0
System Engineer 06A	80			-	0	0
IT Technologist 08A	168			-	0	0
Ops Administrative 05A	-			-	100	0
IT Technologist 08B	48			-	0	0
SME 1	16			16	0	0
Business Finance 08A	-			16	0	0
Business Finance 07A	90			-	8	8
IT Technologist 09A	56			-	0	0
Ops Technologist 10A	-			60	0	0
Project Manager 10B	112			-	20	20
System Engineer 10B	1,000			40	30	30
SME 2	40				0	0
SME 3	46				0	0
SME 4	160				0	0
SME 5	80				0	0
SME 6	24				0	0
SME 7	84				0	0
SME 8	16				0	0
SME 9	8				0	0
SME 10	40				0	0
SME 11	8				0	0
SME 12	8				0	0
SME 13	8				0	0
SME 14	56				0	0
SME 15	24				0	0
	4,036	-	-	512	218	118

Exhibit 7-2. Man-Hour Breakdown By Task.

Exhibit 7-3 is SAIC's rate schedule, which shows hourly rates by labor category. The hourly rates are all inclusive of salary, fringe benefits, overhead, and profit. The hourly rates do not include expenses (travel, materials, and other direct costs).

Labor Category	Base Period Rate	OY1 Rate
Project Manager OT11A	$226.29	$233.18
System Engineer 09A	$160.20	$165.09
System Engineer 08A	$128.14	$132.03
System Engineer 06A	$86.44	$89.09
IT Technologist 08A	$129.59	$133.51
Ops Administrative 05A	$72.32	$74.52
IT Technologist 08B	$114.45	$117.84
SME 1	$374.92	$386.30
Business Finance 08A	$130.47	$134.40
Business Finance 07A	$83.05	$85.59
IT Technologist 09A	$124.93	$128.77
Ops Technologist 10A	$144.43	$148.85
Project Manager 10B	$148.65	$153.23
System Engineer 10B	$144.84	$149.29
SME 2	$336.54	
SME 3	$280.45	
SME 4	$178.79	
SME 5	$207.53	
SME 6	$212.02	
SME 7	$180.61	
SME 8	$308.49	
SME 9	$190.71	
SME 10	$168.26	
SME 11	$133.28	
SME 12	$132.80	
SME 13	$158.52	
SME 14	$139.11	
SME 15	$118.91	

Exhibit 7-3. Hourly Rates by Classification.

Exhibit 7-4 is SAIC's travel and other direct costs.

Cost Element	Totals
Travel	$14,350
ODCs	$19,572
Total	**$33,922**

Exhibit 7-4. Other Direct Costs.

7.1 Pricing Assumptions

- **Agreement type.** This proposal is submitted based upon a Time and Materials (T&M) agreement being awarded to SAIC in accordance with our technical approach. This proposal is based upon our current understanding of the project. Revisions will be subject to mutual agreement on the final work scope/schedule and other technical/management requirements desired by City of Oakland.
- **Period of Performance.** This proposal is based upon a period of performance beginning January 1, 2013 and continuing through December 31, 2020.

- **Proposal.** SAIC's project approach is based upon the receipt of an agreement for all of the services proposed and is subject to adjustment in price and schedule in the event of differing tasks or other requirements are required than are set forth in the proposal. The final approved proposal will be part of the awarded agreement by reference or incorporated.
- **Living Wage Ordinance Reporting**. SAIC assumed that the City would grant SAIC a waiver for the liquidated damages under the reporting section of the ordinance.
- **Schedule P - Nuclear Free Zone**. SAIC assumed that the City would grant SAIC a waiver for this requirement.
- **Professional Services Agreement – Section 12 - Liquidated Damages**. SAIC has assumed that liquidated damages section would not apply due to the execution of a performance bond under Section 14.
- **Professional Services Agreement – Section 38 – Right to Offset**. SAIC has assumed that this section would not apply to these services.
- **Exhibit 4, 2. Inspection of Books and Records/Right to Audit**: SAIC assumes that any audits conducted under an agreement between the City of Oakland and SAIC will not be conducted by a competitor of SAIC. Any such auditor shall be subject to a non-disclosure agreement acceptable to SAIC. SAIC agrees to the scope of the audit including any and all documents developed and maintained as part of the project; however, all financial data provided in connection with any such audit will be limited to the pricing data included in SAIC's proposal.
- **Exhibit 4, 11. Prompt Payment Ordinance:** SAIC assumes that mobilization fees as set forth in the 3rd paragraph of this clause do not apply to the services to be performed under this RFP.
- The information presented in the ConOps and TLS documents are sufficient to guide the conceptual design.
- Verification of the goals of the system will be a short process having already been done under the current ConOps.
- Key stakeholders are the OPC, ODF, EOC, and the Port.
- As the SOW calls for COTS products extensive customization of the systems or documentation will not be required to meet the Port's objectives.
- **RiskShield™ Software License** SAIC assumes that the VidSys's software license for the RiskShield™ PSIM software will be incorporated into the resulting contract.

7.2 Terms and Conditions

SAIC has conducted a review of the City's sample professional services agreement and would like the City to consider the following modification requests:

- ~~**10. Ownership of Results:**~~
  ~~*Any interest of Contractor or its Subcontractors, in specifications, studies, reports, memoranda, computation documents in drawings, plans, sheets prepared by Contractor or its Subcontractors under this Agreement shall be assigned and transmitted to the City. However, Contractor may retain and use copies for reference and as documentation of its experience and capabilities.*~~

  (a) City and Contractor shall each retain ownership of, and all right, title and interest in and to, their respective pre-existing Intellectual Property, and no license therein, whether express or implied, is granted by this Agreement or as a result of the services performed hereunder. To the extent the parties wish to grant to the other rights or interests in pre-existing Intellectual Property, separate license agreements on

mutually acceptable terms will be executed.

(b) Contractor grants to City a royalty-free, paid up, worldwide, perpetual, non-exclusive, non-transferable license to use any Contractor Intellectual Property incorporated into any Deliverable, solely for City's use of that Deliverable for its internal business purposes. Contractor shall retain ownership of and unrestricted right to use any Intellectual Property. The services performed and any Deliverable produced pursuant to this Agreement are not "works for hire."

(c) As used herein, "Intellectual Property" shall mean inventions (whether or not patentable), works of authorship, trade secrets, techniques, know-how, ideas, concepts, algorithms, and other intellectual property incorporated into any Deliverable and first created or developed by Contractor in providing the services.

- **13. Limitation of Liability:**

(a) Either party's liability to the other party for any and all liabilities, claims or damages arising out of or relating to this Agreement, howsoever caused and regardless of the legal theory asserted, including breach of contract or warranty, tort, strict liability, statutory liability or otherwise, shall not, in the aggregate, exceed $5 million or the amount actually paid to Contractor under this Agreement, whichever is less.

(b) In no event shall either party be liable to the other for any punitive, exemplary, special, indirect, incidental or consequential damages (including, but not limited to, lost profits, lost business opportunities, loss of use or equipment down time, and loss of or corruption to data) arising out of or relating to this Agreement, regardless of the legal theory under which such damages are sought, and even if the parties have been advised of the possibility of such damages or loss.

(c)This limitation of liability shall not apply to all actions, demands, or claims by any third party for death, bodily injury, damage to tangible property in connection with or arising under this Agreement.

- **15. Indemnification:**

(a) General Indemnification. Contractor shall indemnify, hold harmless, and (at City's request with Counsel acceptable to City), defend City, its Council members, directors, officers, employees, agents, servants, and independent contractors (each of which persons and entities are collectively referred to herein as "Indemnitees") from any and all actions, causes of actions, claims, injuries (including, without limitation, injury to or death of an employee of Contractor or any of its structures), liabilities (of every kind, nature and description), losses, demands, debts, liens, obligations, judgments, administrative fines, damages, (incidental or consequential) costs, expenses, and attorneys' fees (collectively referred to herein as "Actions") ~~*caused by or arising out of*~~ *to the extent resulting from:*

(1) ~~*a breach of Contractor's obligations, representations or warranties under this Agreement,*~~
(2) ~~*any act or failure to act in the course of performance by Contractor under this Agreement,*~~
(3) any negligent ~~*(passive or active)*~~ *or willful acts or omissions in the course of performance by Contractor under this Agreement,*
(4) any claim for personal injury (including death) or property damage to the extent based on the strict liability or caused by any negligent act, error or omission of Contractor;

(b) Proprietary Rights Indemnity. Contractor shall indemnify, defend, save and hold harmless Indemnitees from any and all Actions arising out of claims that the Services Contractor shall provide infringe upon or violate the United States Intellectual Property Rights of others ~~*either directly or, indirectly*~~ *to the extent that Contractor's Services alter the manner in which the City uses its systems.·* ~~*If the Services Contractor shall provide will become the subject of an Action or claim of infringement or violation of the Intellectual Property Rights of a third party, City, at its option shall require Contractor, at Contractor's sole expense to: (1)procure for City the right to continue using the Services; or (2) replace or modify the Services so that no infringement or other violation of Intellectual Property Rights occurs, if City determines that: (A) such replaced or modified Services will operate in all material respects in conformity with the then-current specifications for the Services; and (B) City's use of the Services is not impaired thereby.*~~

~~*Contractor's obligations under this Agreement will continue uninterrupted with respect to the replaced or modified Services as if they were the original Services;*~~

Provided the City (1) provides prompt notice of any such claim to Contractor, (2)Gives Contractor sole control of the defense and settlement of the claim; (3) provides Contractor all reasonably available information, assistance, and ad authority to defend; and (4) has not compromised or settled such claim without Contractor's prior written consent. Contractors infringement indemnity obligation shall not extend to any claims arising out of (1) services performed in accordance with specifications or a Statement of Work (SOW) provided by the City; (2) any modification of a service or item provided by Contractor under this Agreement; (3) use of any item or service provided under this Agreement in a manner for which such item or service was not designed; or (5) combination of an item or service provided under this Agreement with any item not provided by Contractor in a manner not intended for its use. In the event of any claim of infringement, Contractor may at his option, (1) modify the item or service so that it is no longer infringing but functionally equivalent, (2) obtain for the City the fights necessary to use such item or service at Contractor's expense,; or (3) if none of the foregoing is commercially practicable, terminate this Agreement and refund the amounts paid by the City for such infringing item or service.

(c) For the purposes of the indemnification obligations set forth herein, the term "Contractor" includes, without limitation, Contractor, its officers, directors, employees, representatives, ~~*agents, servants, sub consultants, and subcontractors*~~*.*

(d) Contractor acknowledges and agrees that it has an immediate and independent obligation to indemnify and defend Indemnitees from any Action which ~~*potentially*~~ *falls within this indemnification provision, which obligation shall arise at the time an Action is tendered to Contractor by City and continues at all times thereafter*~~*, without regard to any alleged or actual contributory negligence of any Indemnitee*~~*. Notwithstanding anything to the contrary contained herein, Contractor's liability under this Agreement shall not apply to any Action arising from the sole negligence, active negligence or willful misconduct of an Indemnitee.*

(e) City shall give Contractor prompt written notice of any Action and shall fully cooperate with Contractor in the defense and all related settlement negotiations to the extent that cooperation does not conflict with City's interests. Notwithstanding the foregoing, City shall have the right, if Contractor fails or refuses to defend City with Counsel acceptable to City, to engage its own counsel for the purposes of participating in the defense. In addition, City shall have the right to withhold payments due Contractor in the amount of reasonable defense costs actually incurred. In no event shall Contractor agree to the settlement of any claim described herein without the prior written consent of City.

(f) All of Contractor's indemnification obligations hereunder are intended to apply to the fullest extent permitted by law (including, without limitation, California Civil Code Section 2782) and shall survive the expiration or sooner termination of this Agreement.

(g) Contractor's indemnification obligations hereunder shall not be limited by the City's insurance requirements contained in Schedule B hereof, or by any other provision of this Agreement.

- **Limited Warranty:** SAIC request the City to add the following provision:

  - *(a) Contractor warrants that the Services provided under this Agreement shall be performed with that degree of skill and judgment normally exercised by recognized professional firms performing the same or substantially similar services. In the event of any breach of the foregoing warranty, provided City has delivered to Contractor timely notice of such breach as hereinafter required, Contractor shall, at its own expense, in its discretion either (1) re-perform the non-conforming Services and correct the non-conforming Deliverables to conform to this standard; or (2) refund to City that portion of the Price received by Contractor attributable to the non-conforming Services and/or Deliverables. No warranty claim shall be effective unless City has delivered to Contractor written notice specifying in detail the non-conformities within 90 days after performance of the non-conforming Services or tender of the non-conforming Deliverables. The remedy set forth in this section is the sole and exclusive remedy for breach of the foregoing warranty.*

  - *(b) CONTRACTOR SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED STANDARDS, GUARANTEES, OR WARRANTIES, INCLUDING ANY WARRANTIES OF*

MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, AND ANY WARRANTIES THAT MAY BE ALLEGED TO ARISE AS A RESULT OF CUSTOM OR USAGE, ANY WARRANTY OF ERROR FREE PERFORMANCE, OR ANY WARRANTY OF THIRD PARTY PRODUCTS, OR FUNCTIONALITY OF THE CITY'S HARDWARE, SOFTWARE, FIRMWARE, OR COMPUTER SYSTEMS.

- *(c) City represents and warrants to Contractor that City has the right to use and furnish to Contractor for Contractor's use in connection with this Agreement any information, specifications, data or Intellectual Property that Customer has provided or will provide to Contractor in order for Contractor to perform the Services and to create the Deliverables identified within the scope under this Agreement.*

7.3 Administrative Details

- **Performance Bond**: SAIC proposes to comply with the requirement to provide a Performance Bond for the Service Agreement if selected and pending contract negotiations with the following proposed conditions;

a) During contract negotiations, the City would further discuss and clarify with the SAIC whether or not the work scope risk necessitates a Performance Bond and for what amount not to exceed the negotiated contract price

b) If the City determines that a Performance Bond is required, will respectfully recommend in consultation and for consideration by the City of Oakland the following;

   a. the Performance Bond may be segregated into two components, where each component is associated with the two major work scope PART-B Existing Building Improvements (EBI) and the PART-A Technology Linkage System completion
   b. Acceptance criteria proposed by SAIC for the separate asynchronous time delivery of the design-build and implemented PART-B Existing Building Improvements (EBI) and the PART-A Technology Linkage System
   c. PART-A TLS completion may occur when the TLS TASK 2 implementation, system integration and quality assurance testing efforts are completed by SAIC (anticipated around June 30, 2014) where at which point a separate TASK 3 24 Month Service Agreement shall commence and the SAIC will transition ownership of the delivered product software licensing and maintenance service agreement directly over to the City.

- **Invoicing**: Invoices will be submitted on a monthly basis. Payment terms are to be net 15 from the date of receipt a proper invoice from SAIC.

a. City will pay SAIC on a "time and materials" basis for labor expended and costs and expenses incurred, as hereinafter described. SAIC will use good faith efforts to complete the services and deliver the deliverables within the estimated price set forth herein, but does not guarantee that the services can be completed or the deliverables can be delivered within the estimated price.

b. City shall pay to SAIC for labor expended in performing the services an amount computed by multiplying the applicable hourly billing rate set forth herein by the number of hours worked. Fractional parts of an hour shall be payable on a prorated basis.

c. In addition to paying for labor expended, City shall reimburse SAIC for the cost of all goods and materials purchased exclusively for use in performing the Services or which are incorporated into any deliverable, as well as for all reasonable travel expenses and miscellaneous out-of-pocket expenses incurred in performing the Services. Such costs and expenses shall be subject to the administrative and overhead charge of 18%.

d. City shall have no obligation to pay SAIC more than the estimated price. SAIC shall have no obligation to provide labor or incur costs or expenses having a combined value more than the estimated price, even if the services have not been completed or the deliverables delivered, or the results desired by City have not been achieved. The parties may, by mutual written agreement, increase the estimated price.

e. SAIC shall have a lien upon and may retain or repossess any and all deliverables if City does not make payment in full to SAIC.

f. Payment should be made to SAIC by either EFT or check. SAIC herein provides the necessary information for payment by electronic Funds Transfer (EFT). The following bank information is provided:

Science Applications International Corporation
Citibank, N.A.
399 Park Avenue
New York, New York 10043
[redacted]

Should EFT payment not be available, please remit payments to the following address:

Science Applications International Corporation
P.O. Box 223058
Pittsburgh, PA 15251-2058

- **Resources to be Provided by Customer:** Customer shall provide, maintain and make available to SAIC, at Customer's expense and in a timely manner, the resources described in this section, and such other additional resources as SAIC may from time to time reasonably request in connection with SAIC's performance of the services. Delays in the provision of these resources may result in delays in the performance of the services, or an increase in the Price.

  (a) Customer will designate qualified Customer personnel or representatives to consult with SAIC on a regular basis in connection with the services. Customer will furnish such documentation and other information as is reasonably necessary to perform the services.

  (b) Customer shall furnish access to Customer's premises, and appropriate workspace for any SAIC personnel working at Customer's premises, as necessary for performance of those portions of the services to be performed at Customer's premises.

- **Authorized Negotiators**: The names and telephone numbers of SAIC's authorized contract representative for the purposes of negotiation and contract administration are:

	Primary	Secondary
Name	Melanie Ludwig	Thomas A. Elliott
Title	Sr. Contract Representative	Contracts Manager
Address	1710 SAIC Drive, M/S 1-2-2	4449 Easton Way, Suite 130
	McLean, VA 22102	Columbus, OH 43219
Phone	(703) 862-3146	614.975.9155
Fax	(703) 738-7010	614.593.6396
Email	Melanie.J.Ludwig@saic.com	Thomas.a.elliott@saic.com

8.0 RFP CHECKLIST

As specified in the City of Oakland's request for proposal (RFP), SAIC has included a copy of the following signed forms with our submission:

- ☑ Schedule E – Project Consultant Team (for both PART-A and PART-B)
- ☑ Schedule O – Campaign Contribution Limits
- ☑ Signed Addenda (for both Addendum 1 and Addendum 2)
- ☑ DUNS Number Reporting Form

SCHEDULE O

CITY OF OAKLAND

CONTRACTOR ACKNOWLEDGEMENT OF CITY OF OAKLAND CAMPAIGN CONTRIBUTION LIMITS

FOR CONSTRUCTION, PROFESSIONAL SERVICE & PROCUREMENT CONTRACTS

To be completed by City Representative prior to distribution to Contractor

City Representative _____ Phone _____ Project Spec No. _____

Department _____ Contract/Proposal Name _____

This is an ☑ Original ___ Revised form (check one). If Original, complete all that applies. If Revised, complete Contractor name and any changed data.

Contractor Name SAIC Phone (614) 975-9155

Street Address 1710 SAIC Drive City McLean, State VA Zip 22102

Type of Submission (check one) ☐ Bid ☑ Proposal ☐ Qualification ☐ Amendment

Majority Owner (if any). A majority owner is a person or entity who owns more than 50% of the contracting firm or entity.

Individual or Business Name _____ Phone ____-____-_____

Street Address _____ City _____, State ____ Zip _____

The undersigned Contractor's Representative acknowledges by his or her signature the following:

The Oakland Campaign Reform Act limits campaign contributions and prohibits contributions from contractors doing business with the City of Oakland and the Oakland Redevelopment Agency during specified time periods. Violators are subject to civil and criminal penalties.

I have read Oakland Municipal Code Chapter 3.12, including section 3.12.140, the contractor provisions of the Oakland Campaign Reform Act and certify that I/we have not knowingly, nor will I /we make contributions during the period specified in the Act.

I understand that the contribution restrictions also apply to entities/persons affiliated with the contractor as indicated in the Oakland Municipal Code Chapter 3.12.080.

If there are any changes to the information on this form during the contribution-restricted time period, I will file an amended form with the City of Oakland.

Thomas A Elliott Digitally signed by Thomas A Elliott DN: cn=Thomas A Elliott, o=SAIC, ou, email=thomas.a.elliott@saic.com, c=US Date: 2012.11.14 11:30:00 -05'00'

Signature

12/10/12
Date

Thomas A. Elliott
Print Name of Signer

Contracts Manager
Position

To be Completed by City of Oakland after completion of the form

Date Received by City: ___/___/___ By _____

Date Entered on Contractor Database: ___/___/___ By _____

Revised 3/2/2009

CITY OF OAKLAND

LIONEL J. WILSON BUILDING • 150 FRANK H. OGAWA PLAZA, SUITE 7216 • OAKLAND, CA 94612

Department of Information Technology

(510) 238-2274
FAX (510) 238-2281
TDD (510) 238-3254

ATTENTION ALL BIDDERS

Addendum No.1 to the
Contract Documents for
Request for Proposal
for the
City of Oakland/Port of Oakland Joint Domain Awareness Center

Date: November 9, 2012

From: Department of Information Technology and the Contracts and Compliance Division

To: Prospective Bidders

1. This Addendum No. 1 forms a part of the Contract Documents and modifies the original Request for Proposal Documents.

2. Acknowledge receipt of Addendum No. 1 in the space below and attach this signed document to the Proposal.

3. A pre-proposal meeting was held on Wednesday, November 7, 2012.

4. The Submittal date has changed to Dec 10, 2012 before 2:00 pm.

5. Please find the additional information related to the revised dates and site facility tour

1) RFP Schedule Revision:

Current RFP Schedule

City Issues RFP: Sunday, October 14, 2012
Mandatory Pre-Proposal Date and Time: Wednesday, November 7, 2012, 11:00 AM
Deadline for Questions: Tuesday, November 13, 2012, Noon
City Response to Proposer's Questions: Friday, November 16, 2012
Proposal Due Date and Time: Tuesday, November 27, 2012 at 2:00 PM
Short List of Qualified Proposer's: Tuesday, December 4, 5:00 PM
Proposer Interviews (at discretion of City): Monday, December 10, 2012
City Selection: Friday, December 14

Revised RFP Schedule

City Issues RFP: Sunday, October 14, 2012
Mandatory Pre-Proposal Date and Time: Wednesday, November 7, 2012, 11:00 AM
Optional DAC Facility Tour: Friday, November 16, 10:00 AM PST
Deadline for Questions: Monday, November 26, 2012, 4:00 PM
City Response to Proposer's Questions: Friday, November 30, 2012
Proposal Due Date and Time: Monday, December 10, 2012, 2:00 PM
Short List of Qualified Proposer's: Friday, December 14, 5:00 PM
Proposer Interviews (at discretion of City): Tuesday, December 18, 2012
City Selection: Friday, December 21, 2012

2) Optional DAC Facility Tour – Friday, November 16, 10:00 AM – Only one (1) representative per company that attended the Mandatory Pre-Proposal Meeting will be admitted for the DAC Facility Tour. Attendees are required to be at 1605 Martin Luther King Jr. Way, Oakland, CA at 10:00 AM.

3) Cost Proposal Form – The following cost proposal format shall be used for cost proposal submission.

City of Oakland/Port of Oakland Joint Domain Awareness Center - Cost Proposal Form

Part A - Design/Build/Maintain Technology Linkage System

Item	*Description*	*Total (Lump Sum)*
1	Professional Services	
2	Hardware (servers, storage, network, audio/visual system, etc.)	
3	Software	
4	Training	
5	Support and Maintenance	
	Year 1	
	Year 2	

Part B – Design/Build Existing Building Improvements

1	Professional Services	
2	Construction (Labor, Tools, Appliances, Equipment, Transportation, and Services)	
3	Furniture	

6. For questions regarding the following topics below:

1. iSupplier questions, please send an email to isupplier@oaklandnet.com
2. Requesting to receive an invitation to participate in a project, please send an email to DCPCA@oaklandnet.com.
3. Project related questions contact the Project Manager, Ahsan Baig, at 510-238-3010.
4. Contract compliance questions contact Vivian Inman at 510-238-6261.
5. Contract administration questions (e.g., planholders list, attachments, etc.) please call 510-238-3190, fax your request to 510-238-6267 or log on to the following website http://www2.oaklandnet.com/Government/o/CP/s/PlanHoldersList/index.htm.

Ahsan Baig, Project Manger

ADDENDUM NO. 1 ACKNOWLEDGED:

Digitally signed by Thomas A Elliott
DN: cn=Thomas A Elliott, o=SAIC, ou, email=thomas.a.elliott@saic.com, c=US
Date: 2012.11.14 10:54:55 -05'00'

Signature of Bidder

14 Nov 2012

Date

CITY OF OAKLAND

LIONEL J. WILSON BUILDING • 150 FRANK H. OGAWA PLAZA, SUITE 7216 • OAKLAND, CA 94612

Department of Information Technology

(510) 238-2274
FAX (510) 238-2281
TDD (510) 238-3254

ATTENTION ALL BIDDERS

Addendum No.2 to the
Contract Documents for
Request for Proposal
for the
City of Oakland/Port of Oakland Joint Domain Awareness Center

Date: November 30, 2012

From: Department of Information Technology and the Contracts and Compliance Division

To: Prospective Bidders

1. This Addendum No. 2 forms a part of the Contract Documents and modifies the original Request for Proposal Documents.

2. Acknowledge receipt of Addendum No. 2 in the space below and attach this signed document to the Proposal.

A) **Request for Proposal (RFP) for City of Oakland/Port of Oakland Joint Domain Awareness Center, Page 21: REVISE the first sentence of Section III-A-24-*Correction Period*, to read as follows:** "If within two (2) years after date of Final Acceptance or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special warranty or guarantee required by the Contract Documents or supplied with regard to the Work or required by any specific provision of the Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to the City and in accordance with City's written instructions, (i) correct such defective Work or, if it has been rejected by the City, remove it from the Site and replace it with Work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other Work or the Work of others resulting therefrom."

B) **Request for Proposal (RFP) for City of Oakland/Port of Oakland Joint Domain Awareness Center, Page 27: REVISE Section III-F-3-b, to read as follows:**
Request for Proposal Submittal.....25 Points

- Total points from the initial review of proposals will be allocated proportionally based on a maximum allowance of 25 points.

C) **Per Project Specifications for the 90% Bridging Documents for Design/Build Construction for the Domain Awareness Center – Section 27 41 00 Audio-Visual Communications – Part 2 Systems and Equipment – 2.01 A 1 d *Program Audio*: Revise the sentence to read as follows:**
"Audio will be able to be monitored at existing user headset stations where sources can be self-selected, or as a master feed through an existing two channel speaker system within the situation room and selected at the touch panel."

D) **Per Project Specifications for the 90% Bridging Documents for Design/Build Construction for the Domain Awareness Center – Section 27 41 00 Audio-Visual Communications – Part 2 Systems and Equipment – 2.01 A 1, add:** *"h – Office of Emergency Services 203: The two existing, wall mounted LCD displays shall be connected to the media switcher feeding the video-wall and will be able to view the same sources. Source selection will be made at the main touch panel in the Situation Room."*

E) **Per "Restricted Documents" – Project Specifications for the 90% Bridging Documents for Design/Build Construction for the Domain Awareness Center, the following sections are issued as an attachment to this Addendum:**

- Division 2 – Existing Building Conditions: 02 41 20 Selective Building Demolition
- Division 5 – Metals: 05 40 00 Cold-Formed Framing
- Division 6 – Wood, Plastics, and Composites: 06 10 50 Misc. Rough Carpentry
- Division 7 – Thermal and Moisture Protection: 07 90 00 Joint Sealants
- Division 8 – Openings: 08 11 15 Pressed Steel Frames
- Division 8 – Openings: 08 14 00 Wood Doors
- Division 8 – Openings: 08 70 00 Hardware
- Division 8 – Openings: 08 80 00 Glazing
- Division 9 – Finishes: 09 21 00 Gypsum Board Assemblies
- Division 9 – Finishes: 09 65 10 Resilient Base
- Division 9 – Finishes: 09 65 20 Resilient Tile Flooring
- Division 9 – Finishes: 09 68 00 Carpeting
- Division 9 – Finishes: 09 90 00 Painting and Coating
- Division 10 – Specialties: 10 11 00 Visual Display Boards

3. For questions regarding the following topics below:

1. iSupplier questions, please send an email to isupplier@oaklandnet.com
2. Requesting to receive an invitation to participate in a project, please send an email to DCPCA@oaklandnet.com.
3. Project related questions contact the Project Manager, Ahsan Baig, at 510-238-3010.
4. Contract compliance questions contact Vivian Inman at 510-238-6261.
5. Contract administration questions (e.g., plan holders list, attachments, etc.) please call 510-238-3190, fax your request to 510-238-6267 or log on to the following website http://www2.oaklandnet.com/Government/o/CTS/PlanHoldersList/index.htm.

Ahsan Baig, Project Manger

ADDENDUM NO. 2 ACKNOWLEDGED:

Signature of Bidder

12/4/12
Date

CITY OF OAKLAND

DATA UNIVERSAL NUMBERING SYSTEM (D-U-N-S) NUMBER

PROFESSIONAL SERVICES TO DESIGN/BUILD/MAINTAIN CITY OF OAKLAND/PORT OF OAKLAND JOINT DOMAIN AWARENESS CENTER

Funded under the American Recovery and Reinvestment Act of 2009 (ARRA)

- Complete and submit this form with your Bid or Proposal.
- Your failure to submit your D-U-N-S Number may result in your submission being deemed non-responsive. See Project Documents for further details.

CONTRACTOR NAME: Science Applications International Corporation

BUSINESS ADDRESS (D-U-N-S Number Location):

Street: 1710 SAIC Drive

City: McLean

State: VA

ZIP Code: 22102

D-U-N-S Number: 83-306-3055

Contact Name: Melanie Ludwig

Telephone Number: 703-862-3146