



# ARIZONA SCHOOL FACILITIES BOARD PREVENTATIVE MAINTENANCE INSPECTION OF MURPHY ELEMENTARY SCHOOL DISTRICT

## REPORT HIGHLIGHTS

### Conclusion:

Murphy Elementary School District has the required Preventative Maintenance Program filed with the SFB as required by ARS §15-2002.

### Recommendations:

While the district's facilities appear to be well maintained, the district does not follow the formal procedures submitted in their PM Plan. The district needs to implement the Preventative Maintenance Program including recordkeeping and incremental scheduling, as well as the goals and recommendations established and agreed to during the PM Workshop.

### Follow-up:

The SFB shall contact the district within 180 days to review field inspection findings and the Preventative Maintenance Program as submitted by the district.

## Preventative Maintenance Inspection Process

In June of 2009, the School Facilities Board completed a Preventative Maintenance Inspection of Murphy Elementary in accordance with ARS §15-2002.

Inspection process:

1. Discuss with district personnel the current status of the district's preventative maintenance program and demonstrate the required procedures, reports and goals of the School Facilities Board.
2. Perform a field inspection of all school facilities, and
3. Conduct a demonstration workshop with district administrators and maintenance personnel on the requirements and benefits of a compliant Preventative Maintenance Program.

## Findings

Following are the findings of the Preventative Maintenance Inspection:

1. The district does not conduct scheduled inspections of equipment and buildings.
2. It appears the district is not tracking the PM Tasks as they are performed. The report is being done in whole at one time.
3. The district work order system is primarily for reporting issues by faculty or staff from outside the maintenance department.
4. The district does not have maps and spreadsheets that contain the location and essential information (manufacturer, age, capacity, etc.) of each piece of equipment, roof, etc.
5. All personnel responsible for performing preventative maintenance are not fully aware of or understand the SFB Preventative Maintenance Program.
6. If the facilities manager were to leave, the district may not be able to maintain the level of maintenance without his institutional knowledge.

Current 3-Yr Building Renewal Plan.....	YES
Preventative Maintenance Plan on file.....	YES
District Self-Evaluation Score.....	56
(see sidebar on Page 2)	



**Murphy Elementary**

**District Overview**

Location: Maricopa County,  
Phoenix, Arizona  
Schools 4  
Buildings 46  
Students 2,403  
Square Footage 305,100

**District Self-Evaluation Scoring:**

Score	Evaluation
26 – 42	Excelling PM program
43 – 56	Adequate PM program
57 – 69	Minimal PM program
70 – 85	Need PM program

**Field Inspection Summary**

Listed below are some of the preventative maintenance findings identified during the field inspection:

**HVAC**

Units have hail damage

**PLUMBING**

Underground leaks need repair  
Insecure faucet mounting/dripping  
Improper installation of water heater

**SURFACES**

Flooding issues, clogged drainage  
Parking lots need resurfacing

**SPECIAL SYSTEMS**

Fire Alarm has trouble indicators

**ROOFING**

Many stained ceiling tiles

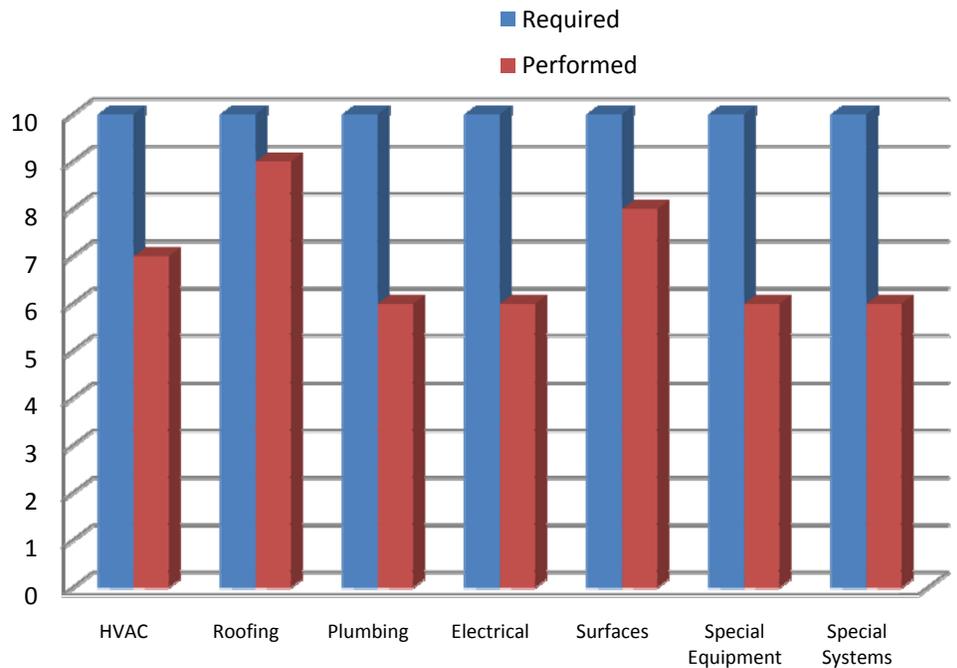
**ELECTRICAL**

Unmarked breakers  
Unsecured conduit  
Improper GFI

**SPECIAL EQUIPMENT**

Door hardware needs replaced

**SFB Evaluation of PM Tasks Performed**



SFB Evaluation (on scale of 1 to 10) of PM Tasks performed as shown in chart above:

	HVAC	Roofing	Plumbing	Electrical	Surfaces	Special Equipment	Special Systems
Required	10	10	10	10	10	10	10
Performed	7	9	6	6	8	6	6

### Workshop Attendees

Bert Herzog  
Director of Operations

David Jacobson  
Maintenance Technician

Roy Mooyman  
Maintenance Technician

Jose Sanchez  
Maintenance Technician

Efren Gonzales  
Maintenance Technician

Paulino Valle  
Maintenance Technician

Ernie Esparsa  
Maintenance Technician

Larry Lawrence  
Principal-Garcia Elementary

## Workshop

A Preventative Maintenance Workshop was held for the district's administrative and maintenance personnel, which included discussion on the district's current preventative maintenance program and the improvements they need to implement, including use of the SFB Preventative Maintenance Program.

A walk-through inspection of the school's facilities was conducted, during which maintenance personnel took a critical look at the equipment and buildings and listed each maintenance issue that was found. Maintenance personnel were aware of many of these issues, but none had been officially documented. Demonstration, discussion and collaboration concluded that the issues found during the walk-through inspection should be addressed through use of the SFB Preventative Maintenance and Building Renewal programs.

During the Workshop, district personnel established the following preventative maintenance goals:

1. To continue improving its preventative maintenance program through staff development and instruction on use of the SFB Preventative Maintenance Program's procedures, reports and goals.
2. To develop a work order system that seeks input from maintenance personnel, tracks and prioritizes preventative maintenance issues and tasks completed, as well as trends and key data to assist in decision-making.
3. To schedule and conduct four (4) inspections of equipment and buildings each year using the SFB Preventative Maintenance Plan and Task Sheets as a guide to document and prioritize work orders regarding any issues or concerns discovered during the inspections.
4. To develop maps and spreadsheets that contain the location and essential information (manufacturer, age, capacity, etc.) of each piece of equipment, roof, etc.
5. To develop maps of underground utilities and emergency shut-offs and provide training for administrative and maintenance personnel on their location (well marked and easy to identify) and function.

## Recommendations

In addition to the district established goals listed above the SFB makes the following recommendations:

1. Develop a preventative maintenance program with documentation and written procedures that would allow for a smooth transition to new personnel in the event current administrative or maintenance personnel retire or leave the district.

2. Develop and utilize a comprehensive work order system for documentation and planning purposes.
3. Use the preventative maintenance program to identify and plan future projects as part of their SFB 3-Year Building Renewal Plan.
4. Provide the SFB with quarterly progress reports for twelve (12) months on the SFB PM Progress Report form.

## **Benefits**

Proper use of the SFB Preventative Maintenance Program in conjunction with the Building Renewal Program has proven to provide the following benefits:

1. Improved educational achievement.
2. Projects are developed and prioritized based on real need.
3. Reduced costs and improved routine maintenance.
4. Facilities maintain code requirements for fire, health and safety.
5. Maximize use of Building Renewal funds.
6. Equipment replacement based on life-cycle.
7. Reduced energy costs.

To view the backup documentation for this report please click the following link:

[Murphy Elementary](#)