

APPENDIX A

CHAPTER CHECKLISTS

The following is a list of all checklists included in this *Planning Guide*. More information about accomplishing checklist points can be found on the pages listed in the right-hand column.

CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 1				
Are top-level decision-makers aware that school facilities maintenance affects the instructional and financial well-being of the organization?				1
Are top-level decision-makers aware that the occurrence of facilities problems (and lack thereof) is most closely associated with organizationally controlled issues such as staffing levels, staff training, and other management practices?				1
Are top-level decision-makers aware that having a coordinated and comprehensive maintenance plan is the first and most important step in exercising control over the destiny of the organization's facilities?				2
Has facilities maintenance been given priority status within the organization, as evidenced by top-level decision-makers' commitment to read this <i>Planning Guide</i> and refer to these guidelines while planning and coordinating facilities maintenance?				2
Do the organization's facilities maintenance decision-makers include school administrators, facilities/custodial representatives, teachers, parents, students, and community members?				4
CHAPTER 2				
Is there a facilities maintenance plan?				13
Is facilities maintenance planning a component of overall organizational planning?				13
Does the facilities maintenance plan include long- and short-term objectives, budgets, and timelines?				13
Have potential stakeholders in the facilities maintenance planning process been identified?				15
Have appropriate avenues for publicizing the facilities maintenance planning process to staff and community stakeholders been investigated and undertaken?				15
Have representative members of stakeholder groups been invited to participate in the facilities maintenance planning process?				15
Have representative members of stakeholder groups been selected fairly for participation in the facilities maintenance planning process?				15



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 2 <i>continued</i>				
Have individual views and opinions been a welcomed aspect of the consensus-building process?				15
Have stakeholders been included in follow up efforts to document and implement decisions?				15
Has a vision statement for school facilities maintenance been constructed?				16
Is the vision statement for school facilities maintenance aligned with the vision and plans of the rest of the organization?				16
Is the vision statement closely related to the day-to-day operations of the facilities maintenance staff?				16
Have comprehensive, accurate, and timely school facilities data been used to inform the planning process (see also Chapter 3)?				19
CHAPTER 3				
Have district planners scheduled a facility audit?				27
Has a chief auditor been selected (based on expertise, perspective, experience, and availability)?				27
Has a qualified auditing team been assembled?				28
Has the scope of work been identified for the audit (i.e., how detailed and comprehensive should the audit be)?				28
Has a data collection system (e.g., collection forms) been selected for the facilities audit?				31
Has an automated data input system been selected as resources allow?				31
Have audit findings been submitted in an electronic format that can be manipulated by district users?				31
Have audit findings been reviewed by facilities managers for accuracy and quality?				31
Are the findings from the facilities audit being stored securely as valuable organizational assets (e.g., redundantly)?				33
Has an automated document imaging system been implemented as resources allow?				33
Has a Computerized Maintenance Management System been installed in any organization that has more than 500,000 ft ² of facilities to manage?				34



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 3 <i>continued</i>				
Are facilities data being used to inform policy-making, short- and long-term planning, and day-to-day operations as appropriate?				34
Have facilities been commissioned, re-commissioned, or retro-commissioned as necessary?				35
Have commissioning, re-commissioning, and retro-commissioning been planned to include seasonal analysis of systems?				36
Have commissioning, re-commissioning, and retro-commissioning been planned according to the Energy Smart Schools recommendations?				37
Have facilities audit findings been used to establish benchmarks for measuring equipment life and maintenance progress?				39
CHAPTER 4				
Do facilities planners recognize that occupant safety is always their overarching priority?				43
Has the organization contacted regulatory agencies (e.g., the EPA), the U.S. Department of Education, its state department of education, professional associations, and peer institutions to obtain information about applicable environmental regulations?				43
Does the organization have a plan for responsibly managing indoor air quality?				44
Does the organization have a plan for responsibly managing asbestos?				48
Does the organization have a plan for responsibly managing water quality and use?				49
Does the organization have a plan for responsibly managing waste handling and disposal?				50
Does the organization have a plan for responsibly managing CFCs and HCFCs?				53
Does the organization have a plan for responsibly managing emergency power systems?				53
Does the organization have a plan for responsibly managing hazardous materials?				53
Does the organization have a plan for responsibly managing integrated pest management?				54
Does the organization have a plan for responsibly managing lead paint?				56
Does the organization have a plan for responsibly managing mercury?				56



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 4 <i>continued</i>				
Does the organization have a plan for responsibly managing personal protective equipment?				57
Does the organization have a plan for responsibly managing PCBs?				57
Does the organization have a plan for responsibly managing radon?				57
Does the organization have a plan for responsibly managing playgrounds?				58
Does the organization have a plan for responsibly managing storm water runoff?				60
Does the organization have a plan for responsibly managing underground storage tanks?				60
Does the organization have a plan for introducing environmentally friendly school concepts to new construction and renovation projects?				61
Does the organization have a plan for responsibly managing locking systems?				62
Does the organization have a plan for protecting equipment?				62
Does the organization have a plan for ensuring pedestrian and vehicle visibility?				63
Does the organization have a plan for policing/securing facilities?				63
Does the organization have a plan for responsibly managing fire protection?				63
Does the organization have a plan for protecting communications systems?				63
Does the organization have a plan for responsibly dealing with potential crises and disasters?				63
CHAPTER 5				
Do district planners recognize the four major components of an effective facilities maintenance program: emergency (responsive) maintenance, routine maintenance, preventive maintenance, and predictive maintenance?				74
Do district planners recognize that preventive maintenance is the most effective approach to sound school facility maintenance?				74
Has a comprehensive facilities audit (see Chapter 3) been performed before instituting a preventive maintenance program?				74



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 5 <i>continued</i>				
For districts that are instituting preventive maintenance for the first time, has an appropriate system (e.g., heating or cooling systems) been identified for piloting before commencing with a full-scale, district-wide program?				74
Have manufacturer supplied user manuals been examined for guidance on preventive maintenance strategies for each targeted piece of equipment?				75
Are records of preventive maintenance efforts maintained?				75
Has the schedule for preventive maintenance activities been coordinated with the routine maintenance schedule so as to minimize service interruptions?				75
Does the organization have a plan for responsibly managing access control?				75
Does the organization have a plan for responsibly managing boilers?				76
Does the organization have a plan for responsibly managing electrical systems?				76
Does the organization have a plan for responsibly managing energy use?				77
Does the organization have a plan for responsibly managing fire alarms?				78
Does the organization have a plan for responsibly managing floor coverings?				78
Does the organization have a plan for responsibly managing gym floors?				79
Does the organization have a plan for responsibly managing HVAC Systems?				79
Does the organization have a plan for responsibly managing hot water heaters?				80
Does the organization have a plan for responsibly managing kitchens?				80
Does the organization have a plan for responsibly managing painting projects?				80
Does the organization have a plan for responsibly managing plumbing?				80
Does the organization have a plan for responsibly managing public address systems and intercoms?				81
Does the organization have a plan for responsibly managing roof repairs?				81
Does the organization have a plan for responsibly managing water softener systems?				81



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 5 <i>continued</i>				
Has organization management determined its expectations for custodial services?				82
Have facilities managers staffed the custodial workforce at a level that can meet the organization’s expectations for its custodial service?				82
Has a chain of command for custodial staff been determined?				82
Has a suitable approach to custodial services (e.g., area cleaning versus team cleaning) been selected to meet the organization’s expectations for custodial service?				82
When planning grounds management, have grounds been defined as “corner pin to corner pin” for all property, including school sites, remote locations, the central office, and other administrative or support facilities?				83
Have areas of special concern (e.g., wetlands, caves, mine shafts, sinkholes, sewage plants, historically significant sites and other environmentally sensitive areas) been identified and duly considered for grounds management?				84
Does the organization have a plan for responsibly managing fertilizer and herbicide use?				84
Does the organization have a plan for responsibly managing watering and sprinkler systems (e.g., the use of recycled water/gray water for plumbing, watering fields)?				84
Does the organization have a plan for responsibly managing drainage systems?				84
Does the organization have a plan for responsibly managing “rest time” for fields/outdoor areas?				84
Does the organization have a plan for responsibly managing the costs and benefits of flowerbeds?				84
Does the organization have a plan for responsibly managing the use of the grounds as a classroom (e.g., “science courtyards” and field laboratories)?				84
Is the Maintenance & Operations Department organized and administered to best meet the needs of the maintenance plan?				85
Does the maintenance and operations staff take time to market its efforts and successes to the rest of the organization?				85
Are facilities managers proactive with their communications to and management of community groups (e.g., PTAs, booster clubs)?				86
Has an automated work order system (e.g., a Computerized Maintenance Management System or CMMS as discussed in Chapter 3) been instituted within the organization?				86
Does the CMMS incorporate the basic features of a “best practice” system?				87



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 5 <i>continued</i>				
Do staff in every building and campus in a district know the procedures for initiating a work order request?				88
Is the ability to officially submit a work order limited to a single person at each site (who can evaluate the need for work prior to sending it)?				88
Does a supervisor evaluate (either by random personal assessment or customer feedback) whether the quality of work meets or exceeds departmental standards before “closing out” a work order?				88
Is all information about a completed work order maintained in a database for future historical and analytical use upon its completion?				88
Is the work order system streamlined so as to minimize the number of people involved in work order delivery, approval, and completion as is reasonable for managing the process?				88
Has an automated building use scheduling system been instituted within the organization?				90
Has the organization investigated the use of a “consignment cabinet” as a tool for storing supplies and parts in a cost-effective manner?				91
Has the organization investigated the use of “open purchase orders” as a tool for purchasing supplies and parts in a cost-effective manner?				91
Have appropriate control checks been placed on supply storage and purchasing systems?				91
Have planners considered the costs and benefits of both local and central site storage for supplies and parts?				91
Has equipment selection been standardized throughout the district (as possible and necessary) in order to save on storage space and costs associated with increased staff training for servicing multiple brands?				91
Are chemical dispensers used to automatically mix and conserve cleaning agents?				91
Have performance-based specifications been introduced to procurement contracts for the purpose of standardizing equipment purchasing?				92
Have planners considered the costs and benefits of both the item-by-item (building block) and top-down approaches to renovation and construction planning?				92
When selecting an architect to help plan a renovation or construction project, have planners considered the firm’s experience designing environmentally-friendly schools?				92



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 5 <i>continued</i>				
Has a qualified, yet experientially diverse, project team be identified, including business personnel, maintenance staff, principals, teachers, construction professionals, architects, engineers, and general contractors?				92
Does the project team meet to review all plans, construction documents, and decisions throughout development (e.g., at 25, 50, 75 and 100 percent complete)?				92
Do members of the maintenance and operations department (or locally hired and trusted plumbers, electricians, etc.) visit the construction site on a routine basis to observe the quality of the work, monitor the placement of valves and switches, and verify the overall progress of the project?				93
Do the chief project officer and the project architect, general contractor, and subcontractors meet on a weekly basis to discuss project progress and obstacles?				93
Are the results of all renovation/construction meetings well documented and archived?				93
Upon the renovation or construction project being designated “substantially complete,” did the architect prepare a “punch list” to identify components that are not yet complete (or which do not meet the quality standards)?				93
Has the organization retained the last of its payments to the contractor in order to ensure that the balance of work on the “punch list” is completed in a timely manner?				94
Has the renovated or newly constructed facility been commissioned by a third-party specialist?				94
CHAPTER 6				
Have job descriptions been developed for all maintenance and operations positions?				105
Do job descriptions describe “duties and responsibilities” accurately and in detail?				106
Do job descriptions accurately describe working conditions?				106
Do job descriptions accurately describe the physical requirements of the position?				106
Do job descriptions comply with equal opportunity laws?				106
Do job descriptions accurately describe the educational requirements of the position?				107
Do job descriptions accurately describe the credential and licensure requirements of the position?				107



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 6 <i>continued</i>				
Do job descriptions accurately describe equipment used in the position?				107
Do job descriptions accurately describe at-will versus unionized requirements of the position?				107
Do job descriptions accurately describe channels of authority for the position?				107
Do job descriptions accurately describe evaluation mechanisms for the position?				107
Do job descriptions include the phrase “and other duties as assigned”?				107
Before interviewing candidates, have the characteristics of the “ideal” candidate been identified?				108
After selecting the preferred candidate, but before extending an offer of employment, have the applicant’s references been contacted?				108
After selecting the preferred candidate, but before extending an offer of employment, has a criminal background check been performed on the applicant?				108
After selecting the preferred candidate, but before extending an offer of employment, has the applicant provided evidence of employment eligibility?				110
After extending an offer of employment, has the applicant provided all information needed to complete a personnel record?				110
After extending an offer of employment, has the applicant provided all information needed to satisfy payroll needs?				110
After selecting the preferred candidate, but before extending an offer of employment, has the applicant provided required medical and health records?				110
Do all newly hired employees undergo staff training upon initially joining the organization?				111
Does training for new staff include an orientation to key district sites (e.g., emergency locations) and all sites at which the individual will work?				111
Does training for new staff include an introduction to all equipment the individual will be expected to use?				111
Does training for new staff include instructions about how to best perform the individual’s work tasks?				111
Does training for new staff include a clear description of precisely what the individual must accomplish in order to meet the expectations of the job?				111
Does training for new staff include an explanation of all criteria on which the individual will be evaluated?				111



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 6 <i>continued</i>				
Is ongoing training provided to existing staff?				112
Is professional development offered to all staff on an ongoing basis?				112
Are all training and professional development activities documented on videotape so that they can be showed to other staff and at later times?				112
Have cost-sharing and cost-minimizing methods for training programs and facilities been considered by management?				112
Have staff been trained to create and use a “Moment of Truth” chart?				113
Have performance standards and evaluation criteria been established for all staff positions?				113
Have performance standards and evaluation criteria been adequately explained to all staff?				115
Have managers been trained on how to perform fair, objective, accurate, and well-documented evaluations?				115
Have staff turnover rates been determined and analyzed?				116
Have the organization’s personnel policies been adjusted to increase staff retention rates?				116
Have rewards and incentives been introduced to improve staff morale and retention?				116
Do privatization procurements include precise specifications for measuring performance?				117
Has an in-house staff member been assigned the duties of “project manager” for each privatization contract?				117
CHAPTER 7				
Do stakeholders realize that it will take time (months to years) before they will be able to see improvements in a maintenance program?				124
Is progress toward attaining the goals and objectives of the maintenance department being explicitly assessed?				124
Does the evaluation program incorporate physical inspections?				124
Does the evaluation program incorporate work order systems?				124
Does the evaluation program incorporate user and user/customer feedback?				124



CHECKPOINTS	PERSON ASSIGNED	ACCOMPLISHED		PAGE
		YES	NO	
CHAPTER 7 <i>continued</i>				
Does the evaluation program incorporate audits?				125
Does the evaluation program incorporate alternative resources?				125
Does the evaluation program incorporate regulatory concerns?				125
Have evaluators answered the question “What is the purpose of the evaluation?”				125
Have evaluators answered the question “What questions need to be answered to make an informed decision during this evaluation?”				125
Have evaluators answered the question “What information needs to be available to answer the pertinent questions in this evaluation?”				125
Have evaluators answered the question “What is the best way to capture the information needs of this evaluation?”				125
Have evaluators decided whether the organization hopes to measure its performance against past performance, peer organizations, or other norms or standards?				126
Do decision-makers recognize that the value of maintenance activities is not always measurable in terms of simple “dollars saved”?				127