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Department of Administration

Plant Management Division

SECURITY IMPROVEMENTS CAPITOL COMPLEX

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Report to the Legislature SECURITY IMPROVEMENTS – CAPITOL COMPLEX

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Report to the Legislature SECURITY IMPROVEMENTS – CAPITOL COMPLEX

I. EXECUTIVE SUMMARY

The 1999 Legislature appropriated \$520,000 to rebuild and upgrade electronic security systems in the Capitol Complex. This report outlines the types of security systems in use on the Capitol Complex, the history of how security system improvements have been undertaken, funding sources committed to the upgrade, and Plant Management's current status on security system upgrades. The report is being completed in accordance with session laws of 1999.

II. PROJECT OVERVIEW

Project Summary

Security systems on the Capitol Complex are comprised of a multitude of components that include data gathering panels, fiber optics, solid copper wiring, T1 telephone lines, microwave transmission, modems, personal computers, switching systems, cameras, monitors, video tape recorders, and a multitude of specialized hardware devices. Over 4000 security points (excluding the Harold E. Stassen Building), 120 plus intercom stations, and 156 cameras all report through these systems to a security console located in the basement of the Capitol Building. These systems provide the eyes and ears for Capitol Security officers in providing safety for people working at or visiting the Capitol Complex.

The Plant Management Division has been working on upgrading these systems through a series of electronic system upgrades that began in November of 1996. During that period of time, all electronic systems were evaluated for year 2000 compliance in an attempt to identify and prioritize what systems needed to be replaced. Initial reviews of manufacturer data indicated that no compliance issues were present. As such, system replacement was initiated on energy management systems as the top priority due to age of the systems and an ever-increasing failure rate.

As replacement of the energy management systems was coming to completion, security systems became the next priority. The Plant Management Division completed a pre-design for replacement of these systems beginning in December of 1997 using Plant Management operating funds. During the replacement of the energy management systems and as a result of storms during the summer of 1998, camera and intercom systems on the complex became increasingly unstable and were becoming difficult to maintain. Age of these systems, as well as stress induced on them from power interruptions and electrical storms caused significant failures. The contract vendor assisting in the repair of this equipment was having an ever increasingly difficult time acquiring parts, that were no longer available, and simply repairing the equipment. In the fall of 1998 the contract vendor informed Plant Management that the manufacturer would no longer support the equipment in use and that in the configuration being used was not year 2000 compliant.

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As a result of receiving notification that camera systems were not year 2000 compliant, Plant Management reviewed all security systems and completed a request to the 1999 Legislature for funding to make these systems compliant. \$520,000 was appropriated by the 1999 Legislature to upgrade security systems and make them year 2000 compliant.

Project Definition

The project had four major goals upon inception:

- Ensure continued operation and availability of camera, intercom, and access control systems for Capitol Security personnel.
- Build the base for a system that would provide portability in the event Capitol Security were to be relocated from their current location as well as provide an ability to establish back-up monitoring locations in the event the Capitol Building could not be occupied.
- Begin an upgrade, within the available funding, while minimizing the amount of work that would need to be redone if the systems were required to be moved or expanded.
- Establish continuity and consistency among all systems to ease long term operation and maintenance concerns.

III. PROJECT HISTORY

- In November of 1996 Plant Management released a request for proposal to replace head end electronic equipment with a single interface for energy management, fire control, and security (access control) systems.
- Plant Management began a parallel path to begin a planned upgrade of the camera and intercom systems on the Capitol Complex and completed a pre-design in December of 1997 to identify needs and establish a direction for the camera and intercom systems, as well as to establish funding needs.
- As a result of significant power outages and electrical storms during the summer of 1998, camera and intercom systems began to fail at a significant rate and systems became difficult to repair due to age of equipment and availability of parts.
- In the fall of 1998 contract vendor notifies Plant Management that systems that were believed to be Y2K compliant were not.
- Fall of 1998 work begins on the Harold E. Stassen Building requiring growth and expansion of camera and intercom systems. Existing systems have no capacity to meet the needs of the new building.
- January 1999 Request made to the Legislature to provide \$520,000 in funding to upgrade security systems on complex and to ensure Y2K compliance.
- Spring of 1999 Plant Management used operating funds to begin design and replacement of security systems.
- June 1999 \$602,000 becomes available from the Y2K office to complete repairs/replacement of security systems.
- July 1999 \$520,000 becomes available from the general fund for security system upgrade as a result of the 1999 Legislative session.
- December 1999 camera, intercom and access control systems and infrastructure have been reworked to the point that integrity is guaranteed through January 1, 2000.

IV. PROJECT TIMELINE AND COMMITMENTS

Current Timeline

- December 1997 Initiated pre-design of camera and intercom systems using Plant Management operating funds.
- November 1998 Project initiated using Plant Management operating funds.
- January 1999 Funding for upgrade of security systems requested from the Legislature.
- June 1999 Y2K funding becomes available from the Y2K office.
- July 1999 \$520,000 in funding becomes available from the general fund.
- December 1999 Systems are stabilized for Y2K and majority of infrastructure has been replaced.
- January March 2000 Complete replacement of intercom stations and finish tie over to new infrastructure.
- February June 2000 Replace access control systems until funding is exhausted.

Human Resources

All work pre-design has been completed primarily by two people within the Plant Management Division with some assistance from the Division of Building Construction. To complete design and installation a team was formed consisting of Plant Management personnel, an engineering firm, and an installation contractor. The engineering firm and installation contractor were contracted for separately, with the engineering firm acting as a resource to ensure sound design principles and to confirm reasonableness of costs.

Financial Resources

Funding needs to complete the project can be identified as follows:

Camera and Intercom Replacement	\$ 900,000
Replacement of Delta Access Control Systems	\$ 300,000
Replacement of DAK Access Control Systems	<u>\$ 450,000</u>
	\$1,650,000
Funding needs met:	
Y2K Funding – June 1999	\$ 602,000
General Fund Appropriation – July 1999	<u>\$ 520,000</u>
	\$1,122,000
	* ***
Current Shortfall	\$ 528,000

Initially funding to start the upgrade was provided through Plant Management operating funds. When Y2K funding became available, they were used to purchase equipment and begin installation. As the general fund appropriation became available in July of 1999, an additional, planned phase was implemented and the upgrade project focused on meeting the four goals identified in the project definition.

V. PROJECT STATUS AND PROJECTED WORK

Status to Date

At this time the majority of the camera and intercom infrastructure has been put in place. This includes the installation of three additional satellite locations that can be used for temporary relocation of Capitol Security monitoring activities. Intercom stations are in the process of being changed out and final parts of the project are being completed. Work remaining primarily includes converting access control systems to a new operating system.

Project Obstacles

Time and availability of resources have been the major obstacles tied to the project. Plant Management had identified the need to replace and upgrade security systems in 1996 and had developed a planned approach to complete this. During the summer of 1998, security systems began to experience significant failure rates while at the same time requirements for the systems grew as the Harold E. Stassen building began construction. Faced with a system that was in imminent failure and not able to meet the needs of the complex, Plant Management used operating funds to begin a planned replacement, while at the same time requesting funding to complete the project.

Based on the size and scope of the project, as well as the timing on availability of funding and concerns with Y2K, the project time frame became extremely compressed. The team approach of Plant Management personnel, an engineering firm, and an installer, maximized the amount of work that could be completed and allowed for fast timely decision making. Unfortunately the timeliness of funding, as well as the availability of installation personnel became a limiting factor to completing all work before the end of the calendar year. Even so all four goals identified in the project definition were maintained.

Future Direction

Funding has been established to complete planned upgrades of the camera and intercom systems. Planned work is nearly complete, with sufficient capacity to handle future growth and needs of the complex. As security needs increase, additional cameras and intercom stations will need to be funded and added to the system. In addition Plant Management has received requests to add recording devices for all cameras on a 24-hour basis seven days a week. The current infrastructure has been designed to accommodate this request, but funding needs for equipment would be approximately \$500,000, which have not been requested.

Access control conversion can not be completed within the existing funding that is available. Plant Management will focus on replacing the oldest access control systems with remaining funding, and develop funding proposals for remaining conversions. By doing so, growth capability will be added back into the access control systems.

VI. CONCLUSION

Security systems on the Capitol Complex have received significant upgrades and improvements that will allow for more dependable operation. In addition, these systems have been built to provide the ability for expansion as security needs increase. They have also been built to allow for minimal disruption in services when Capitol Security is relocated, or is unable to access the monitoring station in the Capitol building.