

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
ACTION AGENDA SUMMARY

DEPT: Chief Executive Office

BOARD AGENDA # \*B-3

Urgent

Routine

AGENDA DATE November 1, 2011

CEO Concurs with Recommendation YES  NO

4/5 Vote Required YES  NO

*opt*  
(Information Attached)

SUBJECT:

Approval of the Plans and Specifications for the Strategic Business Technology Data Center Server Room Relocation and Improvements at 3705 Oakdale Road; Authorize Invitation to Bids, Set the Bid Date for December 14, 2011 at 2:00 p.m., and Related Actions

STAFF RECOMMENDATIONS:

1. Approve the plans and specifications for the Strategic Business Technology Data Center Server Room relocation and improvements at 3705 Oakdale Road prepared by Miller Pezzoni and Associates, Inc.
2. Authorize the Project Manager to issue a notice inviting bids for the construction of the project; to set a due date of December 14, 2011 at 2:00 p.m., to modify the bid date if necessary; to open and evaluate bids, and return to the Board of Supervisors to recommend an award to the lowest responsible bidder.

(Continued on Page 2)

FISCAL IMPACT:

The objectives for the Strategic Business Technology Server Room Relocation Project are to ensure that the data center and server room functions are protected and to ensure business continuity in time of an emergency. On January 12, 2010 the Board of Supervisors authorized a contract with Miller-Pezzoni and Associates for the engineering and design of an expanded Server Room project at SBT's current location at 801 11<sup>th</sup> Street in downtown Modesto.

(Continued on Page 2)

BOARD ACTION AS FOLLOWS:

No. 2011-652

On motion of Supervisor O'Brien, Seconded by Supervisor De Martini

and approved by the following vote,

Ayes: Supervisors: O'Brien, Chiesa, Withrow, De Martini, and Chairman Monteith

Noes: Supervisors: None

Excused or Absent: Supervisors: None

Abstaining: Supervisor: None

1) X Approved as recommended

2) \_\_\_\_\_ Denied

3) \_\_\_\_\_ Approved as amended

4) \_\_\_\_\_ Other:

MOTION:

*Christine Ferraro*

ATTEST: CHRISTINE FERRARO TALLMAN, Clerk

File No.

**STAFF RECOMMENDATIONS: (Continued)**

3. Authorize to the Project Manager working in collaboration with Strategic Business Technology to issue a notice inviting bids for the various stand alone equipment and component items needed to furnish and equipment the Server Room Project; (including but not limited to, Uninterruptible Power Supply (UPS) package, equipment and environmental monitoring hardware and software, cabling, cable management, server racks, accessories, power distribution units, power cords, installation/setup) and to set a due date of December 7, 2011 at 2:00 p.m.; and to modify the bid date if necessary; to open and evaluate bids, and return to the Board of Supervisors to recommend an award to the lowest responsible bidder for the furnishings and equipment needed for the Project.

**FISCAL IMPACT: (Continued)**

During the design process, several issues arose resulting in a review of the project location. The project team identified a more favorable location adjacent to the Stanislaus Regional 911 computer facility at 3705 Oakdale Road in Modesto. On April 26, 2011, the Board of Supervisors approved Amendment No. 2 with Miller-Pezzoni and Associates, Inc. of Modesto, California to develop plans and specifications for the Strategic Business Technology Data Center improvements at the newly proposed location.

Since that time, Chief Executive Office, Capital Projects, SBT, and SR 911 staff have developed a design solution with Miller Pezzoni and Associates, Inc. that will ensure this significant investment in technology infrastructure assets are protected, and provides for a collateral benefit to the partnering agencies now and into the future. The recommended design solution components at 3705 Oakdale Road includes the following:

- Co-locates critical server functions in a safe and secure environment;
- Protects assets by upgrading to a dry fire suppression system;
- Upgrades site and building access in compliance with Americans with Disabilities Act requirements;
- Back-up Generator for the SBT Data Center and SR911;
- Integrates an uninterruptible power supply system (UPS) in the event of a power failure/outage at the site; and
- Relocates Stanislaus Regional 911 staff to efficiently reuse vacant existing space that will meet their daily operational needs.

With these recommended components, the total estimated project budget is anticipated to increase from \$1.38 million to \$1.76 million, which is primarily as a result of adding a

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back-up emergency power generator. Non-general fund sources are available for the total project cost as follows:

<b>SBT Data Center Estimated Sources</b>	<b>Amount</b>
<b>Strategic Business Technology Fund Balance</b>	<b>\$858,407</b>
<b>Chief Executive Office Plant Acquisition</b>	<b>\$131,000</b>
<b>Criminal Justice Facilities Fund</b>	<b>\$231,000</b>
<b>Public Facility Fees</b>	<b>\$547,627</b>
<b>Total</b>	<b>\$1,768,034</b>

<b>SBT Data Center Estimated Uses</b>	<b>Amount</b>
<b>Salaries: Project Management</b>	<b>\$115,167</b>
<b>Services and Supplies</b>	<b>\$52,192</b>
<b>Architectural Design Services</b>	<b>\$166,280</b>
<b>Cost Applied Charges</b>	<b>\$3,875</b>
<b>Construction Contractor, Data Communicaitons, Design Contingency</b>	<b>\$1,154,499</b>
<b>Server Room Equipment and Components</b>	<b>\$276,021</b>
<b>Total Estimated Uses</b>	<b>\$1,768,034</b>

The Project Architect/Engineer has estimated that the project can be delivered within the sources of available funds for this effort. The Architect/ Engineer also recommends bidding the stand alone equipment and components needed for the server room project separately to obtain the lowest cost for the County.

The recommended project plan was presented to the Board of Supervisors Capital Facilities Committee comprised of Supervisors Monteith and O'Brien. In addition, the design solution and project scope was presented by the Project Manager to the Stanislaus Regional 911 Joint Powers Agency Commission on October 5, 2011.

At this time, the Project Manager is requesting the Board of authorize the notice inviting bids for the construction of the project; on December 14, 2011 at 2:00 p.m.; to modify the bid date if necessary; to open and evaluate bids, and return to the Board of Supervisors to recommend an construction contract award to the lowest responsible bidder.

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Staff is also recommending a notice inviting bids for the server room equipment and components on December 7, 2011 at 2:00 p.m., to modify the bid date if necessary; to open and evaluate bids, and return to the Board of Supervisors to recommend an award to the lowest responsible bidder.

The construction project bid will include four add alternates to be evaluated in a blind bid process if funds are available based on contractor pricing:

- Addition of an air conditioning unit for future cooling for the UPS room when additional future UPS may be added;
- Renovation of the existing restrooms;
- Addition of a second uninterruptible power supply unit for increased redundancy; and
- Addition of a second back-up fire suppression reserve tank.

Once the bids are evaluated, staff will return to the Board of Supervisors to recommend a contract award to the lowest responsible bidder and set the final recommended construction budget through construction completion.

## **DISCUSSION:**

### Background

The Strategic Business Technology Department maintains a data center that houses the core County Information Technology systems, such as the County website, Oracle Financial Management System and PeopleSoft Human Resource Management System. In addition to enterprise systems, the County SBT Data Center houses many of the County departments' servers. Due to continued growth, the current facility is at capacity and can no longer provide space for additional servers or network infrastructure equipment.

On October 6, 2009, the Board of Supervisors authorized the Chief Executive Officer to issue a Request for Proposal (RFP) for design, specifications and scoping phase for the necessary improvements needed for the Strategic Business Technology Data Center. The purpose of the project is to provide essential protections for the County's Server Room for Strategic Business Technologies to ensure that the Center is adequately protected and can withstand emergency conditions. The server room systems manage crucial business and personal data, operate software applications for the County's core business, and maintain the essential computer hardware on which these services and data reside. An outage at any time can be disastrous if the proper procedures and equipment are not in place for a timely recovery.

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On January 12, 2010, the Board of Supervisors approved awarding a contract for the design and scoping phase for the Strategic Business Technology Data Center improvements to Miller-Pezzoni and Associates, Inc. of Modesto, California for the lump sum amount not to exceed \$99,200.

The project team worked with Miller-Pezzoni and Associates, Inc. to initially plan the improvements of the Data Center at its current location, on the fourth floor at 801 11<sup>th</sup> Street and to identify the requirements and components needed for construction. However, as scoping efforts continued, and a thorough evaluation conducted, it was determined that 801 11<sup>th</sup> Street location had several additional challenges including the following:

- Locations initially considered viable for the backup generator placement proved challenging due to space limitations, noise, fumes, or proximity to existing structures.
- Additional electrical service would be required, which would necessitate the installation of a new electrical service.
- The load-bearing capacity of the floor became a major concern. The density of the equipment slated to be deployed in the new data center would increase the amount of load on the building and would exceed the capacity of the current structure.
- Inadequate space exists on the roof for the requisite air conditioning units to support the new data center, which would require compromises in design.

As a result of these unanticipated findings, the project team reconvened to further evaluate and explore viable options for locating the County Data Center including the following locations:

- 801 11<sup>th</sup> Street, Modesto (current Data Center location)
- 1010 10<sup>th</sup> Street, Modesto
- 1021 I Street, Modesto
- 832 12<sup>th</sup> Street, Modesto
- 1500 I Street, Modesto
- 929 Oakdale Road, Modesto
- 4835 Sisk Road, Modesto

On February 16, 2010, the Board of Supervisors approved a contract Amendment No. 1 with Miller-Pezzoni and Associates, Inc. of Modesto, California to perform the evaluation of the electrical service and the Arc Flash Study of the high voltage electrical panels at the 801 11<sup>th</sup> Street as required by recent changes to CAL-OSHA regulations.

On April 26, 2011, the Board of Supervisors approved Amendment No. 2 with Miller-Pezzoni and Associates, Inc. of Modesto, California to develop plans and specifications

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for the Strategic Business Technology Data Center improvements to be located at 3705 Oakdale Road, Modesto, California.

### **Next Recommended Actions**

The next critical steps for the project recommends that the Board of Supervisors approve three key actions that will ensure the project proceeds to the Bid and Award Phase of the Project including the following:

1. *Approve the plans and specifications for the Strategic Business Technology Data Center Server Room relocation and improvements at 3705 Oakdale Road prepared by Miller Pezzoni and Associates, Inc.*

The final design documents are complete are available for inspection from the Clerk of the Board of Supervisors. The project area is shown in Exhibit A below, the following two attachments: (Attachment 1: Site Plan, Attachment 2: Floor Plan)

The proposed server room will be located in a small space adjacent to the existing SR911 server room. This space which is currently occupied by SR911 technical staff will be converted to the new server room and new space for the staff will be provided internally as part of this project. The design team has worked closely with SR911 staff to provide a solution for the reuse of existing vacant work space which meets their operational needs.

The new server room will be self contained with its' own cooling system, electrical systems, environmental remote monitoring, fire suppression, and uninterrupted power supply. Additionally, staff is recommending adding a back-up emergency generator to the project that will provide power to both SR911 and the SBT Data Center. A back-up generator will minimize any chance of disruption, it will allow business to function in the midst of a power failure, power will be provided to HVAC, and will ensure continued operations for missions critical systems with a total estimated cost of \$387,000. Of the total amount, funding of \$155,999 was approved by the Public Facilities Committee on October 20, 2011, and \$231,001 to be funded through the Criminal Justice Facilities Fund.

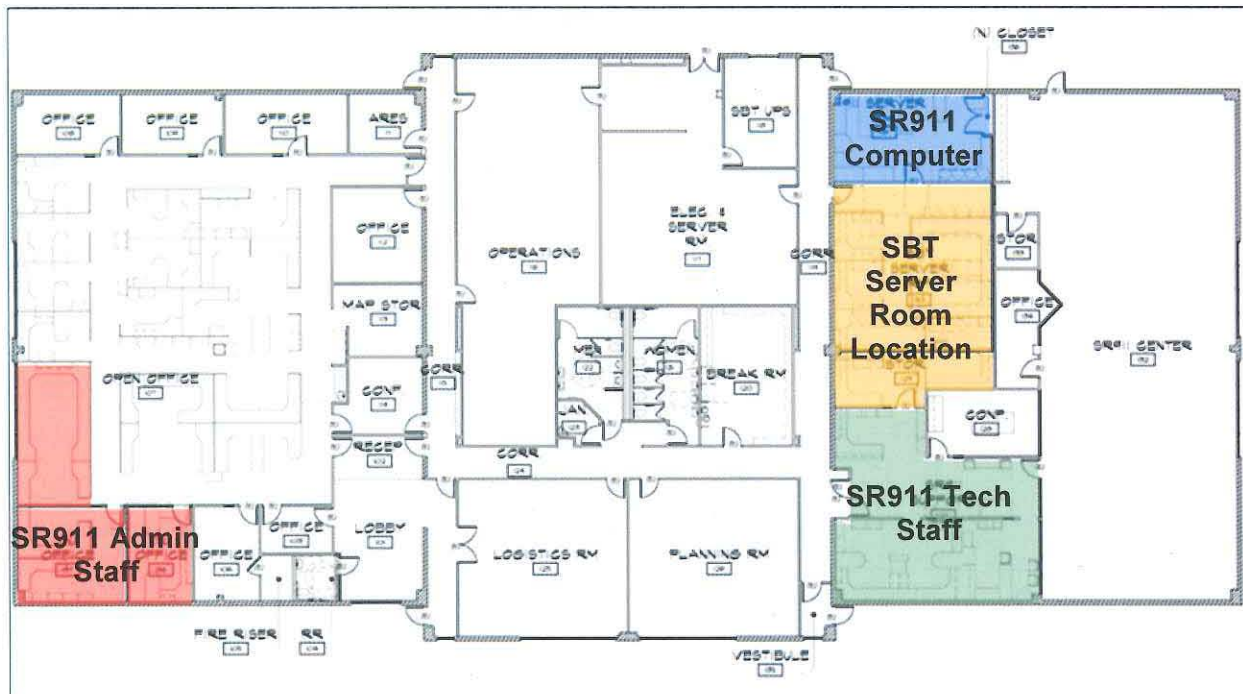
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## Exhibit A

### Strategic Business Technology Server Room Project

3705 Oakdale Road, Modesto



Proposed locations of Server Room, SR 911 Computer room, SR 911 Administrative and Technical Staff within the 3705 Oakdale Road building.

The project will also include installation of a dry fire suppression system which will be extended into the existing SR911 server room.

Finally, the design solution also includes up-grading of the existing site and building to bring it up to the latest ADA requirements.

- 2. Authorize the Project Manager to issue a notice inviting bids for the construction of the project; to set a due date of December 14, 2011, at 2:00 p.m., to modify the bid date if necessary; to open and evaluate bids, and return to the Board of Supervisors to recommend an award to the lowest responsible bidder.*

This action will authorize the Project Manager to issue an invitation to general contractors to bid for the construction of the SBT Data Center Project; and to set the date for receipt and opening of the bids on December 14, 2011, at 2:00 p.m. Staff will return to the Board of Supervisors to recommend a contract award.

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The bids will include four additive bid alternates to be evaluated in a blind bid process if funds are available:

- Addition of an air conditioning unit for future cooling for the UPS room when additional future UPS may be added;
- Renovation of the existing restrooms;
- Addition of a second uninterruptible power supply unit for increased redundancy; and
- Addition of a second back-up fire suppression reserve tank.

3. *Authorize to the Project Manager working in collaboration with Strategic Business Technology to issue a notice inviting bids for the various stand alone equipment and component items needed to furnish and equipment the Server Room Project; (including but not limited to, Uninterruptible Power Supply (UPS) package, equipment and environmental monitoring hardware and software, cabling, cable management, server racks, accessories, power distribution units, power cords, installation/setup) and to set a due date of December 7, 2011 at 2:00 p.m.; and to modify the bid date if necessary; to open and evaluate bids, and return to the Board of Supervisors to recommend an award to the lowest responsible bidder for the furnishings and equipment needed for the Project.*

This action will authorize Project Manager to issue a separate notice inviting bids for the various equipment and components needed for the SBT Data Center to become operational. The Architect and staff believes the County will save money by handling this bid separately. The products and installation are a turnkey solution. This portion of the project will be coordinated within the project time-lines.

UPS package units will provide emergency power when the input power source, typically mains power, fails. A UPS system differs from an auxiliary or emergency power system or standby generator in that it will provide instantaneous or near-instantaneous protection from input power interruptions by means of one or more attached batteries and associated electronic circuitry for low power users, and or by means of diesel generators and flywheels for high power users.

### Schedule

The Project Team has made progress towards construction of the SBT Data Center Server Room relocation and improvements at 3705 Oakdale Road. Staff will return to the Board of Supervisors to recommend an Award of a Construction Contract in the early winter of 2012, with construction completion anticipated in the fall 2012.



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**POLICY ISSUES:**

Approval of this action supports the Board's priority of A Safe Community and Efficient Delivery of Public Services by providing back-up power and emergency fire suppression to core server functions maintained during an emergency.

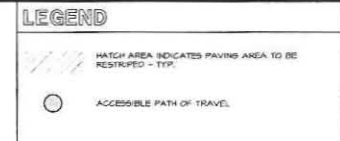
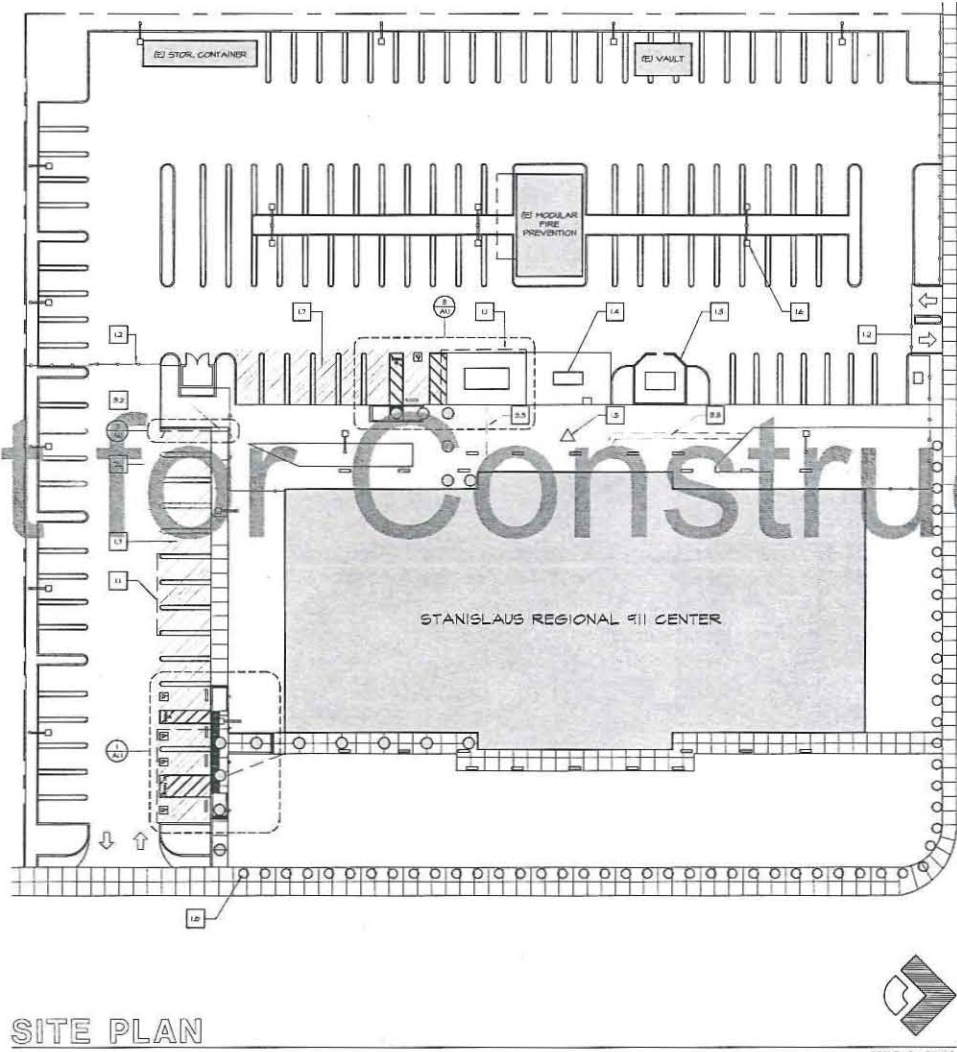
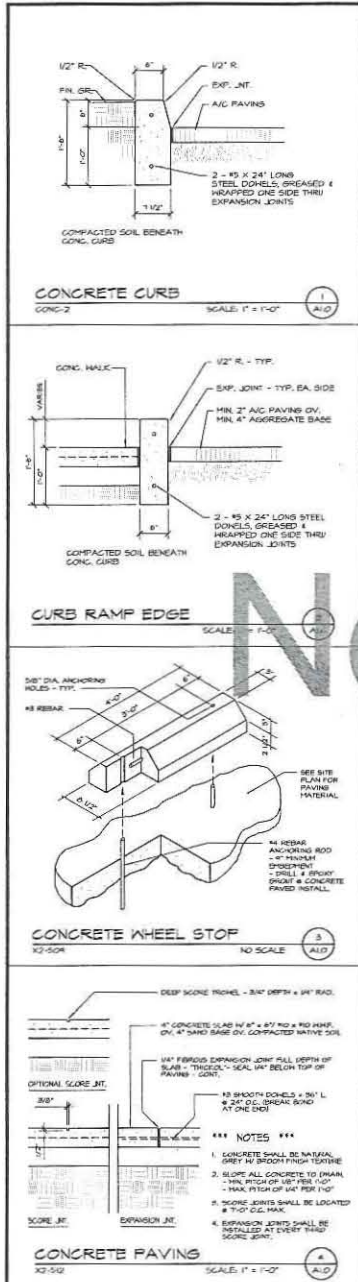
**STAFFING IMPACTS:**

Current Chief Executive Office Capital Projects staff working in collaboration with the SBT and SR911 staff will continue to implement the project.

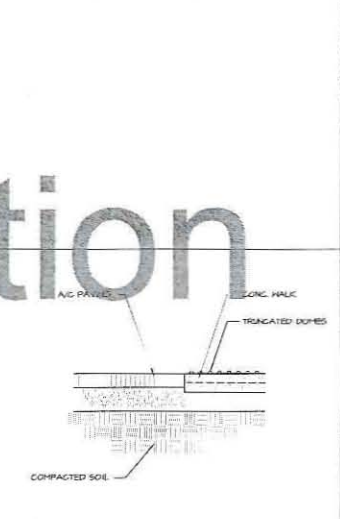
**CONTACT PERSON:**

Patricia Hill Thomas, Chief Operations Officer. Telephone 209-525-6333.

ATTACHMENTS AVAILABLE  
FROM YOUR CLERK



- KEY NOTES**
- DIVISION 1. GENERAL NOTES / GENERAL REQUIREMENTS**
- SAFETY REMOVE & DISPOSE OF (EJ) A/C PAVING - REPLACE W/ IN A/C PAVING & GRAVEL BASE AS REQ'D - SEE DTL. 3(A)
  - (EJ) MOTORIZED GATE - TYP.
  - (EJ) CONCRETE BLOCK WALL
  - (EJ) GENERATOR LOCATION OV. CONCRETE PAD
  - (EJ) ANTENNA TOWER
  - (EJ) LIGHT STANDARD - TYP.
  - HATCH AREA INDICATES PAVING AREA TO BE RESTRIPE - TYP.
  - (EJ) OVER-SIZED CONCRETE FILLED POTS TO REMAIN
- DIVISION 3. CONCRETE**
- REMOVE (EJ) CURB BARR & SIDEWALK LANDING TO ACCOMMODATE IN 6" HIGH CONG. CURB - RETAIL IN A/C PAVING AS REQ'D TO FILL PATCH
  - CONCRETE CONCRETE SIDEWALK TO ALIGN WITH IN CONG. CURB TRENCH PATH FOR IN UTILITY SERVICE LINES SEE ELEC. DWGS - SAFETY REMOVE & DISPOSE OF CONG. IN-FILL TRENCH & POUR IN CONG. PER 4(A) - TYP.



**Miller Pezzoni & Associates, Inc.**  
CONSULTING ELECTRICAL ENGINEERS

10110 W. 15th St., Suite 100, San Diego, CA 92128  
760.451.1111

**ULDA partners**  
UNIVERSITY OF CALIFORNIA DESIGN PARTNERS

**PERMIT SET**

DATE:	SEPT. 1, 2011
DRAWN:	PR
CHECKED:	EH
REVISIONS:	
PLAN CHECK 9-4-11	PR



**CLIENT**

**STANISLAUS COUNTY CAPITAL PROJECTS**  
1711 10TH STREET  
MERCED, CA 95354  
PHONE: (209) 924-4340  
FAX: (209) 924-4365

**PROJECT**

JOB NO: 28-283

**SBT SERVER ROOM AT SR911**  
3705 CAROLEE ROAD  
MERCED, CA 95365

**SHEET INFO**

**SITE PLAN & DETAILS**

SHEET NO. -

**A1.0**

OF - SHEETS

