Sharyland Independent School District

FACILITIES MANAGEMENT REVIEW

Conducted by SCRS, Inc. and Facility Engineering Associates, Inc. for the Legislative Budget Board

March 2009

LEGISLATIVE BUDGET BOARD

Robert E. Johnson Bldg.
1501 N. Congress Ave. - 5th Floor
Austin, TX 78701

512/463-1200
Fax: 512/475-2902
http:llwww.lbb.state.tx.us

March 19,2009

Mr. Scott B. Owings
Superintendent
Sharyland Independent School District

Dear Mr. Owings:

The attached report reviews the management and performance of the Sharyland Independent School District's (SISD) facilities operations.

The report's recommendations will help SISD improve its overall performance as it provides services to students, staff, and community members.

The Legislative Budget Board engaged SCRS, Inc. and Facility Engineering Associates, Inc. to conduct and produce this review, with LBB staff working in a contract oversight role.

The report is available on the LBB website at http://www.lbb.state.tx.us.

Respectfully submitted,

John O'Brien
Director

Legislative Budget Board

cc: Mr. Fernando Ramirez
Mr. Guillermo Reyna
Ms. Suzanne Pena
Dr. Noel O. Garza
Mr. Rolando Pena
Mr. Ricky Longoria
Mr. Juan F. Zuniga

SHARYLAND INDEPENDENT SCHOOL DISTRICT FACILITIES MANAGEMENT

Texas school districts are challenged with providing instructional services in the most cost-effective and productive manner possible. Effective and efficient programs and a well-designed instructional program determine how well a district meets its goal of educating children. In support of this goal, the facilities organization is tasked with developing effective facilities programs to provide safe, productive and clean environments where students can learn.

Sharyland Independent School District (SISD) is located in the southern tip of Texas and serves Mission, McAllen, Edinburg, Alton, and Palmhurst communities. Its boundaries capture about 27 square miles. School enrollment figures have increased by 6 – 8 percent annually over the last few years. School officials project that enrollment will increase by 3 percent annually over the next several years.

The facilities organization is responsible for a diverse set of facilities covering over 1.3 million square feet and spread across 11 campuses as shown in **Exhibit 1**. A new high school is also in the planning stages and estimated to be constructed in the 2009–10 school year. There is limited use of portables for classrooms and there appears to be careful forethought and efforts to minimize overcrowding of schools.

The facilities organization is led by the Assistant Superintendant of Business and Finance, who oversees the Maintenance and Construction Coordinator. The overall facilities staff includes 18 maintenance trades staff and 16 grounds staff including leads. The overall maintenance staffing ratio is about 1:73,420. The division of labor is shown in the organizational chart outlined in **Exhibit 2**.

The following sections provide a summary of the findings and recommendations regarding facilities management for the Sharyland Independent School District. The information is based on field visits, interviews, document review, and observations completed at SISD during the summer of 2008.

ACCOMPLISHMENT

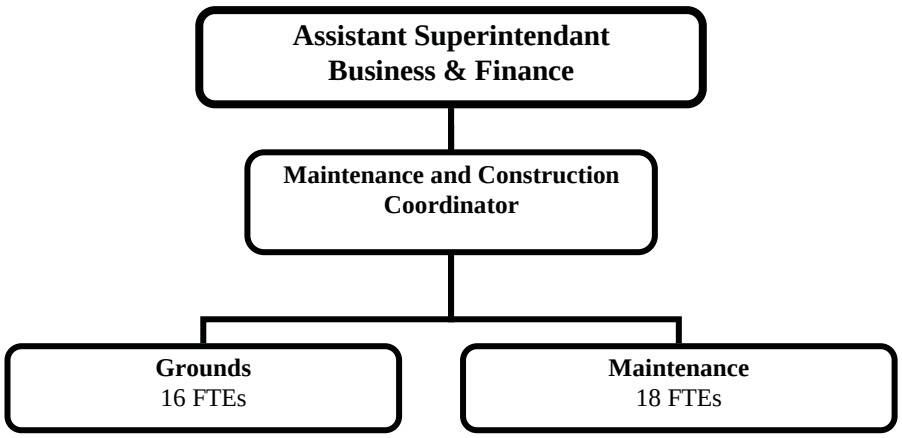
SISD implemented effective cost and schedule controls for school construction projects through the use of an outsourced architectural firm and through elementary and middle school prototypes.

EXHIBIT 1
SHARYLAND ISD FACILITIES
JUNE 2008

BUILDING	YEAR BUILT	SQUARE FEET	PORTABLES
Sharyland High School	1975	369,785	8
B.L. Gray Junior High	1981	105,098	0
North Junior High	2005	143,591	0
Jensen Elementary	1996	88,976	1
Garza Elementary	1996	88,976	3
Shary Elementary	1992	77,545	2
Martinez Elementary	2000	80,669	0
Bentsen Elementary	2004	91,732	0
Hinojosa Elementary	2005	91,732	0
Shimotsu Elementary	2007	91,732	0
Wernecke Elementary	2007	91,732	0
Districtwide Total		**1,321,568**	**14**

SOURCE: Sharyland ISD, Maintenance & Construction Coordinator, June 2008.

EXHIBIT 2
SHARYLAND ISD FACILITIES ORGANIZATION
JUNE 2008



SOURCE: Sharyland ISD, Maintenance & Construction Coordinator, June 2008.

FINDINGS

- Finding #1 – While there are many good facilities initiatives and effective processes, they are informal and lack documentation.
- Finding #2 – A computerized work order system was recently implemented across the entire district. The implementation was not completed at the time of the field visit and use of the system was limited.
- Finding #3 – There are no current standards for preventive maintenance, which is very limited when performed.
- Finding #4 – There is no current process of assessing facility condition, identifying deferred maintenance backlogs, or for evaluating capital needs of the existing facilities.
- Finding #5 – Although SISD implemented a district energy management program, it is limited and lacks a realistic plan for implementation and projected benefits of implementation.
- Finding #6 – SISD does not currently have a formal training program. Limited training is offered outside of basic safety training and required certification training. SISD's budget did not include any funds specifically for training.

RECOMMENDATIONS

- **Recommendation 1: Formalize and document facilities planning and maintenance policies and procedures.**
- **Recommendation 2: Optimize the computerized maintenance management system (CMMS) for performance tracking and reporting.** To better optimize the CMMS, SISD should perform a facilities inventory to identify the various asset's systems and maintainable components.
- **Recommendation 3: Implement a comprehensive planned maintenance program to improve the stewardship of facilities and decrease total cost of asset ownership.** A comprehensive maintenance program includes the right mix of preventive maintenance (PM), predictive maintenance (PdM), and reactive maintenance (i.e., passive monitoring) components.
- **Recommendation 4: Initiate a periodic facility condition assessment (FCA) process to prepare annual asset management plans and forecast future facility capital needs.**
- **Recommendation 5: Further develop the energy management program.**
- **Recommendation 6: Develop and implement a comprehensive training program.** The Maintenance

& Construction Coordinator should conduct formalized training specific to all job operations and safety related to their staff's functions. Clear documentation of training should be referred to and reviewed periodically to ensure that consistent and updated training is provided and to measure safety improvement practices.

DETAILED ACCOMPLISHMENT

COST AND SCHEDULE CONTROLS

SISD implemented effective cost and schedule controls for school construction projects through the use of an outsourced architectural firm and through elementary and middle school prototypes.

SISD plans call for further expanding the prototype model to a new high school planned for 2010. Although many districts are utilizing the prototype model when constructing new schools, SISD has developed a model that reduces both design and construction time, and the cost to build a new school. According to architectural vendors, the average construction costs for schools in the Rio Grande Valley area is over $150 per square foot. SISD constructed two elementary schools in 2007 with costs ranging from $90 to $95 per square foot. SISD's architectural fees have been reduced to 3.75 percent plus reimbursables, in comparison to industry averages of 7 percent.

Seven elementary and two middle schools have been constructed using the prototype model. In conjunction with the outsourced architectural firm, SISD works with teachers, administrators, and maintenance staff to determine which aspects of the prototype model need to be refined prior to constructing a new school. Principals and administrators have approval over finish colors. All other changes to the prototype are based on negative feedback due to functionality and/or maintenance.

DETAILED FINDINGS

POLICIES AND PROCEDURES

Finding #1 – While there are many good facilities initiatives and effective processes, they are informal and lack documentation.

Recommendation 1: Formalize and document facilities planning and maintenance policies and procedures. This may include formalizing processes for the following:

- school design and facilities performance guidelines;
- facilities management information standards;
- facilities performance measurement (key performance indicators);
- preventive maintenance programs;
- capital needs assessment;
- energy management policies; and
- emergency response procedures.

The lack of formal and documented processes appears to be the result of insufficient direction and supervision in past years combined with rapid growth. The hiring of a Maintenance and Construction Coordinator has provided the needed direction and supervision. The Coordinator has created informal processes that have increased productivity and quality control. However, the success of the informal processes will be increasingly difficult to achieve as the district continues to grow. SISD should formalize and document facilities planning and maintenance policies, and procedures to ensure effective planning, construction, operation, and maintenance of the facilities. SISD is currently updating its strategic five-year plan to address facility needs, improvements, and maintenance of existing facilities.

The implementation of formal and documented processes for facilities management could result in significant cost avoidance and increased staff efficiencies. In addition, documenting processes and procedures aids in standardization and provides consistency in the event that the Maintenance and Construction Coordinator is no longer employed by the district. While there is effort required to document the processes, it is generally limited in comparison to the potential cost savings. Examples of potential cost avoidance and savings are presented in each of the following subsections.

DESIGN GUIDELINES

The completion of the prototype schools and pending completion of the middle school have been conducted without the aid of documented detailed school district education specifications or design guidelines. The current process does consider many of the design guideline concepts. The outsourced architectural firm is in the process of developing their own design guidelines based on the prototypes used by SISD. However, the district does not have its own internal guidelines. As the school district grows, key staff changes over time, and new outsourced firms are used, the collection of intellectual knowledge in the schools will be critical. Failure to formally document improvements may lead to repeating mistakes of the past.

The best way to capture valuable intellectual knowledge regarding best practices in school design and use is to develop design guidelines or district education specifications for

school design. The practice of developing the guidelines should incorporate the architect, facilities staff, assistant superintendent, and maintenance and operations coordinator. The design guidelines should include: space and layout standards, materials, furnishings, mechanical systems, building automation systems, and other specialty construction. SISD should work closely with their architect to utilize the guidelines and standards their firm has already developed.

INFORMATION STANDARDS

Decisions about school funding, renovation, modernization, and infrastructure improvements need to be supported by high-quality and timely data.

PERFORMANCE MEASUREMENT

The development of sound data standards and automating processes enhances facilities performance measurement and the accuracy of key performance indicators (KPIs). The objectives of automating work processes are to increase performance, measure facilities performance, and provide better information to make the best decisions regarding facilities. With the implementation of the new work order system, SISD should utilize the system to track performance. There are great opportunities to improve facilities performance through the development of more specific KPIs that align with the mission and vision of SISD. Setting these standards will help identify organizational or operational adjustments that will improve performance and clarify expectations.

Measuring facilities operations' performance in today's environment is the route to credibility. The focus must be on prevention, not cure, and there must be recognizable aims and achievable prioritized objectives. Metrics provide essential links between strategy, execution, and ultimate value creation.

There are many ways of identifying and developing metrics and KPIs for use in school facilities management performance measurements. It is also easy to find samples of hundreds of potential facility maintenance metrics. However, it is not easy to identify and implement the right metrics to link facility operations and maintenance to strategy. The right KPIs should focus on those services that have the most prominent place in SISD's strategic plans. The right mix of KPIs should consider all three aspects of facilities performance:

- Inputs: Indicators that measure the financial, staffing, portfolio condition, and operating impacts from limited budgets/resources, and construction and renovation activities;
- Process: Indicators that measure how efficiently the department is performing its key processes and tasks; and
- Outcomes: Indicators that provide a measure of how successfully the facilities function is performing at the enterprise level.

KPIs should be reviewed and analyzed at different levels within the organization. **Exhibit 3** outlines several sample KPIs that SISD should periodically review and indicates what each management level should review.

EMERGENCY PREPAREDNESS

Emergency preparedness is imperative to the safety of the district's students and staff. Principals indicated that each school is provided a "box" of necessary reference information in the event of an emergency. However, they were unaware of documentation related to the physical facility. Head custodians currently know the location of shut-off valves in schools and related procedures. When emergencies arise, school administration should not rely on the knowledge of one person who may or may not be in attendance during the emergency.

Building plans that indicate the location of the shut-off valves should be created and added to the emergency response information already in place.

UTILIZATION OF A WORK ORDER SYSTEM

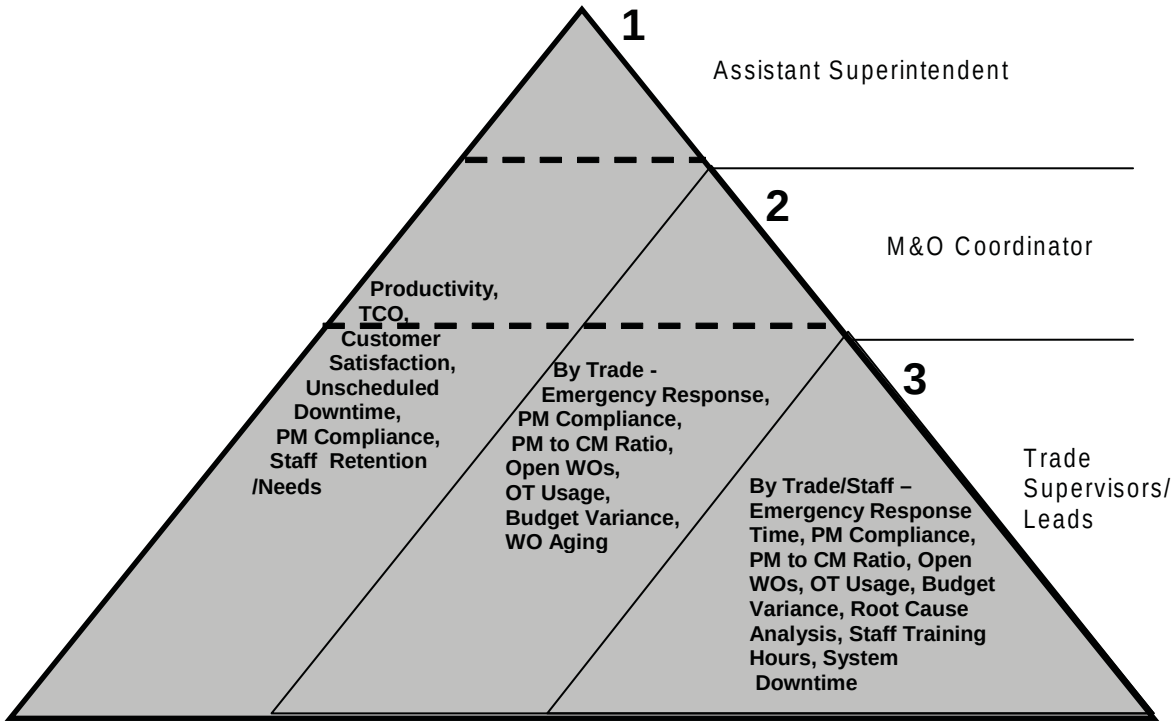
Finding #2 – A computerized work order system was recently implemented across the entire district. The implementation was not completed at the time of the field visit and use of the system was limited.

Recommendation 2: Optimize the computerized maintenance management system (CMMS) for performance tracking and reporting. To better optimize the CMMS, SISD should perform a facilities inventory to identify the various asset's systems and maintainable components.

At the time of the field visit, the work order module was fully functional with customers entering work requests on the district's website. As the module was still new, there was limited ability to track performance and make informed decisions. Equipment data was not entered into the system, and no plans to enter this information had been made.

Implementation of an automated work order system requires careful forethought and development of data standards to ensure long-term usability of the system. Many computerized maintenance management (CMMS) fail because the data is not standardized and maintainable. Proper implementation

EXHIBIT 3
KEY PERFORMANCE INDICATORS



NOTE: TCO – Total Cost of Ownership, WO – Work Order, CM – Corrective Maintenance, PM – Preventive Maintenance, OT – Over-time
SOURCE: Facility Engineering Associates, 2008.

and the use of data standards will lead to valuable and effective information and work management systems.

Any automated system should be implemented as a tool to support business processes. Thus, it is imperative to document work processes prior to implementing technology. A specific set of data standards should then follow to establish and provide the framework for data management. Most often, Construction Specifications Institute (CSI) Uniformat or Omniclass standards are used for creating building information models. These standards provide guidance on defining naming conventions and parameters such as buildings, building systems, equipment, components, work processes, and attributes. Use and enforcement of these standards increases the quality of the data, optimizes the system performance, and enables better reporting.

SISD should optimize their computerized maintenance management system for performance tracking and reporting. To better optimize the CMMS, SISD should perform a facilities inventory to identify the various asset systems and maintainable components. All pertinent information should be collected (i.e. manufacturer, serial #, model #, capacity, size, etc.), and uploaded into the CMMS. Superior reporting tools like Crystal Reports or web-based reporting tools should be utilized to create custom reports. Efficacy grows from the insight gained in analyzing effective processes, documented accurately, and reported in ways that make decisions clear. The other significant source of effectiveness is identifying KPIs. These "system drivers" highlight the few success factors that, when performing properly, significantly increase the likelihood of obtaining benefits from FM technology.

COMPREHENSIVE PREVENTIVE MAINTENANCE PROGRAM

Finding #3 – There are no current standards for preventive maintenance, which is very limited when performed.

Recommendation 3: Implement a comprehensive planned maintenance program to improve the stewardship of facilities and decrease total cost of asset ownership. A comprehensive maintenance program includes the right mix of preventive maintenance (PM), predictive maintenance (PdM), and reactive maintenance (i.e., passive monitoring) components.

SISD's maintenance program consists mainly of breakdown corrective actions, response to demand work requests, periodic facility inspections, water treatment, and filter replacements. Preventive maintenance (PM) work is performed sporadically. Work orders are not differentiated between PM and other work orders. The Maintenance and Construction Coordinator reported that basic PM is

performed with direction from the foreman. No formal records or job templates are used. It was reported that the district intends to use their new CMMS to manage the PM program. However, there are no plans to expand the current limited program. SISD has yet to realize the impact of not performing the appropriate maintenance because of the relatively new age of facilities; however, continuing to neglect investing in a formalized maintenance program will result in inordinate expenditures and a shortened useful life of building systems.

With few exceptions PM has been considered the most effective way of maintaining building systems and extending the service life of equipment. Most PM programs are based on the assumption that there is a cause and effect relationship between scheduled maintenance and system reliability. The primary assumption is that mechanical parts wear out, thus the reliability of the equipment must be in direct proportion to its operating age.

Reliability Centered Maintenance (RCM) was developed to include the optimal mix of reactive-, time- or interval-based, and condition-based maintenance. RCM is a maintenance process that identifies actions that will reduce the probability of unanticipated equipment failure that are the most cost effective. The principle is that the most critical facilities assets receive maintenance first, based on their criticality to the mission of the facility or organization dependent on that asset. Maintainable facilities assets that are not critical to the mission are placed in a deferred or "run to failure" maintenance category, and repaired or replaced only when time permits or after problems are discovered or actual failure occurs.

A streamlined RCM maintenance process allows organizations to use their scarce personnel and funding resources to support the most critical assets that have the highest probability of failure to the organization's mission.

Streamlined RCM programs have several clear benefits:

- Managers, not equipment, plan shop technicians' activities and time.
- Planning of work allows labor, parts, materials and tools to be available when needed.
- Equipment part replacements are minimized. The probability that bearings need only lubrication and not replacement is maximized. PM also minimizes the potential need to not only replace bearings, but the shaft, rotating parts, bearing housings, casings, and possibly motors.
- Managers/schedulers have time to evaluate what other work could be done at the same time and location as the planned PM, optimizing shop productivity.
- Engineers can study equipment maintenance histories to implement changes that could improve equipment performance or energy efficiency.

The following sections further define the various aspects of a streamlined RCM program.

Passive Monitoring: Passive monitoring (e.g., corrective, reactive, or breakdown maintenance), does have a place in facility operations, but should be limited to equipment that has been evaluated to have no risk of business interruptions or consequences of direct or indirect damage to facilities. "Run-to-failure" plans can be cost effective where the cost of PM over the life cycle of the equipment is greater than the loaded cost of equipment replacement.

Preventive Maintenance: Preventive Maintenance is interval-based work that is planned and scheduled to allow maximum efficiency, minimize excessive labor and parts replacement, and prolong the useful service life of equipment. A comprehensive PM program allows the building systems to operate at full efficiency for their useful life and can prevent expensive repairs due to equipment failure. PM programs are also required to preserve most equipment warranties. PM is deemed appropriate for equipment where abrasive, erosive, or corrosive wear takes place, or material properties change due to fatigue. Preventive Maintenance should be scheduled to be performed at specific frequencies and completed at times in the aging process of the equipment where it can be restored with minimal investment. This proactive approach through such tasks as filter replacements, belt tightening/ changes, cleaning, etc., ensures that the equipment ages at a slower rate.

Predictive Maintenance (also referred to as condition-based maintenance or predictive testing and inspection – PT&I): Predictive testing and inspection (PT&I) should be implemented as a part of the overall RCM program. Equipment operating conditions should be monitored during the PT&I inspections and trends developed to help determine the need for additional PM and the optimum time for equipment overhaul or replacement.

The best use of PT&I is to implement simple visual/audible and non-destructive procedures (e.g., temperature and pressure readings) to record conditions at a specific time (snap shot) when the equipment is inspected at the time of PM. When a series of condition records (snap shots) are compiled a trend analysis can be developed. This trend analysis is the basis of PT&I and can provide factual data to support capital expenditure decisions regarding building systems.

Specific PT&I methods that have proven to be effective are listed herein:

- *Airborne Ultrasonic Testing* – Most rotating equipment and many fluid system conditions will emit sound patterns in the ultrasonic frequency spectrum. Changes in these ultrasonic wave emissions are reflective of equipment condition. Ultrasonic detectors can be used to identify problems related to component wear as well as fluid leaks, vacuum leaks, and steam trap failures.
- *Infrared Thermography* – Infrared (IR) thermography can be defined as the process of generating visual images that represent variations in IR radiance of surfaces of objects. IR tries to detect the presence of conditions or stressors that act to decrease a component's useful or design life. Many of these conditions result in changes to a component's temperature that can be detected with IR.
- *Motor Circuit Evaluator (MCE) Testing* – MCE is used during acceptance to evaluate the condition of motor power circuits. Any impedance imbalances in a motor will result in a voltage imbalance. Voltage imbalances in turn will result in higher operating current and temperatures, which will weaken the insulation and shorten the motor's life.
- *Vibration Analyses (Rotating Equipment)* – Equipment which contains moving parts vibrates at a variety of frequencies. These frequencies are governed by the nature of the vibration sources, and can vary across a wide range or spectrum. If any of these components start to fail, its vibration characteristics change, and vibration analysis detects and analyzes these changes.
- *Lubrication Oil Analyses* – Oil analysis (OA) is the sampling and laboratory analysis of a lubricant's properties, suspended contaminants, and anti-wear additives. OA is performed during routine preventive maintenance to provide meaningful and accurate information on lubricant and machine condition. By monitoring oil analysis sample results over the life of a particular machine, trends can be established which can help eliminate costly repairs.
- *Water Chemistry Analysis* – The use of chemistry to determine the chemical make-up of water used in hydraulic systems to help identify existing or future problems. This analysis should include pH, conductivity, Phenolphthalein and Methyl Purple alkalinity, hardness, Iron (and any metals specific to the system), Sulfate, Nitrate, and Ammonia.

Determination of the right type of maintenance for various equipment types can be determined by following a logic-tree decision-making process as shown in **Exhibit 4**.

The district should implement a comprehensive maintenance program to improve the stewardship of facilities and decrease the total cost of asset ownership. A comprehensive maintenance program includes the right mix of preventive maintenance (PM), predictive maintenance (PdM), and reactive maintenance (i.e., passive monitoring) components.

To develop a comprehensive maintenance program, SISD should begin by identifying systems and components, prioritizing maintenance activities, developing job plans, and estimating job plan completion times. Each activity is further defined below:

Step 1: Identification of Systems and Components– Comprehensive maintenance programs begin with a facilities assessment to identify the various assets' systems and maintainable components. All pertinent information should be collected (e.g., manufacturer, serial #, model #, capacity, size, etc.), and a determination of the present condition made, to establish a baseline from which to work. Knowing the age and condition of equipment is a prerequisite for maintaining it properly.

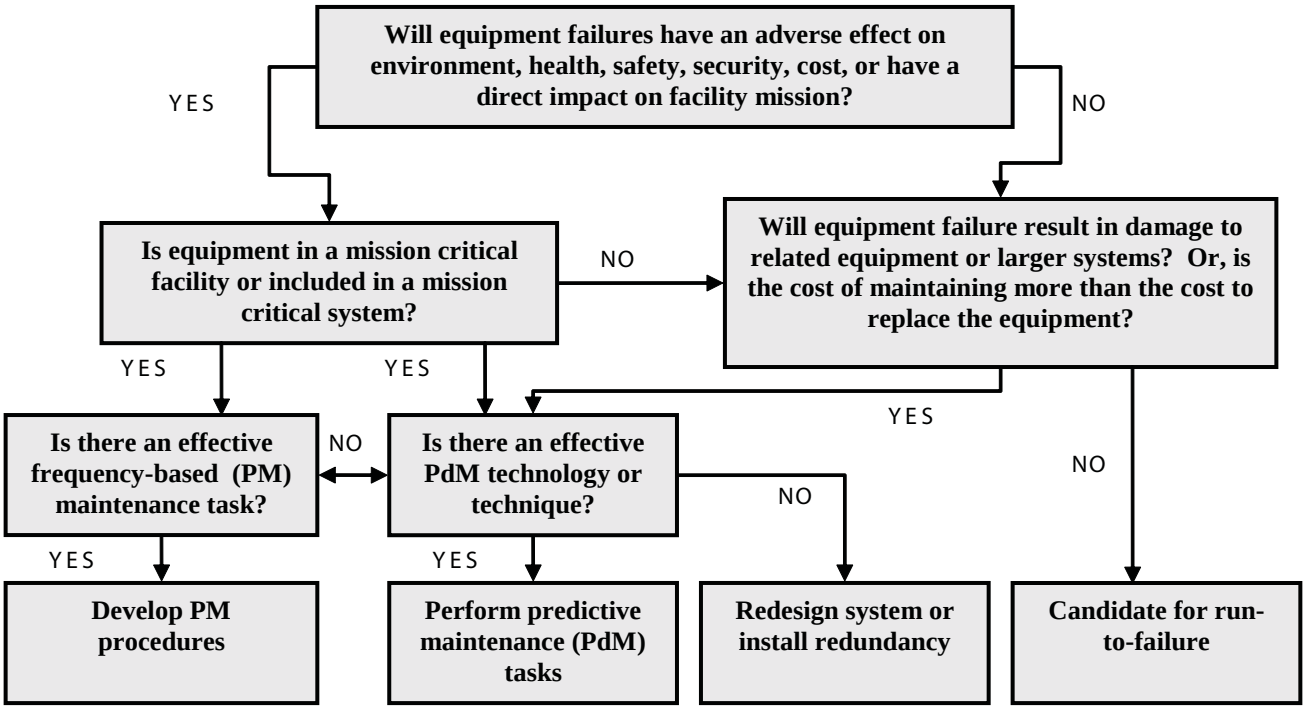
Step 2: Prioritizing Maintenance Activities – Once the facilities data has been compiled, the logic tree outlined in **Exhibit 4** can be applied to help determine at what level each piece of equipment should be maintained. Equipment to be included in the maintenance program should be selected based on the cost of performing advanced maintenance weighted against the cost impact of deferring the maintenance.

Information should be obtained during the data collection process to associate a priority with each system and asset in each district facility. Criticality of each asset should be determined through a review of the system's function, area served, and importance of reliability. The criticality assessment provides the means for quantifying how important the function of a system and its components are relative to the identified mission. A numerical ranking of one through ten can be adopted and applied in accordance with **Exhibit 5**. The equipment can then be prioritized based on its criticality of maintaining functionality of the facilities or other predetermined district mission needs. Prioritization becomes increasingly important as available resources become increasingly scarce.

The criticality factors for each piece of equipment in conjunction with the logic tree (**Exhibit 4**) can then be used to determine and adjust the level of service attributed to each piece of equipment based upon available resources.

Step 3: Developing Job Plan & Estimating Completion Times– Once the criticality analysis is complete and the appropriate maintenance methods established for each type of equipment

EXHIBIT 4
RELIABILITY CENTERED MAINTENANCE LOGIC TREE
JUNE 2008



NOTE: PdM - Predictive Maintenance, PM - Preventive Maintenance
SOURCE: Adapted from National Aeronautics and Space Administration, Reliability Centered Maintenance Guide for Facilities and Collateral Equipment, February 2000.

and by location, maintenance tasks for all equipment types should be compiled.

Maintenance tasks should be based on manufacturer's recommendations and/or job plans developed by industry standard publications such as R.S. Means, General Services Administration (GSA), and Whitestone and adapted based on experience. Detailed tasks, performance times, and frequencies by equipment type should be developed. Care should be taken to format the tasks in a mean and method for future uploading into a CMMS.

In addition to specific tasks, standard performance times, and frequencies, the job plans should also describe a process for resolving maintenance problems and the specific tools and materials needed. Some problems will be simple and the appropriate corrective action can be included among the other information in the task list. Other problems may not have an obvious solution, and in these cases the responsibility and process for addressing the problems should be clear.

Once a comprehensive list of maintenance tasks is developed, it may be necessary to again look at the prioritization of items or adjust the frequency of tasks to fit staff availability. Because resources are finite the Maintenance and Construction Coordinator will need to use some judgment about which tasks are most important. When setting these priorities it is important to keep in mind the criticality rankings previously determined, so as to not overlook and reduce maintenance on mission critical systems.

The fiscal impact of creating a comprehensive maintenance program is limited to the internal allocation of resources to inventory and set up the job plans, and the purchase of industry standard job plans if the district does not already have access to these resources. Because of the relative newness of the district's facilities, pertinent equipment information should be able to be abstracted from construction documents with relative ease and the associated maintenance tasks and times are provided by industry standard publications.

If internal resources are not capable or able to accomplish this task, additional resources (i.e., consultants) could be hired to aide in the data collection and program set up. Outside consultants could typically be procured for $.05/ square foot to aide in the data collection and program setup. Multiplying $.05/ square foot by the district's total square footage (1,321,568 square feet) equates to $66,078.

EXHIBIT 5
CRITICALITY/SEVERITY CATEGORIES
MAY 2008

Ranking	Effect	Comment
1	None	No reason to expect failure to have any effect on safety, health, environment, or mission.
2	Very Low	Minor disruption to facility function. Repair to failure can be accomplished during trouble call.
3	Low	Minor disruption to facility function. Repair to failure may be longer than trouble call but does not delay mission.
4	Low to Moderate	Moderate disruption to facility function. Some portion of the mission may need to be reworked or process delayed.
5	Moderate	Moderate disruption to facility function. 100% of the mission may need to be reworked or process delayed.
6	Moderate to High	Moderate disruption to facility function. Some portion of the mission is lost. Moderate delay in restoring function.
7	High	High disruption to facility function. Some portion of the mission is lost. Significant delay in restoring function.
8	Very High	High disruption to facility function. All of mission is lost. Significant delay in restoring function.
9	Hazard	Potential safety, health, or environmental issue. Failure may occur with warning.
10	Hazard	Potential safety, health, or environmental issue. Failure will occur without warning.

SOURCE: National Aeronautics and Space Administration, Reliability Centered Maintenance Guide for Facilities and Collateral Equipment, February 2000.

FACILITIES CONDITION ASSESSMENT PROGRAM

Finding #4 – There is no current process of assessing facility condition, identifying deferred maintenance backlogs, or for evaluating capital needs of the existing facilities.

Recommendation 4: Initiate a periodic facility condition assessment (FCA) process to prepare annual asset management plans and forecast future facility capital needs. Comprehensive facilities needs and master plans should include the following elements:

- a review of the district construction and improvement plans;
- five- to ten-year projections of enrollment by school, grade, and year;
- an analysis of school capacity over the planning period;
- a public input process to obtain community desires and needs;
- a five- or ten-year capital plan for existing facility maintenance and repair;
- a review of funding strategies; and
- an ongoing review and monitoring process for the plan.

The rapid growth of the district has placed emphasis on the design and construction of new schools and facilities, as well as expansion of existing buildings. This has not presented major issues to date due to the overall relative young age of the school buildings. However, as these schools age, capital planning procedures should be implemented to ensure the effective maintenance and repair of the schools. Failure to do so could result in significant unanticipated capital expenditures, increases in deferred maintenance backlogs, and deteriorating school conditions.

There is a limited planning process for projecting and funding short- and long-range capital replacement items, such as roofing systems, pavements, mechanical/electrical/plumbing (MEP), and life safety systems in the schools. Currently, the only process reported included developing budgets based on immediate repair and replacement needs.

There has been little thought to formalizing procedures to plan for capital expenditures of existing schools that will enable informed decisions regarding maintenance and repair of the existing facilities. Eight of the twelve school buildings were constructed within the last twelve years (since 1996). Of the remaining four, one will be converted to become part of the high school and areas of the high school will be converted to administrative offices.

The most important factor to achieve success in assessing the condition of school facilities is to evaluate needs without bias. There are a multitude of reasons to conduct FCAs. Some of the more common outcomes include:

- developing and justifying long-term or short-term capital budgets;
- identifying backlogs of deferred maintenance;
- identifying and prioritizing specific capital project needs;
- independently validating capital improvement project requirements; and
- verifying equitable distribution of capital funds among multiple schools.

The primary challenge that public educational facilities across the country have faced is historically underfunded maintenance of capital assets. Compounded by a portfolio of aging schools and infrastructure and the need to constantly modernize building systems and technologies, educational facilities are accumulating backlogs of capital expenditures. Taken together, the accumulated backlog of maintenance and repair is generally referred to as "deferred maintenance."

Concern about the deterioration of educational environments led to a number of collaborative studies by both educational and government associations. The identification and reduction of deferred maintenance has been the primary driving force of asset management programs for educational facilities. The studies also led to the development of the Facility Condition Index (FCI), one of the most recognized metrics for facilities asset management performance measurement.

Most public and private school systems generally use some form of facility condition assessment or life cycle analysis to determine backlogs of maintenance and repair and assess their facility needs. Findings and recommendations of best practices in facilities asset management (and facility condition assessments) have been researched and reported by the National Research Council independent of the specific approach. Key components to an asset management program include:

- standardized documented process that provides accurate, consistent, and repeatable results;
- detailed ongoing evaluation of real property assets that is validated at predetermined intervals;
- standardized cost data based on industry-accepted cost estimating systems (repair/replacement); and
- user-friendly information management system that prioritizes deferred maintenance (DM) and capital renewal (CR).

The goal of an asset management program is to conduct facility condition assessments and create a facility investment plan that is:

- rational;
- repeatable;
- recognizable; and
- credible.

Asset management plans should independently validate funding requests and provide consistent and credible information to aid in appropriately allocating funding for major facility maintenance projects. The plans should support funding decisions to ensure equitable distribution of funds among schools and ensure proper stewardship of the facilities.

The benefits of preparing facility asset management plans by conducting baseline facility condition assessments (FCAs) include:

- obtaining objective and credible data to make informed facilities investment decisions through prioritizing needs;
- streamlining facilities management processes and reducing the total cost of ownership;
- improving the condition of school facilities;
- extending the life of assets through proper maintenance and repair funding and decisions;
- minimizing safety and security risks at school facilities;
- minimizing the disruption to teachers and students caused by facility system failures;
- enabling optimal use of facilities and infrastructure in support of the educational mission; and
- improving overall stewardship of facilities and maximizing return-on-investment for district stakeholders.

If internal resources are not able to accomplish this task, additional resources (i.e. engineers/consultants) could be hired to aide in the assessments. Outside consultants could typically be procured for $.10/square foot. Multiplying $.10/square foot by the district's total square footage (1,321,568 square feet) equates to $132,157.

ENERGY MANAGEMENT PROGRAM

Finding #5 – Although SISD implemented a district energy management program, it is limited and lacks a realistic plan for implementation and projected benefits of implementation.

Recommendation 5: Further develop the energy management program. An effective energy management program includes policies and procedures relating to the following:

- energy procurement;
- energy-related equipment purchasing;
- staffing and training;
- communications;
- setting energy consumption targets; and
- tracking/feedback loop systems.

SISD's energy management program included installing an energy management system, upgrading to T8 lamps and electronic ballasts, and retrofitting existing incandescent exit signs with maintenance-free light emitting diodes (LED) at the following facilities:

- Administration Building;
- Garza Elementary;
- Gray Junior High;
- Sharyland High School;
- Jensen Elementary;
- Martinez Elementary; and
- Shary Elementary.

The installation of the energy management system enabled SISD to control heating and air conditioning by zone from a central workstation. The district implemented set-points to provide a range of control that individual teachers and administrators can have in their classrooms and offices during predetermined operating hours. Requests for additional operating hours for special events are made through the work order system.

An energy management consultant developed a plan for retrofitting and replacing various components of the heating and air conditioning systems. Based on the contract, an annual savings was guaranteed with the mechanical system upgrades along with proper maintenance and control. The district has not performed these upgrades due to limited funding. The upgrade projects should be considered when the district develops their capital planning forecasts.

The consultant was also contracted to perform periodic monitoring and reporting. However, the necessary mechanical upgrades have not been completed making it difficult to calculate the projected savings. As a result, it is not known whether or not the annual monitoring costs are higher than the benefits of outsourced monitoring and consulting.

Texas House Bill (HB) 3693 enacted by the state of Texas on May 23, 2007 and issued by the Board on February 1, 2008 states the following:

> *GOAL TO REDUCE CONSUMPTION OF ELECTRIC ENERGY. The board of trustees of a school district shall establish a goal to reduce the school district's annual electric consumption by five percent each state fiscal year for six years beginning September 1, 2007.*

The enactment of HB 3693 certainly provides encouragement to school districts throughout Texas to become increasingly aggressive in their energy conservation efforts.

An effective energy management program calls for a long-term perspective that is more than simply cutting the previous year's energy use. Rather than seeing energy as a line item expense in the budget, it makes energy awareness part of the everyday operation and mindset of the organization.

The district should conduct a cost-benefit analysis of the consultant's energy management plan, including considering monitoring their energy consumption in-house, as the current contract allows for annual renewal or cancellation. Similar districts have found success monitoring and reporting on the energy consumption as part of a high school class project. School age youth are increasingly interested in energy conservation. Their enthusiasm can provide lively support to any initiative associated with reducing carbon footprints and protecting the environment.

COMPREHENSIVE TRAINING PROGRAM

Finding #6 – SISD does not currently have a formal training program for facilities staff. Limited training is offered outside of basic safety training and required certification training. SISD's budget did not include any funds specifically for training.

Recommendation 6: Develop and implement a comprehensive training program for facilities staff. The Maintenance & Construction Coordinator should conduct formalized training specific to all job operations and safety related to their staff's functions. Clear documentation of training should be referred to and reviewed periodically to ensure that consistent and updated training is provided and to measure safety improvement practices.

As per SISD's budget, a minimal amount was set aside for "Travel," and it was reported that training dollars are spent from the "Travel" budget. A review of prior years' budgets indicated that only a small portion of the budget was used by staff for training

Not investing in ongoing training can result in increased on-the-job accidents, inefficient staff, and required repeat work. Adequate and continuous training is a key step in the development of individual performers.

Best practices show that between 2 percent to 5 percent of a facility department's overall personnel budget should be spent on training and development. Although most organizations do not spend to this level, this best practice indicates the importance of training. Some experts maintain that investing in good training practices does not constitute an additional cost. Rather, it tends to provide a favorable return-on-investment.

Training is the opportunity to educate employees in the most effective way to utilize the available resources and to ensure that people understand the environmental rules and regulations regarding facilities and grounds. Information can be shared not only about the facilities and spaces, but also about the larger district environment and the industry in general.

Generally, there are four basic areas of training focus:

- training new employees in the maintenance and use of the facilities and grounds;
- training current employees who have changed task or function;
- training all employees when new statutes need to be enforced; and
- training all employees when new equipment or tools are purchased.

Managers must think creatively about how to provide high-quality training opportunities in the face of time and budget constraints. The Planning Guide for Maintaining School Facilities makes the following suggestions:

- sharing training costs with other organizations on a collaborative basis (e.g., training may be sponsored by several neighboring school districts or jointly by the school facilities department and the public works department in the same community);
- hiring expert staff or consultants to provide on-site supervision during which they actively help staff improve their skills while still on-the-job;
- developing training facilities, such as training rooms in which equipment and techniques can be demonstrated and practiced;
- offering tuition reimbursement programs which provide educational opportunities to staff who might not otherwise be motivated to improve their knowledge and skills; and
- building training into contracts so that vendors are obligated to provide training at either an on-site or off-site training center as a condition of the purchase of their products.

Additional suggestions include:

- utilizing current staff to perform training with respect to their expertise; and
- compounding the effects of training by having employees who have attended training report to those who were unable to attend due to resource restrictions.

Training typically refers to learning opportunities specifically designed to help an employee do his or her job better. "Professional Development" has a broader meaning which includes expanding participants' knowledge and awareness to areas outside their specific job duties, yet still related to the overall well-being of the organization. Such topics might include:

- asbestos awareness;
- energy systems;
- building knowledge;
- first aid;
- emergency response;
- biohazard disposal;
- technology use;
- universal precautions;
- right-to-know;
- first responder awareness; and
- first responder operations.

Finally, ongoing evaluation of training efforts, including all aspects of the experience, should be built into the program for educating employees about the facilities and grounds. Good training is timely, informative, effective, and keeps employees, students and visitors healthy and safe.

The best evaluations are the summaries of work orders related to the focus of the training as outlined in Recommendation 2. Have the number of requests for "the problem area" decreased since training was instituted in regards to that area? Those items in the work plan that can be directly tied to training issues should be set up on a tracking system to monitor on a regular basis.

This monitoring can serve multiple functions; to track the effectiveness of the training; to be able to lobby for more money to do more training when the end results are good; and to help identify areas where further training may be required.

SISD should develop individual staff training plans for each employee. The Maintenance and Construction Coordinator should conduct formalized training specific to all job operations and safety related to their staff's functions. Clear documentation of training should be referred to and reviewed periodically to ensure that consistent and updated training is provided and to measure safety improvement practices. It is also recommended that facility management staff document all safety related training conducted and that these documents be stored at a designated document center for easy access and reference for management and employees alike. It is encouraged that any training provided to the organization be videotaped for future reference and training opportunities.

As best practices show that between 2 percent to 5 percent of a facility department's overall personnel budget should be spent on training and development, based on 5 percent of their personnel budget, SISD should spend approximately $176,073 annually on training for the Maintenance Department.

Exhibit 6 identifies what training is typically included in a comprehensive training program, indications of how such training is generally delivered and who should receive it.

EXHIBIT 6
TRAINING GUIDELINES
AUGUST 2008

	M & O Coordinator	Maintenance Supervisor/Lead	HVAC Mechanic	Electrician	Plumber	Carpenter	Maintenance Generalist	Painter	Ground Crew Leader	Grounds Worker	Clerk		Online	Video	Peer Delivered	Outside Provider
Asbestos Awareness	X	X	X	X	X	X	X	X				Regulatory	X			
Bloodborne Pathogens Safety	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
Combustible & Flammable Liquids	X	X	X	X	X	X	X	X	X	X			X	X		
Confined-Space Entry	X	X	X	X	X		X						X	X		
Hazard Communications	X	X	X	X	X	X	X	X	X	X	X		X		X	
HAZ-MAT Spill Prevention & Control	X	X	X	X	X	X	X	X	X	X			X			
Lock-Out/Tag-Out	X	X	X	X	X		X						X		X	
Materials Handling, Storage, Use & ID	X	X	X	X	X	X	X	X	X	X	X		X			
Alcohol-Free Workplace	X	X	X	X	X	X	X	X	X	X	X	General Training	X			
Back Injury Prevetion	X	X	X	X	X	X	X	X	X	X			X		X	
Building Evacuation & Emergencies	X	X	X	X	X	X	X	X	X	X	X				X	
Emergency Response	X	X	X	X	X	X	X	X	X	X	X				X	
CPR Academic	X	X	X	X	X	X	X	X	X	X			X		X	X
Disaster Preparedness	X	X	X	X	X	X	X	X	X	X	X		X		X	
Electrical Safety	X	X	X	X	X	X	X						X	X	X	
Eye Safety	X	X	X	X	X	X	X	X	X	X			X	X	X	
Fall Protection	X	X	X	X	X	X	X	X					X	X		
Fire Extinguisher Safety	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
Fire Prevention Safety	X	X	X	X	X	X	X	X	X	X	X		X	X		
General Contruction Safety	X	X	X	X	X	X	X	X					X	X		
General First Aid	X	X	X	X	X	X	X	X	X	X	X		X		X	X
Golf Cart	X	X	X	X	X	X	X	X	X	X	X			X	X	
Forklift		X	X	X	X	X	X	X	X	X				X	X	
Bucket Truck		X	X	X	X	X								X	X	
Job Specific Equipment		X	X	X	X	X	X	X	X	X				X	X	
Hand & Power Tool Safety	X	X	X	X	X	X	X	X	X	X			X	X	X	
Hearing Conservation	X	X	X	X	X	X	X	X	X	X			X	X		
Ladder & Scaffolding Safety	X	X	X	X	X	X	X	X	X	X	X		X	X		
Office Safety	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
Cultural Differences	X	X	X	X	X	X	X	X	X	X	X				X	X
Personal Protective Equipment	X	X	X	X	X	X	X	X	X	X			X	X		
Sexual Harassment	X	X	X	X	X	X	X	X	X	X	X					X
Slips, Trips, & Falls Prevention	X	X	X	X	X	X	X	X	X	X	X		X	X		
H.S. Diploma/GED	X	X	X	X	X				X		X	Certification/ Licenses				X
College Degree	X															X
Technical Degree		X	X	X	X											X
Electrical -Master/Journeyman				X												X
Plumbing -Master/Journeyman					X											X
HVAC Certificate			X													X
On-the-Job						X		X		X						X
Department Procedures	X	X	X	X	X	X	X	X	X	X	X	General Personnel Practices			X	
Work Practices - Time Management/Organization	X	X	X	X	X	X	X	X	X	X	X		X			X
Supervision	X	X						X								X
Employee Relations - Counseling, Performance Evaluation	X	X						X								X
Work Order System	X	X	X	X	X	X			X		X		X		X	X

SOURCE: Facility Engineering Associates, 2008

FISCAL IMPACT

RECOMMENDATION	2009–10	2010–11	2011–12	2012-13	2013-14	5–YEAR (COSTS) OR SAVINGS	ONE TIME (COSTS) OR SAVINGS
1. Document policies and procedures.	$0	$0	$0	$0	$0	$0	$0
2. Optimize the Computerized Maintenance Management System.	$0	$0	$0	$0	$0	$0	$0
3. Implement a PM program.	$0	$0	$0	$0	$0	$0	($66,078)
4. Initiate a periodic facilities condition assessment.	$0	$0	$0	$0	$0	$0	($132,157)
5. Further develop the comprehensive energy management program.	$0	$0	$0	$0	$0	$0	$0
6. Develop and implement a comprehensive training program.	($176,073)	($176,073)	($176,073)	($176,073)	($176,073)	($880,365)	$0
TOTAL	**($176,073)**	**($176,073)**	**($176,073)**	**($176,073)**	**($176,073)**	**($880,365)**	**($198,235)**

SHARYLAND INDEPENDENT SCHOOL DISTRICT INSTRUCTIONAL FACILITIES ALLOTMENT

Sharyland Independent School District (SISD) is located in Hidalgo County in south Texas and encompasses 27 square miles. The district is bisected by US 83 and serves the Mission, McAllen, Edinburg, Alton, and Palmhurst communities. The district is experiencing significant growth and SISD student enrollment grew by 2,146 students or 31.8 percent from 2003–04 through 2007–08. During the same period, taxable values have grown by $1,258,574,127 or 119.8 percent. **Exhibit 7** presents the enrollments and taxable values from 2003–04 through 2007–08.

The most recent enrollment forecast projects an annual growth rate of 3 percent or more for the next 5 years. Based on this projection, the district enrollment will increase to 10,634 students in 2012–13. **Exhibit 8** presents the projected growth for SISD from 2008–09 through 2012–13.

SISD undertook a capital improvement plan funded by bonded indebtedness to upgrade existing facilities and to provide additional facilities for the students and anticipated growth. In 2003, the voters passed a $20 million bond proposition to fund a new junior high school and a new elementary school. The voters passed a $40 million bond proposition in May 2006 to fund two new elementary schools, a new junior high school, property acquisitions and renovations to existing facilities. **Exhibit 9** presents a summary of the 2006 bond budgets.

SISD included inflation in the budget for the projects, but the actual construction costs for the junior high school as designed was above the budget. SISD was able to fund the projects using interest earnings on the bond proceeds and, if necessary, transferring money from the general fund to offset any overages. **Exhibit 10** presents the budgets for the 2006 bond projects, the cost of construction, square footage of the projects and cost per square foot.

SISD uses the competitive sealed proposals (CSP) method to construct buildings and complete renovations to existing facilities. The CSP method provides for full competition among proposers, allows for changes in the scope of construction and allows for negotiation with the proposer to obtain the construction at the best price.

The district uses prototype plans for the junior high and elementary school designs. This allows SISD to save time in the design of the schools, reduce costs for the design of the schools and refine the design each time it is built. The district negotiated a fee structure with the architect based on a percentage of the cost of the construction for 3.75 percent of the cost using prototype plans. The district negotiated a payment schedule for the architectural services that reflects certain benchmarks in the design and construction process, as outlined in **Exhibit 11**, that reflects industry standards.

Texas school districts have three major funding sources to repay bond funds used for facilities construction: revenues from local taxes, the existing debt allotment (EDA), and the instructional facilities allotment (IFA). Local interest and sinking (I&S) taxes are levied based on the amount required

EXHIBIT 7
SHARYLAND ISD ENROLLMENTS AND TAXABLE VALUES
2003–04 THROUGH 2007–08

DESCRIPTION	2003–04	2004–05	2005–06	2006–07	2007–08
Enrollment	6,751	7,135	7,669	8,208	8,897
Taxable Value	$1,050,361,833	$1,217,151,893	$1,424,246,720	$1,707,296,059	$2,308,935,960

SOURCE: Texas Education Agency, CPTD Tax Final and Student Enrollment, 2003–04 through 2006–07 and State Comptrollers' Office, School and Appraisal Districts Property Value Study 2007, July 2008.

EXHIBIT 8
SHARYLAND ISD PROJECTED ENROLLMENTS
2008–09 THROUGH 2012–13

DESCRIPTION	2008–09	2009–10	2010–11	2011–12	2012–13
Projected Enrollment	9,448	9,731	10,023	10,324	10,634
Enrollment Growth	551	283	292	301	310
Percentage Growth	6.2%	3.0%	3.0%	3.0%	3.0%

SOURCE: Sharyland ISD, Long Term Facilities Committee Meeting Agenda Packet, March 31, 2008.

EXHIBIT 9
SHARYLAND ISD 2007 BOND PROGRAM
MARCH 2008

PROJECT	BOND BUDGET
Two Elementary Schools	$16,000,000
Junior High School	$14,000,000
Furnishing New Schools	$2,000,000
High School Renovations	$2,000,000
High School HVAC/Roof	$2,000,000
Property Acquisitions	$4,000,000
TOTAL	**$40,000,000**

SOURCE: Sharyland ISD, $40 Million Bond Issue Report, March 31, 2008.

to fund the district's debt service payments after any funding received from EDA or IFA.

The EDA program provides tax rate equalization for local debt service taxes. By providing a guaranteed yield on I&S taxes levied to pay the principal of and interest on eligible bonds, the program guarantees a specific amount of state and local funds per student for each cent of tax effort per $100 of assessed valuation. The guaranteed yield for EDA provides $35 per student in average daily attendance (ADA) per penny of tax effort. The EDA program operates without applications, has no award cycles and is available only to repay bonded debt. The EDA program is available to all districts and is not awarded based on the property wealth per student of the district. It is also intended to help fund debt related to both instructional and non-instructional facilities.

The IFA program provides assistance to school districts in making debt service payments on qualifying bonds or lease-purchase agreements. Bond or lease-purchase proceeds must be used for the construction or renovation of an instructional facility. The IFA program operates with applications and has award cycles. The award cycles include the property wealth per student of the districts as a criterion in ranking the districts for funding.

SISD levied a $0.145 tax rate per hundred dollars valuation in 2007–08 to pay the district's debt service payments. In 2007–08, the district budgeted $1,814,937 in EDA funding to assist in making the district's debt service payments. The district applied for IFA funding, but did not receive IFA funding from Round 8 (June 2006) of $904,913. **Exhibit 12** presents the I&S tax rate, taxable values and a calculated tax levy for SISD from 2003–04 through 2007–08.

SISD received more local revenue, as outlined in **Exhibit 13**, than 100 percent of the calculated I&S levy **Exhibit 12** from 2003–04 through 2006–07 due to a high collection percentage, penalties and interest and investment interest. In 2007–08, SISD has budgeted $3,216,850 in local revenues which is less than the tax levy of $3,347,957. **Exhibit 13** presents the debt service fund expenditures and revenue for 2003–04 through 2007–08.

IMPACT

SISD reported that not receiving the IFA had no direct impact on the capital improvement plan, due to the district not anticipating receiving IFA funding in Round 8. SISD only included local revenues and EDA funding in developing the 2006 bond proposals. Although SISD did not anticipate receiving IFA funding in Round 8, if they had, the district's I&S tax rate would have been reduced by $0.053. This I&S tax rate reduction is based on 2006–07 property values of $1,707,296,059 and IFA funding of $904,913: $904,913/[($1,707,296,059/100)x.01}=5.3 cents. The estimated anticipated IFA funding for 2006–07 is outlined in **Exhibit 14.**

EXHIBIT 10
SHARYLAND ISD COST PER SQUARE FOOT
MARCH 2008

PROJECT	BOND CONSTRUCTION BUDGET	PROJECT CONSTRUCTION COST	SQUARE FEET	COST PER SQUARE FOOT
Wernecke Elementary	$8,000,000	$8,007,000	86,024	$93.08
Shimotsu Elementary	$8,000,000	$7,800,000	86,024	$90.67
R. L. Gray Junior High	$14,000,000	$15,872,000	151,960	$104.45

SOURCE: Sharyland ISD, $40 Million Bond Issue Report, March 31, 2008 and Junior High School Best and Final Negotiation, January 2007.

EXHIBIT 11
SHARYLAND ISD ARCHITECTURE FEES PAYMENT SCHEDULE
2006 BOND PROJECTS

PHASE	PERCENTAGE PAYABLE
Schematic Design	15%
Design Development	20%
Construction Document	40%
Bidding or Negotiation	5%
Construction	20%

SOURCE: Sharyland ISD, 2006 Architect Contract, May 2008.

EXHIBIT 12
SHARYLAND ISD INTEREST & SINKING TAX RATE, TAXABLE VALUES, AND INTEREST & SINKING TAX LEVY
2003–04 THROUGH 2007–08

DESCRIPTION	2003–04	2004–05	2005–06	2006–07	2007–08
Tax Rate	$0.10950	$0.11950	$0.09000	$0.19730	$0.14500
Taxable Values	$1,050,361,833	$1,217,151,893	$1,424,246,720	$1,707,296,059	$2,308,935,960
Tax Levy	$1,150,146	$1,454,497	$1,281,822	$3,368,495	$3,347,957

SOURCE: Sharyland ISD, Tax Rate Resolutions 2003–04 through 2007–08, CPTD Taxable Values, Calculation by Consultant, June 2008.

EXHIBIT 13
SHARYLAND ISD DEBT SERVICE FUND
2003–04 THROUGH 2007–08

DESCRIPTION	2003–04	2004–05	2005–06	2006–07	BUDGET 2007–08
Debt Payments	$3,091,362	$3,019,810	$2,689,956	$4,519,919	$5,031,787
EDA	$1,324,906	$1,386,865	$1,553,333	$1,186,536	$1,814,937
Local Revenue	$1,243,587	$1,539,251	$1,680,353	$3,607,639	$3,216,850

SOURCE: Sharyland ISD, Annual Audit Reports, 2007–08 Budget, June 2008.

EXHIBIT 14
SHARYLAND ISD ESTIMATED ANTICIPATED INSTRUCTIONAL FACILITIES ALLOTMENT FUNDING
2006–07

DISTRICT NAME	INITIAL WEALTH PER AVERAGE DAILY ATTENDANCE	REDUCE FOR ZERO OUT DEBT	REDUCE FOR ENROLLMENT INCREASE	VALUE AFTER REDUCED FOR ZERO DEBT & ENROLLMENT INCREASE	REDUCE IF ISSUED UNFUNDED IN PREVIOUS CYCLE	ESTIMATED STATE SHARE
Sharyland ISD	$185,233	0.00%	15.00%	$157,448	0.00%	$904,913

SOURCE: Sharyland ISD, Assistant Superintendent for Business & Finance, 2008