Arkansas Division of
Public School Academic
Facilities and Transportation

Maintaining a Warm, Safe and Dry Facility

September 30, 2013

Introduction

- **Ashley White**
  - Area Project Manager– Maintenance
  - Mechanical Engineering, Arkansas Tech University
  - Background: HVAC

- **Desiree Palculict**
  - Area Project Manager– Planning and Construction
  - Masters of Architecture, University of Minnesota
  - Background: Architecture

Overview

- What is Warm, Safe and Dry?
- Warm, Safe and Dry: Maintenance
- *Break*
- Warm, Safe and Dry: Partnership Program

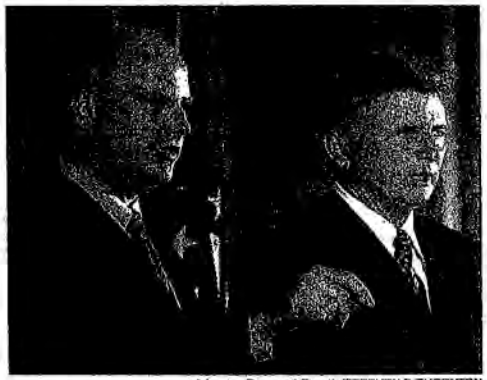
Lake View Law Suit

FRIDAY

Panda Xiang Xiang dies
Fall in Chinese forest kills animal born in captivity. – International, 7A

Looking homeward
UA center fielder has extra incentive to get to Omaha. – Sports, 1C

Arkansas Democrat Gazette
ARKANSAS' NEWSPAPER
Copyright © 2007, Arkansas Democrat-Gazette, Inc.
Printed at Little Rock • Friday, June 1, 2007 ArkansasOnline.com 114 Pages 14 Sections 50¢



Arkansas Democrat-Gazette/STEPHEN B. THORNTON
Attorney General Dustin McDaniel (left) and Gov. Mike Beebe appear Thursday morning in the Old Supreme Court Room to mark the end of the 15-year-old Lake View school case.

State free of court in Lake View case

BY SETH BLOMELEY AND LAURA KELLAMS
ARKANSAS DEMOCRAT-GAZETTE

The Arkansas Supreme Court on Thursday approved the state's system of financing public schools, ending about five years of off-and-on court supervision that has frustrated legislators, educators and governors.

By its action, the court closed the long-running case known by the name of a school district that no longer exists: Lake View.

"We conclude that our system of public school financing is now in constitutional compliance," the court said in an opinion written by Justice Robert L. Brown.

TIMELINE OF the case. Page 8A.

The court praised the Legislature and Gov. Mike Beebe for "making great progress" in education and complimented former justices appointed as "masters" to review legislative actions.

"This court, the people of Arkansas, and the generations to come are indebted to them for their commitment to education."

Beebe and Attorney General Dustin McDaniel quickly organized a news conference to celebrate the end of the case, filed by the Lake View School District in 1992. The lawsuit led to a 2002 Supreme Court ruling that the state's education funding system was unconstitutionally inadequate and inequitable.

"This is a historic day and one that all of us were hopeful

See **LAKE VIEW**, Page 8A

"Adequate and Equitable"

A.C.A. § 6-21-802 - Intent

(b) The General Assembly finds that because of the opinions of the Supreme Court in the matter of Lake View School District No. 25 vs. Huckabee, it is the absolute duty of the State of Arkansas to provide all public school children with an opportunity for an adequate education, which includes access to **adequate academic facilities** and equipment.

(d) It is the intent of this subchapter to provide a system of state oversight of public school academic facilities so that school districts have academic facilities that support the opportunity for each public school student in the State of Arkansas to have an adequate education.

WARM, SAFE, and DRY STATISTICS

- The General Accounting Office estimates that one in five students in the United States attends buildings with substandard air quality.
- Facility condition may have a stronger effect on student performance than the combined influence of family background, socio-economic status, school attendance, and behavior.
- Facility condition will affect performance of a teacher, which will affect the test scores of the students.

WARM

- HVAC System
  - Monthly filter inspection

- Maintaining humidity levels below 60 percent will result in the periodic operation of the HVAC system during the summer months to reduce the potential for mold and mildew in the building.

DRY

- Roof Systems
  - Bi-annual Inspection
- Doors and Windows
  - Annual Inspection
- Sanitary Sewer
  - Annual Inspection
- Site Drainage
  - Monthly Inspection

Safe

- Life Safety Issues
  - Fire Alarm
    - Monthly PM Inspection
    - Annual SM Inspection
  - Emergency Lighting
    - Monthly Inspection
  - Kitchen Hood and Suppression
    - Bi-Annual SM Inspection
  - Sprinkler Systems
    - Annual SM Inspection

Safe continued

- Plumbing
  - Annual Inspection
- Electrical
  - Annual Inspection
- Playground Safety
  - Monthly Inspection
- ADA Accessibility
  - Bi-Annual Inspection
- State Mandated Inspections

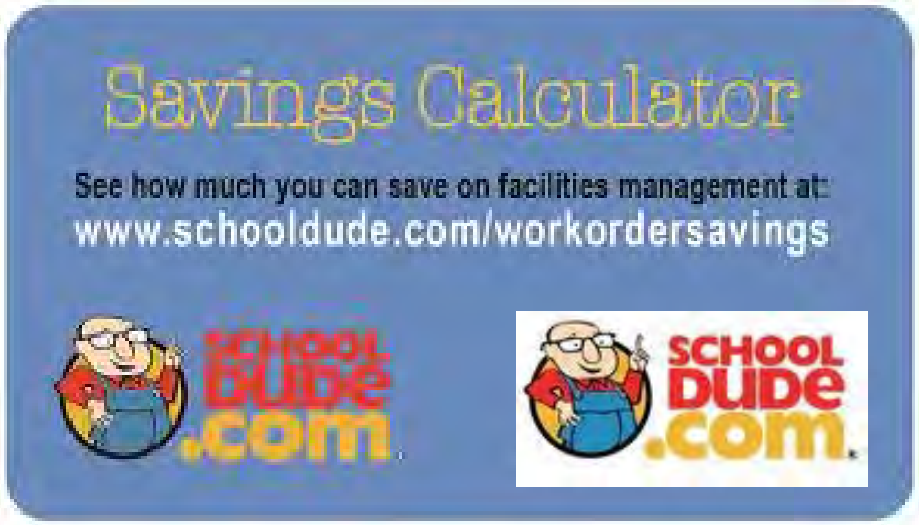
Maintenance / Preventative Maintenance

- Focus on preventative maintenance *(PM)*
- Schools/colleges with strong PM programs
  - Reduce emergency work by 50% - 65%
  - Reduce cost of maintenance work orders by 28% - 39%
  - Average savings of $25/student per year for PM on roofs and HVAC
  - Reduce number of insurance claims by 70%

SchoolDude

- Provides cost and time data for district decision making

- Provides best documentation for Partnership Project justification for Warm, Safe, and Dry issues



Arkansas Division of
Public School Academic
Facilities and Transportation

State Mandated Inspections

Introduction to State Mandated Inspections

- Purpose
  a. To reduce liability to the district
  b. To comply with state law
     A.C.A. § 6-21-813
- The applicable statutes
  a. District responsibilities
     A.C.A. § 6-21-813(e)(1) A.C.A. § 6-21-813(d) A.C.A. § 6-21-813(f)
  b. Agency responsibilities
     A.C.A. § 6-21-813(e)(1) A.C.A. § 6-21-813(d) A.C.A. § 6-21-813(f)
  c. Division responsibilities
     A.C.A. § 6-21-813(e)(1) A.C.A. § 6-21-813(d) A.C.A. § 6-21-813(f)
     A.C.A. § 6-21-112-(f)(15)(A) A.C.A. § 6-21-112-(f)(15)B

A.C.A. § 6-21-813
District, Agency & Division Responsibilities

6-21-813. Inspections.

(d) The division shall work with state agencies and commissions requesting inspection assistance for those areas in which the state agency or commission has primary responsibility to conduct lawfully required inspections.

(e) The division shall work with school districts, state agencies, and state commissions to ensure that:

(1) All lawfully required inspections of academic facilities are performed, including without limitation scheduled, unscheduled, or emergency inspections of or concerning:

(A) Boilers;
(B) Electrical systems;
(C) Heating, ventilation, and air conditioning systems;
(D) Natural gas piping systems;
(E) Liquid propane gas systems;
(F) Plumbing systems, including without limitation reduced pressure zone valves;
(G) Indoor air quality systems;
(H) Fire prevention;
(I) Elevators;
(J) Occupational safety and health issues;
(K) Water wells; and
(L) Asbestos; and

(f) If an inspection or code violation is reported in the course of an inspection or re-inspection conducted by a state agency or commission, the division shall work closely with the school district and the appropriate state agency or commission to ensure the violation is remedied within thirty (30) days of the date the inspection or code violation is reported or as soon as reasonably possible thereafter.

A.C.A. § 6-21-112
Division Responsibilities

6-21-112. Division of Public School Academic Facilities and Transportation.

(15) (A) Report by October 1 of each year to the Governor, the House Committee on Education, the Senate Committee on Education, and the Academic Facilities Oversight Committee on the state of condition of academic facilities statewide using the following building and design systems:

(i) Site land and all improvements to the site, excluding permanent or temporary buildings, such as grading, drainage, drives, parking areas, walks, landscaping, and playgrounds;
(ii) Roofing;
(iii) Exterior;
(iv) Structure;
(v) Interior;
(vi) Heating, ventilation, and air conditioning;
(vii) Plumbing and water supply;
(viii) Electrical;
(ix) Technology;
(x) Fire and safety;
(xi) Specialty items, including equipment and furnishings; and
(xii) Space utilization.

(B) The report also shall include summary results of lawfully required inspections of public school academic facilities by state agencies and commissions;

State Mandated Inspections Matrix

- School Districts
- State Fire Marshal *(Arkansas State Police)*
- Arkansas Health Department
- Arkansas Department of Labor
- Arkansas Department of Environmental Quality

State Mandated Inspections

RESPONSIBLE PARTY	SYSTEM	DESCRIPTION	FREQUENCY	CODE SECTION OR REGULATION	REMARKS
SCHOOL DISTRICT	Fire Extinguishers	Inspect for proper charge	Monthly	AFPC, Vol. 1, Section 906.2	School custodial/maintenance staff sign-off on tag attached to cylinder
	Asbestos Program		Monitor every 6-months, re-inspect every 3 years	US EPA AHERA Plan	
FIRE MARSHAL	Fire Safety	Semi-annual Fire Inspections	Semi-annually	A.C.A.§ 6-21-106	By local fire marshal
	Fire Alarm		Annually	AFPC, Vol. 1, Section 907.20.5	
	Fire Sprinkler		Annually	AFPC, Vol. 1, Section 901.6	
	Fire Extinguishers		Annually and every 6 yrs.	AFPC, Vol. 1, Section 906.6.1	Re-charge annually, Hydro-static cylinder test every 6 yrs.
	Kitchen Exhaust Hood Fire Suppression		Semi-annually	AFPC, Vol. 1, Section 904.11.6.4	
HEALTH DEPARTMENT	Natural Gas Piping System		Annually, prior to the beginning of school	A.C.A. 17-38-201(a)(6)(A)	File completed report with the ADH, Division of Plumbing
	Plumbing System Installations	Mandated inspections for new or replacement plumbing and natural gas installations.	Three inspections required: Once on rough-in, once on top-out, and final inspection prior to occupancy	A.C.A. 17-38-201	Shown for informational purposes only. **Not** required in SchoolDude.
	Food Service	Inspection of kitchen and food service areas	Annually	Food Establishment Regulations page 122	Health Department Food Service Inspector
	Back-flow Prevention	Service and maintenance of RPZ device.	Annually	American Society of Sanitary Engineering (A.S.S.E.) Standard 5-202.14 Backflow Prevention Device, Design Standard	Certified personnel or licensed contractor
	Septic Systems				
LABOR DEPARTMENT	Hot Water Boilers & Heaters	Inspection of boilers	High pressure - annually Low pressure - externally annually; internally every 3 years Unfired pressure vessel - biennially	A.C.A. § 20-23-203	Labor Department inspector or insurance carrier licensed by Labor Department
	Elevators and Lifts		Every six (6) months	A.C.A. § 20-24-112(a)(3)	Labor Department Inspector
ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY	Sewage Treatment Systems	Perform operational and discharge inspections	Daily, by the District. Once every five (5) years by ADEQ		
	Underground Storage Tanks			Rule 12	

Disclaimer

This matrix system depicting the known state mandated inspections for K-12 facilities may or may not include every inspection. Agencies who review this matrix shall add-to or delete from this listed as established by current Arkansas law. Likewise, any corrections or additions needed to depict the actual enabling legislation shall be be corrected by the respective agencies.

State Mandated Inspections

School Districts

SYSTEM	DESCRIPTION	FREQUENCY	CODE SECTION OR REGULATION	REMARKS
Fire Extinguishers	Inspect for proper charge	Monthly	AFPC, Vol. 1, Section 906.2	School custodial/maintenance staff sign-off on tag attached to cylinder
Asbestos Program		Monitor every 6-months, re-inspect every 3 years	US EPA AHERA Plan	

State Mandated Inspections

State Fire Marshal *(Arkansas State Police)*

SYSTEM	DESCRIPTION	FREQUENCY	CODE SECTION OR REGULATION	REMARKS
Fire Safety	Semi-annual Fire Inspections	Semi-annually	A.C.A.§ 6-21-106	By local fire marshal
Fire Alarm		Annually	AFPC, Vol. 1, Section 907.20.5	
Fire Sprinkler		Annually	AFPC, Vol. 1, Section 901.6	
Fire Extinguishers		Annually and every 6 yrs.	AFPC, Vol. 1, Section 906.6.1	Re-charge annually, Hydro-static cylinder test every 6 yrs.
Kitchen Exhaust Hood Fire Suppression		Semi-annually	AFPC, Vol. 1, Section 904.11.6.4	

State Mandated Inspections

Arkansas Department of Health

SYSTEM	DESCRIPTION	FREQUENCY	CODE SECTION OR REGULATION	REMARKS
Natural Gas Piping System		Annually, prior to the beginning of school	A.C.A. 17-38-201(a)(6)(A)	File completed report with the ADH, Division of Plumbing
Food Service	Inspection of kitchen and food service areas	Annually	Food Establishment Regulations page 122	Health Department Food Service Inspector
Back-flow Prevention	Service and maintenance of RPZ device.	Annually	American Society of Sanitary Engineering (A.S.S.E.) Standard 5-202.14 Backflow Prevention Device, Design Standard	Certified personnel or licensed contractor

State Mandated Inspections
Arkansas Department of Labor

SYSTEM	DESCRIPTION	FREQUENCY	CODE SECTION OR REGULATION	REMARKS
Hot Water Boilers & Heaters	Inspection of boilers	High pressure - annually	A.C.A. § 20-23-203	Labor Department inspector or insurance carrier licensed by Labor Department
		Low pressure - externally annually; internally every 3 years		
		Unfired pressure vessel - biennially		
Elevators and Lifts		Every six (6) months	A.C.A. § 20-24-112(a)(3)	Labor Department Inspector

State Mandated Inspections
Arkansas Department of Environmental Quality

SYSTEM	DESCRIPTION	FREQUENCY	CODE SECTION OR REGULATION
Sewage Treatment Systems	Perform operational and discharge inspections	Daily, by the District. Once every five (5) years by ADEQ	
Storage Tanks			Rule 12

ADEQ
ARKANSAS
Department of Environmental Quality

Instructions for Implementing the State Mandated Inspections On the SchoolDude System

Process

- Each district should create one PM work order for each State Mandated Inspection.
- There are fifteen different types under the one Classification Code called State Mandated Inspections.
- Not all types are applicable to every district.
- The districts will determine which apply to their facilities along with the assistance of Division staff.

Instructions for Implementing the State Mandated Inspections on the SchoolDude System

Required Reports

There are basically two separate reports required per A.C.A. §6-21-112 for the Division to compile:

1. Report to Governor, House and Senate Education Committees on the general state of condition of facilities for all districts

2. Summary report on lawfully required inspections of school facilities by State agencies

State Mandated Inspection Review for Fiscal Year 2012-2013
Attachment #2

DISTRICTS	SCHEDULES														
	Asbestos, Re-Inspection	Asbestos, Semi-Annual	Back Flow Prevention	Elevators / Lifts	Fire Alarm	Fire Extinguisher, Annual	Fire Extinguisher, Monthly	Fire Safety	Fire Sprinkler	Food Service	Hot Water Heaters	Kitchen Exhaust Hood Fire Suppression	Natural Gas	Sewage Treatment	Underground Storage Tank
CLARKSVILLE	x	x	x	n/a	x	x	x	x	x	x	x	x	x	n/a	x
CLEVELAND CO.	x	x	x	n/x	x	x	x	x	x	x	x	x	x	n/a	n/a
CLINTON	x	x	x	n/a	x	x	x	x	x	x	x	x	x	n/a	n/a
CO. LINE	x	x	x	n/a	x	x	x	x	x	x	x	x	x	x	n/a
CONCORD	x	x	x	n/a	x	x	x	x	x	x	x	x	x	n/a	n/a
CONWAY	x	x	x	x	x	x	x	x	x	x	x	x	n/a	n/a	n/a
CORNING	x	x	x	n/a	x	x	x	x	x	x	x	x	x	n/a	n/a
COSSATOT RIVER	x	x	x	n/a	x	x	x	x	n/a	x	x	x	x	n/a	n/a
COTTER	x	x	x	n/a	x	x	x	x	n/a	x	x	x	x	n/a	n/a
CROSS CO.	x	x	x	n/a	x	x	x	x	x	x	x	x	n/a	x	n/a
CROSSETT	x	x	x	n/a	x	x	x	x	x	x	x	x	x	n/a	x

Instructions for Implementing the State Mandated Inspections On the SchoolDude System

Assistance

Specific State guidelines questions

- Contact the Division at (501) 682-4261, not SchoolDude

Technical assistance with creating a PM schedule or accessing the State Mandated templates

- Contact SchoolDude support at (877) 883-8337 or support@schooldude.com

Partnership Program: What is "Warm, Safe, Dry"?

Partnership Rule 3.36

New construction projects ***deemed necessary by the Division*** to provide students a warm, safe, and dry educational environment.

Is this a necessary project?

<u>3 best ways to justify:</u>

- Detailed scope and justification
- Maintenance records and work orders
  - Use of tools to track cost of repairs may be beneficial for justification to Superintendents and School Board members to approve new projects.
- Identified in the Master Plan Narrative
- Good Schematic

Detailed Scope and Justification

Detailed Project Scope
(For Renovations include descriptions and quantities of existing and replacement systems)

Replace roof on auditorium with standing seam metal roof

Project Justification:

The High School roof has reached its end of life and is in need of a new roof. This is considered a warm, safe and dry project by state standards.

Maintenance Records and Work Orders

School District

Work Order Search Results

Work OrderID	Status Description Action Taken	Request Date Completion Date Priority	Requester Assigned To	Area Type Building Craft	Location Area Number
10233	Complete Roof leaks at mid-court in the circle. At least four spots. Time Available: any time	10/18/2011 11/21/2011 Medium		Gym Jr. High Gym Roof	Junior High School Gym roof
10776	Complete Leak in gym roof at mid court.	11/15/2011 11/21/2011 Medium		Jr. High Gym Roof	Junior High School
10787	Complete we have a leak in here its going in the [illegible] needs to be fixed asap Time Available: any	11/15/2011 11/18/2011 Medium		Nurse's Office Jr. High 1st Story Roof	Junior High School nurses office
10789	Complete the roof is leaken in the hall way by the bathrooms Time Available: any	11/15/2011 11/21/2011 Medium		Hallway/Corridor Jr. High 1st Story Roof	Junior High School bye the bathrooms
10802	Complete I found a puddle of water in the north corner of my classroom... behind the 2 metal shelves. Time Available: Any completed by Larry & Brian	11/16/2011 1/30/2012 Medium		Classroom Jr. High 1st Story Water Leaks	Junior High School 10

Successful Master Plan Narrative

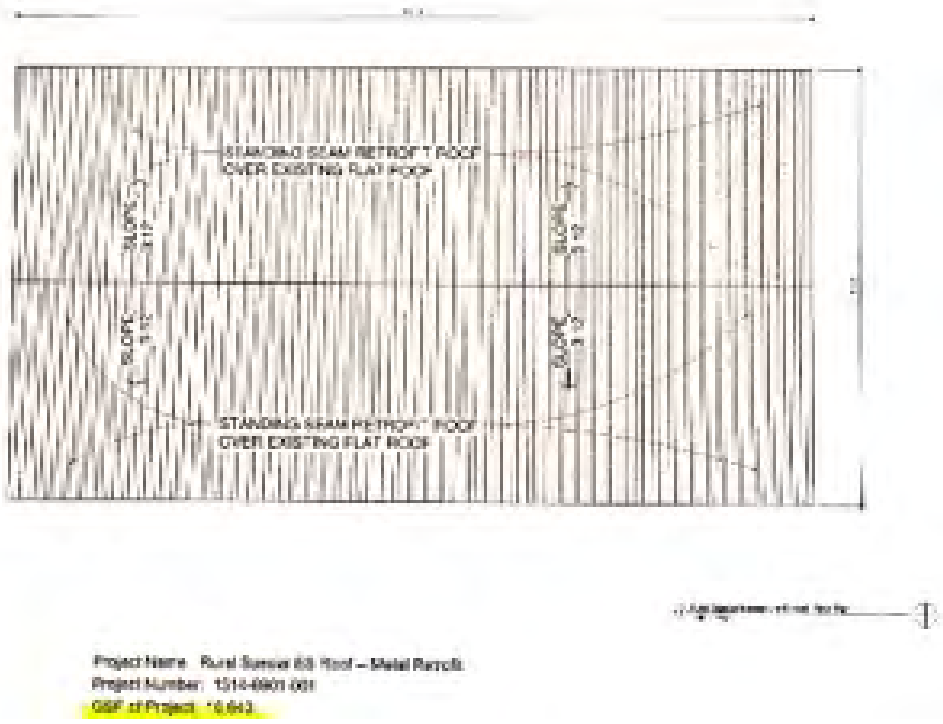
- Needs and strategy to address the needs
- Comprehensive

Master Plan Narrative Example:

"There are several urgent roofing needs at our district. Our Field House, pre-school, ES and JHS facilities require new roofs. Current End of Life deficiencies and actual inspection indicate need here. We will replace the expired flat roof with a 20 year Durolast Roof with 50Mil thickness that includes a white reflective membrane covering. This will be installed over the existing built-up flat roof that has reached its end of life and is original to this facility that was built in 1980. Approximately 81,000 sq. ft. of roofing will be addressed."

Schematic Example (per revised Rule 3.30)

- Show entire building
- Show GSF with dimensions
- Show a representation of the system being replaced
- Detail – show as many different components as necessary



What is “Warm, Safe, Dry”?

Qualified Systems for Partnership Projects

(dictated by legislation)

- Roofs
- HVAC
- Fire/Safety
- Plumbing
- Electrical
- Structural

What is NOT “Warm, Safe, Dry”?

Maintenance Projects

(not qualified for partnership)

- Paint
- Window replacement
- Door or hardware replacement
- Lighting replacement
- ADA upgrades
- Plumbing fixture replacement
- Flooring replacement
- Asbestos abatement
- Sidewalk replacement
- Site drainage/ grading
- Playground equipment replacement
- Land Purchases
- Environmental Clean-up

Warm, Safe, Dry Categories

State financial participation may be available for two categories of warm, safe, and dry projects:

- Total system replacement
- Total space replacement

Warm, Safe, Dry
System Replacement

Definition:

New construction projects that support a facility's needs as they pertain to fire and safety needs, roofing, major plumbing replacements, major electrical replacements, HVAC systems and structural needs.

- Must replace entire system. Partial system replacement will not be considered for partnership.

- Same system projects may not be combined across multiple facilities (campuses) nor multiple system projects combined to meet the minimum dollar threshold for Partnership Program funding for a warm, safe, and dry (systems) project

Warm, Safe, Dry
Space Replacement

<u>Definition:</u>
New construction projects that build a new academic facility to replace an existing academic facility that is not deemed by the Division to provide students a warm, safe, and dry educational environment.

- Districts may perform either a total facility renovation or a building replacement.
- Total renovation means that all building systems determined by the Division to be required to bring the facility to “like-new” condition are replaced.
- Must meet state standards for room sizes
- Opportunity for Districts to build a new facility, even with falling enrollment.
- Stand-alone student dining and kitchen facilities are not required to prove suitability.

WSD Space Replacement

- Qualifying Cost for Partnership: New School Cost Factor is used
- Considered a prudent and resourceful expenditure of state funds
- Demolition Review: An assessment of physical building condition performed by a team from the Division. Either the Division or the school district may bring in their own team of licensed professional architects or engineers.

Warm, Safe, Dry – Partnership Eligibility

The total estimated (qualifying) cost of a new construction project:

- shall be a minimum of three hundred dollars ($300) per student
- or a minimum of one hundred and fifty thousand dollars ($150,000), whichever is less, per campus or district depending upon whether the project is a campus or district project.

Types of WSD systems that are eligible for partnership (each has a cost factor):

Roof Replacement

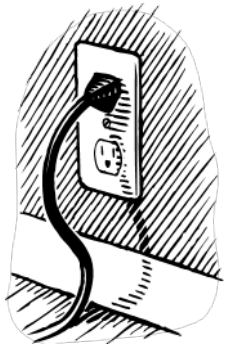
- Built-up asphalt
- Built-up asphalt (with tapered insulation)
- Membrane - single ply
- Membrane - single ply (with tapered insulation)
- Metal Seam
- Shingle System
- Structural Deck Installation
- Adding Tapered Insulation
- Replace truss and metal decking - Academic Support Space
- Replace truss and metal decking - ES/MS Gym Space
- Replace truss and metal decking - HS Gym Space

HVAC System Replacement

- Prepare Building to Convert HVAC to Ducted System
- Dedicated Outside Air System
- Upgrade main electrical service to building, including main distribution and secondary panels
- AC - Package Unit: Roof/ Ground
- AC - Split System with Fresh Air
- Thru-Wall AC Unit
- Thru Wall Air Conditioning with Fresh Air
- Boiler and Two-Pipe System w/VAVs and AC with Fresh Air
- Boiler/Chiller and Four-Pipe System w/VAVs with Fresh Air
- Geothermal System with Fresh Air

Electrical System Replacement

- Replace Entire Electrical System, including main and secondary panels, equipment connections, receptacles, and switches



Life Safety Projects

- Fire Protection System (alarm and sprinkler piping)
- Fire Protection System (alarm only)
- Kitchen Hood System, including Mech and Fire Suppression
- Emergency Exit Signs and Lighting

Plumbing Replacement

- Add Domestic Water Piping
- Sanitary - convert to force main/tie-in to public main & abandon septic
- Sanitary - HS - add packaged wastewater treatment plant
- Sanitary - Replace Waste Piping & Venting System ES
- Sanitary - Replace Waste Piping & Venting System MS/HS/VOC

Cost Factors

Used to determine Qualifying Cost for Partnership:

- New Schools
- Additions
- Renovations
- Conversions

http://arkansasfacilities.arkansas.gov/facilities/project-information/2011-2013-approved-projects

Cost Factors

http://arkansasfacilities.arkansas.gov/facilities/project-information/2011-2013-approved-projects

Arkansas Division of Public School Academic Facilities and Transportation

Facilities
501 Woodlane, Suite 600
Little Rock, AR 72201
Phone S
Fax (501) 683-1200

Transportation
501 Woodlane, Suite 311S
Little Rock, AR 72201
Phone S
Fax (501) 682-6308

About Us | Facilities | Transportation | Reports | Commission | Events | Contact Us

You are currently at:
Home Page / Facilities / Project Information / 2011-2013 Approved Projects

2013-2015

Partnership Program

2012 Master Plan and Partnership Program Guidelines and Project Application - 2013-2015 Projects

2012 Project Cost Funding Factor - New Schools

2012 Project Cost Funding Factor - Additions

2012 Project Cost Funding Factor - Renovations

2012 Project Cost Funding Factor - Conversions

2012 Project Cost Funding Factor - Furniture and Fixed Equipment

2013 Wealth Index

2013-2015 Partnership Program Approved Projects (sorted by project ranking)

Key Links
- Facility Manual
- Program of Requirements (POR)
- Master Planning Tool
- District/School Reports
- Rules - Facilities
- Proposed Rules and Facilities Manual Changes

Featured Forms and Documents

Browse All Documents »

Get ADOBE® READER®

Cost Factors

NOTE: DISTRICTS MAY USE THE FOLLOWING COST INFORMATION FOR PARTNERSHIP PROJECT PLANNING PURPOSES. THE DIVISION WILL USE THIS COST DATA IN CONJUNCTION WITH THE ACADEMIC FACILITIES WEALTH INDEX TO DETERMINE STATE FINANCIAL PARTICIPATION FOR PARTNERSHIP PROJECTS FOR BIENNIUM 2013 - 2015 PROJECTS. ACTUAL PROJECT COSTS MAY VARY.

System Renovation Cost Estimates, per Project Square Footage .

Escalation estimates are subject to future validation and/or adjustment by the Division.

New Facilities, Additions and Space Conversions - see other tabs

DIRECT AND INDIRECT COST OF SYSTEM RENOVATION

ITEM OR SYSTEM RENOVATION	CSI DIVISION NO.		Unit	Batesville	Camden	Fayetteville	Fort Smith	Harrison	Hot Springs	Jonesboro	Little Rock	Pine Bluff	Russellville	Texarkana	West Memphis
roofing	07	Roofing - Built-up	sf	$8.84	$8.48	$8.62	$9.17	$8.91	$8.48	$8.91	$9.47	$9.49	$8.74	$8.39	$8.86
roofing	07	Roofing - Built-up asphalt (with	sf	$11.15	$10.83	$11.18	$11.95	$11.43	$10.88	$11.39	$11.96	$12.02	$11.26	$10.77	$11.39
roofing	07	Roofing - Membrane - single plg	sf	$12.26	$11.77	$11.96	$12.92	$12.36	$11.77	$12.32	$13.14	$13.19	$12.13	$11.86	$12.30
roofing	07	Roofing - Membrane - single plg (with tapered	sf	$14.57	$14.12	$14.52	$15.70	$14.88	$14.17	$14.80	$15.64	$15.73	$14.65	$14.24	$14.83
roofing	07	Roofing - Metal	sf	$18.86	$18.10	$18.39	$19.87	$19.01	$18.10	$18.95	$20.60	$20.28	$18.66	$18.23	$18.92
roofing	07	Roofing - Shingle	sf	$7.51	$7.21	$7.32	$7.91	$7.57	$7.21	$7.55	$8.05	$8.08	$7.43	$7.26	$7.53
roofing	07	Roofing - Struotural Deck Installatio	sf	$8.02	$7.70	$7.82	$8.45	$8.08	$7.70	$8.05	$8.76	$8.62	$7.93	$7.75	$8.04
roofing	07	Roofing - Adding Tapered Insulation	sf	$2.31	$2.34	$2.56	$2.78	$2.52	$2.40	$2.48	$2.58	$2.54	$2.51	$2.38	$2.52
roofing	07	Roofing - Replace truss and metal decking - Academic	sf	$4.51	$4.36	$4.49	$4.65	$4.54	$4.44	$4.64	$4.49	$4.56	$4.46	$4.30	$4.55
roofing	07	Roofing - Replace truss and metal decking - ES/MS	sf	$8.23	$7.97	$8.21	$8.49	$8.30	$8.11	$8.47	$8.20	$8.34	$8.16	$7.86	$8.32
roofing	07	Roofing - Replace truss and metal decking -	sf	$12.85	$12.43	$12.81	$13.25	$12.95	$12.66	$13.22	$12.80	$13.01	$12.73	$12.26	$12.98
		Sanitary													

History of Warm Safe, and Dry Partnership Funding and Applications

2003 Creation of Task Force
2003-4 School Assessments:

Teams of architects and engineers visit each school district in Arkansas to gather data.

Inventory was taken of each building:

- Gross square foot measure
- Number and types of classrooms
- Window area and millwork linear foot measures
- Number of marker boards
- Number of athletic fields and playgrounds
- Condition of buildings and their various systems

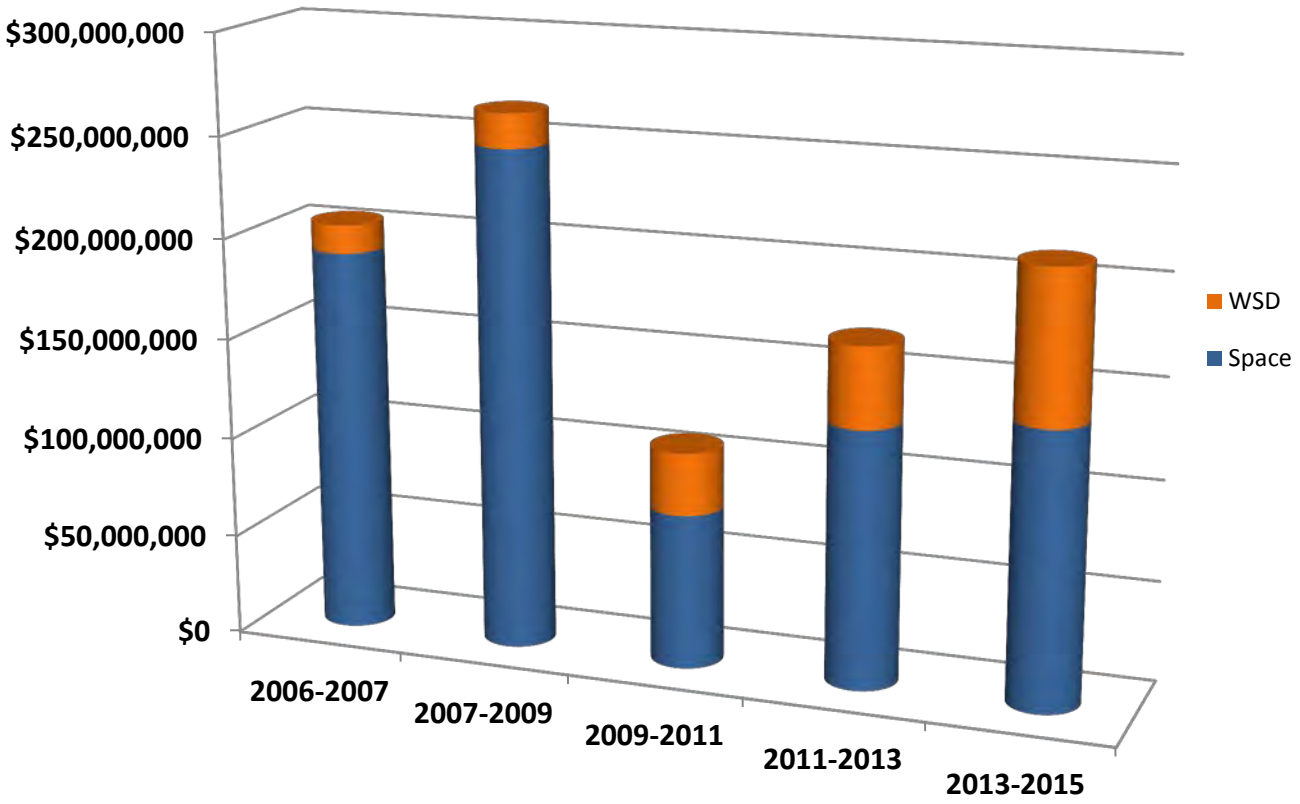
History of Warm Safe, and Dry Partnership Funding and Applications

2006-07: First cycle of project applications

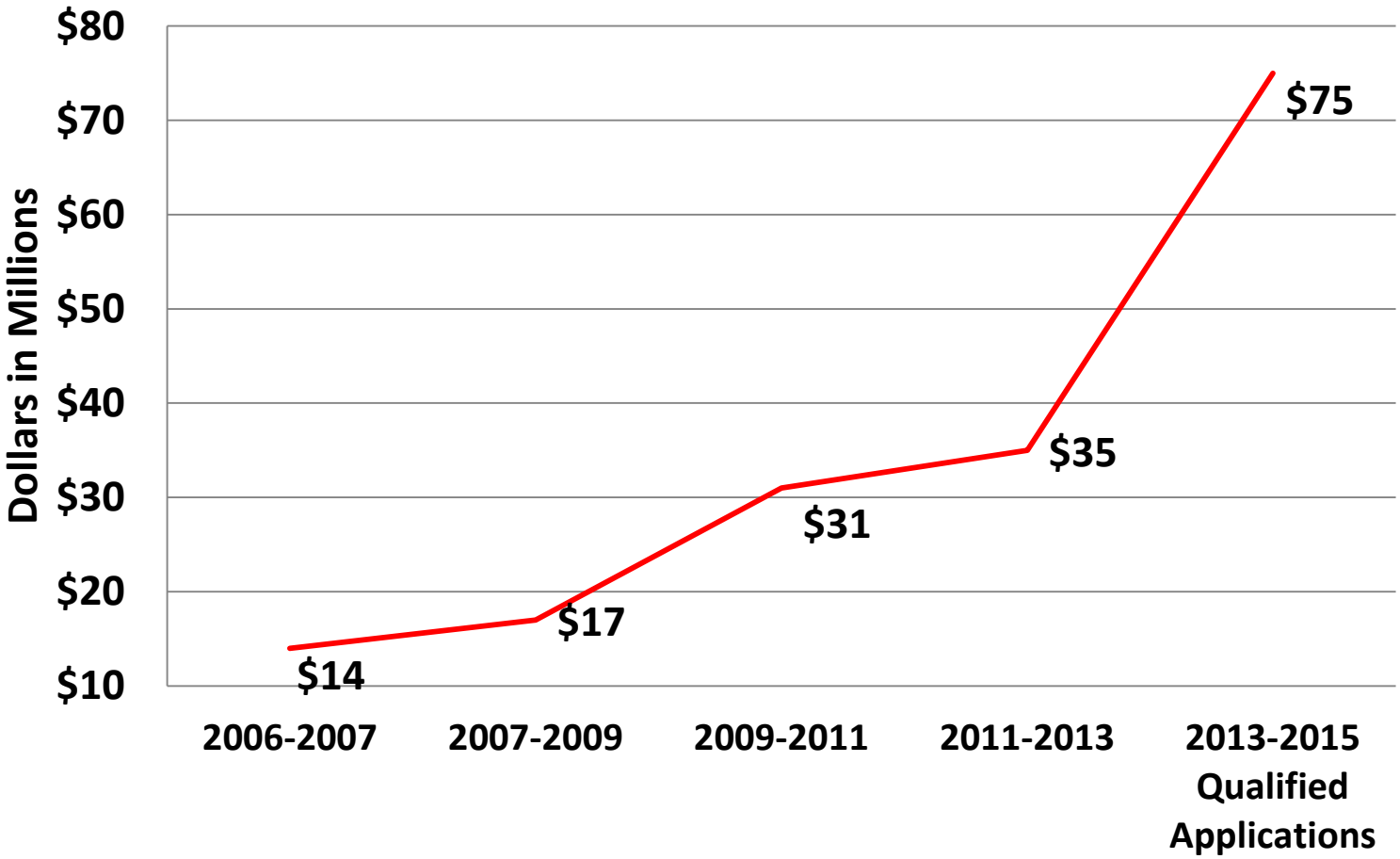
- No minimum project cost
- Any type of maintenance projects accepted (doorknob replacement, floor covering, etc.)

2008: The Partnership Program rules were revised and defined the qualified warm, safe, and dry systems eligible for the Partnership Program.

Partnership Program
State Financial Participation



Partnership Program Projects – Warm, Safe, and Dry State Financial Participation



History of Warm Safe, and Dry Partnership Funding and Applications

Discussions with Task Force members and members of the General Assembly, who developed the state's facilities program, indicate the expectation was that after the Immediate Repair Program the districts' warm, safe, and dry Partnership Program project requests would diminish.

But, the opposite trend has occurred and warm, safe, and dry project requests have increased for each funding cycle. The qualified warm, safe, and dry system project requests for the 2013-2015 funding cycle are about $75 million, more than double the requests for 2011-2013.

History of Warm Safe, and Dry Partnership Funding and Applications

Each subsequent cycle of project applications:

- Warm safe dry partnership increasing exponentially

- Need vs. want:
  - Has proper care been given to maintain existing systems which are not at the end of their life cycle?
  - Is getting a new system that is more efficient justification for replacement, if the old system is still working fine?
  - Is there justification for funding a new high efficiency HVAC project if the rest of a building has single pane windows, and little insulation?

Partnership Program Funding Cycles Summary

	2006-2007	2007-2009	2009-2011	2011-2013	2013-2015
# of Applications	**1420**	**1348**	**486**	**302**	**382**
# of W/S/D Applications	*N/A*	*N/A*	316	167	249
# of Space Applications	*N/A*	*N/A*	170	135	133
# of Funded Projects	**1158**	**378**	**244**	**220**	***266***
# of Funded W/S/D	952	218	160	127	*177*
# of Funded Space	206	160	84	93	*89*

W/S/D *Warm, Safe, Dry*

N/A *Not Available*

Districts submitted project applications on March 1, 2012. Year One projects were determined by May 1, 2013. Year Two projects will be determined by May 1, 2014.

How are Adequate Facilities Funded?

		STATE FUNDING
EXISTING	Maintain Warm, Safe, and Dry	9% Foundation Funding - Utilities and custodial, maintenance, repair, and **renovations**, including personnel costs
		Partnership - Warm, Safe, and Dry
	Replace when not prudent to repair	Partnership - Space - Replacement
NEW	Suitability *(Space Need)*	Partnership - Space - Suitability
	Growth	Partnership - Space - Growth

Foundation funding: money per student that is set aside in an escrow account, and should be counted on to pay for maintenance and system repair and replacement.

History of Warm Safe, and Dry Partnership Funding and Applications

New Priority: Increased space projects

- Emphasis on taking care of existing systems
- Using School Dude and keeping maintenance records
- Better planning for future needs

Planning A Project

6P's

Prior

Planning

Provides

Powerful

Partnership

Performance

Historical Funding Summary

- Two Start-Up Funding Cycles – 2006-2007 / 2007-2009

- Partnership Program Rules - Revised March, 2008
  - Defined Warm, Safe, Dry
  - Defined Suitability for Space Projects
  - Established Project Ranking Process

- Two Past Funding Cycles – 2009-2011 / 2011-2013
  - ALL Eligible Projects Funded
  - Ranking Process Not Required

- Current Funding Cycle – 2013-2015
  - Ranking Process Required

Partnership Program Funding Prioritization Process

		2015-2017, 2017-2019	2019-2021 →
FIRST PRIORITY	Project Type:	WARM, SAFE, DRY *(System Replacement)*	SPACE *(Growth, Suitability)*
		$10M per Year	
	Ranking Factors:		
		Wealth Index	
		District Student Enrollment *(3rd Quarter ADM)*	10-Year Enrollment Growth %
SECOND PRIORITY	Project Type:	SPACE *(Growth, Suitability)*	WARM, SAFE, DRY *(Space Replacement or Total Renovation)*
	Ranking Factors:		Campus Value Ranking
			Wealth Index
		10-Year Enrollment Growth %	
THIRD PRIORITY	Project Type:	WARM, SAFE, DRY *(Space Replacement or Total Renovation)*	WARM, SAFE, DRY *(System Replacement)*
	Ranking Factors:		
		Campus Value Ranking	Wealth Index
		Wealth Index	District Student Enrollment *(3rd Quarter ADM)*

Sample Year-One Prioritization

PROJECT	TYPE	WEALTH INDEX	NUMBER OF STUDENTS	CAMPUS VALUE	GROWTH	SUM	STATE FINANCIAL PARTICIPATION	TOTAL STATE FINANCIAL PARTICIPATION	
HVAC	W/S/D *(System)*	1	2	-	-	3	$2M	$2M	
Roof	W/S/D *(System)*	3	1	-	-	4	$3M	$5M	
Plumbing	W/S/D *(System)*	2	3	-	-	5	$1M	$6M	
HVAC	W/S/D *(System)*	4	4	-	-	8	$3M	$9M	
New School	Space	-	-	-	1	1	$20M	$29M	
10 Classrooms	Space	-	-	-	2	2	$6M	$35M	
New Media Center	Space	-	-	-	3	3	$7M	$42M	
New Dining	W/S/D *(Space)*	1	-	2	-	3	$8M	$50M	
New Main Building	W/S/D *(Space)*	3	-	1	-	4	$12M	$62M	$65M
New Science Wing	W/S/D *(Space)*	2	-	3	-	5	$6M	$68M	

WSD System Replacement Prioritization

- Least Wealth Index ranked first
- Least Enrollment (average daily membership) ranked first
- The Division shall average the numerical ADM and Wealth Index ranking of each school's project. Once each project is averaged, the Division shall establish a ranked order with the projects with the lowest average score being ranked first and the projects with the highest average score being ranked last.

WSD Space Replacement Prioritization

- Lowest Campus Value ranked first
- Least Wealth Index shall be ranked first
- The Division shall average the campus value and Wealth Index ranking of each school's warm, safe and dry (space replacement) project. Once each project is averaged, the Division shall establish a ranked order with the projects with the lowest average score being ranked first and the projects with the highest average score being ranked last.

Master Planning Tool

Replacement Schedule

- School Name
- Facility/ Building Name
- Building Number
- Year of Scheduled Replacement

Lifecycles

- The Division keeps information
- May be used for justification of future projects

Master Planning Tool

<u>Replacement Schedule</u>

- Facilities website
  - Key Links
    - Master Planning Tool

http://arkansasfacilities.arkansas.gov/

Master Planning Tool

Master Planning Tool

Log Off

District: 0501000 - Alpena School District
Abbreviation: Alpena School District
Planning Area: 10
Web Site: alpenaschools.k12.ar.us

District Status | General Information | Projects | Replacement Schedule | Insurance Coverage | Custodial & Maintenance | Documents | Schools

Replacement Schedule (12) Edit All

School Name	Facility/Building Name	Building Number	Year of Scheduled Replacement				
			HVAC	Roof	Plumbing	Electrical	Structural
0501 - Administration	Maint/Storage	050100002	2020	2032	2020	2020	2020
0501 - Administration	New Bus Garage	050100003					
0501 - Administration	New Maintenance and Storage	050100102	2016	2018	2016	2017	2050
0501 - Alpena ES	CR Addition	050100105	2030	2025	2030	2030	2110
0501 - Alpena ES	Elementary Main K-4	050100103	2018	2029	2020	2023	2094
0501 - Alpena ES	Middle School 5-6	050100104	2022	2029	2044	2034	2104
0501 - Alpena HS	Alternative Education - Comprehensive	050100206	2023	2015	2029	2023	2089
0501 - Alpena HS	Gymnasium New	050100001	2018	2020	2046	2027	2094
0501 - Alpena HS	HS Annex	050100204					
0501 - Alpena HS	Physical Education Old Gym	050100202	2040	2018	2019	2023	2094
0501 - Alpena HS	Senior High School Main	050100201	2022	2018	2034	2029	2094
0501 - Alpena HS	Vocational Agri. Building	050100203	2014	2017	2013	2024	2060

Replacement Schedule

- A superintendent, facilities manager, or consultant may keep up with the replacement schedule.
- May calculate lifespan based on the year of installation, and regular maintenance.

Importance of regular maintenance

Most warranties require regular maintenance, in order to redeem them!

1. Murphy's Law
If something can go wrong, it will.

2. Murphy's Law
If anything simply cannot go wrong, it will anyway.

3. Murphy's Law
Left to themselves, things tend to go from bad to worse.

4. Murphy's Law
Matter will be damaged in direct proportion to its value

Replacement Schedule

HVAC Average Lifespan

- In general, you can expect about a 10 - 25 year life span for most systems. A poorly designed and installed system may not last as long, while a system that is properly sized, designed, installed and maintained can last well over the typical lifespan.

- The sizing, design and installation of a new HVAC system is the responsibility of the mechanical engineer and the installing contractor.

- Regular maintenance keeps a system clean and helps to avoid excess wear and tear. For instance, a compressor may be manufactured to operate for 15 years, but with too little maintenance it’s likely to wear out sooner.

Replacement Schedule

Roofing Average Lifespan

The lifespan of a roof varies between different roof materials. Here's the averages:

Asphalt Shingles, Architectural - 20 to 25 years
Metal - 30 to 45 years
Concrete Tile - 35 to 50 years
Built-Up or Modified Bitumen - 10 to 20 years
Membrane - 10 to 20 years

Replacement Schedule

Roofing Average Lifespan

Lifespan estimates are based on “average” conditions. Many factors contribute to a longer or shorter life of the roof; so a particular roof’s life can vary—sometimes significantly—from the average. Here’s a list of conditions that affect roof longevity:

- Color of roof - A dark roof absorbs more heat, which shortens the lifespan.
- Angle of roof slope - Higher pitch roofs tend to last longer.
- Orientation of roof surface - A roof slope facing south will get more sunlight, and have a shorter life.
- Multiple-layer roof - A roof installed over an existing roof will have a shorter life.
- Quality of roof material - “Economy” roof materials have a shorter life.
- Installation - Sloppy or improper installation shortens roof life.
- Attic ventilation - An unventilated or poorly ventilated attic reduces roof lifespan.
- Trees near roof - Tree branches rubbing on a roof or the acidity from the accumulation of leaf debris on a roof shortens its life.
- Harsh climate - Severe weather, both harsh winters and hot summers, along with big temperature swings within a 24-hour period, also shorten lifespan because of the expansion and contraction of roof materials.

Replacement Schedule

<u>Plumbing Average Lifespan</u>

Sanitary Sewer:
40 years

Domestic Water Piping:
20 years

Faucets and Fixtures:
10 years

Maintain and keep the systems in good shape, and prolong the life span of the plumbing system!

- Address clogs right away. Clogs lead to increased pressure on the system, causing stress on the pipes.
- Keep water pressure at ideal range. Water pressure that is too high can stress pipes, valves, connections, and faucets.

Replacement Schedule

<u>Electrical Average Lifespan</u>

Main Service:
30 years

Distribution:
25 years

Light Fixtures:
20 years

Emergency Lighting:
10 years

Emergency Generator:
20 years

Replacement Schedule

<u>Structural Average Lifespan</u>

Concrete foundations, columns, decks and slabs: Life of Building

Steel columns and decks: Life of Building

Master Plan / Partnership Program Dates

Next application deadline: March 1

February 1, 2013		Preliminary Master Plan
Spring / Summer / Fall 2013		Master Plan Consultation Meetings
By May 1, 2013		Approved 2013-2015 Partnership Program List *(Current Rules)*
February 1, 2014		Final Master Plan
March 1, 2014		2015-2017 Partnership Program Application
September 1, 2014		Master Plan Approval
By May 1, 2015		Approved 2015-2017 Partnership Program List

Questions and Assistance

(501) 682-4261

http://arkansasfacilities.arkansas.gov/