

FACILITIES CONSTRUCTION

Best Practices and Indicators

Construction Planning ¹

1. The district has effective long-range planning processes. ²

- a. The district has established a facilities planning committee that includes a broad base of school district personnel, parents, construction professionals, and other community stakeholders. The board specifies the role and responsibility of the committee, provides a forum for the committee to offer the board recommendations, and establishes the committee's goal and interim reporting targets.
- b. The district has established authority and assigned responsibilities for facilities planning.
 - The district uses accurate and relevant planning information through professionals knowledgeable in facilities planning, design, and construction.
 - The district addresses the feasibility and cost-effectiveness of alternative program solutions.
 - The district evaluates existing facilities support of current and planned programs and activities.
 - The district has an opportunity to reassess goals and objectives and to plan further programs and activities.
 - The district reassesses the educational program and identified future needs.
- c. The district estimates facilities and site needs based upon demographic projections that are regularly updated. ³
- d. The district prepares a comprehensive Five-Year Educational Plant Survey in accordance with Florida law.
- e. The district uses FISH data in conjunction with recent student occupancy surveys to ensure that the district is making optimal use of building capacity. ⁴
- f. The district routinely assesses facilities for physical condition, educational suitability, and technology readiness. A uniform checklist was used to provide evaluation criteria related to
 - site size and layout;
 - space (size, number, utility, and flexibility of various areas in the facility and the relationships of these areas to each other);
 - light, heat, and air;
 - acoustics;
 - aesthetics;
 - equipment;
 - availability of utilities;
 - hazardous materials;
 - maintenance;
 - structural adequacy;
 - adaptability to change; and

¹ Senate Bill 1906, passed during the 2002 Legislative Session, changes intergovernmental coordination and planning and requires district participation in the region's comprehensive planning process. It combines the Educational Plant Survey and the Five-Year Educational Facilities Work Plan into a comprehensive planning document; The Educational Facilities Plan. Staggered submission of interlocal agreements, which will include the new Educational Facilities Plan, will begin March 1, 2003 and conclude December 1, 2004. The implementation of the new law will have an impact on the structure of the BFMP reviews.

² Long-range covers 5-20 years out.

³ The district's enrollment projections are based on student data provided by the Florida Department of Education and factors such as land use, geographical limitations and developable land, local ordinances that regulate the rate of growth of the area, forecasts of economic conditions reported by the private sector, vocational opportunities in the community, availability of community services, major highway and street networks and their probable future development.

⁴ FISH data should be updated on a monthly basis and when new facilities come on-line or old facilities are phased out.

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- fire safety; and/or other health, sanitation, safety issues and future operational and maintenance costs.

g. Is there other information that demonstrates the district's use of this best practice that should be considered?

2. When developing the annual five-year facilities work plan the district evaluates alternatives to minimize the need for new construction.

- a. The district evaluates, in writing, alternatives to new construction that could reduce the demand for new construction.^{5, 6}
- b. New school facilities are planned to accommodate expansion through relocatables or permanent facilities when changes in demographics or rapid growth can be anticipated.
- c. The school district has considered joint-use agreements that share the construction, operation, and maintenance costs of a multi-use complex with a local municipal or county government, further reducing the construction costs of its schools.
- d. When appropriate, the school district considers building regional multi-use complexes to be shared by middle and high schools.
- e. The five-year facilities plan allows for construction only when needs cannot be met through other means.
- f. Is there other information that demonstrates the district's use of this best practice that should be considered?

3. The five-year facilities work plan establishes budgetary plans and priorities.

- a. The five-year facilities work plan identifies sources of funds and accurately itemizes the costs of facility needs such as site purchase, new construction, remodeling, renovation, the long-term use of relocatables, site improvement, and deferred maintenance.
- b. District effectively prioritizes construction needs to meet highest needs first.
 - Projects including instructional capacity are given higher priorities than administrative or support projects.⁷
 - Construction and renovation priorities are established to ensure equitable treatment of all areas within the district.
- c. The established budget incorporates inflation factors that may affect future construction costs.
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

4. The school board ensures responsiveness to the community through open communication about the construction program and the five-year facilities work plan.

- a. The school board holds regular hearings at which information regarding the construction program is provided.
- b. The school board provides a clear explanation of each construction project in a format that allows for public response.
- c. Is there other information that demonstrates the district's use of this best practice that should be considered?

5. The district has an effective site selection process based on expected growth patterns.

- a. The district begins school siting decisions well in advance of future need based on expected demographic changes.

⁵ This compares the advantages and disadvantages of each of the alternatives including long- and short-term cost implications.

⁶ Possible alternatives include, but are not limited to, year-round education, extended day schools, block scheduling, changes in grade level configuration, changes in zoning, use of relocatable facilities (portables).

⁷ Under extraordinary circumstances the district may be able to justify giving administrative or support needs higher priority, but this should be carefully reviewed.

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- b. The facilities planning committee, or a similar committee, reviews areas for potential sites and provides input regarding site acquisitions.
- c. Is there other information that demonstrates the district's use of this best practice that should be considered?

6. The board considers the most economical and practical sites for current and anticipated needs, including such factors as need to exercise eminent domain, obstacles to development, and consideration of agreements with adjoining counties.

- a. The district has established appropriate site selection criteria that incorporate:
 - the requirements of sections 235.054, 235.19, and 235.193, *F.S.*, and Section 1.4(2), State Requirements for Educational Facilities (SREF) and follow basic acquisition procedures and ⁸
 - safety, location, environment, soil characteristics, topography, size and shape, accessibility, site preparation, public services, utilities, costs, availability, political implications (zoning, environmental impact report requirements, joint use, etc.), transportation of students, and integration.
- b. The district determines the most economical and practical locations for sites based on its established criteria and its ranking of potential sites. ⁹
- c. The district properly anticipates and evaluates obstacles to development. ¹⁰
- d. When appropriate, the board considers condemnation to acquire selected sites.
- e. Prices paid for sites reflect fair market value based on independent appraisals that were obtained as specified in Florida law. ¹¹
- f. The district has an effective mechanism/process to reconcile differences in appraisals.
- g. Sites selected meet the previously established selection criteria.
- h. Is there other information that demonstrates the district's use of this best practice that should be considered?

Construction Funding

7. Funds collected for school projects were raised appropriately.

- a. The district can demonstrate that if local bond referendum proceeds were used, the scope of each project was spelled out in the bond resolution.
- b. The district can demonstrate that if local sales-surtax revenue was used to finance any project, the scope of that project was spelled out in sales-surtax referendum resolution advertisement.
- c. The district has evaluated in writing the advantages and disadvantages of alternative methods for funding and financing construction projects when developing its capital-planning budget.
- d. In order to increase construction funding, the district first maximizes the use of local revenue alternatives.
- e. Is there other information that demonstrates the district's use of this best practice that should be considered?

8. The district approves and uses construction funds only after determining that the project(s) are cost-efficient and in compliance with the lawfully designated purpose of the funds and the district's five-year facilities work plan.

⁸ This could include receiving recommendations from site-election specialists or real estate/ development professionals, planning acquisition prior to the projected need, Reviewing potential sites and recommend sites to the Board in priority order.

⁹ This is based upon full development costs.

¹⁰ This could include transportation plans, zoning, environmental concerns, and neighborhood concerns for each site considered.

¹¹ See s. 235.054, *F.S.*

Best Financial Management Practices With Their Associated Indicators
Best Practices (1, 2, 3 . . .) and Indicators (a, b, c . . .)
Adopted June 2002

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- a. Approved uses of construction funds have been determined by the district's finance director to be in compliance with the lawfully designated purpose of the funds ^{12, 13, 14} (*Basic Indicator*)
- b. The district submits all reports required to assure construction funding to the Department of Education. ¹⁵
- c. The district does not use funds from the Public Education Capital Outlay and Debt Service Trust Fund or the School District and Community College District Capital Outlay and Debt Service Trust Fund for any new construction of educational plant space with a total cost per student station, including change orders, that exceeds the amounts specified in Florida law. ^{16, 17}
- d. The district uses the school tax defined in Florida law, as two-mill money for construction, renovation, and other authorized purposes. ¹⁸
- e. The school board uses state funds in a timely manner.
- f. All available capital resources are applied towards the five-year facilities work plan and limited use capital funds are not diverted to other lower priority allowable uses. ^{19, 20}
- g. Is there other information that demonstrates the district's use of this best practice that should be considered?

Construction Design

9. The district develops thorough descriptions and educational specifications for each construction project. ²¹

- a. The educational specifications effectively address educational program components. ²²
- b. Program goals, objectives and activities, and teaching strategies and instructional methods have been defined based on staff input.
- c. The needs and design implications of advanced technology such as computers, integrated networks, and satellite transmissions and reception have been identified.
- d. New facilities are designed to be adaptable to changes and innovations in education and flexible enough to accommodate a variety of program uses. Interior spaces are simple with inherent versatility. ²³

¹² See s. 236.25, *F.S.*

¹³ Approved by the district school board.

¹⁴ This includes renovation, remodeling, or upgrading.

¹⁵ Required reports include Survey for Validation (s. 235.15, *F.S.*); Project Implementation Information for projects over \$200,000 (SREF 4.1 (97)); (s. 235.26(c), *F.S.*); Project Priority List for use of CO&DS bond funds (section 9(d), Article XII, state constitution); Twelve-month PECO Capital Outlay Projection and Request for Project Encumbrance Authorization (s. 235.14, *F.S.*); and Florida Inventory of School Houses Update (s. 235.014, *F.S.*). Optional reports include Letter of Transmittal, Facility Space Chart, and Life Cycle Cost Analysis for projects with department plan review assistance (SREF and s. 235.26, *F.S.*); Capital Outlay Bond Issue Form for participation in CO&DS bond sale.

¹⁶ If the district applies for a waiver they fail to meet the best practice.

¹⁷ See s. 235.435(6)(b)1., *F.S.*

¹⁸ See s. 236.25(2), *F.S.*

¹⁹ The board has deleted items from the list of previous year expenditures that do not relate to facilities improvements.

²⁰ The district facilities director provides the board and the public a full accounting of the use of all capital funds.

²¹ This includes such descriptions as a rationale for the project; a determination of the size of the facility and that it meets the space requirements of current *Laws of Florida*; a determination of the grade level the facility will serve; a determination of whether the new facility will serve all parts of the district on an open enrollment basis or will be a "magnet" school or a special school; a map has been prepared that shows the location of the planned facility within the community and the proposed attendance area of the school; construction budget that meets the state averages or requirements of current *Laws of Florida*, relative to cost per student station; the source of funding for the project; planning and construction time line; durability and maintenance costs; an estimate plan for the time of construction; the date of completion and opening.

²² Such as the curriculum, instructional methods, staffing, and support services; also included is a statement of the school's philosophy and program objectives.

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- e. The specifications effectively address spatial relationships.²⁴
- f. Educational specifications comply with the “small schools” requirement.²⁵
- g. Is there other information that demonstrates the district’s use of this best practice that should be considered?

10. The architectural design fulfills the building specification needs as determined by the district.

- a. The district submits the educational specification and communicates all program requirements to the architect before the commencement of written specifications and schematic drawings.
- b. The planning leader, the users of the facility and the architect and engineers have matched the written specifications and schematics against the educational specifications. The planning leader, design professionals and principal verify in writing that the final plans represent the district’s needs.²⁶
- c. The district communicates its findings and recommendations for every step of the design process to the school board.
- d. Is there other information that demonstrates the district’s use of this best practice that should be considered?

11. New construction, remodeling, and renovations incorporate effective safety features.

- a. Appropriate safety features are incorporated into the design of all new construction.²⁷
- b. Whenever facilities are renovated, safety needs are assessed and safety designs are revised or added to the facility.²⁸
- c. Is there other information that demonstrates the district’s use of this best practice that should be considered?

12. The district minimizes construction and maintenance and operations costs through the use of cost-effective designs, prototype school designs, and frugal construction practices.

- a. When selecting designs for new construction the district evaluates and compares the costs of construction for various designs using school prototypes, energy conservation, life cycle costing, and operation of the facility.²⁹ *(Basic indicator)*
- b. The district has a written policy that encourages the design team to comply with the district’s SMART school design philosophy and develop practical design solutions that are functional and cost-effective and when possible the district selects construction designs that will earn SIT awards for frugal construction practices.
- c. The district uses the results of the life cycle cost analyses to design, construct, select equipment for, and furnish new facilities to minimize maintenance and operations costs.
- d. Consideration has been given to maximizing passive design and “green architecture” concepts and techniques such as building orientation, shading walls and fenestration, using light colors on exterior walls and roofs, etc. to take advantage of, or minimize the negative impact of, the prevailing environmental influences.
- e. The district regularly assesses and revises facility designs and construction practices to ensure it minimizes

²³ This includes variable group size, individualized instruction, team teaching, peer tutoring, cooperative learning, interdisciplinary teaching, use of computers, year-round education, and before- and after-school use.

²⁴ This includes consideration given to the location and size of the various spaces within and surrounding a facility, the association of those spaces and the ability of individuals to interact between and within the spaces.

²⁵ Schools must be built or operated in accordance with the “small schools” requirement. Refer to s. 235.2157, *F.S.*

²⁶ The users include teachers, students, parents, site administrators, maintenance, safety, and district administrators.

²⁷ Features include limited access entrances, sufficient entrances and exits, signs, and front desks having views of the entrance.

²⁸ These needs and designs include lighting, break-proof doors, security systems, fencing, and window or door bars. Essentially, is safety reviewed and addressed as part of the renovation process?

²⁹ See s. 235.0155, *F.S.*

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maintenance and operations costs based on appropriate standards from comparable school districts, government agencies, and private industry.

- f. Is there other information that demonstrates the district's use of this best practice that should be considered?

New Construction, Renovation and Remodeling

13. The district has effective management processes for construction projects.

- a. The school district has a written evaluation of the potential costs and benefits of privatizing part or all of the construction program.
- b. The district has considered alternative delivery methods including but not limited to design/build and turnkey.
- c. The district has assigned one person with the authority and responsibility to keep facilities construction projects within budget and on schedule.
 - The district has determined the credentials and construction-related experience required of the manager for each project.
 - Each project manager reports directly to the individual responsible for implementing the five-year facilities work plan.
 - The project manager is held accountable for keeping facilities construction projects within budget and on time.
- d. The school board establishes a "not-to-exceed" cost.³⁰
- e. Is there other information that demonstrates the district's use of this best practice that should be considered?

14. District planning provides realistic time frames for implementation that are coordinated with the opening of schools.

- a. The tasks for achievement of all phases of each project have been incorporated and timed to coordinate with the opening of schools. When time frames are not met, the district revises them accordingly and identifies why they were not met, with updates provided to the board and public.³¹
- b. The plan contains an accountability component that provides assurance to the board and to the public that the projects addressed in the plan will be implemented at the proposed budget levels within the time frame outlined.³²
- c. The board receives budget updates at the completion of each phase of design.³³
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

15. All projects started after March 1, 2002, comply with the *Florida Building Code*.

- a. The appropriate district personnel can demonstrate their knowledge and understanding of the *Florida Building Code*.³⁴
- b. The district has procedures in place to ensure that all projects with dates of construction contracted after March

³⁰ The total project amount, including change orders, for each new project prior to the beginning of the initial planning phase is limited and cost-per-student station contract amount for each new project prior to the beginning of the initial planning phase is limited.

³¹ This includes site purchases, board actions, procurement cycles, interface with local and state entities, contingencies for weather delays, etc., and the district has met its planned time frames.

³² The board has delegated adequate decision-making authority and holds the long-range plan manager accountable to resolve issues in a timely manner and keep the master plan on time and within budget.

³³ There are quarterly reporting systems required that contain status, schedule, task/time assessments, budget update, program update, potential problems, and critical issues.

³⁴ This means that the appropriate personnel have received training in the Florida Building Code or can justify not needing training.

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1, 2002, comply with the permitting and inspection requirements of the *Florida Building Code*.

- c. Is there other information that demonstrates the district's use of this best practice that should be considered?

16. The district requires appropriate inspection of all school construction projects.

- a. The district requires inspection by competent building code professionals that complies with Ch. 235, *F.S.*, and the requirements of the *Florida Building Code*.³⁵
- b. A final inspection is conducted and a certificate of occupancy is issued before buildings are occupied.
- c. If the facility does not pass inspection, the district can document the reasons for failure and the corrective steps taken.
- d. The district files the appropriate documentation with the Department of Education and updates its FISH data.³⁶
- e. Is there other information that demonstrates the district's use of this best practice that should be considered?

17. The district retains appropriate professionals to assist in facility planning, design, and construction.

- a. The district uses a selection committee to find appropriate professionals for each construction project who are familiar with architecture, design and construction, and engineering.
- b. The district can demonstrate that professionals were selected early in the planning process, in compliance with ss. 287.055 and 235.211, *F.S.*, and that the committee screened written applications in order to select an appropriate number of professionals to interview and that the selected candidates were interviewed.
(Basic Indicator)
- c. The district considers alternative project delivery methods including but not limited to design/build and turnkey and bases the selection of the appropriate professional on the type of project management selected.
- d. Interviewers consider experience; adequacy of technical and support personnel and availability of particular individuals for the type of project management selected; the proximity of the candidate's office to the district; thoroughness; creativity within the context of sound construction practices and wise expenditures of public funds; adequacy of project supervision; sound business procedures and record keeping on the job; financial responsibility; suitability of size and type of organization; methods of operation; willingness of the candidate to make changes in plans at various points in the process; ability and inclination of the candidate to protect the district's interests in his or her dealings with the contractor; minority business enterprise status; and references contacted when selecting project professionals.
- e. The district can demonstrate that finalists were evaluated based on interviews; visits to examples of their work; interviews with previous clients; examination of typical documents such as plans, specifications, and change orders; and visits to the architects' offices.
- f. The district can demonstrate that the contracts with professionals include all of the district's requirements; meet the requirements of current law; and clearly state the amounts and methods of compensation; and that compensation does not encourage overbuilt or extravagant project costs.
- g. Is there other information that demonstrates the district's use of this best practice that should be considered?

18. The district follows generally accepted and legal contracting practices to control costs.

- a. For each new project started in the past three years, the board considered using alternative bidding and construction systems.³⁷

³⁵ This includes new construction, renovation, remodeling, or alteration projects, for installation of relocatables, and for day labor projects.

³⁶ Documentation includes a certificate of occupancy.

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- b. The board uses generally accepted bidding procedures including:
 - bids opened at the exact time advertised and inspected to confirm that all required documents are in order;³⁸
 - after bids are opened, they are submitted to the board for awarding of the contract;
 - when contracts were negotiated, all provisions of law were met;
 - legal counsel reviewed contract documents;
 - contracts are awarded to the lowest responsible bidder whose bid met the specifications or to the construction manager or design build contractor selected pursuant to s. 287.055, *F.S.*
- c. Each contract is signed by the appropriate district official and that each contractor awarded a contract has submitted the following:
 - a signed owner-contractor agreement;
 - a workers' compensation insurance certificate, a payment bond; and
 - a performance bond, a guarantee of completion within the time required or other requirements as needed.
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

19. The district minimizes changes to facilities plans after final working drawings are initiated in order to control project costs.

- a. The districts uses contracting methods that minimize change orders and all changes to facilities plans after final working drawings are initiated require board approval.
- b. The district can document the reason for any change orders and the person responsible for making them.
- c. Change orders implemented do not result in the project exceeding budget, do not compromise educational specifications, do not exceed industry standards, and do not extend the completion date beyond the date projected, unless unforeseen circumstances occur.
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?

20. The architect recommends payment based on the percentage of work completed. A percentage of the contract is withheld pending completion of the project.

- a. The architect recommends payment based on the percentage of work correctly completed and in conformance with the contract documents.
- b. Payments are made to contractors on the basis of requests for payment reviewed by the architect.
- c. A percentage of the contract is withheld pending final completion of the project to cover non-conforming work that must be corrected prior to occupancy.
- d. The district has a system of internal controls to ensure that timely payments are made only after the architect's approval of the work completed, and with the concurrence of the district's project manager in charge of the project.
- e. Is there other information that demonstrates the district's use of this best practice that should be considered?

Facility Occupancy and Evaluation

³⁷ This includes cost, long-term quality of construction, and management implications of using a construction system such as design/build, construction manager, or construction manager at-risk versus the traditional construction system prior to selecting the type of contracting and construction system to use.

³⁸ Documents include signed bid form, with dollar amount; bid bond; designation of sub-contractors; a non-collusion affidavit; and certificates regarding worker's compensation and liability insurance.

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21. The district conducts a comprehensive orientation to the new facility prior to its use so that users better understand the building design and function.

- a. The district provides a customized orientation program for maintenance personnel and school staff.³⁹
- b. The architect, the facilities planner, the contractor, and/or the educational administrator share the responsibility for the orientation program.
- c. Is there other information that demonstrates the district's use of this best practice that should be considered?

22. The district conducts comprehensive building evaluations at the end of the first year of operation and regularly during the next three to five years to collect information about building operation and performance.

- a. A comprehensive evaluation that assesses facility use and operating costs, as well as building operation and performance, is conducted by the end of the first year of occupancy.⁴⁰
- b. Additional evaluations are performed at appropriate intervals during the first three to five years of operation.
- c. Results of evaluations are used to compare the product with educational specifications to see whether the district received the product it said it wanted, and whether the district still needs the product it built.
- d. Evaluations are used to make changes, if necessary, to the district's construction planning process for facilities to be built in the future.
- e. The district can identify improvements made to its construction planning process based on its analysis of maintenance and operations costs.
- f. Is there other information that demonstrates the district's use of this best practice that should be considered?

23. The district has established and implemented accountability mechanisms to ensure the performance, efficiency, and effectiveness of the construction program.

- a. The district has clearly stated goals and measurable objectives for the program that reflect the intent (purpose) of the program and address the major aspects of the program's purpose and expenditures.
- b. The district uses appropriate performance and cost-efficiency measures and interpretive benchmarks, including comparisons to adjoining districts, to evaluate the program and uses these in management decision-making.
- c. The district has established and implemented strategies to continually assess the reliability of program performance and cost data.
- d. The district has taken advantage of significant opportunities to improve construction operations management, increase efficiency and effectiveness, and reduce costs.
- e. Is there other information that demonstrates the district's use of this best practice that should be considered?

24. The district regularly evaluates facilities construction operations based on established benchmarks and implements improvements to maximize efficiency and effectiveness.

- a. The district assesses its facilities construction operations as a whole at least annually using performance data and its established benchmarks.
- b. The district reports its progress towards meeting its goals, objectives and benchmarks to the board and the public on an annual basis.

³⁹ The orientation program should include clear and understandable users' manuals designed for the appropriate staff. The program may also need to be customized to the particular type of user (i.e., maintenance staff or teacher).

⁴⁰ The evaluation should include educational adequacy, function, safety, efficiency, and improvements for future facilities.

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- c. The district has established and implemented strategies based on the outcomes of these recommendations.
- d. Is there other information that demonstrates the district's use of this best practice that should be considered?