



FISCAL YEAR 2017

# **ADOA BUILDING SYSTEM CAPITAL IMPROVEMENT PLAN**

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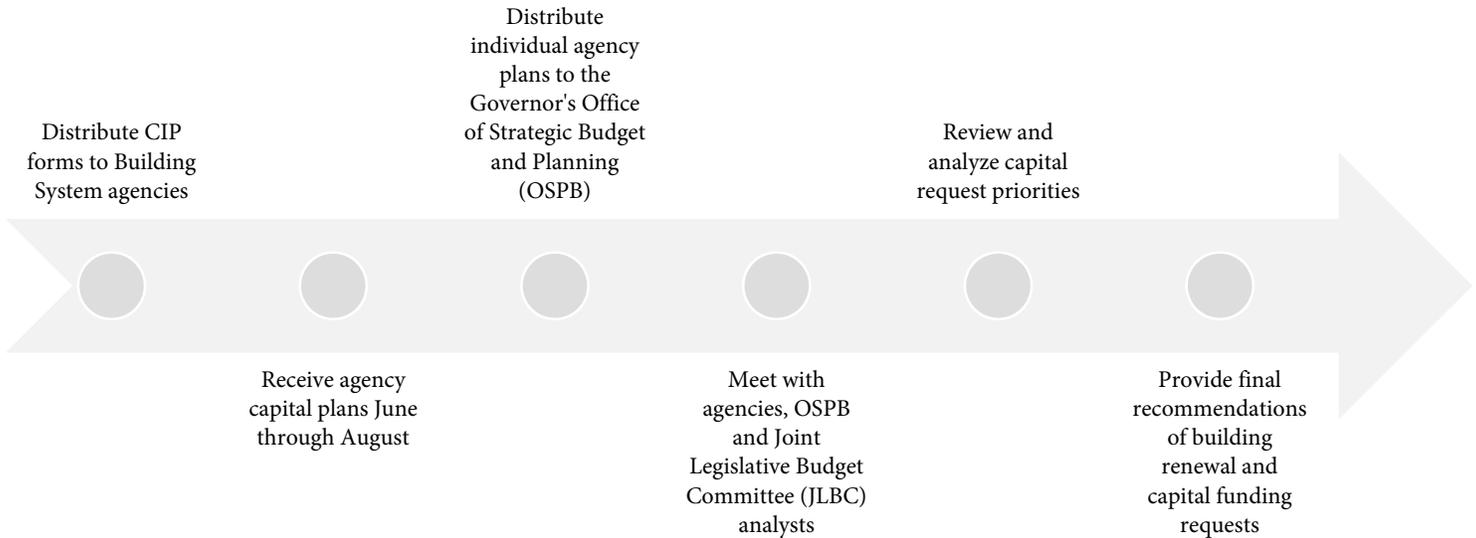


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# EXECUTIVE SUMMARY

The Arizona Department of Administration (ADOA) prepares the Building System Capital Improvement Plan (CIP) and identifies key recommendations for building renovations, replacement of core building components, and facilities construction. ADOA prioritizes capital requests in the following order: (1) fire and life safety; (2) mission-critical services; and (3) preservation of State assets. ADOA prepared the FY 2017 CIP as follows:



## FY 2017 Building Renewal Formula Forecast

The FY 2017 Building Renewal Formula forecast of \$61.8 million includes \$21.1 million for three State agencies with dedicated building renewal funds sources and \$40.7 million for 21 agencies without dedicated building renewal funds sources. Agencies with dedicated building renewal funds sources are the Arizona Department of Game and Fish, Arizona Lottery, and Arizona Department of Corrections.

## FY 2017 Building Renewal Requests

ADOA received building renewal requests for funding consideration from 18 State agencies, totaling \$172.2 million, including \$83.7 million of requests from 15 agencies with non-dedicated funds sources and \$88.5 million of requests from the three agencies with dedicated funds sources.

## FY 2017 Building Renewal Recommendation

ADOA recommends \$14 million for the ADOA Building System non-dedicated funds source agencies.

## FY 2017 Capital Improvement Plan Capital Project Requests

ADOA received capital project requests for funding consideration from 12 State agencies totaling \$396.9 million.

## FY 2017 Capital Project Recommendations

ADOA recommends new capital projects totaling \$40.6 million for its Building System. ADOA bases recommendations and priorities on issues of health and life safety as well as the criticality and significance to the structural integrity of the Building System.

*Individual agency Building System CIPs, including requests for building renewal and new capital improvement projects are available by contacting ADOA, General Services Division, Building and Planning Services at 602-364-4851.*

# ADOA BUILDING SYSTEM AND CAPITAL IMPROVEMENT PLAN

The Arizona Department of Administration (ADOA) Building System was established pursuant to A.R.S. § 41-793, concurrent with the Arizona Board of Regents (ABOR) Building System and the Arizona Department of Transportation (ADOT) Building System. The ADOA Building System is the largest of the three and includes buildings owned by 24 State agencies, boards, and commissions. Each Building System is responsible for submitting a Capital Improvement Plan (CIP) to the Governor no later than October 15 of each year. The CIP includes proposals for State spending on land acquisition, capital projects, energy systems, energy management systems, and building renewal.

## **New Capital Project and Building Renewal Funds Sources**

All agencies in the ADOA Building System are directed by A.R.S. § 41-793 to provide an annual agency CIP to ADOA regardless of an agency's appropriated or non-appropriated monies sources, including dedicated or non-dedicated capital and building renewal funds sources. ADOA does not usually make specific recommendations for capital or building renewal requests for the dedicated funds sources agencies – the Arizona Department of Game and Fish and Arizona Lottery Commission. As a significant change, 2011 Session Law authorized a dedicated building renewal funds source – The Department of Corrections Building Renewal Fund – for the Arizona Department of Corrections. ADOA does make new capital recommendations for the Arizona Department of Corrections.

## **Building System Inventory**

As of October 15, 2015, the Building System has an inventory of 4,211 structures comprised of approximately 23.5 million Gross Square Feet (GSF) and an estimated replacement value of \$4.5 billion (*see Table 1: ADOA Building System Inventory – FY 2015*). ADOA revises its Building System Inventory each year to include structure acquisitions and deletions as reported by Building System agencies, escalations or de-escalations of structure replacement values, and two fiscal years of forecasted building renewal requirements. The inventory also provides Marshall & Swift

Construction Class, Construction Year, fire suppression/sprinkler system status, Facility Occupancy Category, and other allied information.

ADOA inspects structures and reports their status to the Governor's Office and to the Legislature once every four fiscal years. ADOA General Services Division, Building and Planning Services section reports on the condition, maintenance, and utilization of buildings inspected during the prior fiscal year on an approximate schedule of 50% of buildings within the first two years and 50% of buildings in the following two years of the four-year cycle pursuant to A.R.S. § 41-793. Subsequent to FY 2009 budget reductions, ADOA suspended its quadrennial inspections of the Building System. ADOA is incrementally carrying out its statutory obligation to inspect building system structures as staffing and new capital projects inspections permit.

Many of the Building System's structures and major building components have exceeded their useful lives or succumbed to the effects of deferred maintenance. There are widespread deficiencies in fire and life safety systems, roofs, HVAC, electrical, plumbing, control systems, parking lots, and interior finishes. A chronic lack of funding for basic routine and capital maintenance is the genesis of the poor condition of the Building System structures.

*Building inspection reports are available for review by contacting ADOA Building and Planning Services at 602-542-4438.*

## TABLE 1: ADOA BUILDING SYSTEM INVENTORY

*Fiscal Year Ending June 30, 2015*

Agency	Nº of Structures	FY 2015 Replacement Value	Two-Year Forecast		Gross Square Feet
			FY 2017 Renewal Formula	FY 2018 Renewal Formula	
Administration, Arizona Department of	69	\$ 887,846,108	\$ 12,178,307	\$ 13,396,137	5,068,373
ADOA, Legislature	7	\$ 73,757,232	\$ 1,861,122	\$ 2,047,234	303,388
ADOA, Secretary of State	1	\$ 2,590,894	\$ 44,706	\$ 49,176	20,663
Agriculture, Arizona Department of	5	\$ 648,595	\$ 11,321	\$ 12,453	10,154
AHCCCS	3	\$ 32,372,731	\$ 499,375	\$ 549,312	164,080
Child Safety, Department of	1	\$ 6,844,341	\$ 178,937	\$ 196,831	41,913
Corrections, State Department of <sup>1/2/</sup>	1,487	\$ 1,710,534,213	\$ 20,116,887	\$ 22,128,576	8,005,421
Deaf and the Blind, Arizona State Schools for the	51	\$ 110,074,790	\$ 1,561,769	\$ 1,717,946	520,219
Economic Security, Department of	131	\$ 128,469,057	\$ 2,846,885	\$ 3,131,574	759,027
Emergency and Military Affairs, Department of	670	\$ 515,089,574	\$ 7,697,154	\$ 8,466,869	3,676,829
Environmental Quality, Arizona Department of	7	\$ 4,436,342	\$ 92,243	\$ 101,467	19,614
Exposition & State Fair Board, Arizona	26	\$ 104,292,420	\$ 2,635,053	\$ 2,898,559	681,147
Forester, State	5	\$ 1,854,011	\$ 30,529	\$ 33,582	13,646
Game and Fish Department, Arizona <sup>1/</sup>	462	\$ 80,033,659	\$ 892,179	\$ 981,397	788,186
Health Services, Department of	57	\$ 256,321,760	\$ 3,239,346	\$ 3,563,281	812,004
Historical Society, Arizona	23	\$ 49,657,213	\$ 998,861	\$ 1,098,747	208,572
Historical Society of Arizona, Prescott	21	\$ 12,032,976	\$ 245,987	\$ 270,585	54,683
Judiciary, Arizona Supreme Court	1	\$ 66,111,101	\$ 829,629	\$ 912,592	257,207
Juvenile Corrections, Department of	51	\$ 53,442,705	\$ 867,962	\$ 954,758	225,334
Lottery Commission, Arizona State <sup>1/</sup>	2	\$ 8,069,243	\$ 118,138	\$ 129,952	47,600
Parks Board, Arizona State	713	\$ 118,006,113	\$ 1,880,000	\$ 2,068,000	655,075
Pioneers' Home, Arizona	10	\$ 13,032,394	\$ 318,697	\$ 350,567	66,140
Power Authority	3	\$ 8,029,963	\$ 47,093	\$ 51,802	12,324
Public Safety, Department of	392	\$ 133,360,948	\$ 1,980,878	\$ 2,178,966	656,028
Tourism, Office of	1	\$ 890,423	\$ 9,777	\$ 10,755	3,058
Veterans' Services, Department of	12	\$ 105,692,807	\$ 660,809	\$ 726,889	398,845
<b>Grand Total:</b>	<b>4,211</b>	<b>\$ 4,483,491,612</b>	<b>\$ 61,843,644</b>	<b>\$ 68,028,009</b>	<b>23,469,530</b>

<sup>1/</sup> Dedicated funds source agency

<sup>2/</sup> Effective FY 2012 Department of Corrections is a dedicated funds source agency for Building Renewal

# BUILDING RENEWAL

A.R.S. § 41-790 defines building renewal as “...major activities that involve the repair or reworking of a building and the supporting infrastructure that will result in maintaining a building’s expected useful life. Building renewal does not include new building additions, new infrastructure additions, landscaping and area beautification, routine PREVENTATIVE maintenance EXCEPT AS PROVIDED IN SECTION 41-793.01, SUBSECTION D, or demolition and removal of a building...” A.R.S. § 41-793.01(D) directs that ADOA may use up to 8% of the amount appropriated for routine preventative maintenance. Given the years of deferred major maintenance in the Building System, ADOA prioritizes building renewal projects over routine preventative maintenance issues, which are normally a routine operations function and expense.

## Building Renewal Formula

A.R.S. § 41-793 directs ADOA to: 1) determine the amount of appropriation required to fund building renewal on an annual basis according to a formula approved by the legislature and 2) allocate appropriated building renewal monies to agencies of the Building System.

The building renewal formula approved by the Legislature is the Sherman-Dergis Formula developed in 1981 at the University of Michigan. In simple terms, the Sherman-Dergis Formula estimates at a high level the funding requirements for major maintenance over time. The basic premises are:

The formula to determine the annual appropriation required for building renewal for each building is based on construction costs and calculated as follows: Two-Thirds Building Value (BV) multiplied by the Building Age (BA), then divided by the Life Expectancy of the structure (n) or otherwise expressed as

$$\frac{2}{3}(BV)BA$$
$$n$$

The formula reflects the current year building replacement value by updating the original construction cost, using a national building cost index. ADOA uses the Marshall & Swift Valuation

Service’s building cost index to reflect its current year building replacement value.

The Age Factor = Building Age/Life Expectancy of the building (n). For example, the ADOA Life Expectancy is 50 years, therefore n=1,275, which is derived by progressively compounding by addition, 1+2+3+4+5...49+50. Building renewal, on average, should cost no more than two-thirds of the cost of new construction, thus creating the building renewal constant multiplier of 2/3.

The formula recognizes that building renewal should cost less than building replacement and that older buildings require more building renewal (capital funding) than newer buildings. In order to accomplish this, ADOA incorporates a building’s life expectancy of 50 years into its age factor. The annual formula does not consider accrued deferred maintenance.

## Building Renewal Funding and Deferred Maintenance

The Legislature fully funded the Building System’s Building Renewal Formula in only two of the last 30 fiscal years (FY 1988 and 1999). Full funding of the Building Renewal Formula is a reference to the cumulative amount of annual appropriation required to sustain a given year’s *current* facilities conditions, assuming all prior annual major maintenance requirements are completed. The utility of the Building Renewal Formula is limited because chronic underfunding results in an annual accrual of its unfunded portion, which the following year’s formula does not consider.

As a result of nearly 30 years of funding shortfalls carried forward year after year, the Building System has amassed **\$504.7 million** (adjusted for inflation) of deferred capital maintenance

*(See Table 2: ADOA Building System Building Renewal Allocation History & Deferred Maintenance Accrual – As of October 2015)*

The real significance of the Building System’s deferred maintenance is not its estimated value; it is its potential liability. Major equipment breakdowns, system failures, physical plant shutdowns, building finishes and contents damage are increasingly more common. The

difficulty in predicting and preventing a major equipment or system failure in the ADOA Building System's aging facilities without proper funding is surpassed only by the difficulty in dealing with these occurrences both physically and financially once they have occurred. Failure to address these issues with appropriate funding creates scenarios for undesirable environmental exposures, causes losses of productivity and inventory, increases expenditures in labor and mobilization fees, and further broadens the spectrum of accountability.

Arizona is facing the inevitable long-term consequences of neglecting its facilities' major maintenance requirements. In January 2009, ISES Corporation conducted a facility condition analysis of 3 million GSF of ADOA owned and/or managed buildings. This analysis indicated that over 1 million GSF (36%) of the structures it assessed were in "below average," "poor," or "replacement" condition.

ADOA's statutory role as the steward of the State's building assets is a nearly unattainable expectation with each passing year. Normally, ADOA recommends full funding of the Building Renewal Formula. Recognizing the current economic climate, ADOA has tempered its recent years' recommendations for building renewal funding. Despite the State's economic challenges, since FY 2010, ADOA has received building renewal appropriations of \$89.3 million – four and a half times the amount allocated between fiscal years 2006 – 2010. While the increased appropriations and new funds source strategies are helpful in resolving critical capital maintenance issues, the appropriations are still well below the need. The postponed major maintenance requirements have created highly disproportionate and expensive utility, repair, maintenance, and replacement expenditures in deteriorating and poorly performing facilities. The prolonged accrual of neglected building renewal has resulted in comprehensive multi-year phased scopes-of-work that are too expensive to allocate from insufficient building renewal appropriations and too lengthy to complete in a two-year lapsing appropriations period. Increasingly, major maintenance projects ADOA might otherwise allocate from building renewal appropriations are appearing in the CIP as large individual capital outlay requests.

## Capital Outlay Stabilization Fund

Pursuant to A.R.S. § 41-791, ADOA manages or provides some type of operational support services to approximately 3.8 million GSF in the Capitol Mall, Phoenix Metro, Tucson, and Kingman areas, including office space, parking garages, mechanical structures, laboratories, and computer data centers. ADOA depends on appropriations of Capital Outlay Stabilization Fund (COSF) monies to cover the operating costs of ADOA managed, State-owned buildings, including utilities, routine maintenance, grounds services, operating supplies, janitorial services, operations staff salaries, and building renewal.

### COSF Dilemma

COSF is in a state of crisis generated by an array of problems, including:

- 1) ADOA collects COSF rent for only approximately 2.2 million square feet – far less square footage than COSF is supporting;
- 2) tenants in approximately 334,000 RSF directly benefit from COSF facilities operations services but are exempt from payment of COSF rents or even basic operating and maintenance costs;
- 3) 19 State agencies owning and operating structures separately from ADOA that benefit from COSF appropriations for building renewal and new capital yet do not contribute to COSF revenues;
- 4) the methodology to establish COSF rent rates does not reflect standard building management practices – it merely supports a cash flow requirement;
- 5) appropriations exclusively from COSF will not stave off the negative effects of deferred maintenance;
- 6) some building's lease-purchase debt service payments are appropriated from COSF even though the building is not a COSF contributor; and
- 7) COSF appropriations for building renewal are budgeted only after other expenditures are obligated, further promoting the vicious cycle of deferred maintenance.

A.R.S. § 41-792.01 establishes the COSF and allows ADOA to collect rents and tenant improvement charges from State agencies occupying State-owned space. The legislative budget process determines the COSF rent rate ADOA charges to State agencies. COSF mon-

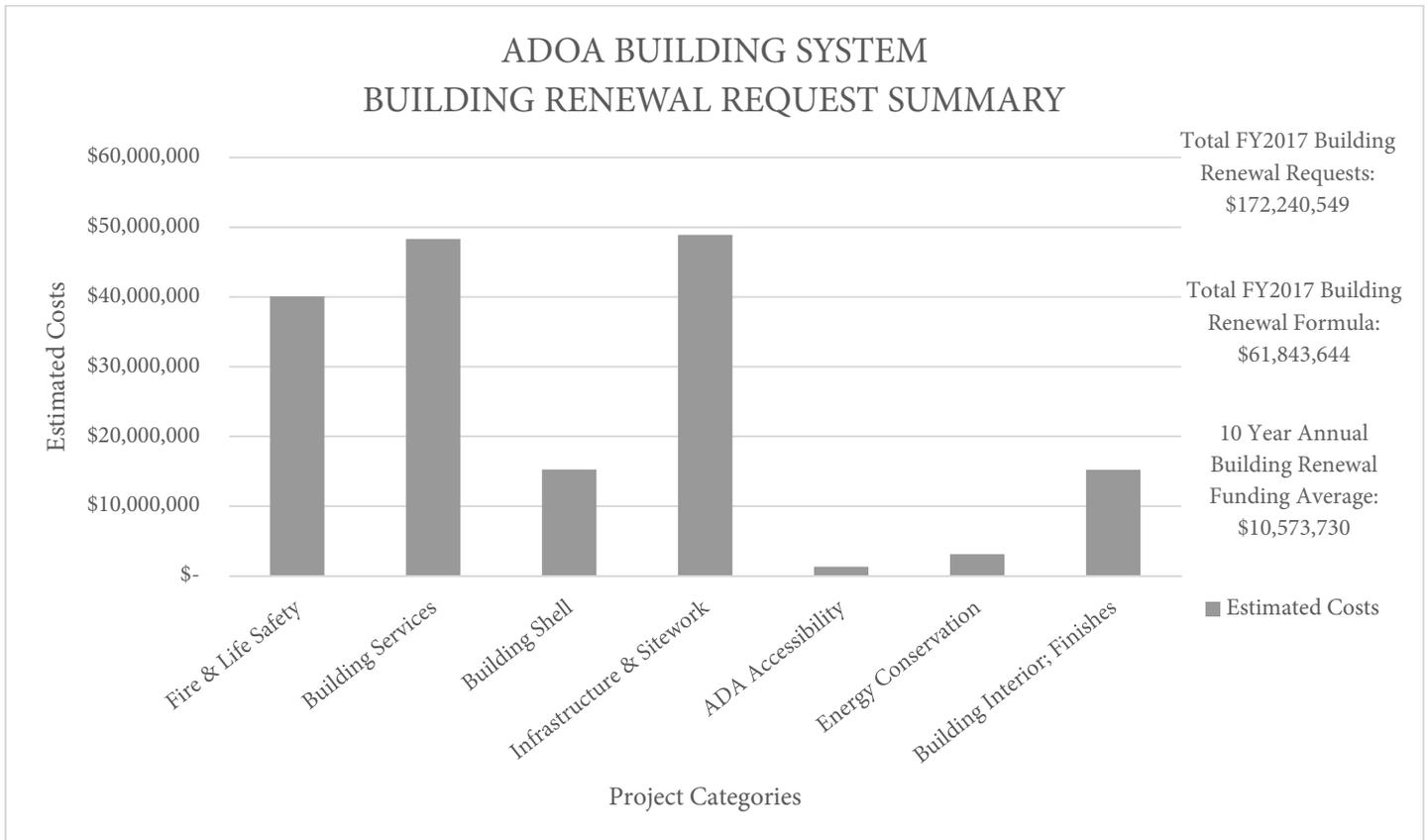
ies are subject to appropriation and exempt from the provisions of A.R.S. § 35-190 relating to lapsing of appropriations. Aggressive competition for limited GF monies has led to shifting the burden of funding the operating costs of ADOA managed State-owned buildings *and* building renewal almost exclusively with COSF. Since FY 2000, COSF is the exclusive source of 78% of building renewal appropriations.

It is necessary to re-evaluate COSF appropriations, as the present approach does not support full-service operations and maintenance, fully fund a given fiscal year's Building System Building Renewal Formula, address deferred maintenance and other unsupported appropriations.

### FY 2017 ADOA Building Renewal Recommendation

The FY 2017 Building Renewal Formula forecast is \$40.7 million for non-dedicated funds source agencies. ADOA usually advocates for full funding of the Building Renewal Formula for its Building System's non-dedicated funds source agencies; however, for FY 2017, ADOA recommends a continuation of last year's appropriation of \$14 million for building renewal.

ADOA recognizes its recommendation will not achieve the goals of the Building Renewal Program nor abate increasing deterioration of the Building System's aging infrastructure. ADOA will gradually rectify some of the detrimental consequences of deferred maintenance neglect through targeted infrastructure repairs and replacement and renovation projects with appropriations. An adverse policy decision further protracts Arizona's legacy of persistent infrastructure failures and costly crisis mode expenses and liabilities associated with a run-to-fail major maintenance program.



## TABLE 2: BUILDING RENEWAL ALLOCATION HISTORY

(Excludes Dedicated Funds Source Agencies; Game & Fish and Lottery)

Fiscal Year	Building Renewal Formula	Appropriation	% of Formula Appropriated	Deferred Costs	Inflation Adjusted Deferred Costs
FY 1987	\$6,000,000	\$4,900,000	81.7%	\$1,100,000	\$2,110,900
FY 1988	\$5,476,500	\$5,491,800	100.3%	-\$15,300	
FY 1989	\$6,119,300	\$3,002,000	49.1%	\$3,117,300	\$5,950,926
FY 1990	\$6,226,100	\$3,184,000	51.1%	\$3,042,100	\$5,711,543
FY 1991	\$6,238,263	\$459,100	7.4%	\$5,779,163	\$10,668,335
FY 1992	\$6,804,200	\$807,334	11.9%	\$5,996,866	\$11,058,221
FY 1993	\$8,273,745	\$2,194,500	26.5%	\$6,079,245	\$11,197,969
FY 1994	\$8,607,379	\$3,051,600	35.5%	\$5,555,779	\$9,972,623
FY 1995	\$8,675,374	\$5,372,458	61.9%	\$3,302,916	\$5,773,497
FY 1996	\$9,079,255	\$8,171,400	90.0%	\$907,855	\$1,524,742
FY 1997	\$9,857,406	\$4,911,300	49.8%	\$4,946,106	\$7,968,177
FY 1998	\$12,598,637	\$6,210,700	49.3%	\$6,387,937	\$10,067,389
FY 1999	\$13,707,938	\$13,628,000	99.4%	\$79,938	\$123,184
FY 2000	\$15,925,783	\$3,403,400	21.4%	\$12,522,383	\$17,756,739
FY 2001	\$17,209,530	\$3,682,900	21.4%	\$13,526,630	\$18,964,335
FY 2002	\$18,100,303	\$6,464,400	35.7%	\$11,635,903	\$15,883,008
FY 2003	\$18,175,137	\$3,068,300	16.9%	\$15,106,837	\$20,092,093
FY 2004	\$19,252,520	\$3,500,000	18.2%	\$15,752,520	\$20,084,463
FY 2005	\$19,852,990	\$3,500,000	17.6%	\$16,352,990	\$19,116,645
FY 2006	\$22,864,835	\$3,400,000	14.9%	\$19,464,835	\$21,878,475
FY 2007	\$25,391,389	\$7,249,200	28.5%	\$18,142,189	\$18,632,028
FY 2008	\$27,584,100	\$7,257,100	26.3%	\$20,327,000	\$20,306,673
FY 2009	\$31,042,588	\$899,300	2.9%	\$30,143,288	\$30,143,288
FY 2010	\$33,056,002	\$1,000,000	3.0%	\$32,056,002	\$32,056,002
FY 2011	\$36,763,663	\$5,000,000	13.6%	\$31,763,663	\$31,852,601
FY 2012 <sup>1/</sup>	\$38,109,130	\$11,100,000	29.1%	\$27,009,130	\$27,846,413
FY 2013 <sup>1/2</sup>	\$41,020,965	\$13,303,100	32.4%	\$27,717,865	\$28,189,069
FY 2014 <sup>1/</sup>	\$43,036,312	\$14,000,000	32.5%	\$29,036,312	\$30,110,656
FY 2015 <sup>1/</sup>	\$53,665,760	\$26,464,300	49.3%	\$27,201,460	\$27,854,295
FY 2016 <sup>1/</sup>	\$60,833,327	\$19,464,300	32.0%	\$41,369,027	\$41,824,086
	<b>\$629,548,400</b>	<b>\$194,140,500</b>		<b>\$435,407,900</b>	<b>\$504,718,400</b>

1/ Includes a separate dedicated Building Renewal appropriation for the Department of Corrections as follows:  
(\$4.6 million in FY12 & FY13, \$5 million in FY14, \$8.4 million in FY 15, \$5.4 Million in FY 16)

2/ Excludes \$1.7 million allocated to Arizona Department of Health Services from building renewal appropriation for new capital.

**TABLE 3: TWO-YEAR BUILDING RENEWAL FORMULA FORECAST**

Agency	Two-Year Forecast	
	FY 2017 Renewal Formula	FY 2018 Renewal Formula
Game and Fish Department, Arizona <sup>1/</sup>	\$ 892,179	\$ 981,397
Lottery Commission, Arizona State <sup>1/</sup>	\$ 118,138	\$ 129,952
Corrections, State Department of <sup>2/</sup>	\$ 20,116,887	\$ 22,128,576
<b>Sub-Total Dedicated Funds Source Agencies:</b>	<b>\$ 21,127,205</b>	<b>\$ 23,239,925</b>
Administration, Arizona Department of	\$ 12,178,307	\$ 13,396,137
ADOA, Legislature	\$ 1,861,122	\$ 2,047,234
ADOA, Secretary of State	\$ 44,706	\$ 49,176
Agriculture, Arizona Department of	\$ 11,321	\$ 12,453
AHCCCS	\$ 499,375	\$ 549,312
Child Safety, Department of	\$ 178,937	\$ 196,831
Deaf and the Blind, Arizona State Schools for the	\$ 1,561,769	\$ 1,717,946
Economic Security, Department of	\$ 2,846,885	\$ 3,131,574
Emergency and Military Affairs, Department of	\$ 7,697,154	\$ 8,466,869
Environmental Quality, Arizona Department of	\$ 92,243	\$ 101,467
Exposition & State Fair Board, Arizona	\$ 2,635,053	\$ 2,898,559
Forester, State	\$ 30,529	\$ 33,582
Health Services, Department of	\$ 3,239,346	\$ 3,563,281
Historical Society, Arizona	\$ 998,861	\$ 1,098,747
Historical Society of Arizona, Prescott	\$ 245,987	\$ 270,585
Judiciary, Arizona Supreme Court	\$ 829,629	\$ 912,592
Juvenile Corrections, Department of	\$ 867,962	\$ 954,758
Parks Board, Arizona State	\$ 1,880,000	\$ 2,068,000
Pioneers' Home, Arizona	\$ 318,697	\$ 350,567
Power Authority	\$ 47,093	\$ 51,802
Public Safety, Department of	\$ 1,980,878	\$ 2,178,966
Tourism, Office of	\$ 9,777	\$ 10,755
Veterans' Services, Department of	\$ 660,809	\$ 726,889
<b>Sub-Total Non-Dedicated Funds Source Agencies:</b>	<b>\$ 40,716,440</b>	<b>\$ 44,788,084</b>
<b>Grand Total:</b>	<b>\$ 61,843,644</b>	<b>\$ 68,028,009</b>

<sup>1/</sup> Dedicated funds source agency<sup>2/</sup> Effective FY 2012 Department of Corrections is a dedicated funds source agency for Building Renewal

# FISCAL YEAR 2017 CAPITAL PROJECT RECOMMENDATIONS

## FIRE & LIFE SAFETY/INFRASTRUCTURE

ADMINISTRATION, ARIZONA DEPARTMENT OF  
*Replace Obsolete and Unsupported Fire/Life Safety Systems; ADOA Building System*

**\$5 million**

Statewide, agencies have requested over \$11.9 million in fire and life safety systems upgrades (not including Department of Corrections) through building renewal. This includes fire alarm systems that have exceeded their life expectancy, are functionally obsolete, and are in various stages of failure, if not already failed. When fire alarm systems are out of commission for extended repair times, ADOA or its tenant agencies must employ 24-hour fire watch personnel, usually on an overtime basis, to achieve fire and life safety standards. Working fire alarms are a basic and mandatory need in office buildings. Building condition assessments procured with FY 2008 building renewal monies confirmed the necessity for comprehensive fire alarm system replacements to bring facilities into compliance with Federal, State, and Local fire and life safety regulations.

Without a large multi-year capital appropriation, ADOA has used limited building renewal funding to replace fire alarm systems in a phased approach throughout the State. This request is part of a multi-year allocation consisting of the planned design and construction of non-proprietary fire alarm systems at the Arizona State Hospital, the Arizona State Schools for the Deaf and the Blind Campus – Tucson, and the continued replacement of systems in ADOA owned and managed buildings. ADOA recommends specific priorities for fire alarm replacements; however, the order of priorities is subject to change given the propensity for unpredictable failures of deteriorating building fire alarm systems. Electronic based technology is in a constant state of advancement, which can render most electronic devices obsolete within a ten year period or less. With a typical life expectancy of only 10-15 years for all fire alarm systems and a building system comprised of over 4,200 structures, there will only be a continued need for replacement of fire systems.

CORRECTIONS, ARIZONA DEPARTMENT OF

*Replace Obsolete and Unsupported Fire Alarm Systems; ASPC Florence; Phase I*

**\$4.6 million**

Some of ADC's highest priorities for capital and building renewal include requests totaling over \$28.2 million to replace and/or repair fire alarm systems in ADC prison complexes throughout the State. Fire alarm systems in numerous prison complexes are inoperable, malfunctioning, unsupported, obsolete, and are not Class A fully addressable systems. When fire alarm systems are out of commission for extended times, ADC must employ 24-hour fire watch personnel, usually on an overtime basis, to achieve fire and life safety standards. Properly working fire alarms are a basic and mandatory requirement for occupied spaces, and particularly so in a confined and secure environment.

ADOA recommends a phased approach to comprehensive multi-complex life safety projects coupled with a funding commitment spanning several fiscal years. Phase I of a multi-year funding proposal includes fire alarm systems at the Douglas State Prison Complex and all units at the Eyman State Prison Complex. Existing systems throughout the Douglas State Prison Complex are obsolete, with approximately 85% in a non-operational condition. These units are currently conducting 24-hour fire watches. The fire alarm systems at the Eyman complex serve five individual units. Connectivity and operational problems have led to a non-operable system for all units. Phases II, III, and IV include, but are not limited to, prioritization of fire alarm systems at Florence, Lewis, Phoenix, Tucson, and other complexes. Replacement priorities and phasing would be subject to change upon further intensive evaluation of system components.

## CORRECTIONS, ARIZONA DEPARTMENT OF

### *Replace and Upgrade Cell Doors and Locks; Restore Appropriations - Phase II*

#### **\$7.0 million**

The Legislature made appropriations for this multi-year capital project in FY 2006 (\$5.2 million) and FY 2007 (\$5.2 million) and ex-appropriated the monies in FY 2008 (\$2.0 million) and FY 2009 (\$3.2 million), reducing the total cumulative funding to \$5.2 million. ADOA completed a single \$4.9 million project at the ASPC Tucson Rincon Unit. The ex-appropriation of \$5.2 million resulted in ADOA cancelling a second project, the ASPC Florence SMU II Unit Security Upgrades, during the contract award phase. ADOA terminated another four projects in the design phase and compensated the architectural firm for its design work completed up to that date. Procurement code requires re-solicitation of project design as the costs to replace and upgrade cell doors and locks have escalated well beyond the original estimates for construction. ADOA recommends several years of funding commitment to a phased construction approach for multi-complex lock and cell door projects. Replacement priorities are subject to change upon further intensive evaluation of existing system components.

## **BUILDING SERVICES**

### HEALTH SERVICES, DEPARTMENT OF

#### *ASH Central Plant HVAC Upgrades*

#### **\$4.3 million**

The Arizona State Hospital (ASH) central plant is comprised of aging building system components nearing the end of their useful life that require immediate replacement. The HVAC system has numerous problems and is currently operating at 100% load capacity and in just a few months may not be capable of sustaining the daily cooling demands of the hospital. The ASH central plant is comprised of four chillers - (2) 700-ton units, (1) 600-ton unit, (1) 570-ton unit and four stand-alone cooling towers. ADOA allocated \$1.0 million of its FY 2015 building renewal appropriation to design and replace Chiller #2 and \$1 million in FY 2013 for the replacement of two (2) cooling towers. This allocation will complete the replacement of all

remaining major equipment.

Briefly, the scope of this request will:

- 1) design and replace two remaining low capacity chillers with two larger capacity chillers
- 2) design and replace the two remaining 1,000-ton cooling towers

Due to the size and complexity of the central plant, it is highly recommended to engineer and replace these systems as a single project, rather than intermittent smaller projects, to ensure proper sizing, functionality of the system, and to avert failures of older system components, which would make newer components ineffective. This individual capital outlay request represents a multi-year scope-of-work that is too expensive to allocate from building renewal appropriations and too lengthy to complete in a two-year lapsing appropriations period. Failure to efficiently control climate and airflow to ASH patient and staff areas within the civil campus poses serious life safety concerns.

### ADMINISTRATION, ARIZONA DEPARTMENT OF

#### *Central Plant HVAC Upgrades*

#### **\$6.5 million**

The Arizona Department of Administration (ADOA) is requesting a \$6.5 million capital appropriation to fund major central plant upgrades at both the Capitol Mall and Tucson Office Complex. A number chillers and cooling towers in the Capitol Mall and Tucson are well over 20-years old, far surpassing their expected useful service lives. The oldest and most critical cooling towers are unique, as most are permanent concrete structures built as a part of mechanical buildings. Many of the failing chillers and cooling towers are original to building construction and no longer meet the cooling demands of the structures they support. Deteriorated HVAC systems are currently unpredictable and imminent failure conditions threaten mission critical functions. In Arizona's extreme environment a lack of cooling in facilities presents health and life safety concerns.

ADOA proposes the installation of stand-alone stainless steel cooling towers, replacement of water distribution systems, chillers, etc., and rental of portable cooling towers, hoses, pumps, and fueled generators to

provide temporary cooling to buildings for the duration of construction. Projects, in order of priority, include:

#	Address	Project	Approx. Cost
1	402 West Congress, Tucson	Replace chillers & cooling towers	\$1,500,000
2	1601/1645/1535 West Jefferson, Phoenix	Replace chillers & cooling towers	\$2,000,000
3	1616 West Adams, Phoenix	Replace cooling towers	\$750,000
4	1510/1520 West Adams, Phoenix	Replace chillers & cooling towers	\$2,000,000
	Private project management	See above	\$208,000
<b>Grand Total:</b>			<b>\$6,458,000</b>

Replacing aged and inefficient systems with new and more efficient systems will generate energy savings, protect assets, and provide a climate controlled environment for staff supporting mission critical functions.

In recent years, ADOA has attempted to fund individual central plant upgrades with limited Building Renewal funding. This piecemeal approach to replace obsolete and aging equipment will lead to continued HVAC failures and can take up to 6 years for completion. Complete HVAC system failures during the summer months will require ADOA to close affected buildings until it can procure temporary cooling towers/chillers and put them into service. Emergency based procurements increase expenses and out of service times. Costs of rental cooling towers and chillers are approximately \$40,000 each per month and can last for 3 months or more as equipment of this size and magnitude have long lead times.

## **BUILDING SHELL**

ADMINISTRATION, ARIZONA DEPARTMENT OF

*Exterior Building Expansion Joint/Window Repairs*

**\$2.0 million**

Years of exposure to extreme weather conditions prevalent in the desert, have led to the deterioration of exterior expansion joints and window seals on a number of buildings within the Capitol Mall. In select buildings, rainwater has frequently leaked through windows, causing damage to flooring and furniture. These deteriorating exterior joints can adversely affect

building structural systems; lead to potential mold growth, and increase risk of damage to interior contents. Further, the costs of structural damage and mold abatement can often exceed the cost of replacing these systems. This request is to replace the exterior expansion joints and window seals for multiple State office buildings that continue to leak including, but not limited to, the Executive Tower, 1789 West Jefferson, 1200, 1300, and 1400 West Washington, 1616, 1624, and 1688 West Adams.

## **ADDITIONS; RENOVATIONS; NEW CONSTRUCTION**

ADMINISTRATION, ARIZONA DEPARTMENT OF

*Capitol Mall Office Renovations*

**\$11.4 million**

The Arizona Department of Administration (ADOA) requests a capital appropriation of \$11.4 million to fund office space renovations on the Capitol Mall and backfill State office space in an effort to keep the Capital Outlay Stabilization Fund (COSF) wholly funded at current levels. With each passing year, ADOA's statutory role as the steward of the State's building assets becomes an increasingly unattainable expectation. While recent increased appropriations and new funds source strategies are helpful in resolving critical capital maintenance issues, the appropriations are still well below the need. In 2009, ADOA procured an engineering firm to perform condition assessments of several buildings in the Capitol Mall. The analysis of the overall conditions of ADOA's Capitol Mall buildings indicate that even though the ADOA buildings are not as old as most of the buildings assessed by the engineering firm, the ADOA buildings are in worse overall condition because of the higher than normal percentage of deferred maintenance. Most, if not all, renewable building system components have exceeded their statistical life cycle after 20-30 years of service, in some cases by 15 years.

ADOA proposes to renovate two (2) ADOA owned and managed office buildings in the Capitol Mall. This proposal also includes a plan for backfill of the renovated facilities.

Capitol Mall Office Renovations: Proposed Addresses

#	Address	Current Agency Tenant(s)	Current COSF Revenues	Approximate Renovation Costs
1	1275 West Washington	Office of the Attorney General	\$ 1,313,400	\$ 7,121,900
2	1740 West Adams*	Department of Health Services	\$ 1,013,500	\$ 4,244,300
Total COSF Revenues:			\$ 3,833,900	
<b>Total Approximate Renovation Costs:</b>				<b>\$ 11,366,200</b>

\*1740 West Adams is in better overall condition than 1275 West Washington.

Briefly, the underlying plan is to:

1. Relocate 1275 West Washington Office of the Attorney General to private sector space as a permanent arrangement. This proposal is self-initiated by the Office of the Attorney General. The Attorney General is responsible for its own relocation costs. For this reason, the relocation costs are not represented in this request. ADOA will permanently backfill the space with the Department of Corrections and Board of Executive Clemency from 1601 and 1645 West Jefferson in approximately FY 2018. A FY 2018 policy issue to address relocation costs is required.

The underlying basis for the self-initiated relocation of the Office of the Attorney General to privately leased space is the poor condition of systems and underperforming functionality of the building.

This plan will require an analysis and commitment to fund renovation of 1601/1645 West Jefferson in FY 2018. The COSF rent rate will require reconsideration unless an alternative funds source is dedicated to this endeavor. A FY 2018 policy issue will include this proposal.

2. Relocate and consolidate the Department of Health services, located at 1740 West Adams to 150 North 18<sup>th</sup> Avenue. This proposal is self-initiated by the Department of Health Services. The Department of Health Services is responsible for its own relocation costs. For this reason, the relocation costs are not represented in this request.

ADOA will permanently backfill the space with several State agencies currently located in private leased space and the underutilized State-owned space at 9535/9545

East Doubletree Ranch Road, Scottsdale in approximately FY 2018.

3. ADOA will sell 9535/9545 East Doubletree Ranch Road, Scottsdale to offset the expense and impacts to the General Fund required to address this issue. A recent opinion of value of the Scottsdale facilities is approximately \$2,636,370. Law requires these proceeds are directed to the GF. Assuming these sale proceeds, the net GF required to address this request is \$8,729,830.

This request IS the result of inadequately funded building renewal for the previous 30 fiscal years and the accumulation of approximately \$504.7 million in deferred maintenance costs. If this request is not approved, aging ADOA buildings will continue to deteriorate leading to an increased amount of emergency based procurements, expenses, building shutdowns due to failed systems and requests to relocate to private sector space. This alternative is expensive and inefficient use of building renewal and operating monies.

EMERGENCY AND MILITARY AFFAIRS, DEPARTMENT OF

*State Emergency Operations Center (SEOC) Expansion*  
**\$21.3 million**

The 7,384 GSF State Emergency Operations Center (SEOC), constructed in 1983 and located on the Papago Park Military Reserve (PPMR) in Phoenix, is the State’s central emergency operations facility. It also houses some of the Department of Emergency and Military Affairs, Emergency Management Division’s administrative operations, including Operations, Logistics, and IT. The SEOC provides for the physical collocation and collaborative efforts of State and local governments and other crisis support entities to facili-

tate timely and orderly allocation of resources in the event of an emergency, including, but not limited to, nuclear crisis, wild fires, and flood. The SEOC building is not up to fire and building code standards, the back-up power supply is unreliable, and the space is not adequate to accommodate current day-to-day operations or emergency response scenarios. As a result, operations functions are fragmented across the military reserve campus in an array of at least seven facilities consisting of modular units, mobile homes, and storage containers/buildings. Emergency activations can last more than three weeks at a time. Occupancy can exceed code standards, creating serious fire and life safety, indoor air quality, and security concerns.

The proposed construction plans to increase the SEOC to approximately 48,000 GSF, including a two-story new construction addition along the north and west walls, as well as a renovation of existing SEOC space. The total estimated cost is \$21.3 million and includes the design, engineering, construction, furniture, fixtures, and equipment. The cost also includes the design and engineering for a *future* expansion that would increase the building size to approximately 54,000 GSF. At this time, the expansion would cost, approximately, an additional \$2 million.

As proposed, the new SEOC will achieve efficiencies of personnel and operations, reduce energy consumption, provide code compliant building and fire and life safety systems, improve access to the emergency management community and the media, and eliminate rented space.

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## PUBLIC SAFETY, DEPARTMENT OF

### *Statewide Office Modular and Remote Housing Replacement*

#### **\$2.1 million**

To support Arizona's vast highway system (improving highway safety and providing emergency response), the Department of Public Safety (DPS) Highway Patrol officers are stationed at reasonable travel intervals throughout the State. With great distances between Arizona's population centers, remote housing compounds are necessary. The most cost effective housing solution at these remote locations is modular housing units. These modular units are used by Highway Patrol officers and their families on a daily basis, presenting less than acceptable living conditions and serious life safety concerns.

The Department has 60+ units across the State. With a useful life of 20-25 years, approximately 3 units require replacement each year. Due to budget limitations, numerous units far exceed their useful life, with some units exceeding 50 years old. Older units are poorly insulated, no longer code compliant, and have rapidly deteriorating building systems. The costs for continuous "Band-Aid" fixes to these units are not cost effective and immediate replacement is required. Below are the most critical remote housing locations:

- Dateland P-043 (50+ years old)
- Gila Bend M-059 (1,080SF, 39+ years old)
- Wikieup T-223 (780SF, 42+ years old)
- Wikieup T-377 (1,344SF, 42+ years old)

Similar to the remote housing needs, DPS requires office space throughout the state to satisfy operational needs. These units have also exceeded their useful life as the six units below are 34 plus years old and require complete replacement. Below are the most critical remote office locations:

- Payson (40 years old)
- Wikieup (40 years old)
- Buckeye (40 years old)
- Sanders (40 years old)
- Roosevelt (40 years old)
- Wickenburg (34+ years old)

FORESTRY DIVISION, ARIZONA STATE

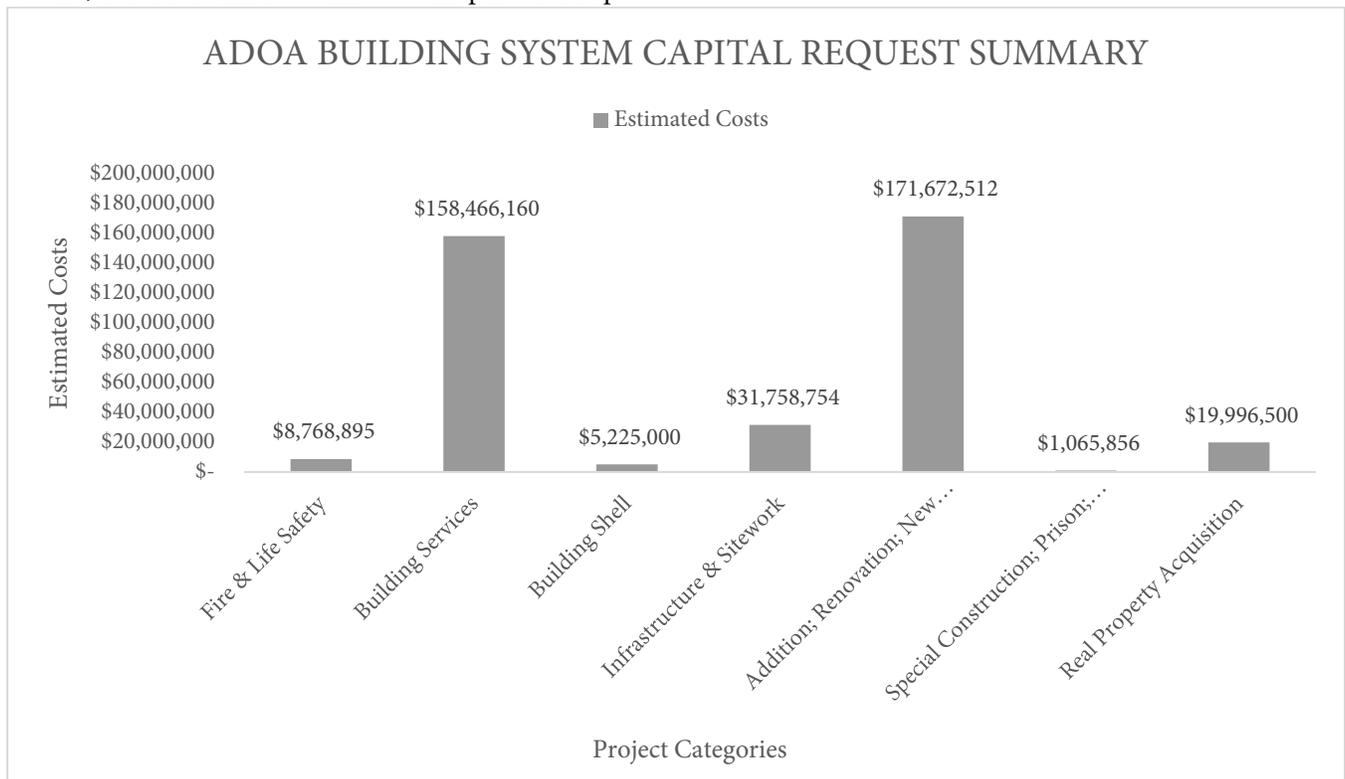
Deer Valley District Office Modular Replacement

\$400,000

The Arizona State Forestry Division (ASFD) provides resources for the prevention and suppression of wild land fire on approximately 22 million acres of State Trust Land and private property located outside incorporated communities. The Deer Valley office compound is located off the I-17 and Pinnacle Peak Road and is home to the ASFD Phoenix District Office as well as the Arizona Interagency Dispatch Center (AIDC), which dispatches for wild land fire for the northern two-thirds of the State (Yuma, La Paz, Yavapai, Northern Pinal, Mohave, Coconino, Apache, and Navajo Counties). Currently, the ASFD Phoenix District Office is operating out of a 24' x 60' modular building installed in 1997 at the Deer Valley location (the age of the modular building is unknown as it appears it was not installed new). The Phoenix District Office houses the Phoenix District Forester, Assistant Fire Manager, Globe Fire Crew Coordinator, Perryville Fire Crew Coordinator, Fuels Manager, Division Safety Officer, and other State fire staff. These positions sup-

port wild land fire suppression, all-risk activities (i.e. flooding), and wild land fire training outreach to fire departments in Maricopa, Yavapai, Yuma, La Paz, Gila and the northern half of Pinal Counties.

Despite annual attempts at roof repair, the modular building has developed a number of roof leaks over the years causing damage to the structure and interior contents. Attic and wall insulation have been subject to water intrusion, leading to potential mold growth within the structure. Burrowing desert animals have caused the underlying system of concrete piers to sink, requiring re-leveling of the building. Based on the age of the structure, environmental mold abatement concerns, and the extent of costs for building repairs, ASFD is requesting complete replacement of the entire structure as the most cost effective option for problem resolution. Replacement of the modular building will eliminate safety concerns from further water intrusion and damage to the structure while also providing an adequate work environment for personnel working to achieve the agency mission of wild land fire prevention.



**TABLE 4: ADOA CAPITAL PROJECT RECOMMENDATIONS**

Agency	Location	Project Name	Project Category	Funds Source	FY 2017	FY 2018	FY 2019
Administration	Statewide	Replace Obsolete and Unsupported Fire/Life Safety Systems; ADOA Building System	Fire & Life Safety	General	\$ 5,000,000	\$ 5,000,000	\$ 5,700,000
Corrections	ASPC-Florence	Replace Obsolete and Unsupported Fire Alarm Systems; ASPC Florence; Phase I	Fire & Life Safety	General	\$ 4,600,000	\$ 11,800,000	\$ 11,800,000
Health Services	State Hospital	Central Plant HVAC Upgrades	Building Services	General	\$ 4,300,000	\$ -	\$ -
Administration	Capital Mall	Central Plant HVAC Upgrades	Building Services	General	\$ 6,500,000	\$ -	\$ -
Administration	Capitol Mall	Exterior Building Expansion Joints	Building Shell	General	\$ 2,000,000	\$ -	\$ -
Corrections	Multiple Facilities	Replace and Upgrade Cell Doors and Locks; Restore Appropriations - Phase II	Infrastructure	General	\$ 7,000,000	\$ 10,900,000	\$ 10,900,000
Administration	Capital Mall	Capitol Mall Office Renovations	Renovations	General	\$ 11,400,000	\$ -	\$ -
Emergency & Military Affairs	Papago Park Military Reserve	State Emergency Operations Center (SEOC) Expansion	New Construction	General	\$ 2,300,000	\$ 16,700,000	\$ 2,300,000
Public Safety	Statewide	Statewide Office Modular and Remote Housing Replacement	New Construction	General	\$ 2,100,000	\$ -	\$ -
Forestry Division	Deer Valley	Deer Valley District Office Modular Replacement	New Construction	General	\$ 400,000	\$ -	\$ -
<b>Grand Total Recommendations:</b>					<b>\$40,600,000</b>	<b>\$22,700,000</b>	<b>\$22,700,000</b>