PERFORMANCE AUDIT

DEPARTMENT OF CORRECTIONS

FACILITIES MAINTENANCE

Report to the Arizona Legislature
By the Auditor General
November 1985
85-13

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STATE OF ARIZONA
OFFICE OF THE
AUDITOR GENERAL

November 26, 1985

Members of the Arizona Legislature
The Honorable Bruce Babbitt, Governor
Samuel A. Lewis, Director
Department of Corrections

Transmitted herewith is a report of the Auditor General, A Performance Audit of the Department of Corrections, Facilities Maintenance. This report is in response to the January 30, 1985 resolution of the Joint Legislative Oversight Committee.

The report addresses the seriously deteriorated conditions of Arizona's correctional facilities and provides cost estimates for repairing some of the most critical problems. Also addressed are some of the contributing causes of the deterioration, including inadequacies of the budget development process, inaccurate information on maintenance expenditures and possibly inadequate staffing for the maintenance function.

My staff and I will be pleased to discuss or clarify items in the report.

Respectfully submitted,

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SUMMARY

The Office of the Auditor General has conducted a performance audit of the Arizona Department of Corrections (DOC) facilities maintenance function. This audit was conducted in response to a Joint Legislative Oversight Committee resolution of January 30, 1985, which requires a performance audit of the Department of Corrections, and is one of a series of audits of the Department.

DOC is responsible for maintaining more than 435 structures housing over 8,400 inmates. DOC facilities range from minimum to maximum security and contain structures ranging in age from less than one year old to more than 100 years old. DOC had 71 maintenance employees as of August 2, 1985.

Arizona Correctional Facilities Are Seriously Deteriorated (see pages 5 through 21)

Correctional facilities in Arizona are in very poor condition. For example, cracked and chipping security walls and tunnels at Florence pose serious safety hazards to staff and inmates. Some electrical systems have been installed with incorrect materials that can easily cause short circuits when wet. Because of this, electronic security systems and lighting can become inoperable. Additionally, old electrical systems are corroded to the point that they pose the danger of electrocution. Locking systems at some facilities have defective control mechanisms which open several cells at once rather than individual cells, allowing numerous inmates to leave their cells at one time.

A limited review of six DOC institutions by an architectural/engineering firm identified major problems and estimated the cost of repairs in the following six areas.

Maintenance	Approximate Cost
Structural	$2,750,000 - $3,887,000
Electrical	772,000 - 1,157,000
Locking	395,000 - 2,132,000
Plumbing	671,000 - 1,014,000
Waste Water Treatment	575,000 - 825,000
Heating, Ventilation, Air Conditioning	65,000 - 65,000
	$5,228,000 - $9,080,000

The poor condition of Arizona's prisons results from a lack of attention in the past. DOC should: 1) undertake a comprehensive study to develop a long-range facility maintenance plan based on a prioritization of identified needs, and 2) prepare a maintenance budget request that provides adequate funding for the repairs identified in this report.

The Budget Development Process Is Not Designed To Provide Adequate Information For Evaluating Facility Maintenance Needs (see pages 23 through 36)

The budget development process currently does not provide sufficient information for Departmental or Legislative evaluation of facility maintenance needs. Therefore, DOC has not received adequate operating maintenance funds or Land, Building and Improvement (LB&I) funds to effectively maintain prison facilities. Most DOC facilities have received less than the minimal amount considered necessary for maintenance in private industry, and only 12 percent of the Department's LB&I requests were funded over the last five fiscal years. Maintenance costs increase as a facility ages and usage increases. However, DOC budgeting assumes that maintenance costs remain constant. Additionally, maintenance funding needs are not specifically addressed during the budget review by executive and Legislative budget analysts. Departmental allocations of appropriated funds do not consider a facility's maintenance needs, and allow each institution to determine the extent of maintenance funding, which results in insufficient funding for maintenance at some institutions.

The Legislature should consider funding maintenance needs on a regular and consistent basis using a predetermined formula such as 1 percent of a

building's replacement value. DOC should: 1) develop maintenance policy issues to address higher maintenance costs that result from a facility's increased age and use, and particular construction type; 2) provide mandatory maintenance budget development training to the institutions' administrators; and 3) consider each institution's physical plant condition when allocating appropriated funds.

The Department Of Corrections Has Overstated Maintenance Expenditures (see pages 37 through 48)

Maintenance expenditures reported by DOC institutions are incorrect. Some institutions have completed both approved and unauthorized LB&I projects with operating funds, and recorded the expenditures as maintenance. The use of general appropriation funds for LB&I projects, unless the projects are approved in the general appropriations bill, is prohibited. Additionally, some institutions' capital equipment purchases have been improperly recorded as maintenance expenditures. These improper expenditures have reduced funds actually available for maintenance and overstated the base used in developing budget requests. Inappropriate expenditures are possible because the Arizona Financial Information System (AFIS) does not provide DOC with sufficient maintenance expenditure data. AFIS does not provide enough specific maintenance codes to properly account for all expenses. Consequently, DOC spent more than $1.3 million on unidentifiable maintenance items between fiscal years 1982-83 and 1984-85.

The Legislature should consider: 1) directing DOC to eliminate improper expenditures from its budget base, and 2) appropriating DOC maintenance funds as a separate line item.

The Department Of Corrections Needs To Review Maintenance Staffing (see pages 49 through 58)

DOC's institutional maintenance staff may be inadequate. Routine repairs have been poorly performed at some institutions. DOC has not implemented a comprehensive preventive maintenance program which could reduce the need for major repairs. These problems may be due, in part, to

insufficient maintenance staff and a shortage of staff qualified to repair critical systems. This scarcity of qualified staff may be caused by low pay and undesirable working conditions. DOC should examine specific tasks and skills required to perform facility maintenance, and review staffing patterns and salaries accordingly.

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INTRODUCTION AND BACKGROUND

The Office of the Auditor General has conducted a performance audit of the Arizona Department of Corrections' (DOC) facilities maintenance function. This audit was conducted in response to a Joint Legislative Oversight Committee resolution of January 30, 1985, which requires a performance audit of the Department of Corrections, and is one of a series of audits of the Department.

The Department of Corrections maintains more than 435 buildings and structures with a total of more than 2.3 million square feet, housing more than 8,400 inmates. The replacement value of these facilities exceeds $166 million.

Security classification of facilities ranges from minimum to maximum including administrative segregation (extra maximum security). Housing units within these facilities include cellblocks, dormitories, trailers, quonset huts and tents. Security systems vary widely, with some facilities surrounded by concrete walls and gun towers, and others with chain link fences topped with razor wire. The minimum security facilities have few perimeter security systems. Because of these differences in buildings and security systems, maintenance activities vary substantially among facilities. Other factors, such as the age of the buildings (ranging from more than 100 years to less than one year old) and overcrowded conditions increase daily maintenance needs. In addition, inmates frequently abuse the facilities, which increases the need for maintenance.

Organization

Each institution organizes and manages its own maintenance program. These separate management structures place the maintenance function under the business manager at some institutions, while at others maintenance personnel may report to an assistant warden, superintendent or chief of security. The Central Office has a facilities maintenance and planning

administrator, however, the position does not have direct authority over the maintenance functions at each institution. In addition, the responsibility for major maintenance projects and programs was transferred to the Department of Administration on April 1, 1985. However, DOC personnel will continue to perform minor maintenance.

Funding And Staffing

The funding for DOC's facility maintenance programs comes from several sources, including Land, Building and Improvement (LB&I) monies, the Endowment Earnings Fund* and facility operating budgets. From fiscal year 1981-82 through fiscal year 1985-86 the Department was appropriated more than $10 million for capital projects through LB&I funding, including more than $3,300,000 for physical plant improvement. Additionally, since fiscal year 1983-84 the Department has committed more than $1 million of its Endowment Earnings Fund monies for institutional improvement projects. Furthermore, DOC expended more than $3 million from the operating budget for maintenance between fiscal year 1982-83 and fiscal year 1984-85.

As of August 2, 1985, DOC had 90 available maintenance positions of which 71 were filled. The DOC maintenance program is supplemented daily by 174 to 306 inmates at all institutions. Maintenance of ARCOR facilities is performed by ARCOR employees not DOC maintenance personnel.

* Earnings on State lands and interest on the investment of the permanent land funds are appropriated in compliance with §25 of the enabling act and the Constitution to be used for the support of State penal institutions and reformatories.

Table 1 shows the square footage and replacement value of DOC facilities as of July 1984, current maintenance staff allocations and inmate capacity for each facility.

TABLE 1

DOC MAINTENANCE PERSONNEL
AND FACILITIES CHARACTERISTICS

Adult Institutions	Maintenance FTE	Area Sq.Ft.	Number of Inmates	Replacement Value (millions)
ASPC-Florence	25	859,824	2,902	$64.1
ASPC-Perryville	10	438,425	1,394	31.3
ASPC-Tucson	9	269,294	1,369	20.4
ASP-Fort Grant	6	284,367	840	15.1
ASPC-Phoenix-Alhambra	1	67,760	352	8.4
ASPC-Phoenix-Women's Center	3	92,003	199	3.9
ASP-Safford	5	75,193	292	2.7
ASPC-Phoenix-Flamenco	1	38,564	80	2.2
ASP-Douglas	14	(1)	(1)	(1)
Juvenile Institutions				
Adobe Mountain	8	126,431	414	$11.5
Catalina Mountain	5	80,226	174	5.0
Alamo	1	14,541	25	1.3
New Dawn	1	15,036	50	.6

(1) The ASP-Douglas facility is currently under construction, therefore costs, capacity and area are not available.

Source: Department of Administration-Facilities Planning and Construction, and the Department of Corrections-Offender Services Bureau

Audit Scope And Purpose

The purpose of this audit is to evaluate the Department of Corrections' maintenance function. The audit report presents findings and recommendations in four areas:

- the current condition of selected major DOC facilities and potential costs to repair or replace specific systems,

- the ability of DOC to adequately evaluate and budget for maintenance needs,
- the ability of DOC to oversee and control maintenance funds, and
- the adequacy of DOC maintenance staffing.

Due to the time constraints, all potential issues identified during the audit work have not been addressed. The section Areas For Further Audit Work describes these issues.

The Auditor General and staff express appreciation to Department of Corrections and Department of Administration staff for their cooperation and assistance during the audit.

FINDING I

ARIZONA CORRECTIONAL FACILITIES ARE SERIOUSLY DETERIORATED

Correctional facilities in Arizona are in very poor physical condition. Many prison buildings and support systems may not be adequate for maintaining needed levels of security, and may pose serious threats to the safety of staff and inmates. A limited review of several of the most serious problems indicates that the Department of Corrections (DOC) will need significant funds just to maintain its existing facilities in usable condition. The poor condition of Arizona's prisons has resulted from a lack of attention to maintenance in the past. DOC needs to systematically evaluate its facilities and develop a maintenance program to prevent further deterioration.

DOC's Facilities Are In Very Poor Condition

Prisons in Arizona suffer from a wide range of physical plant problems. An Auditor General review of maintenance reports, and visits to DOC facilities identified almost 700 individual repair items. The problems generally fall into one of the following six categories: 1) structural systems, 2) electrical systems, 3) locking systems, 4) plumbing, 5) wastewater treatment plants, and 6) heating/ventilation/air conditioning systems. A more in-depth evaluation of several of these problems by an architectural/engineering firm indicates that DOC may have to spend well over $5 million to ensure continued, safe functioning of the prisons reviewed. The following Table summarizes these costs.

TABLE 2

SUMMARY OF IDENTIFIED MAINTENANCE REPAIR OR REPLACEMENT COSTS

Maintenance	Approximate Cost		
Structural	$2,750,000	-	$3,887,000
Electrical	772,000	-	1,157,000
Locking	395,000	-	2,132,000
Plumbing	671,000	-	1,014,000
Waste Water Treatment	575,000	-	825,000
Heating, Ventilation, Air Conditioning	65,000	-	65,000
TOTAL	$5,228,000	-	$9,080,000

Limited Audit Scope - We did not have enough audit resources to evaluate all of the maintenance problems within the Department of Corrections. Auditor General staff compiled an extensive list of maintenance problems from DOC internal maintenance reports and requests for new major projects, Department of Administration Reports, Department of Health Services Reports, and State Fire Marshal Reports. Audit staff also visited institutions to verify the existence of the problems and to identify any additional problems. The problems ranged in importance from missing window glass and smoke detectors to structural deficiencies and malfunctions in vital support systems. Altogether, almost 700 individual repair items were identified and some 289 were verified during site visits.

Because of the technical nature of the problems, the Auditor General retained the architectural/engineering firm of Black and Veatch to assist in the evaluation. The firm and audit staff further reduced and prioritized the verified problems to produce a list of the 27 most serious problems. The problems were prioritized on the basis of facility age, security level, classification of inmates and potential safety hazard. Black and Veatch visited six institutions and reviewed 19 of the 27 most serious problem areas.

Although these problems represent the most significant deficiencies within DOC facilities, the recommendations and cost estimates are far from comprehensive. Only six institutions were visited by Black and Veatch, and the time available limited the firm's ability to fully estimate the costs of needed repairs. Thus, the figures presented in this report should be regarded only as an indicator of the physical plant problems and costs facing DOC.

The following sections highlight some of the major problems in each of the six major maintenance areas. The entire magnitude of the deficiencies evaluated is also summarized, and estimated repair costs are given.

Structural - There is structural deterioration in three of the six facilities inspected, but is most prevalent at Arizona State Prison Complex (ASPC)-Florence. Due to the age of the structures and years of neglect, some are literally falling apart. Consequently, the potential threat to life and safety of those who use the facilities is substantial. While many buildings inspected by the consultant need to be demolished and rebuilt, others just need to be renovated with existing walls and foundations intact. Needed repairs will cost from $2.8 million $3.9 million, as shown in Table 3.

TABLE 3

SELECTED STRUCTURAL PROBLEMS

Facility	Problem	Estimated Repair or Replacement Cost
ASPC-Florence Central Unit Tunnel	Walls are severely cracked and deteriorated. Tunnel could collapse. Potential for electrocution from broken conduit and frayed wires. Standing sewage in south tunnel is a health hazard.	$445,000-$570,000

(Continued)

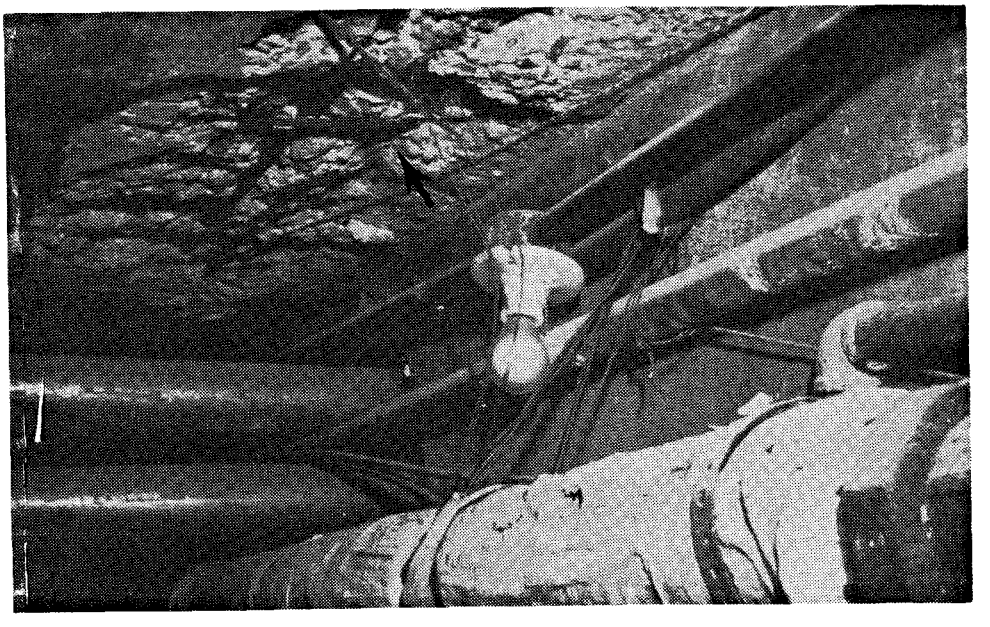
ASPC-Florence Central Unit Wall And Catwalk	Walls and catwalk are cracked and deteriorated. There is a potential life-safety threat to those who use the catwalk.	$350,000-$400,000
ASP-Safford New Gym	Anchor bolts are missing. Foundation is deficient, could collapse in a strong wind. Needs to be disassembled and rebuilt.	$700,000-$800,000
ASPC-Florence Central Unit Tower 13	Foundation is cracking, stairs are unsafe, rebar is exposed and guard station is a fire hazard.	$255,000-$275,000
ASPC-Florence Central Unit Maintenance Shop	Beams and columns are cracked, roof and exterior are dilapidated. Building is structurally unsound and a life-safety threat.	$350,000-$400,000
ASPC-Florence Wall Of Sally Gate 5	Wall is cracked, lacks reinforcement, is laterally unstable and could collapse.	$30,000-$35,000
ASP-Safford Ed. Building	Building is aged and deteriorated. Structure is water damaged, roof improperly constructed. No fire alarm or emergency lighting.	$355,000-$407,000
ASP-Safford Dorm 3	Foundation is settled and cracked, roof is deteriorated, walls are out of plumb. Dividers between living areas are wood instead of concrete, which is a fire hazard.	$65,000-$600,000
ASP-Safford Hobby Bldg.	Numerous code violations and overall structural deterioration. Needs to be renovated using existing walls and foundation.	$200,000-$400,000
TOTAL		$2,750,000-$3,887,000

The following are two examples of the various structural problems present at ASPC-Florence.

- The concrete walls and ceiling of the Central Unit tunnel are cracked and chipping (Illustration 1). This tunnel is the only access to Tower 13. At least one correctional service officer must use this tunnel each shift. Water was two to three inches deep in the south tunnel from leaking water and sewer pipes. Rebar is exposed, rusted and corroded. The structural deterioration poses a severe threat to people using the tunnel. A collapse would cause a security breach, and standing sewage is a health hazard. Exposed wiring and wet conditions create the potential for electrocution. After initial inspection, the Black and Veatch project manager refused to allow his staff back into the tunnel as he felt it was too great a safety hazard. The estimated cost to demolish and reconstruct the tunnel is $445,000 to $570,000.

ILLUSTRATION 1

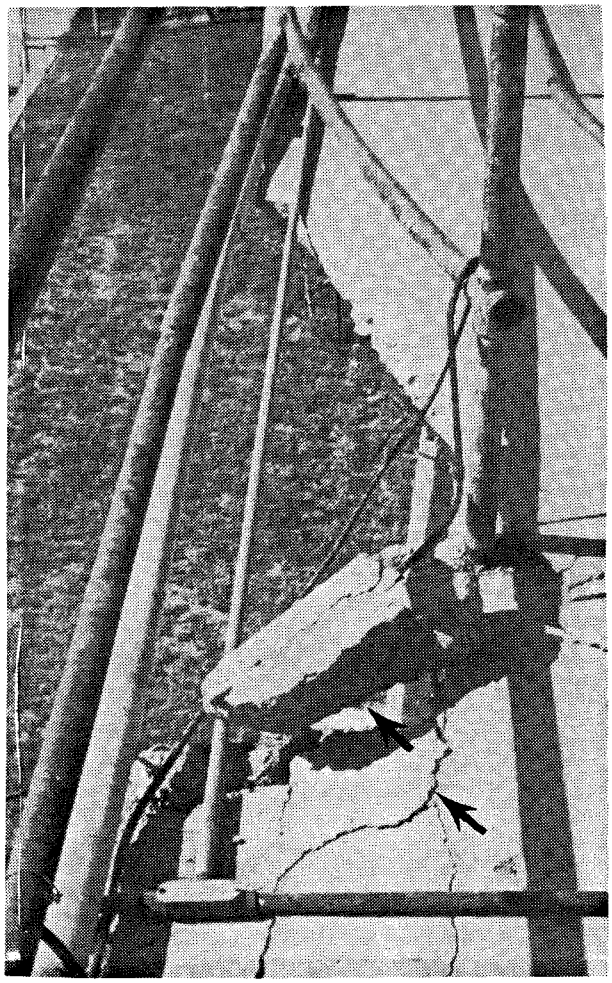
CENTRAL UNIT TUNNEL DETERIORATION



- Condition of the catwalk along the top of the Central Unit wall ranges from apparently sound to seriously structurally deteriorated (Illustration 2). Cracking affects 20 to 30 percent of the catwalk. The condition of the catwalk is a potential life and safety threat to people using it. Some deteriorated sections could collapse under abnormal weight. A section of the catwalk did collapse during an inspection when one of the consultants stomped on an area where the concrete was cracked and loose. The top of the parapet wall is cracked, and concrete is chipped and falling away, steel handrails are unsound, and guard stations are aged and dilapidated.

ILLUSTRATION 2

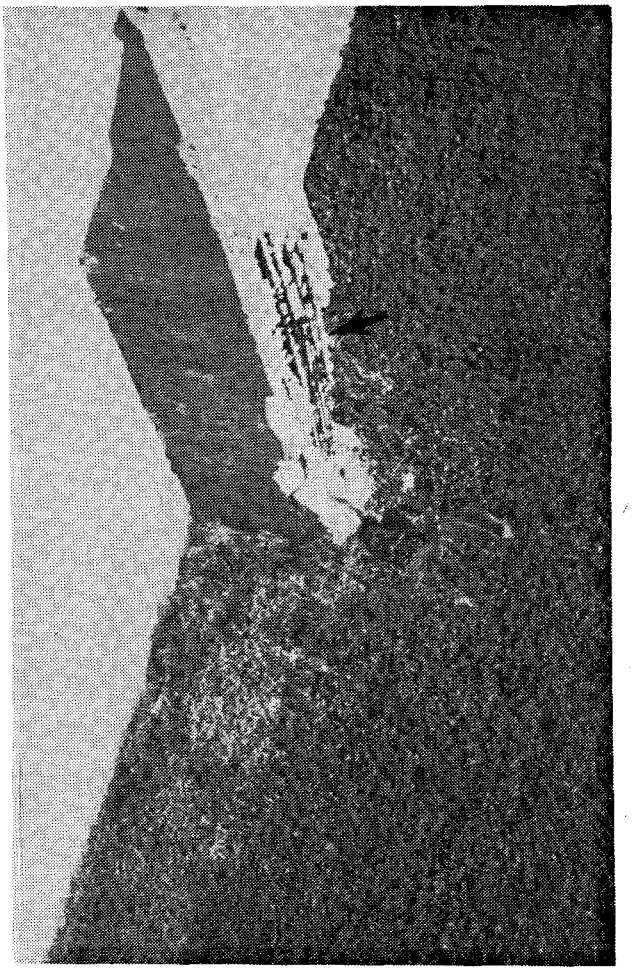
CENTRAL UNIT WALL - CATWALK DETERIORATION



- Severe buttress deterioration exists along the south wall, and rebar is exposed, rusted and corroded (see arrow - Illustration 3). The top of the wall needs to be removed and replaced with high strength concrete bonding systems. The estimated cost for this repair is $350,000 to $400,000.

ILLUSTRATION 3

CENTRAL UNIT WALL - BUTTRESS DETERIORATION



Structurally unsound facilities are a serious life and safety hazard to both staff and inmates. Crumbling concrete walls and ceilings were observed during inspection, highlighting the severity of the deterioration.

Electrical Systems - The electrical systems in DOC prison facilities contain safety hazards that pose a serious danger to staff and inmates. Inadequacies in electrical service are not only unsafe, but can compromise security when electrical power is not available for security systems. Black and Veatch found major electrical system shortcomings at the Central and East Units of ASPC-Florence, and at ASP-Safford that could cost approximately $772,000 to $1.2 million to repair, as shown in Table 4.

TABLE 4

ELECTRICAL PROBLEMS AT SELECTED PRISONS

Facility	Problem	Estimated Repair or Replacement Cost
ASPC-Florence Central Unit	Conduit and equipment in cellblocks 3 and 4 severely corroded from dripping water. Potential for electrocution exists.	$400,000-$500,000
ASPC-Florence East Unit	Underground system not waterproof. Potential for short circuit which could leave housing and security systems without power. Possibility for electrocution exists.	$50,000-$60,000
ASPC-Florence Central Unit	Switchgear needs to be rebuilt. Sections of a facility could be without electricity during power outage.	$30,000-$50,000
ASPC-Florence Central Unit	Automatic switching needed for telephone system. Facility could be unable to use phones during outage until emergency generator is manually started.	$45,000-$55,000
ASPC-Florence Central Unit Cellblock 5	Electrical system shows rust and corrosion, conduits are old and unsafe. Utility passage houses both water and electrical systems. Electric should be made watertight or power loss could result.	$50,000-$150,000

(Continued)

ASPC-Florence East Unit	Emergency generators do not have enough capacity. Insufficient power could mean no cooling for inmate housing.	$30,000-$40,000
ASPC-Florence East Unit	Need back-up power supply to keep security computer energized. Inoperable computer impairs unit security.	$30,000-$40,000
ASPC-Florence East Unit	Fire alarm system malfunctions.	$5,000-$10,000
ASP-Safford	Construction of 13KV 3-phase line needs to be completed.	$100,000-$200,000
ASP-Safford Upper Pump House	Panels are old and need to be rewired.	$10,000-$20,000
ASP-Safford Dormitory	Disconnect switches are improperly housed and inadequate.	$2,250
ASP-Safford Garage Area	Wiring is inadequate and load requirements are unknown.	$20,000-$30,000
TOTAL		$772,250-$1,157,250

Several problems illustrate the dangers of inadequate electrical systems.

- Electrical conduit and equipment in cellblocks 3 and 4 of the Central Unit are severely corroded. Water is dripping onto breaker panels and light switches, and has corroded the conduit to the point that there is no longer an effective system ground. Standing water on the floor of the utility tunnels poses the danger of electrocution to anyone operating the switches or breakers. The estimated cost to replace the electrical system using outdoor switches and PVC conduit is $400,000 to $500,000.

- The East Unit electrical system is routed entirely through underground conduit with access only through manholes. Splices are made with material designed for dry locations. Water gets into the manholes and causes short circuits, cutting off all power to huts and security lighting. An electrocution hazard is also created. The entire system needs to be waterproofed, at an estimated cost of $50,000 to $60,000.

The preceding examples show the potential dangers of deteriorated and malfunctioning electrical systems. In addition, a deteriorated electrical system can also be detrimental to security. An emergency generator malfunctioned during a recent power outage at ASP-Fort Grant. The generator overheated because it was too small to meet institutional demands, leaving the facility without power for emergency lighting.

Locking Systems - The cellblocks of the Central Unit of ASPC-Florence and all units at ASPC-Perryville have severe locking system problems. These problems range from burned-out indicator lights on some of the security control panels, to cell doors that cannot be opened individually which requires several doors to be opened at a time. Several of the systems at ASPC-Florence are more than 20 years old, and have had no improvements or adjustments made since installation. Those at ASPC-Perryville suffer from poor design and excessive inmate abuse. Black and Veatch estimates that needed repairs would cost from $395,000 to $2.1 million.

- All cellblocks in ASPC-Florence Central Unit have major problems with locking systems.* The cellblock 2 system can only open an entire run of 26 cells instead of individual doors. This problem also exists on certain runs in cellblock 4. Multiple cells can also be opened in cellblock 3. Thus, numerous inmates can leave their cells at once, creating a severe security risk. In addition, cellblocks 2, 3 and 4 have locking control panels that are accessible to inmates due to broken control panel doors. Although the control panels are in a secured cage, unsupervised inmates could reach into the cage to activate the locking controls. Cellblocks 5, 6 and 7 all have malfunctioning electronic control panels and inadequate communication systems. To replace the systems in cellblocks 2, 3 and 4 would cost from $1.5 million to $1.65 million. Minimum maintenance required would cost $30,000 to $45,000. To renovate and repair the systems in cellblocks 5, 6 and 7 would cost from $65,000 to $82,000.

* Cellblock 1 was not evaluated by Black and Veatch. However, maintenance problems in this cellblock were identified by the consultant for the DOC security audit team. Water from showers has leaked into the locking mechanism, causing short circuits and rust so the system does not work properly.

- All units at ASPC-Perryville have problems with their locking system control panels and the dead bolt locking function. Lights on the panels frequently burn out and therefore, do not display the lock status of the rooms. According to the consultants, this indicates that an electrical problem exists within the system. The inmates can jam the dead bolt open, rendering the system inoperative and giving the inmates control over the lock status of their doors.* Proper repair of locking devices, electrical control units and indicators would cost $300,000 to $400,000.

Malfunctioning locking systems jeopardize the correctional service officers' control over the inmates in the housing units. An even greater security threat exists when the inmates have access to locking system controls and can override locking functions, rendering the locking system ineffective.

Plumbing - Plumbing systems at several institutions show signs of serious deterioration. The majority of the problems are at ASPC-Florence, and result from years of inadequate maintenance and poor water quality.

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* The security audit consultant indicated that worn room keys may serve as semi-master keys, permitting inmates to gain access to other rooms.

ASPC-Phoenix-Women's Center also has major plumbing problems. Black and Veatch estimates needed repairs to cost $741,000 to $1.1 million, as shown in Table 5.

TABLE 5

SELECTED PLUMBING PROBLEMS

Facility	Problem	Estimated Repair Cost
ASPC-Florence Central Unit	Underground piping generally in poor condition. Pipes leak profusely and layout is unknown. Piping needs to be replaced and drawings made showing route of pipes.	$200,000-$400,000
ASPC-Florence Central Unit	Severe deterioration of systems in cellblocks 1, 2, 3 and 4.	$133,000
ASPC-Phoenix-Women's Center Entire Complex	Pipes leak and are uninsulated. Fixtures are inadequate.	$100,000-$130,000
ASPC-Phoenix-Women's Center North Complex	Heat and chilled water distribution lines are old and leak, lack adequate insulation, and have ineffective isolation valves. Some fan coils need to be replaced.	$104,000
ASPC-Phoenix-Women's Center Administrative Mechanical Room	Boiler and stack needs to be replaced. Asbestos should be removed from piping, and refrigeration compressor needs repair.	$ 36,000
ASPC-Phoenix-Women's Center Main Boiler Room	Boiler needs to be replaced, piping should be insulated, and a new chilled water control system should be installed.	$23,000-$61,000

(Continued)

Catalina Mountain Juvenile Institution	Chilled water distribution system inadequate.	$75,000-$150,000
TOTAL		$671,000-$1,014,000

The following examples illustrate several plumbing deficiencies.

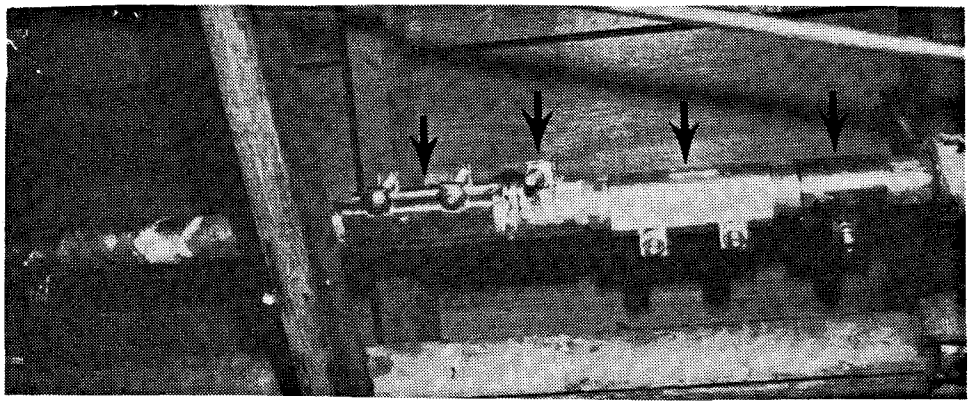
- The extremely poor domestic water quality at ASPC-Florence has caused numerous leaks, inoperable isolation valves, leaky vacuum breakers, and inoperable fixture valves in the plumbing systems of cellblocks 1, 2, 3 and 4. Malfunctioning valves make it difficult to shut off the water to do repair work. The water for a whole building may have to be shut off, causing inmate unrest. The hot and cold water lines are uninsulated, which reduces temperature efficiency. Condensation builds up on the walls in cellblocks 3 and 4 and the surrounding area, causing building deterioration. Valves and fixtures need to be replaced. The approximate cost to replace isolation valves is $8,000, and to replace fixture and flush valves is $50,000. The approximate cost to replace the deteriorated, less durable aluminum fixtures with new stainless steel fixtures is $75,000 per year over a ten-year period.*

- ASPC-Phoenix-Women's Center also has major plumbing problems. The hot and cold water piping is in poor condition with numerous leaks. (The arrows in Illustration 4, page 18, point to one line that has been patched four times in a span of about three feet.) Leaking has caused severe ceiling deterioration that could lead to collapse, and leaking hot water pipes can cause injury. The hot and cold water piping needs to be insulated for temperature efficiency. Many of the fixtures are in poor condition and may need to be replaced. The approximate cost to replace all domestic water piping is $70,000 to $100,000. The approximate cost to install fittings for new fixtures is $30,000.

* Black and Veatch recommends this replacement because stainless steel fixtures are more durable and require less maintenance. The firm estimates that 10 percent will need replacing each year.

ILLUSTRATION 4

WOMEN'S CENTER PLUMBING REPAIRS



The plumbing problems throughout the facilities pose potential threats to health and safety, and can jeopardize security when inmates cannot get adequate water of the right temperature (i.e. hot water to shower, cold water to drink, and chilled or hot water for cooling and heating.) Faulty plumbing has also prevented adequate cooling of facilities at Catalina Mountain Juvenile Institution (CMJI).

Wastewater Treatment - Wastewater treatment plants at ASPC-Perryville and at CMJI were found to be seriously inadequate, with all equipment running constantly. Any breakdown could cause serious problems because there is no back-up equipment. Also, it is difficult to perform maintenance on equipment that is in constant operation. The major problem at each facility is a lack of sufficient capacity to process the daily wastewater influx. While both facilities have been able to handle this overload, an ever increasing influx prevents adequate treatment of the water. This could pose a serious health hazard. Also, fines and sanctions could be imposed by the Federal Environmental Protection Agency. Black and Veatch recommends plant expansion at CMJI, from a capacity of 20,000 gallons per day to 40,000 gallons, at a cost of approximately $75,000 to $125,000.

The firm recommends an expansion at ASPC-Perryville from a capacity of 150,000 gallons per day to 300,000 gallons, at a cost of approximately $500,000 to $700,000.

Heating, Ventilation And Air Conditioning (HVAC) - According to the maintenance supervisor, airflow through housing units at ASPC-Phoenix-Alhambra is very inadequate for the number of inmates in each room. The tightly enclosed manner in which these units were constructed (only two small air vents in sealed rooms) further compounds the problem of air circulation. After inspection and evaluation, Black and Veatch found only minor problems with the HVAC system. They felt that airflow could be significantly improved if grilles were cleaned, damaged ductwork repaired, new airflow controls installed and the entire system balanced. The estimated cost for these repairs is $65,000.

Timely Maintenance Is Especially Critical In A Correctional Environment

The environment of prison facilities is particularly conducive to structural deterioration. Many of these facilities are old, and their age combined with years of inadequate maintenance have left the buildings in a poor state of repair. Intentional destruction by the inmates and overcrowding have further accelerated deterioration.

DOC has many old buildings that are still in use. In fact, ASP-Fort Grant uses two buildings that are more than 100 years old. Many of the buildings at ASP-Safford are more than 20 years old, while many at ASPC-Florence are more than 30 years old. The age of a building and the amount of maintenance work required are directly related. However, DOC has not provided the needed maintenance. Significant problems with major systems (plumbing, electrical, HVAC) have existed for years and little has been done to correct them.

Many maintenance problems are the result of inmate abuse. Inmates tend to be destructive, and DOC facilities have suffered from years of intentional abuse. CMJI has gone to great expense to install special

windows and ceilings to cut back on resident destruction. Many of the problems with the locking systems at ASPC-Perryville are the result of inmate abuse.

All DOC facilities currently operate above their designed population capacity, which puts a strain on many vital support systems. The sewage treatment plants at ASPC-Perryville, ASPC-Tucson and at CMJI function at almost double their designed capacity. In addition, the emergency electrical generator at ASP-Fort Grant is inadequate for facility needs because it was intended for a facility with 300 juveniles instead of 800 adults. Institutional populations are steadily increasing, while some utility system capacities are kept at their designed levels. Consistently taxing these systems beyond their designed capacity levels shortens the equipment life and greatly increases maintenance needs.

DOC Needs To Develop Facility Maintenance Plans

Extensive maintenance problems in Arizona prisons raise serious questions about whether the facilities provide secure confinement for DOC inmates and a safe working environment for employees. Due to deterioration of existing facilities, the new prison construction program is adding new facilities while current ones become less and less usable. DOC needs to conduct a thorough engineering evaluation of its current facilities and develop a master plan that ensures continued use of all prisons, new and old.

DOC needs to better plan for its future maintenance needs. Currently, the main priority is obtaining necessary bed space for the increasing population, resulting in little attention being given to existing facilities. This is demonstrated by the 1983-84 appropriation of $88 million for new construction. In contrast, approximately $1.4 million was spent on maintenance during this time. ASPC-Perryville, a relatively new facility, is already showing signs of deterioration. A malfunctioning locking system, inadequate site drainage, and an undercapacity wastewater treatment plant are indicative of inadequate design and have increased maintenance needs sooner than expected.

DOC needs to plan for maintenance by accurately assessing the current condition of all facilities so facility lifespan will be prolonged. This assessment is vital to DOC because it enables the Department to identify and evaluate its maintenance needs in detail. The obtained data can then be used to determine which facilities to keep and which to phase out, the cost to maintain these facilities, and whether new ones need to be built.

DOC completed a comprehensive plan for ASPC-Florence in October of 1980, and an overall Departmental plan in July of 1982. However, both of these plans are now out of date and do not address the drastic changes that have occurred in inmate population and facility construction over the last three years.

A comprehensive study to assess DOC's current needs would take eight to ten months and cost $400,000 to $500,000. The evaluation of needs undertaken in this report was greatly limited in scope, and still approximately $5 million in repairs were identified as shown in Table 2, page 6. A complete study is necessary for both DOC and the Legislature to have detailed and accurate data to resolve current and future facility maintenance needs.

CONCLUSION

DOC facilities are in very poor physical condition. A very limited study of maintenance needs found that it may cost $5.2 million to $9 million to repair the crumbling structures and the life and safety hazards in the utility systems. This is due to a combination of factors, including the age of the Arizona's prisons, severe overcrowding and intentional destruction by the inmates. DOC needs to incorporate long-term planning into its maintenance function.

RECOMMENDATIONS

1. DOC needs to undertake a comprehensive study to develop a long-range plan for facility maintenance in which all needs are identified and

prioritized. Alternatives for correcting the problems need to be evaluated. The cost for these alternatives needs to be included in the construction program.

2. Based on the priorities established in Recommendation 1 above, DOC needs to develop a maintenance budget that includes adequate funding for the repairs identified in this report.

FINDING II

THE BUDGET DEVELOPMENT PROCESS IS NOT DESIGNED TO PROVIDE ADEQUATE INFORMATION FOR EVALUATING FACILITY MAINTENANCE NEEDS

Currently, the budget development process does not provide sufficient information for Departmental or Legislative evaluation of maintenance needs at Arizona correctional institutions. Consequently, the Department of Corrections (DOC) has not received adequate maintenance funds. This has occurred partially because DOC currently lacks some information needed for developing adequate maintenance budgets. In addition, the budget review and appropriation process does not ensure that the Legislature can make informed decisions about maintenance funding needs. Furthermore, DOC does not consider maintenance needs when allocating appropriated funds to individual institutions.

DOC Has Not Received Sufficient Maintenance Funds

DOC institutions have not received an adequate level of maintenance funds. Maintenance expenditures are not sufficient to keep facilities in good repair. Moreover, Land, Building and Improvement (LB&I) funds requests for major maintenance projects have not been approved.

Maintenance Expenditures Appear Low - DOC's institutional maintenance expenditures appear to be below the level necessary to maintain the institutions in good repair. Although physical plant improvement funds have increased maintenance funding, the amount some institutions expend is still inadequate. Funding levels for other states' corrections agencies indicate that some DOC institutions' maintenance programs are underfunded.

In fiscal year 1983-84 DOC began to receive physical plant improvement funds through the LB&I appropriations bill. This funding mechanism was established to provide DOC with additional maintenance monies. The funds DOC receives are based on 1 percent of the institutions' replacement

values.* DOC has received a total of $3.4 million since fiscal year 1983-84. (Additionally, since fiscal year 1983-84 the Department has committed more than $1 million for institutional improvement projects through Endowment Earnings funds).**

Despite the addition of physical plant improvement funding, DOC has not expended adequate funds to maintain its institutions. In fiscal year 1982-83, Arizona State Prison Complex (ASPC)-Florence, ASP-Fort Grant, ASPC-Phoenix-Women's Center, ASPC-Phoenix-Alhambra, and Adobe Mountain Juvenile Institution expended less than 1 percent of the facilities' replacement values on maintenance, as shown in Table 6. Most institutions' fiscal year 1983-84 maintenance expenditures were below 1 percent, although many increased the following year. However, ASPC-Florence, DOC's most dilapidated facility, has not even received the minimum 1 percent funding level.

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* Many property management firms use a percentage of the replacement value to determine maintenance budgets for facilities they oversee. One percent is the minimum funding level. Some properties receive funding up to 2 percent of replacement values. Replacement values for State-owned properties in Arizona are determined by the Department of Administration-Facilities Planning and Construction Section.

** Earnings on State lands and interest on the investment of the permanent land funds are appropriated in compliance with §25 of the enabling act and the Constitution to be used for the support of State penal institutions and reformatories.

TABLE 6

MAINTENANCE FUNDING AS A PERCENTAGE OF REPLACEMENT VALUE[1]

FACILITY	FY 1982-83	FY 1983-84	FY 1984-85
ASPC-Florence	.31	.48	.65
ASP-Safford	5.00[2]	5.80[2]	
ASP-Ft. Grant	.84	.59	1.19
ASPC-Tucson	1.04	.72	1.98
ASPC-Perryville	1.10[2]	.78	.55
ASPC-Phoenix-Alhambra Reception And Treatment Center	.14	1.05	1.31
ASPC-Phoenix-AZ Center for Women	.05	.07	.27
Adobe Mountain Juvenile Institution	.35	.27	.24
Catalina Mountain Juvenile Institution	2.81[3]	1.88	2.47[2]

(1) Funding percentages were determined by combining actual maintenance expenditures from the operating budget with the amount the facility has received from physical plant improvements to provide the total maintenance funds.

(2) During this fiscal year several LB&I projects were completed with operating funds. These projects are reflected in this percentage but the funds were not used for maintenance. See Finding III, page 37.

(3) During fiscal year 1982-83 equipment purchases were coded to maintenance accounts. These expenditures are reflected in this percentage but were not used for maintenance.

Source: Compiled by Auditor General Staff from Department of Administration replacement value records and Arizona Financial Information System fiche and tapes for fiscal years 1982-83 and 1984-85

In contrast to DOC maintenance expenditures, most facilities in two other states' corrections departments receive at least 1 percent of their facilities replacement values.* In New Mexico, a facility undergoing capital renovations received 1 percent, while other facilities received up to 4.2 percent. In Florida, a relatively new facility received only

* Florida and New Mexico were selected for comparison because they are considered by national correctional association officials to have good maintenance programs.

0.6 percent for fiscal year 84-85, while all others received 1.4 percent or more. An institution built in 1913 received 4.7 percent.*

DOC maintenance expenditures per adult inmate are also lower than other correctional systems. The Federal Prison System (FPS) Western Region facilities expended from $201 to $505 per inmate in fiscal year 1983-84. New Mexico expenditures ranged from $218 to $453 per inmate in that same year. All Arizona DOC adult facilities, excluding ASP-Safford, expended less than $212 per inmate in fiscal year 1983-84.

For fiscal year 1984-85 DOC maintenance expenditures are also less than other corrections institutions. FPS Western Region facilities received $212 to $498 per inmate for maintenance funding. New Mexico correctional institutions received from $151 to $720 per inmate, and facilities in Florida received $144 to $327 per inmate. In contrast, DOC adult institutions received from $53 to $259 per inmate and four adult institutions, including ASPC-Florence, received less than $110 per inmate.

One reason DOC expenditures are so low in comparison with other systems may be that the current method of determining replacement value is not adequate. DOC's facility replacement value applies to the buildings, it does not include items such as electronic perimeter security, fencing and external utility systems. Because of this, a Department of Administration (DOA)-Facilities Planning and Construction official stated that DOC should receive more than 1 percent of the institutions' replacement values. Further, the replacement value method assumes that the facilities have been adequately maintained in the past. However, institutions like ASPC-Florence are exceptions to this assumption and need more than 1 percent, according to the DOA official.

Land, Building And Improvement (LB&I) Funding Is Lacking - DOC has also not received adequate funding for its LB&I projects. LB&I funds are used

* These maintenance funding percentages were derived from operating expenditures only. In contrast, the percentages shown in Table 6 include both operating expenditures and physical plant improvement funds.

by State agencies for major capital improvements. Many of the major maintenance projects undertaken by DOC fall in this category. DOC has requested approximately $87 million in LB&I funding over the last five fiscal years, but has only received $10 million, or less than 12 percent of its total requests, as shown in Table 7.

TABLE 7

TRENDS IN DOC'S LB&I
FUNDING REQUESTS AND LEGISLATIVE APPROPRIATIONS(1)

FY	Amount Requested	Amount Appropriated	% Of Request Approved
81-82	$14,893,000	$ 3,221,000	22%
82-83	19,314,000	0	0
83-84	23,839,195	960,000	4
84-85	16,451,450	1,320,000	8
85-86	12,530,000	4,531,000(2)	36
Total	$87,027,645	$10,032,000	12%

(1) LB&I projects used in this analysis include physical plant improvements and other selected facility improvements.

(2) Of this amount, $1.73 million was appropriated to DOC for physical plant improvements. The remaining funds were appropriated to DOA to build a water/wastewater treatment plant at ASPC-Florence.

Source: Compiled by Auditor General staff from DOC budget requests and State of Arizona Appropriations Reports for fiscal years 1981-82 through 1985-86

Numerous projects are critical to facility operations and have been requested several times between fiscal years 1981-82 and 1985-86 without being approved.* Some of these projects include: 1) a water treatment plant for ASPC-Florence, which was requested three times before being funded in fiscal year 1985-86; 2) Phase IIA and Phase IIB improvements**

* Additional information on DOC facility conditions can be found in Finding I, page 5.

** The consulting firm of Rosser, White, et. al. conducted a comprehensive review of ASPC-Florence facilities in 1980. These improvements were recommended by the consultant at that time.

for ASPC-Florence, requested three times; and 3) water and sewer improvements for Fort Grant, requested twice.

The lack of adequate LB&I funding has placed pressure on DOC to use maintenance funds for LB&I projects. DOC completed three LB&I projects with operating funds when appropriated funds began to run short (see Finding III, page 39). Similar conditions may occur as new prisons are built as a result of the $72 million construction program. Because of funding constraints, some support facilities and capital equipment needed to operate the new prisons may not be provided by the Department of Administration. Maintenance funds may again be seen as a means of obtaining these facilities and equipment.

DOC's Maintenance Budget Requests Lack Essential Information

DOC's maintenance budget requests do not include necessary information. Maintenance budgets do not consider all factors that affect the need for projects. In addition, administrators who develop maintenance budget requests lack the necessary training and expertise to prepare requests.

Critical Factors Not Considered - DOC has not considered several important factors when developing the institutions' maintenance budgets. DOC develops a portion of its operating budget request (including the maintenance funding requests) using incremental budgeting.* However, these budget requests do not address several factors that increase maintenance funding needs. Furthermore, DOC's administrators do not always adjust requests for operating funds to account for the impact of additional maintenance staff or the rejection of LB&I project requests.

Incremental budgeting does not address several factors that can increase DOC's maintenance funding needs. Incremental budgeting assumes that the level of service remains constant, providing additional funds only for

* The incremental portion of the request is called the continuation budget. Funding requests for new programs or changes in current programs are called policy issues. See page 29 for DOC's use of policy issues for maintenance funding requests.

increasing costs of goods and services. However, maintenance needs do not remain constant over time. For example, as a facility ages the amount necessary to maintain the physical plant will increase. DOC facilities range from 100 years old at ASP-Fort Grant to less than one year old at ASPC-Douglas. Similarly, if a prison is overcrowded day-to-day maintenance needs will be greater than if the facility is at design capacity. For instance, ASP-Fort Grant and ASPC-Tucson Santa Rita Unit exceeded design capacity by 65 percent as of August 28, 1985.

The type of construction also affects maintenance budget requirements. Less durable facilities, such as the ASPC-Florence East Unit and North Unit quonsets and trailers, will require more repairs than permanent facilities.

DOC operating budgets also do not address operating funding needs when additional maintenance staff are requested or when LB&I projects are not approved. Some of the Department's maintenance staffing requests have not included operating funds or equipment necessary for additional personnel. Furthermore, unfunded LB&I projects can also lead to increased operating needs. For example, ASPC-Florence requested funding for a water treatment plant in fiscal years 1982-83, 1983-84 and 1985-86. Although this project was approved for the 1985-86 fiscal year, an ASPC-Florence official estimates that interim repairs to keep the affected systems operable required approximately $145,000 per year.

To ensure that all critical information is submitted, DOC's budget requests should include maintenance policy issues. These policy issues should address the factors that result in increased maintenance needs. In addition, staffing requests should include related operating and equipment needs. Colorado and New Mexico correctional facility managers use similar methods to obtain additional maintenance funding. Federal corrections officials use zero-based budgeting,* which requires them to identify maintenance needs for the upcoming year. The zero-based

* Zero-based budgets require that all expenditures be identified and justified. It does not consider historical expenditures.

approach is especially useful in developing maintenance budgets, which require more planning and analysis than other program areas. By using maintenance policy issues, DOC's maintenance program will benefit from the flexibility of zero-based budgeting within the State's incremental budgeting framework.

Lack of Training And Expertise - DOC's maintenance budget requests are inadequate, partially because administrators who develop the budgets lack adequate training and expertise. DOC institutions' budgets are initially compiled at each institution. However, administrators responsible for preparing the institutions' budgets receive only minimal training. Moreover, maintenance supervisors and physical plant directors, who have the expertise and direct knowledge of maintenance needs, often have no role in developing budget requests.

The administrators who are responsible for developing the institutions' budget requests are not adequately trained. An Auditor General survey of institution administrators determined that:

- Five of 23 wardens and superintendents who responded to the survey indicated that they have not received any training on budget preparation.
- Six of 18 wardens and superintendents who have received training noted that the training was limited.
- Eighteen of 23 wardens and superintendents indicated that none of the budget preparation training addressed the maintenance budget.
- Two of 11 business managers who responded to the survey have not received any budget training.
- Eight of the 9 business managers trained in budgeting indicated that the training did not address the maintenance budget.

Although Central Office provides training sessions yearly, many administrators do not attend. In contrast, the New Mexico Department of Corrections has a policy that requires the administrators to attend budget training sessions. Because many DOC administrators do not attend training sessions, it is likely that they do not begin the budget

development process until after Central Office sends out the budget forms. This decreases the quality of the budget request because Central Office does not provide the forms until shortly before the institutions' requests are due to be completed. For example, the Bureau of Management and Budget provided the institutions' assistant directors with the budget forms and instructions for the 1986-87 budget 14 working days before policy issues were due and 28 days before continuation budgets were due. During this time the institutions also had to allocate their 1985-86 budgets to their various functions before the fiscal year started.

DOC maintenance supervisors and physical plant directors, who have the expertise and direct knowledge to identify maintenance needs, often have no role in developing budget requests. Only five of 10 maintenance supervisors and physical plant directors who responded to an Auditor General survey indicated that they are asked about maintenance budget needs. In contrast, individuals in similar positions at corrections institutions in New Mexico, New Jersey, Colorado and at the Federal level are required to develop the maintenance budget request. Furthermore, these individuals receive budget development training that focuses specifically on the maintenance budget and its unique funding needs.

Budget Review and Appropriation Process Limits Maintenance Budget Decision-Making

The existing budget process does not provide opportunities for executive and Legislative evaluation of maintenance needs when recommending and appropriating funds. Executive and Legislative budget analysis does not focus on individual institutions. Moreover, the use of LB&I projects to meet major maintenance needs can complicate funding for operating maintenance needs.

Budget Review Does Not Focus On The Institutional Level - Presently, maintenance funding needs are not specifically addressed during the budget review process. Executive and Legislative budget analysts reviw continuation budget requests for each DOC program, but do not evaluate more detailed items such as maintenance funds for each institution. The

analysts' work loads prevent them from reviewing budget requests in greater detail.

The Executive Budget Office (EBO) and Joint Legislative Budget Committee (JLBC) analysts do not review each institution's continuation budget maintenance requests and expenditures. Rather, their review is limited to the division level, therefore, each institution's maintenance requests and expenditures cannot be analyzed. DOC's budget request includes complete expenditure and request details for each division. However, DOC is not required to submit such details for each institution. As a result, the analysts are not able to assess the adequacy of each facility's maintenance funds.

Thorough review and analysis of Corrections budget requests is critical. DOC budget has experienced tremendous growth in the past several years and warrants additional review. The DOC budget grew from $50.4 million in fiscal year 1979-80 to $170.4 million in 1985-86, an increase of approximately 238 percent. This increase in DOC's budget has resulted from significant inmate population increases. The institutions, which house the inmates, expend at least two-thirds of DOC's budget. However, the institutions' budgets are not reviewed individually.

Although EBO and JLBC analysts agree that reviewing institutional requests would be valuable, they feel that their work load prevents them from doing so. DOC's current EBO analyst has three assignments: DOC, the Department of Education, and the Board of Pardons and Paroles. These three assignments constitute approximately one-half of the General Fund budget. DOC's JLBC analyst has five assignments: DOC, the Attorney General's Office, the Auditor General's Office, the Board of Pardons and Paroles, and the Land Department. Both analysts agree that if DOC's budget requests were reviewed at the institutional level it would require at least one full-time analyst for each budget office. However, EBO and JLBC currently have only 18 analysts in total for the State's 100 agencies.

LB&I Projects Complicate Maintenance Funding - Use of LB&I funds to meet major maintenance needs can complicate funding for operating maintenance needs. LB&I funds are sometimes necessary for specific maintenance projects. However, because the Legislature appropriates LB&I monies after all agencies' operating budgets are appropriated, DOC's maintenance operating budget may not always be adequate. In some cases, the lack of LB&I funds will place a burden on the operating budget. For example, if an LB&I request to replace a roof is not funded, the maintenance department may have to patch the roof to prevent leaking and repair water damage to the building's interior. Because the institution had planned to replace the roof, its operating budget may not have adequate funds to make interim repairs and still meet other routine maintenance needs. DOC could develop policy issues that address the consequences of not receiving funding for an LB&I project. Although policy issues are considered before LB&I projects are funded, the EBO and JLBC analysts could make recommendations based on their knowledge of the likelihood that the LB&I project would be funded. The analysts agree that this is a viable alternative that would address potential operating budget shortfalls.

Maintenance Is Not A Priority In Allocating And Expending Appropriated Funds

DOC does not consider maintenance needs when allocating and expending funds. DOC's allocation process does not recognize individual institutions' maintenance needs. In addition, allocations are made for "Other Operating Expenditures" in total, allowing the institutions to determine the extent of maintenance funding.

Allocations Do Not Consider Maintenance - DOC's budget allocations do not recognize individual institutions' maintenance needs. Although institutional allocations are based on several factors, the condition of facilities is not included among these factors. After receiving its appropriation, DOC's Bureau of Management and Budget, in conjunction with the appropriate division, allocates funds to each institution. DOC uses the following criteria to allocate the Department's appropriation:

1. past expenditures of the facility,*
2. present and forecasted inmate population,
3. approved policy issues, and
4. forecasted construction project completion dates.

Although these factors affect maintenance requirements, they are not sufficient for determining an institutions' maintenance funding needs because they do not recognize a facility's state of repair. In contrast, Florida and Colorado corrections officials consider a facility's maintenance requirements when appropriations are allocated.

Allocations Do Not Specify Maintenance Funds - DOC allocations are made for "Other Operating Expenditures," therefore, the institutions determine the amount of funds committed to maintenance. Allowing the institutions to determine the amount of funds for maintenance has resulted in insufficient support for maintenance at some institutions. Some institutions do not allocate any funds specifically for maintenance, keeping total "Other Operating Expenditures" under centralized control. Consequently, the maintenance function has had no funds committed to it at these institutions.

Only three of ten maintenance supervisors and physical plant directors who responded to an Auditor General survey indicated that they are given a maintenance budget. Further, only one adult institutions maintenance head out of eight is aware of the institution's maintenance budget. This situation makes planning and prioritizing maintenance activities difficult for these individuals who are responsible for properties that range in value from $600,000 to $65 million.

Other states' corrections agencies, in contrast to Arizona, designate funds for maintenance and require maintenance managers to oversee the maintenance budget. Florida and Colorado corrections officials designate funds specifically for maintenance when making allocations. According to one Florida corrections official, the specific allocations allow greater expenditure control. Furthermore, corrections maintenance department

* DOC's historical maintenance expenditures are inaccurate. See Finding III, page 37.

managers in the Federal Prison System, Colorado, Florida, New Mexico and New Jersey are required to oversee the maintenance budgets.

CONCLUSION

The budget development process is not designed to provide necessary information for Departmental or Legislative evaluation of facility maintenance needs. As a result, DOC has not received adequate maintenance funds. DOC lacks critical information necessary for developing adequate maintenance budgets. In addition, the budget review and appropriation process does not ensure that the Legislature can make informed decisions about maintenance needs. Furthermore, DOC does not consider maintenance needs when allocating and expending its appropriation.

RECOMMENDATIONS

The Legislature should consider:

1. Funding maintenance needs on a regular and consistent basis using a predetermined formula such as a minimum of 1 percent of facility replacement value.

2. Funding LB&I projects that are critical to facility maintenance.

3. Directing DOA-Facilities Planning and Construction Section to utilize a more accurate method of determining DOC facilities replacement costs.

4. Providing, if necessary, EBO and JLBC additional staff for more thorough review of DOC's budgets.

The Executive Budget Office and Joint Legislative Budget Committee staff should consider:

1. Assigning one staff member full time to the DOC budget to allow for more thorough review of DOC's institutional budget requests. If sufficient staff are not available, additional positions should be requested.

2. Making recommendations for funding policy issues that address operating budget requirements when LB&I major maintenance projects will not be recommended.

3. Directing DOC to include maintenance expenditure and request data for each institution in its budget request so the analysts can review institutional needs.

DOC should:

1. Develop maintenance Policy Issues to address:
   a) the increasing maintenance funding needs that result from a facility's increased age, use and construction type,
   b) the impact on operating budgets when LB&I projects are not funded, and
   c) operating and equipment funds needed when additional maintenance staff are requested.

2. Provide mandatory maintenance budget development training to the institutions' administrators. This training should focus on the uneven nature of maintenance needs and how these needs can be addressed with maintenance policy issues.

3. Require that the institutions' maintenance managers participate in the maintenance budget development and oversight.

4. Consider the institutions' physical plant conditions when allocating appropriated funds. DOC should allocate maintenance funds separately from the remaining "Other Operating Expenditures" to ensure that the institutions use the funds for maintenance.

FINDING III

THE DEPARTMENT OF CORRECTIONS HAS OVERSTATED MAINTENANCE EXPENDITURES

The Department of Corrections (DOC) has misrepresented its institutions' maintenance expenditures. The institutions' reported maintenance expenditures are inaccurate due to improper purchases. These improper expenditures were possible because DOC does not review institutional maintenance expenditures. Because of the poor conditions of Arizona's prisons, the Legislature may want to specifically appropriate maintenance funds to ensure that the funds are used properly to provide needed maintenance.

Institutions' Maintenance Expenditure Data Is Inaccurate

Maintenance expenditures reported by DOC institutions are incorrect. The institutions have completed Land, Building and Improvement (LB&I) projects with operating funds. Moreover, the institutions have inappropriately identified capital equipment purchases as maintenance supplies. Improper use of these funds has reduced funds available for maintenance and contributed to an erroneous budget base.

The Legislature appropriates DOC facility maintenance funds through the operating and LB&I appropriations bills. The maintenance funds in the operating budgets are within the "Other Operation Expenditures" category. Therefore, maintenance operating funds that are used to preserve a facility in its existing state are not specified in DOC appropriations. LB&I funds are appropriated for facility improvement projects, which include major repair projects as well as new construction. LB&I appropriations specify dollar amounts for facility improvement projects. With the exception of LB&I maintenance projects, there is no specific appropriation for DOC maintenance.

LB&I Projects Inappropriately Funded - DOC institutions have used their operating appropriations for LB&I projects. The institutions have funded unauthorized LB&I projects with operating funds. In addition, institutions have completed approved LB&I projects with their operating appropriation.

Using a general appropriation for LB&I projects, unless those projects are specified in the general appropriations bill, is prohibited. Attorney General Opinion I81-103 states that:

> "An appropriation is, the setting aside from the public revenue of a certain sum of money for a specified object, in such a manner that the executive officers of the government are authorized to use that money, and no more, for that object and no other, . . . therefore . . . monies may be expended only for work specified by the terms of the appropriation and . . . legislative action will be necessary to authorize an expenditure for any other work." (emphasis added)

Despite this restriction, four DOC institutions initiated and completed unauthorized LB&I projects with their operating appropriations.* Although the expenditures were made for construction, the institutions reported them as maintenance expenditures.

- Arizona State Prison Complex (ASPC)-Perryville used approximately $10,100 to build racquetball courts, storage sheds and a motorpool in fiscal year 1982-83.
- ASP-Safford used approximately $36,000 to build a 36-bed quonset and an administration building with structures from the Alpine Conservation Camp during fiscal year 1982-83.
- ASP-Picacho used approximately $6,500 to erect outdoor ramadas for visitation and a wall in the kitchen in fiscal year 1983-84.
- Catalina Mountain Juvenile Institution (CMJI) used approximately $10,900 to build a guard tower and visitation center enclosure during fiscal year 1984-85.**

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* These projects also violate statutory requirements for public works construction. Attorney General opinion I82-064 states that ". . . A.R.S. §32-142 sets out an absolute requirement that any public works construction be supervised by a qualified [Board of Technical Registration] registrant."

** Expenditures for this project were coded to maintenance supplies and educational supplies.

In addition to these unauthorized LB&I projects, three DOC institutions used their operating appropriation to complete approved LB&I construction projects.

- ASP-Safford used approximately $10,300 to complete the mess hall construction project during fiscal year 1982-83.
- ASP-Fort Grant used approximately $2,300 to finish construction on the new visitation center during fiscal year 1982-83.
- ASPC-Perryville used approximately $10,900 to complete Aspen Driving While Intoxicated Center and ASPC-Perryville fencing projects in fiscal year 1982-83.

Although the institutions may have needed to initiate and complete the LB&I projects, the Department should have requested approval to transfer operating funds to an LB&I account. As stated in Attorney General Opinion I81-103, Legislative action is required if an appropriation is to be used for purposes other than was intended. Instead of requesting transfers, however, the institutions charged the expenditures to repair and maintenance. Yet, these projects are capital outlays, not maintenance or repairs, and should have been funded with LB&I monies rather than operating funds.

Capital Equipment Recorded As Maintenance - Some institutions' capital equipment purchases have been improperly recorded as maintenance items. At least two DOC institutions have purchased capital equipment and charged the purchases to maintenance accounts.*

- ASP-Safford - approximately $12,500 was expended on a roll-up grille and an air cooled condensing unit in fiscal year 1982-83.
- CMJI - approximately $20,500 was used to purchase capital equipment for the kitchen and sewage treatment system in fiscal year 1982-83.

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* Capital equipment is defined by the Arizona Department of Administration (DOA) as all nonexpendable materials with an acquisition cost of more than $300 and probable useful life of more than one year. DOA requires that each State agency keep a nonexpendable materials inventory. However, materials that are attached to or have become a permanent part of a building or structure should not be included in the nonexpendable materials inventory.

These capital equipment purchases circumvented DOC's capital equipment procurement procedures and controls. From fiscal year 1982-83 through 1984-85, DOC required that the institutions request capital equipment through Central Office. This system was established to control the institutions' capital equipment purchases and to provide Central Office with a way to inventory capital equipment. According to one Central Office employee, designating capital equipment purchases as maintenance items reduces the Department's ability to control its equipment inventory.

Maintenance Funds Reduced - DOC's improper expenditures have reduced funds available for maintenance and contributed to an erroneous budget base. The total funds recorded for ASP-Safford's fiscal year 1982-83 maintenance were approximately $129,300, however, at least $59,500 was used on nonmaintenance projects. Similarly, CMJI recorded approximately $107,400 for fiscal year 1982-83 maintenance expenditures, but at least $20,600 is known to have been used for nonmaintenance items. Consequently, while some DOC institutions have used their operating budgets inappropriately, DOC facilities have deteriorated.

The full extent of the institutions' improper use of funds is unknown. All inappropriate expenditures could not be determined because only a small percentage of the claims for fiscal years 1982-83, 1983-84 and 1984-85 were reviewed. Moreover, claims were not reviewed for all institutions. Therefore, other unapproved projects may exist. Also, the total expenditures for identified projects may be greater than what was found during this audit. For example, only $6,700 of the $30,000 used for ASP-Safford's quonset hut project was identified through the claims selected. Similarly, according to DOC officials, ASP-Fort Grant's visitation center's construction costs exceeded the LB&I appropriation by approximately $25,000, however, only one $2,300 claim was selected during the audit.

Inadequately controlled maintenance expenditures have resulted in a historical record that includes many nonmaintenance items. Because the expenditure record is used as the basis for developing budget requests, these requests are also in error. Future DOC maintenance budgets will be

developed with erroneous information, unless the maintenance budget is zero-based.

Improper Expenditures Possible
Due To Inadequate Review

The institutions' inappropriate expenditures were possible because of inadequate maintenance expenditure data review. Although DOC redesigned its Arizona Financial Information System (AFIS) reports to provide for comparisons among institutions, the reports are not being used for this purpose. Furthermore, AFIS does not provide DOC with sufficient maintenance expenditure data. A more informative accounting system would provide DOC with greater control over maintenance.

Unused AFIS Data - DOC has not adequately used its expenditure data, although cost centers were developed specifically for institutional comparisons. Each institution has at least 20 cost centers, including plant operations, that incur maintenance expenditures. In fiscal year 1983-84 DOC reorganized its institutional cost centers. One of the primary reasons for reorganizing the cost centers was to provide DOC with a way to compare costs among the institutions. Institutional comparisons would identify expenditures that were out of line from the other institutions. However, DOC has not used cost center expenditure data to monitor the institutions' budgets. Similarly, prior to fiscal year 1983-84 DOC did not compare various institutional expenditures to monitor expenditure levels.* According to one DOC administrator, specific expenditures have not been reviewed because Central Office and the institutions are interested only in total dollars expended rather than types of expenditures and the implications of these expenditures.

Because DOC has not reviewed the plant operations cost center and maintenance expenditure data, the institutions' maintenance expenditures have not been adequately controlled. If DOC officials had reviewed this data, they may have determined that maintenance expenditures at some

* Similar comparisons led to the identification of inappropriate expenditures in this audit.

institutions were far below the expenditures of smaller and newer institutions. Consequently, the institutions may have been able to make improper purchases.*

Adequate Information Not Available - AFIS maintenance expenditure categories are not adequate to provide DOC with important expenditure data. The Arizona Chart of Accounts does not include sufficient categories in which to code maintenance expenditures. Consequently, DOC spent more than $1,133,000 on unidentifiable maintenance items during fiscal years 1982-83 through 1984-85.

The Chart of Accounts does not include sufficient categories for maintenance expenditures. Some DOC business managers indicated that the Chart of Accounts does not include appropriate categories for specific maintenance items. DOC uses two primary repair and maintenance accounts for facility maintenance: "Repair and Maintenance-Contract" and "Repair and Maintenance-Supplies." Each of these accounts includes categories that further identify the types of maintenance being performed. Within the account "Repair and Maintenance Supplies" there are seven categories:**

1. Buildings
2. Communication
3. Highway-Roadway
4. Highway-Signs and Traffic Control
5. Highway-Other
6. Shop
7. Other

A substantial amount of maintenance involves activities unrelated to buildings, communications and shop, which are the three maintenance supplies categories most applicable to DOC facilities. For example, the

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* DOC administration has reorganized its cost centers for fiscal year 1985-896. This reorganization was done to provide not only comparative costs, but also a means of identifying expenditures that were not previously identified. Department officials stated that this new system will be used to monitor institutional activities more closely.

** The "Repair and Maintenance-Contract" category is very similar to these categories.

maintenance on perimeter lights, security systems and utilities outside a building do not fall into any specific maintenance categories. However, due to the lack of categories these expenditures can only be coded "other."

Due to the lack of sufficient maintenance categories, approximately $1,133,000 was coded "other" during fiscal years 1982-83 through 1984-85, and is thus unidentifiable. These expenditures comprise approximately 35 percent of the total funds expended for maintenance in that period. Lack of adequate detail in the maintenance expenditure categories prevents identification of how the $1,133,000 was used.

Informative Accounting System - A detailed accounting system allows for more accurate identification of all maintenance expenditures. For example, Florida's accounting system includes several maintenance categories that aid its users in planning and controlling expenditures.

Florida's system has 14 maintenance contract categories and ten maintenance supplies categories that clearly identify the system being repaired. The categories include:

Buildings	Security Equipment
Communications	Maintenance Supplies-Electrical
Heating And Air conditioning	Lumber
Kitchen Equipment	Roofing
Laundry	Plumbing
Medical Equipment	Glass Products

Florida's system assists its Department of Corrections in planning and controlling maintenance. According to a Florida Department of Corrections official, the current system was implemented two years ago because the previous system did not provide sufficient information for management decision-making. The current system assists maintenance personnel in planning, because it allows them to identify maintenance funds expended on each system. For example, each facility knows exactly how much was spent on roofing, or heating and air conditioning projects. Further, the business managers can control maintenance expenditures because they know exactly where the funds are going. In addition, if

unexpected needs arise, Florida corrections officials feel that they have better documentation to support a request for additional funds.

The General Accounting Office (GAO), the State agency that oversees State accounting activities, could revise the Chart of Accounts to provide DOC with improved expenditure control. Currently, GAO is revising the Chart of Accounts, however, the revisions focus on capital outlay accounts. According to a GAO official, the fact that DOC institutions have coded 35 percent of their maintenance expenditures to "other" categories might be sufficient justification to request an addition to the Chart of Accounts. However, GAO would first determine the level of specific types of maintenance expenditures Statewide before it would revise maintenance categories within the Chart of Accounts.

If the Chart of Accounts is not revised, DOC could supplement its AFIS data with a manual system similar to Florida's accounting system. This system could assist the Department in planning for maintenance and controlling maintenance expenditures. Although DOC would still use AFIS for overall accounting, an internal system could provide the institutions with more accurate maintenance expenditure data. The manual system could be developed to provide further breakdown within the "other" maintenance categories.

Legislature May Want To Appropriate Maintenance Funds Separately

Because of the poor conditions of Arizona's prison facilities, the Legislature may want to specifically appropriate DOC maintenance funds to ensure that the monies are used appropriately. Recent changes within DOC may limit improper expenditures in the future. However, if DOC cannot ensure that adequate funds will be used for maintenance, the Legislature should consider appropriating maintenance funds separately.

Changes May Prevent Future Problems - Recent changes within DOC may limit improper expenditures in the future. DOC recently established an internal review process for construction projects. Furthermore, improper capital

equipment purchases may be controlled because the institutions will receive capital equipment funds in future fiscal years. These changes may eliminate inconsistencies in DOC maintenance expenditure control.

DOC issued Director's Management Order (DMO) 85-13, "Construction and Maintenance Project Requirements," on July 22, 1985. The DMO defines maintenance construction projects (LB&I) and maintenance repair projects and identifies the funding source for each project type. The DMO requires that all construction and major maintenance projects be reviewed by the Bureau of Maintenance and Planning within Central Office. This review should improve DOC's ability to control the institutions' construction activities.

Improper capital equipment purchases may be stopped because the institutions will receive their own capital equipment funds starting in fiscal year 1985-86. DOC administrators determined that centralized capital equipment purchasing created more oversight problems than it solved. In fact, the institutions' improper coding of capital equipment purchases may have occurred in part because they were not allowed to purchase their own capital equipment. Although this factor did not play a part in the decision to return equipment funds to the institutions, it is less likely that the institutions will improperly code these purchases because they will control their capital equipment funds.

These changes may eliminate inconsistencies in Departmental decisions which allowed institutions to inappropriately use maintenance funds for LB&I projects and equipment purchases. In some cases, the institutions received Central Office approval before completing unauthorized LB&I projects or improperly purchasing capital equipment. By approving improper expenditures, Central Office has set a precedent for other institutions to follow.

Maintenance Appropriation Should Be Considered - If the Department cannot ensure that the institutions will use maintenance funds appropriately, the Legislature should consider appropriating maintenance monies separately. Similar concerns over tracking and controlling funds has led the

Legislature to appropriate other DOC monies separately. Other state legislatures appropriate funds for maintenance to guarantee that their correctional institutions will be properly maintained.

Concern regarding expenditure tracking and control led the Legislature to appropriate some DOC monies separately. DOC receives lump sum appropriations for each of its five programs. However, the following DOC expenditures have been appropriated as "below the line items" to allow for greater expenditure tracking and control:* inmate discharge expense, work incentive pay plan, exoffenders' stipends, purchase of care, and management information system monies.

Below the line item appropriations lock the monies in so that the agency cannot move the funds to another area. If DOC needed to transfer monies out of a "below the line item" category, the Executive Budget Office (EBO) would request Joint Legislative Budget Committee (JLBC) approval. (Although JLBC approval is not required, DOC's EBO analyst stated that it would request JLBC approval because of Legislative interest in these expenditures.) Maintenance funds could also be controlled in the same manner as DOC food monies, which were removed from the "Other Operating Expenditures" line item in the fiscal year 1985-86 appropriation. Transferring food monies now requires EBO approval. Either method would allow for better expenditure tracking because the monies would be identified separately.

Other states have appropriated maintenance funds separately to allow for increased control. The New Mexico Legislature's fiscal year 1985-86 maintenance appropriation to the New Mexico Department of Corrections was made by line item. Furthermore, New Jersey's legislature began to appropriate maintenance funds as a separate program in fiscal year 1982-83. The New Jersey legislature made this change to segregate maintenance expenditures and ensure that the funds would be properly utilized. Florida's maintenance funds have also been appropriated as a separate program since 1970, when that state went to program budgeting.

* Line items include personal services, employee related expenditures, professional and outside services, other operating expenditures, etc.

CONCLUSION

DOC has overstated its maintenance expenditures. The institutions' maintenance expenditures are inaccurate because LB&I projects and capital equipment purchases have been identified as maintenance repairs. These improper expenditures were possible because DOC does not review institutional maintenance expenditures. Because of the poor conditions of Arizona's prisons, the Legislature may want to appropriate maintenance funds separately to ensure that the funds are used properly.

RECOMMENDATIONS

The Legislature should consider:

1. Directing DOC to develop its maintenance budget using a zero-based method to eliminate the improper expenditures from the budget base.

2. Appropriating DOC maintenance funds separately.

The Department of Corrections should:

1. Closely monitor institutional expenditures to ensure that LB&I projects or equipment purchases are not being made with funds designated for maintenance.

2. Request that the Joint Legislative Budget Committee transfer operating appropriations to LB&I accounts when the funds are going to be used for LB&I projects.

3. Request that GAO revise the Chart of Accounts maintenance categories, or develop a manual accounting system to allow for more accurate identification of maintenance expenditures. This system should include more specific categories for maintenance expenditures.

FINDING IV

THE DEPARTMENT OF CORRECTIONS NEEDS TO REVIEW MAINTENANCE STAFFING

The Arizona Department of Corrections (DOC) institutional maintenance staff may be inadequate to meet its responsibilities. DOC facilities are not being properly maintained. This has occurred partially because the Department's maintenance staff levels and expertise may not be sufficient to maintain its facilities.

DOC Facilities Lack Proper Maintenance

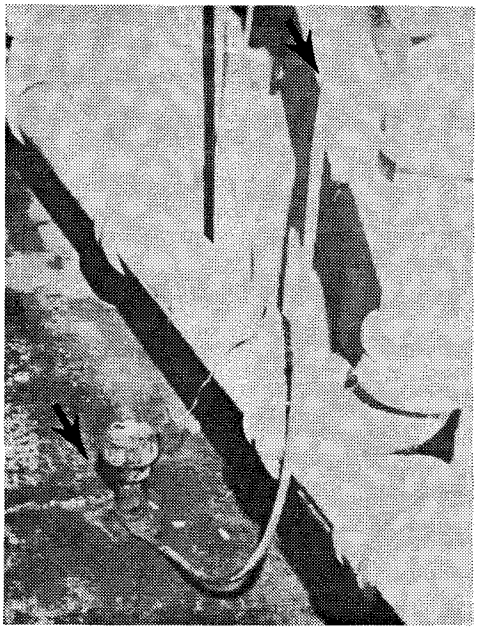
DOC has not adequately maintained its facilities. Some routine maintenance projects have been improperly completed. Also, the Department has not implemented a comprehensive preventive maintenance program.

Improper Routine Maintenance - DOC has not ensured that routine repair work is properly completed. A recent review of DOC facilities yielded numerous examples of inadequate maintenance. This lack of consistent and proper repair work has led to potential threats to the health and safety of DOC staff and inmates.

During recent facility visits, examples of a lack of adequate repair were observed.

ILLUSTRATION 5

LEAKING SEWER PIPES



- Illustration 5 shows sewage and domestic water leaking into a plumbing chase at Arizona State Prison Complex (ASPC)-Florence. Because no drainage was available in the plumbing chase, a trough was chiseled in the concrete floor to collect the standing water. An evaporative-cooler water pump is used to return collected water to the sewer line (see arrows). The leaks have been occurring for some time and should have been repaired. A State lab microbiologist stated that the leaking sewer water may present a severe health hazard to DOC staff working in that plumbing chase.

- In cellblocks 2, 3 and 4 at ASPC-Florence, maintenance staff joined galvanized and copper water pipe in a plumbing repair project. Combining these two metals results in an electrolysis that dissolves metallic plumbing. This unnecessary deterioration of the plumbing can result in increased maintenance building costs.

- At Catalina Mountain Juvenile Institution, maintenance staff were unaware of the need to put protective fluid in the cooling system and consequently, did not. This resulted in the growth of algae with subsequent reduction in the system's efficiency and potential increased operating costs.

- Illustrations 6 and 7 show an electrical repair at ASPC-Florence. An old electrical junction box was destroyed by fire due to a short circuit caused by water leaking into the box (Illustration 6). The circuit box was replaced and repaired incorrectly. The wires shown in Illustration 7 should not be exposed, but should be in electrical conduit. Also, the wiring shown by arrows in Illustration 7 is anchored to the overhead metal grate. On our subsequent visit, this project was appropriately repaired.

ILLUSTRATION 6

DESTROYED ELECTRICAL JUNCTION BOX

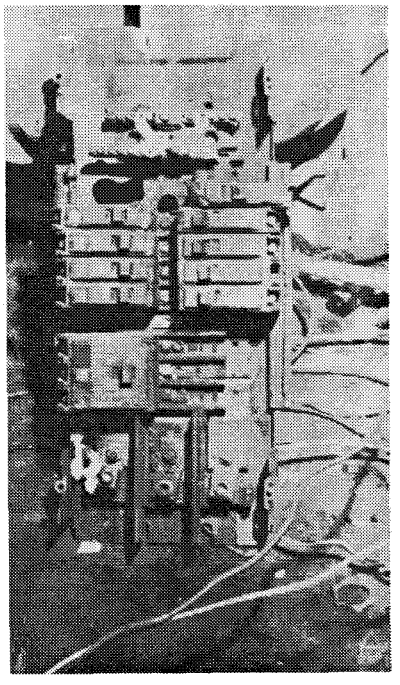


ILLUSTRATION 7

REPAIRED ELECTRICAL JUNCTION BOX

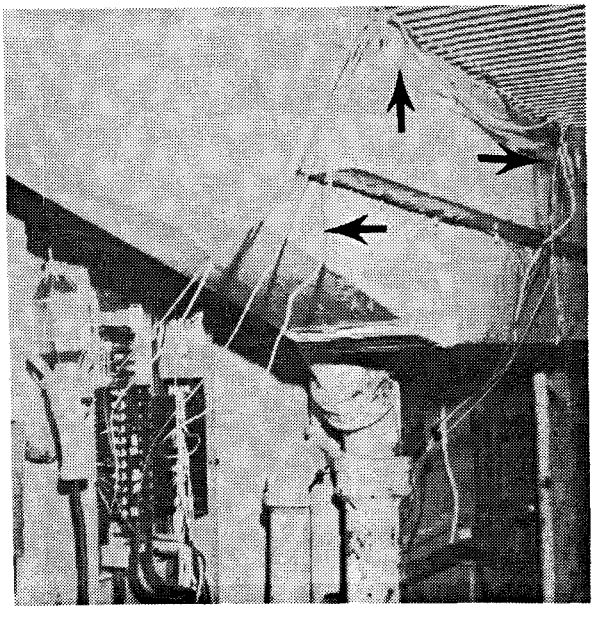
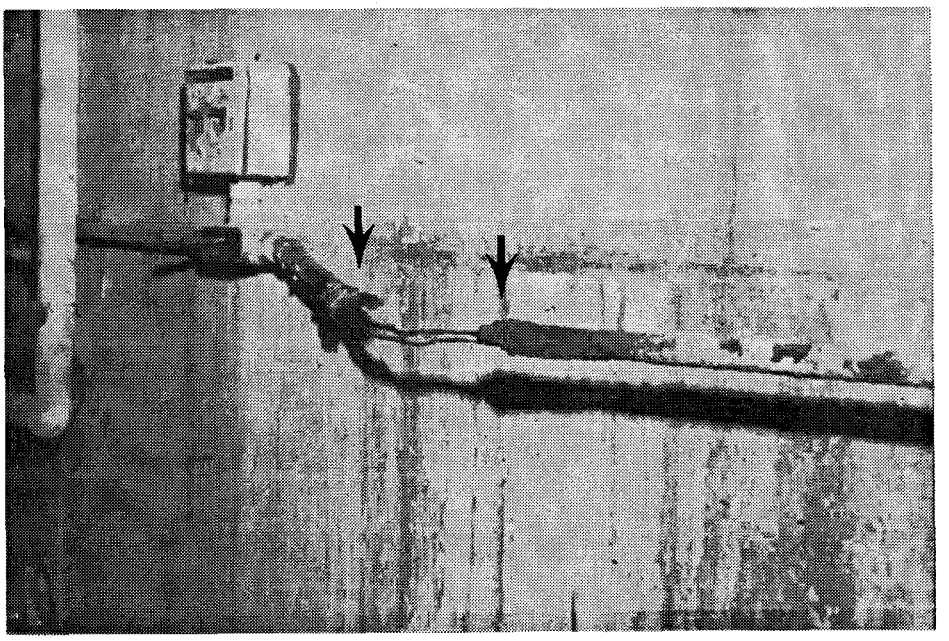


ILLUSTRATION 8

WATER LEAK - DETERIORATING CONDUIT



- The arrows in Illustration 8 show an electrical conduit eroded by dripping water at ASPC-Florence. It is apparent from the deterioration of the conduit that the water has been dripping for some time. The electrical wiring is live, and in conjunction with the deteriorated conduit, creates an electrical circuit that is not grounded. The leak should have been repaired and the conduit replaced to eliminate the possibility of electrocution.

- At Catalina Mountain Juvenile Institution a chlorinator was purchased in 1983 to automatically add an appropriate amount of chlorine to the water system. As of September 1985, the chlorinator had not been hooked up because an electric switch required to connect the chlorinator to the water system had not been purchased. As a result, maintenance personnel have added handfuls of swimming pool chlorine to the domestic water. Such hand chlorinating does not ensure that the amount of chlorine is adequate. According to a Department of Health Services Specialist, this may result in health problems for staff and incarcerated juveniles.

Lack Of Complete Preventive Maintenance Program - DOC has not implemented a comprehensive preventive maintenance program. Preventive maintenance is an important and cost effective phase of a maintenance program. However, DOC facilities do not have adequate preventive maintenance programs. Consequently, DOC will not realize the potential savings of a preventive maintenance program.

Preventive Maintenance is an important part of a maintenance program. It involves planning for the regularly scheduled inspection and maintenance of equipment, systems and buildings. This inspection and maintenance is designed to forestall the need for major repair or replacement, and to ensure that physical plant and equipment remain operable and efficient.

DOC facilities reviewed during this audit have not implemented complete preventive maintenance programs. ASPC-Tucson, ASPC-Perryville and Adobe Mountain Juvenile Institution perform the most preventive maintenance of all facilities. However, none of these three institutions have been able to perform preventive maintenance on all equipment and systems. The facility maintenance supervisors from these three institutions indicated that, with proper resources, they would add the inspection of building integrity, roofs and security systems to their preventive maintenance activities. Further, ASPC-Florence has performed preventive maintenance on emergency generators and steam boilers only. Finally, ASPC-Phoenix-Women's Center, ASPC-Phoenix-Alhambra, New Dawn Juvenile Institutions and ASP-Safford have no significant preventive maintenance programs.

DOC can realize savings through the implementation of an effective preventive maintenance program. The lack of a preventive maintenance program increases operating costs. For example, at ASPC-Phoenix-Alhambra, the air handling units have had no routine

preventive maintenance for at least six years. According to the maintenance supervisor, this neglect has led to approximately a 40 percent decreased efficiency of the facility's system. In contrast, Adobe Mountain Juvenile Institution performed preventive maintenance on refrigeration units and appears to have saved approximately $5,800 in one year.

Maintenance Staff May Be Inadequate

DOC institutional maintenance staff may be inadequate to meet its responsibilities. The Department's maintenance staff levels may not be sufficient to maintain its facilities. Moreover, DOC maintenance personnel may lack expertise needed to effectively meet physical plant maintenance needs.

Insufficient Maintenance Staff - DOC's maintenance staff level may not be adequate to maintain its institutions. In comparison with Federal prison standards, DOC may not have adequate staff to maintain its institutions. Although additional maintenance positions have been requested, few have been approved.

DOC's maintenance departments appear to be understaffed when compared with the Federal Prison System (FPS). The Federal Prison System's staffing guidelines use a facility's size and security rating in developing staffing levels. According to FPS guidelines, 12 DOC facilities may be understaffed by approximately 47 maintenance positions as shown in Table 8. For instance, the ASPC-Phoenix-Alhambra-Flamenco-Aspen complex, comprised of more than 132,000 square feet, would require approximately 19 maintenance positions. However, this complex is allocated two maintenance positions. Also, a regional architect for the Federal prison system stated that their older facilities would most likely exceed the staff levels suggested in the guidelines. Therefore, facilities like ASPC-Florence may require more staff than indicated by the Federal formula because of their age.

TABLE 8

COMPARISON OF
DOC MAINTENANCE STAFF LEVELS TO FEDERAL PRISON FORMULA
AT SELECTED FACILITIES(1)

Institution	DOC staff	Federal Formula	Difference
ASPC-Florence	25	25	0
ASPC-Fort Grant	6	11	5
ASP-Safford	5	8	3
ASPC-Perryville	10	13	3
ASPC-Tucson	9	11	2
ASPC-Women's Center	3	8	5
ASPC-Alhambra/Flamenco	2	9	7
Adobe Mountain J.I.	8	9	1
Catalina Mountain J.I.	5	8	3
New Dawn J.I.	1	7	6
Alamo	1	7	6
Douglas D.W.I.	1	7	6
Total	76	123	47

(1) Maintenance positions included for this analysis are as follows: physical plant director, building maintenance supervisors, building maintenance workers, electricians, electronic technicians, plumbers, carpenters, welders, painters and refrigeration mechanic. Inmates are used in the Federal Prison System but are not accounted for in the staffing pattern criteria.

Source: Prepared by Auditor General staff from DOC facility maintenance staff levels as of August 1985, and Federal Prison System staff guidelines

Maintenance department vacancies further decrease DOC staffing resources. Allocated full-time equivalent positions (FTE) do not represent the actual number of maintenance staff. As of August 2 1985, 12 of 83 maintenance positions were vacant (14 percent).* These vacancies negatively affect the maintenance departments efficiency in completing repair projects.

* These positions do not include seven approved but vacant FTEs for fiscal year 1985-86.

DOC has acknowledged maintenance staffing inadequacies in its annual budget request, however, many positions have not been approved. DOC requested 74 additional maintenance positions between fiscal years 1981-82 and 1985-86.* Only 23 of the 74 requested positions (31 percent) were approved; however, 19 of the 23 were approved in the two most recent fiscal years, 1984-85 and 1985-86. Consequently, DOC's attempts to substantially increase maintenance staff level have been largely unsuccessful.

Maintenance Staff May Lack Expertise - Some DOC maintenance staff may not be qualified to repair critical systems at various facilities.** Black and Veatch, consultants for the Auditor General, reviewed DOC facilities and recommended that DOC maintenance departments obtain additional staff with critical maintenance skills. The consultants indicated that poorly maintained facilities observed during their inspections can be directly attributed, in part, to lack of maintenance expertise. The consultants identified the need for additional maintenance personnel, to include:

- skilled electrical maintenance person at ASPC-Florence,
- skilled mechanical maintenance person at ASPC-Florence,
- skilled mechanical maintenance person at ASPC-Phoenix-Alhambra, and
- skilled mechanical maintenance person at ASPC-Phoenix-Women's Center.

Since the consultants' review did not include all facilities or all problems within each facility, crucial skills may be lacking at other institutions.

DOC's ability to hire competent staff may be affected by the low maintenance staff salaries. Seven of DOC's trade areas monthly salaries are approximately $170 per month less than that paid for comparable

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* In some cases, when positions were not approved, the same position was requested in subsequent years.

** DOC maintains many critical utility and security systems. These are electrical, domestic water, sewage, ventilation, heating and cooling, and mechanical and electronic security systems.

trades in other Arizona government agencies.* The annual average for DOC's seven trade areas is $21,120 while the average for other government agencies is $23,148. This represents a nine percent difference. This disparity between DOC maintenance salaries and other government agencies may impair DOC's ability to recruit more qualified individuals seeking public sector employment.

Correctional institution employment is not as desirable, generally, as employment in other State agencies. DOC's maintenance employees have to work with and around inmates, which creates additional job stress. The State has dealt with a similar problem when securing food service personnel for DOC. The regular State Food Service Supervisor pay grades were upgraded to Correctional Food Service Supervisor. This salary upgrade was designed to compensate State staff working under difficult circumstances.

CONCLUSION

DOC's institutional maintenance staff may not be adequate to meet its responsibilities. Consequently, DOC facilities are not being adequately maintained. Inadequate maintenance has resulted partially from the Department's insufficient maintenance staff levels and expertise.

RECOMMENDATION

DOC should review its facilities maintenance requirements to identify the specific tasks and skills needed to perform adequate facility maintenance. Subsequently, DOC should develop maintenance staffing patterns for each institution. The review should include an analysis of

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* These seven trade positions are electrician, plumber, welder, electronic technician, carpenter, painter and refrigeration mechanic. Arizona private/public sector salary averages were determined by Department of Administration (DOA) Personnel Division and are found in the Joint Governmental Salary Survey, 1984. DOC salaries are not included in the DOA calculations.

maintenance salaries and the possibility of creating a series of Correctional maintenance staff positions similar to the Correctional food service series.

AREAS FOR FURTHER AUDIT WORK

During the course of the audit we identified several potential issues that we were unable to pursue because they were beyond the scope of our audit or we lacked sufficient time.

- Should the State establish a statutory definition of Land, Building and Improvement projects?

  Land, Building and Improvement (LB&I) projects are not defined in Arizona Revised Statues, or the Department of Administration-Division of Finance or General Accounting Office rules. DOC officials have expressed concern about the lack of an LB&I definition, and feel that it has contributed to the inappropriate expenditures identified in Finding III. Other states have statutory definitions that specify what constitutes a capital outlay. For example, Florida and Colorado statutes provide a subjective definition of capital outlay projects, while New Jersey and New Mexico both have established minimum dollar amounts for capital projects. Further audit work is necessary to determine whether the lack of an LB&I definition has caused confusion among Arizona State agencies, and what would be the most appropriate definition of LB&I projects.

- Is maintenance shop space adequate for proper equipment maintenance and building repair projects?

  The Department of Corrections (DOC) maintenance shops may have inadequate floor space. At Arizona State Prison Complex (ASPC)-Florence and ASPC-Perryville, the maintenance buildings may not have sufficient work space for repairs. For instance, at ASPC-Florence plumbers are unable to get long pipes necessary for some repairs into the plumbing shop. This lack of sufficient repair space may lead to substandard repair work, resulting in decreased efficiency and increased costs. Further audit work is needed to determine the adequacy of shop space for each facility.

- Does the Department of Corrections have adequate financial information?

  The Department currently relies on the Arizona Financial Information System (AFIS) for all of its accounting needs. Although AFIS provides DOC with monthly reports for each of its organizational units, DOC facility business managers have indicated that the AFIS reports are not timely. The Department needs up-to-date financial information. For example, one DOC business manager stated that financial information needed for budget preparation was not available until two months after the budget deadline. Other states' corrections agencies, in contrast, have their own automated accounting systems which allow them to more readily determine the agencies' financial status. Further audit work is necessary to determine what should be done to provide the Department with accurate financial information more quickly.

Arizona Department of Corrections

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BRUCE BABBITT
GOVERNOR

SAMUEL A. LEWIS
DIRECTOR

NOV 1985
RECEIVED
AUDITOR
GENERAL

November 21, 1985

Douglas R. Norton
Auditor General
2700 North Central, Suite 700
Phoenix, Arizona 85004

Dear Mr. Norton:

The attached comments are provided, per your letter dated November 14, 1985, for inclusion with the text of the published report of the Performance Audit of the Department of Correction's Facilities Maintenance.

If you have any questions concerning the attached comments, please call me or Roger Austin at 255-3460.

Sincerely,

Samuel A. Lewis
Director

Attachment

SAL/RHA/g

DEPARTMENT OF CORRECTIONS

PERFORMANCE AUDIT

FACILITIES MAINTENANCE

The primary responsibility and objective of the Department of Corrections is the care, custody and control of the inmates committed to it. During the past five years, this mission has been difficult to meet due to the increasing inmate population and overcrowding which has resulted in the lack of facilities to handle this population. The result has been that emphasis by this Department has been placed on the overcrowding situation to the detriment of other functions of the Department.

One of the areas that has suffered has been the maintenance function. It must be emphasized, however, that as the Auditor General points out, it has not been totally ignored. The Department has requested a considerable amount of money. To quote the auditor, "Only twelve percent of the Department's LB & I Request was funded over the past five fiscal years." The reason that funds have not been appropriated to the Department and the Department has been unable to allocate internal dollars to the maintenance effort has been the overcrowding situation. The emphasis has been on new and temporary facilities.

The Department, in general, concurs with a substantial portion of the findings of this audit report. As a matter of fact, a vast majority of the issues addressed in the audit report have been undertaken by the Department and there will continue to be requests for funds in order that these problems may be solved.

Further exacerbating the problems as described by the Auditor General is the continued emphasis on new construction which has, in some instances, required that the already lacking maintenance staff be used to assist in these areas. Further, the Auditor General points out that the building of temporary, non-permanent structures is a cause for concern in the maintenance area. This is because these type structures require more maintenance and additional funds than would be required for permanent facilities. This situation is made even more problematical in that the Legislature approved and funded similar facilities in the Emergency Bed Unit Program which is being accomplished at Douglas, Florence, Tucson and eventually will house 1,100 inmates of medium to minimum custody. These units will, as the auditor has said, "Require more repairs than permanent facilities, are less durable and will severely affect maintenance budget requirements. Maintenance manpower requirements are increased with residential-type housing in that institutionalized felons are destructive individuals." Further, these "temporary" beds are second-hand and were in poor condition prior to acceptance by the Department of Administration.

As pointed out by the Auditor General, the lack of proper maintenance shop space further hinders proper maintenance. Maintenance facilities have been requested for ASPC-Douglas, ASPC-Florence, ASPC-Perryville in the FY 86/87 LB & I request as the facilities that do exist at ASPC-Florence have been condemned by the DOA several years ago and the room that exists at ASPC-Perryville is not adequate.

Specific funding problems which have occurred due to the continuous change in requirements to support operations and over-crowding, are cited below:

1. ASPC-Florence "CB4 Security Improvements"- $1,300,000.00 in funds were appropriated in FY 81/82. Design work was in progress, but the project was stopped by the Director and funds were transferred to meet operating needs in FY 83.

2. ASPC-Florence Wall, Tower and Security Improvements - Funding appropriated in FY 79/80 in the amount of $365,000.00 was reallocated from the project and was used as state match funds for a $1,000,000.00 federal grant, for renovation & security improvements for the old Administration building, security improvements to the So. Unit dormitories and construction of support space at the South Unit.

3. ASPC-Florence Central Unit Yard Office - Funds were transferred from this project in 5/81 due to the leasing of the Alhambra facility, the federal court order, funding of cellblocks 5 & 6, move of the Adult Women's Facility from Florence to a leased Phoenix facility (Maricopa's Durango Facility).

   These examples of reallocation of funds, were required due to a heavy influx of inmate committments, federal court mandate, and other outside uncontrollable factors.

The following comments address specific recommendations for each of the findings in the audit report.

FINDING I

RECOMMENDATION I

The Department of Corrections is in the process of addressing this recommendation in several ways. First, the Department was reorganized in January, 1985 and has established a Facilities Maintenance Bureau. This Bureau has written several Departmental policies, including ones on maintenance, construction project acceptance procedures and on the proper use of funds for LB & I projects. This Bureau will be heavily involved in future budgeting for maintenance, LB & I projects, and future Budget Requests.

As an example, this Bureau developed $86 Million Dollars worth of potential LB & I requests, of which $36 Million Dollars was included in the FY 1986/1987 budget. The Department does not have the $400,000-$500,000 available to hire a consultant as indicated by the Auditor in this finding. We will consider this item for future funding.

RECOMMENDATION 2

As previously discussed, the Department has developed a Maintenance Budget that addresses the repairs identified in this Performance Audit Report. Two things must be considered here. First is the fiscal and political realities of the budget process. As noted, $86 Million Dollars was identified as potential requirements for LB & I and maintenance projects. However, given the reality of the amount of available General Fund monies for appropriations for LB & I Projects, only $36 Million Dollars of the Agency's highest priorities were requested. Further, as the Auditor General has pointed

out, only twelve percent of all previously submitted LB & I requirements were funded over the past five years. This leaves one to confront the reality that while a Maintenance Budget may be developed and submitted, there is no way to ensure that adequate funding for repairs will ever be made available due to the limited resources of the State as a whole. It must also be noted that the vast majority of all the maintenance requirements identified in this report have been identified to the Legislature in the past and have not received adequate funding, or have received no funds at all.

FINDING II

LEGISLATIVE RECOMMENDATION 3

The Department of Corrections calculates its own modified facility replacements to offset the undervalues by DOA of Facility Replacement Costs and to allow the inclusion of leased facilities, such as those at the Arizona State Hospital and the Southern Arizona Release Center in Tucson. These values are based on available DOA figures with addition for those items DOA does not include, such as fences, external utility systems, electronic perimeter detection systems and adds in estimated facility replacement costs for those facilities that are scheduled for operation prior to the start of the next fiscal year and for all leased facilities.

DOC RECOMMENDATIONS

RECOMMENDATION 1

Recommendation 1 will be implemented during the next Budget cycle.

RECOMMENDATION 2

Recommendation 2 will be implemented prior to the next Budget cycle. A Department Policy will be written which will require Budget Development Training for institutional administrators, business managers and maintenance personnel. The budget training will include maintenance needs and maintenance policy issues.

RECOMMENDATION 3

Recommendation 3 will be complied with as stated above.

RECOMMENDATION 4

The Department does not concur with Recommendation 4. The Department and its institutions must consider all of the priorities of the Department and even though maintenance dollars have been lacking in the past, priorities caused by overcrowding will have to be addressed. Maintenance needs will have to be balanced against other items which are non-discretionary, such as clothing, food and the like. Adequate funding for maintenance can be assured only if funding for all needs of the Department are adequately funded.

FINDING III

RECOMMENDATION 1

A policy has already been written and implemented which directs institutions to submit projects to the Central Office Facilities Maintenance Bureau for approval. This policy will ensure that LB & I funds are used for LB & I projects and maintenance funds are not. In addition, procedures will be implemented to more closely monitor purhcases made by the institutions to ensure funds are not mis-allocated.

RECOMMENDATION 2

Concur

RECOMMENDATION 3

The Department will immediately address correspondence to the Department of Administration, General Accounting Office and request that the Chart of Accounts, currently contained in the Arizona Accounting Manual, be expanded to allow for a more accurate identification of maintenance expenditures.

FINDING IV

RECOMMENDATION

The Department is currently conducting a Staffing Study for the entire Department. This will cover the development of staffing patterns for the maintenance staff at each institution. The Department concurs with the second part of this recommendation in that facilities staff may be underpaid because of the hazardous nature of their duties in associating with inmates. To that end, the Department will immediately request a classification maintenance review of all of its Correctional Maintenance personnel with the aim of better compensating them. This will be in the same manner the food service people have been adjusted in the past.

AREAS FOR FURTHER AUDIT WORK

THE Department does not concur that further audit work is necessary in the area of definition of LB & I projects. The DOC did express concern over the lack of definition. We are certain that mis-understandings within the Department are the primary contributing factor to the inappropriate expenditures identified in Finding III. It would appear that further audit work is not necessary and that a recommendation should be made immediately that the Department of Administration define, in the Accounting Manual, or the Legislature, through Statute, define LB & I projects succinctly. The Auditor, in his report, shows clear evidence this is a problem. Specifically, it noted that on Page 33 of this report, the Auditor utilizes the undefied terms of major maintenance and operating maintenance without clarifying what is meant. Clarification and proper delineation of appropriate uses of appropriated funds should be made to allow for consistent application and use by all State agencies. This definition should allow sufficient flexibility for agencies to make minor improvements using other operating funds.