

# A White Paper on Facilities Master Planning

## Educational Facilities Master Planning: Creating The Learning Environments of Tomorrow, Today

**A** good plan accommodates change. A good plan can direct change." So says Richard Reading, a Planner for Community Tectonics, Inc. Reading is part of a comprehensive and specialized planning team that works with school systems across the State of Tennessee. Community Tectonics helps communities identify needs and fulfill them with schools that are more than just a "place."

In 1992, the State of Tennessee established the Basic Education Program (BEP), a formula for public school funding, with certain requirements to be met by the 2001-2002 school year. Don Shell, Community Tectonics' President, says that the BEP requirements combined with growth issues in communities across the state to create a situation close to crisis.

"We recognized the definite need for planning and the benefits it brings to a community," Shell says. Community Tectonics has provided architecture, planning and interior design services to school systems, churches, industries and businesses for nearly 50 years. Education is their specialty, however, and they've designed more than 250 schools over the years.

"An educational facilities master plan delivers a focused, objective resource for school systems. The plan fosters public knowledge, concern, understanding and support for recommendations in the best interest of the students," Shell continues. He says that the planning process also

facilitates funding approval and that the costs of the plan are more than offset by the savings it generates.

The five elements of an educational facilities master plan are:

**Chart a direction** -The strategic planning process assists the superintendent and staff with evaluating the system's needs and developing a program to meet those needs.

**Define the best route** -The facilities master plan investigates options and determines if renovation is feasible.

**Identify specific needs** - Educational specifications define each space and what it takes to get where the community wants to go.

**Calculate project costs** -Project budgets identify the costs to reach identified goals.

**Prioritize implementation** -A 10 to 15-year capital improvement plan identifies construction phasing options.



**Community  
Tectonics**  
*Incorporated*

architecture • planning • interior design

# Tectonics: The Art and Science of Creating Structures



## Facilities Evaluation

One of the first steps in any facilities master plan is to survey what already exists. Jim Coykendall, Community Tectonics' Vice President, is in charge of facilities evaluation. He says that many school systems' building records are not complete and that the evaluation process creates a comprehensive depiction of existing conditions. Many buildings are old and have been expanded over the years. Therefore, attention to current building codes is an important area included in the evaluation.

Coykendall visits each school in the system and tallies its physical aspects based on a modified version of the Guide for School Facilities Appraisal by the Council of Educational Facilities Planners International. Existing drawings are gathered and pieced together. The information is input into a computer, and the result is a comprehensive record of what is in every room in the system, with floorplans that reflect reality.

"The facilities evaluation allows an objective view of what exists, so the leaders can decide what needs to be kept or not kept," Coykendall says. "You can't have good answers without a good process, and the initial evaluation is one of the first steps."

## Data Analysis

Early stages of an educational facilities master plan also include the gathering and analysis of comprehensive data. Richard Reading leads the effort to analyze demographics, such as population growth patterns, school enrollment projections and community profiles.

This data is combined with school system options, such as a middle school versus junior high school structure. BEP calculations are applied, and educational need projections are set at three levels: community-wide, system-wide and on an individual school basis.

"What makes Community Tectonics unique is the participatory aspect of its planning process," Reading says. "When people are involved in the process and understand why decisions are made, they more readily accept those decisions. The most important aspect is, ironically, not the end product. It is the process. It is learning how to find out what you really need and how to direct the system to meet that goal."

Community Tectonics meets with every segment of the community in order to base the needs analysis on actual needs, not just statistics. Hundreds of hours are spent with teachers, parents and community

leaders to plan a school system that facilitates effective education for the students.

## Financial Planning

For many school systems, an educational facilities master plan is the single most important mechanism to facilitate funding. It is this objective, professional planning document that delivers credibility to the decision makers at all community and governmental levels.

Most specifically, the BEP contains components to generate funding for virtually all phases of a school system's operations. With wise financial planning, a system may be able to use a portion of its BEP funds to finance long-term capital projects.

"In addition to examining the most advantageous use of BEP funds, Community Tectonics also helps examine reserves, fund balances and current operating funds," explains Jerry Tune, an Educational Consultant out of Community Tectonics' Dickson County office. "The process maximizes a system's use of current funding and minimizes, to the extent possible, the amount of long-term debt that must be incurred."

## Facilities Planning

Based on the analysis of facilities, input from research and the community, and specific funding situations, a facilities plan is developed. Dr. Fred Martin, Community Tectonics' Director of Planning and Business Development, explains that spatial needs are identified along with relationships between various spaces. The specific requirements for each space are then developed, which are later incorporated into design specifications.

"In the facilities planning process, we apply the input and interpret the needs in actual plans for brick and mortar," Martin says.

Don Shell says that the facilities plan accommodates trends currently taking place in education across the country. These trends include customized and personalized education, interactive environments, larger classrooms, media resource centers and increased community use.

"The schools of tomorrow will bear little resemblance to the schools of today," Shell concludes. "Unless we take the time to think where we're going, we may not like where we end up. Community Tectonics helps organizations create the learning environments of tomorrow, today."

# which are both Functional and Visually Pleasing.



## Leaders Evaluate Process

Community Tectonics has developed Educational Facilities Master Plans for 11 school systems throughout the State of Tennessee. Superintendents and board members recently shared their evaluation of the planning process in a brief survey administered by the architectural and planning firm. Superintendents report that the assessment of current facilities and site options along with the involvement of appropriate community representatives were the most satisfying aspects of the planning process. Board members report that their most satisfying aspects were the facility options and phasing presented (new construction, renovations, etc.)

"School system leaders tell us that our comprehensive, participatory approach to facilities planning empowers informed decisions like never before," explains Don Shell, President of Community Tectonics. "In addition, the Educational Facilities Master Plan equips these same leaders with objective, credible information when the time comes to fund capital improvement projects."

The respondents listed several highlights of the planning process, including cost savings, buy-in by the community and funding bodies, comprehensiveness, and a willingness to refocus when necessary. Several respondents listed the main benefits of the planning process as follows:

"Defining where we are and telling us how to get where we need to be,"  
Calvin Hinton, Hardin County.

"Alerting city commission of school needs,"  
Mickey McClurg, Alcoa.

"Government funding that would otherwise never have occurred,"  
McKamy Hall, Cleveland.

"Involvement of communities ... and having competent architects,"  
Lena Ensor, Greene County.

"System has a Facility Master Plan in place for the 21st century,"  
David Rhodes, Perry County.

"Cost savings, consensus, professional approach,"  
Mark Beal, Houston County.



## The Planners' Backgrounds

**Don Shell** - As President, he has been the project principal on more than 50 educational projects over the last 10 years, including Educational Facilities Master Plans for 11 school systems. He joined Community Tectonics in 1970, and it is his vision that has created the specialty in master planning.

**Jim Coykendall** - A Community Tectonics veteran, having joined the firm in 1969, this licensed architect has completed several school projects in East and Middle Tennessee, community centers for Gatlinburg and Sevierville, and major renovations to Ft. Sanders - Sevier Medical Center.

**Fred Martin** - With more than 25 years of experience in higher education (Roane State and Pellissippi State Technical Community College), he has served as the liaison between the campus and architect, working with campus users to interpret their needs to architects.

**Richard Reading** - With a master's degree in community planning, he was previously employed by the Chattanooga/Hamilton County Regional Planning Commission and the City of Chattanooga. He worked on neighborhood revitalization, transportation and historic preservation guidelines.

**Jerry Tune** - From 1987 to 1997, he served the Tennessee Department of Education, most recently as Director of Local School Finance. He specialized in helping school systems meet the mandates of the Educational Improvement Act.

**Fred Morton** - He brings more than 41 years of experience in Tennessee public school education, including 19 years as a principal, 18 years as a high school supervisor and four years as superintendent.

**Allison Pelham** - As Director of Interior Design, Allison is a certified interior designer. She works with clients on space planning, furniture specifications, finish selection, office systems installation and relocation plans.

## Transfer To Churches, Business and Industry

"The participatory planning model is used by public planners across the country because it works, and church, business and industry leaders are discovering its benefits, as well," says Richard Reading, a Planner at Community Tectonics.

Reading explains that planning for any building, and particularly any building that is used to present information to people, benefits from the knowledge and understanding of people who will use that building.

"Just like schools, information is conveyed in convention centers, churches, auditoriums, even shopping malls," Reading says. "By tapping the opinions of the people who use these facilities, building owners put a finger on the pulse of their users. This results in realistic needs identification, credible presentations related to funding, and a buy-in by some of the most important user groups."

Participatory planning is a process that is increasingly being embraced by organizations in the private sector. Ultimately, the benefits are simple and quite appealing to corporate stakeholders: effective planning with bottom-line cost savings.

## Planning Helps Cleveland Consolidate Elementary Schools

"The consolidation of two elementary schools would be traumatic in any community. Our Educational Facilities Master Plan made that process easier," says Rick Denning superintendent of Cleveland City Schools.

"We met with the community, and they had their say," he continues. "There was a willingness afterward to accept our proposal. With all the data and information, it was hard to form an argument against it."

Denning explains that his 15-year master plan prioritized the needs of phase one. A \$9.5 million project to combine Blythe and Bower elementary schools was on top of the list. He says that, over a series of three days, the architects met with teachers during the day and community leaders in the evening.

"Because we looked at the big picture, the plan was much easier to sell," Denning asserts. "We could see the whole picture and how to piecemeal and pay for it. We could put it into a light the public could understand."

Denning expects the new, consolidated school to be complete in 1999. Construction of a \$17 million middle school is also planned as part of phase one.

## Planning Helps Dickson County Fund Building Program

"If you can't get a building program approved using this process, then you can't get a building program," says George Caudill, superintendent of the Dickson County School System.

"I'm very familiar with the planning process at Community Tectonics," Caudill explains. "In fact, it's the primary reason I ran for superintendent. I saw the need for planning. The process facilitates support, which swells and culminates in acceptance."

Dickson County has implemented phase one of their master plan, a \$39.67 million project that includes two new elementary schools and major renovations to several others. Increased sales tax revenues have made it possible to begin phase two ahead of schedule. The \$35.6 million phase two includes a new high school and the conversion of one elementary school into a middle school.

"That's one of the beauties of an Educational Facilities Master Plan," concludes Jim Coykendall, Vice President for Community Tectonics. "You begin by looking at the big picture from an objective and professional perspective. You analyze and plan for growth, and you implement appropriate phases of the plan as they become necessary." Coykendall says that Community Tectonics brings three basic benefits to school systems: 1. good communication, 2. design facilitation, and 3. consistency of personnel.

"We put a team together that will interact with the owner," he notes. "Too often, building owners never see the initial proposing team - the ones who make the promise. At Community Tectonics, we don't send people to interviews unless they'll be involved in the project. You need that continuum of communications to deliver a responsive solution."

### **Community Tectonics** Incorporated

Suite 200

105 North Concord Street  
Knoxville, Tennessee 37919

phone: 423.637.0890

fax: 423.637.0894

3414 Cedar Top Lane  
Pigeon Forge, Tennessee 37863  
phone: 423.429.1109

201 Skyline Drive  
Dickson, Tennessee 37055  
phone: 615.441.2640  
fax: 615.446.2968

Web: [www.communitytectonics.com](http://www.communitytectonics.com)

E-mail: [knoxville@communitytectonics.com](mailto:knoxville@communitytectonics.com)

Bulk Rate  
U.S. Postage  
PAID  
Permit #309  
Knoxville, TN