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## ABSTRACT

Thirteen strategies are presented for reducing the costs of renovating or building a small school. Advice for getting started includes understanding the resistance to small schools, examining existing state policy, questioning the "schools within a school" approach, and planning ahead. The thirteen strategies are: (1) don't build one; (2) maintain what you have; (3) renovate; (4) question what you really need to build; (5) plan with the community; (6) reduce energy bills; (7) question the price of donated land--it isn't always free; (8) share the facility with the community; (9) use the facility as much as possible; (10) use local labor and materials; (11) take time to understand local and state codes and regulations; (12) work with professionals; and (13) use federal money. For the section on getting started and for each strategy, resources are presented that provide additional information or examples of how the strategy has been used elsewhere. A list of 51 resources are included. (Contains 17 references.) (TD)

ED 465 483

# Lowering the Overhead by Raising the Roof

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## ...and other Rural Trust strategies to reduce the costs of your small school

*By Barbara Kent Lawrence, Ed.D.*



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A report from the Rural School and Community Trust

## THE RURAL SCHOOL AND COMMUNITY TRUST

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The Rural School and Community Trust (Rural Trust) is a nonprofit educational organization dedicated to enlarging student learning and improving community life by strengthening relationships between rural schools and communities and engaging students in community-based public work.

Through advocacy, research and outreach, the Rural Trust strives to create a more favorable environment for rural schooling, for student work with a public audience and use and for more active community participation in schooling.

Founded as the Annenberg Rural Challenge in 1995, the Rural Trust today works with more than 700 elementary and secondary schools in 35 states.

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Cover Photo courtesy of Patkau Architects



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Lowering the Overhead by Raising the Roof:  
*and other Rural Trust Strategies to Reduce the Costs of Your Small School Facility*

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*You are probably reading this because you think that good small schools work better than large schools for students, their teachers, and the communities in which they live. You may have come to this conclusion from experiences with your own children. You may have become concerned about the serious problems evident in large schools, whether in your district or across the nation. You may have read reports, such as the Rural School and Community Trust's Small Works: School Size, Poverty, and Student Achievement, that demonstrate how small schools help counter the negative affects of poverty on student achievement. Whatever the reason, you are here because you want to find ways to keep your small school open, or build a new one.*

*This paper will give you an introduction to some strategies that may help. The first four (Getting Started) can help frame your approach. The following 13 strategies are specific suggestions about how to reduce the costs of renovating or building a small school.*

## Getting Started

### 1. Understand the resistance to small schools.

---

**CULTURAL RESISTANCE.** Keep in mind that though you may believe firmly that good small schools offer the best place for people to teach and learn, many people disagree. They, too, may want what is best for students, but they have been trained to define that differently. In advocating for smaller schools, you are going against a deeply entrenched national culture that has taught professional educators, parents, and community people that “bigger is better.” Keep in mind that it is very difficult to buck a tide, even when you know it is receding. Though the small schools movement has gained a lot of credibility in the last few years, even people who admit that small schools make a lot of sense then say, “but we can’t afford them.” You need to prove them wrong.

**MISINFORMATION.** People assume small schools cost more to maintain, operate, and build because that’s

all they have heard. However, there are some important ways in which large schools cost society more than small schools. Small schools graduate a higher percentage of their students, who then go on in larger numbers to post-secondary education. Large schools have higher dropout rates and incidences of violence and vandalism. Measuring the costs of a school using the cost per graduate changes the equation in favor of small schools.

There are also “diseconomies” of scale in large schools, such as increased costs for administration, security, custodial services, and transportation that must be considered. For these and other reasons we can make the case that small schools not only are better for kids, teachers, and communities, they are also cost-effective.

## 2. Examine existing state policy.

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Some state and federal policies actually drive up the cost of a school facility and are biased against small schools. In order to identify such policies in your state and district you need to know what to look for. The following is a list of 12 policies that might hinder your project from moving forward.

### LOOK OUT FOR POLICY THAT:

1. Pushes new construction, rather than renovation.
2. Neglects regular maintenance.
3. Requires large amounts of acreage.
4. Ties funding to projected growth in the number and/or percentage of students and favors larger schools.
5. Limits designs to prototypes or to a small number of designs, often with unnecessary space or space that doesn't serve the needs of a particular community.
6. Approves designs from one or two architectural and engineering firms, thereby creating monopolies.
7. Promotes large construction companies through requirements for bonding and other means, thereby eliminating small rural firms from competition on local projects.
8. Makes it hard to commingle funds for libraries, recreation facilities, health centers, and other public and private sources that could create a school that was a community center.
9. Sets unnecessary materials requirements.
10. Makes it impossible to use volunteers or young people for certain jobs.
11. Sets unnecessary staffing and curricular requirements that add space and operating costs.
12. Ignores the importance of the environment and sustainability of the community.

## ★ RESOURCE

Use [www.edfacilities.org/links/#state](http://www.edfacilities.org/links/#state) to find the office within your state Department of Education that handles facilities and learn what policies apply in your school district.

## 3. Question the “Schools within a School” approach.

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Some people will suggest that you can keep the benefits of small schools just by dividing big ones into “schools within a school.” We disagree. In rural places, students will have a difficult time getting to the large consolidated high school, whether or not it is a “school within a school”—after all, it is the same long bus ride away from their community.

Many students won't be able to participate in after-school activities because they rely on the bus system for transportation. Their parents, friends, relatives, and other members of their community will also find it difficult to be actively involved in the school, simply because it serves such a wide geographic area.

In urban places, transportation may not be a factor, but the school within a school still will not have all the merits of a small school.

In many cases, there is just one football team, one soccer team and one band, just one newspaper and one drama club. In a truly small school many of these activities would still exist, but there would be less competition for membership, and more students would be able to participate. In a small school, teachers and coaches can know all their students well and encourage them to be involved—and since every student is needed, more get the experience.

## 4. Plan ahead.

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**GET TO “YES.”** Many people working in bureaucracies want to get to “No” instead of “Yes,” because saying no is less risky. To make your project work you need to get to “Yes.” You need to keep asking questions, politely but firmly, and you need to go to the source of information, not accept someone else’s interpretation. For example, ask officials in departments of buildings, zoning, health and safety for advice and interpretation of codes. You may be surprised to find that the people who work with these regulations every day know ways in which the codes can be flexible without impacting safety or other concerns and sometimes interpret them less strictly than administrators in departments of education.

### ★ RESOURCE

*Getting to Yes: Negotiating Agreement Without Giving In* by Roger Fisher and William Ury, with Bruce Patton. Penguin Books, second edition, New York, 1991.

**SET GOALS, BUT BE FLEXIBLE.** If your path is blocked, find another path. If you have a clear understanding of your priorities and goals, you can reach them, though you may have to make compromises to do so.

**BE PREPARED.** You need to do your homework by reading as much as you can about local and state policy, finding alternatives to large schools, and discussing successes and problems with others who have dealt with similar situations.

### ★ RESOURCE

Join groups such as the Rural Trust’s facilities network and listserv to exchange ideas. The Rural Trust facilities network offers an electronic mailing list for focused discussion and sharing of information, a website with resources on a wide range of topics related to facilities, as well as periodic online discussions of facilities-related issues. You can join by emailing Barbara Lawrence at [barbara.lawrence@ruraledu.org](mailto:barbara.lawrence@ruraledu.org). To visit the facilities section of our website, go to [www.ruraledu.org/facilities.html](http://www.ruraledu.org/facilities.html).

# The Rural Trust's 13 Strategies to Reduce the Costs of Renovating or Building Your Small School

## 1) DON'T BUILD ONE.

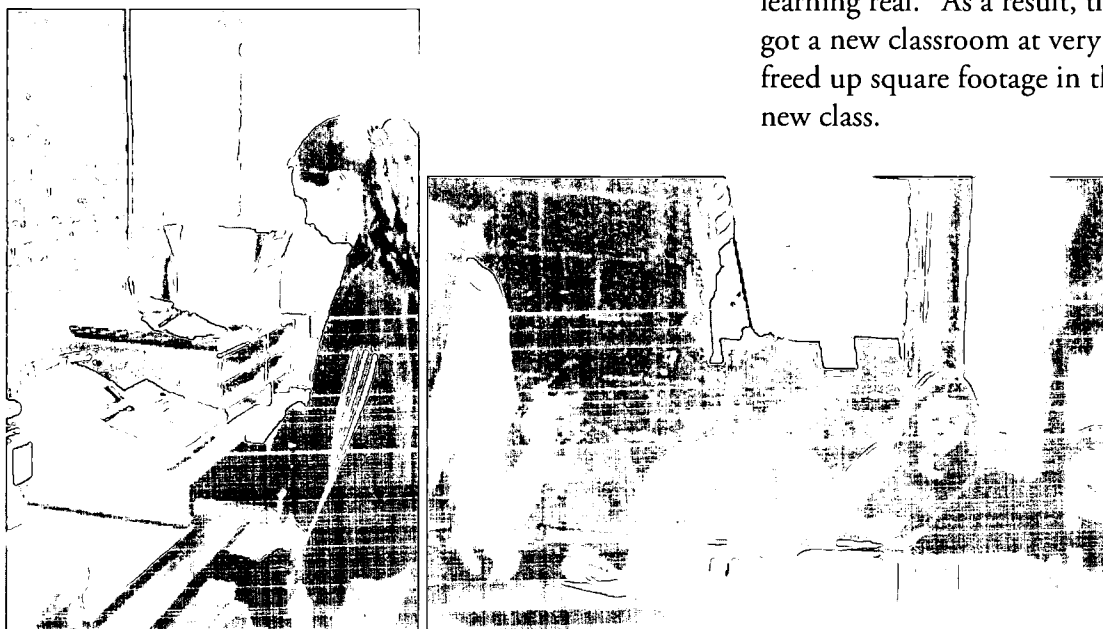
We're serious. You may not have to build a new school if you examine the alternatives. Think about adapting and renovating your existing facilities, or building an addition. Think about working with public facilities like parks, recreational areas, and libraries to extend school facilities. Think about locating programs such as art, music, dance, fitness, and some athletics in existing museums, studios, fitness centers, and athletic facilities in your community.

Think about locating portions of your program, perhaps kindergarten through third grade, or two grades of high school students, in existing facilities such as shopping malls, closed factories or other large facilities. Other communities have chosen each of these options and made them work. *See Section One Resources (page 18) for more examples of schools that have worked with different organizations and facilities in their community to expand and house their programs.*

## ★ RESOURCE

### "Don't Build One" Chutter's Candy Connection, Littleton New Hampshire

In Littleton, New Hampshire, the vocational and high school marketing program has relocated from the high school to the basement of Chutter's General Store on Main Street. The marketing program has four units that meet at Chutter's to manage the store's e-business—a store that is newly listed in the *Guinness Book of World Records* for having the longest candy counter in the world. The project is called the Chutter's Candy Connection. Students advertise, design the web page, handle orders, market to targeted customers overseas and negotiate all shipping contracts. This is a direct response to the students' request to "make the learning real." As a result, the school district got a new classroom at very low cost, which freed up square footage in the high school for a new class.



*Right: A student rings up an order at the class' Chutter's Candy Connection; Left: Students study in a Chutter General Store classroom. Photos courtesy of Hugh J. Gallen Vocational Center.*



## 2) MAINTAIN WHAT YOU HAVE.

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Too often we hear people complain that schools in this country are too old, averaging 42 years. This is a misleading figure because schools constructed at the turn of the 20<sup>th</sup> century had a life-expectancy of at least 75 years. Many schools built in the middle of the century were constructed to accommodate a boom in student population that was expected to diminish and were not intended to serve for more than 25-30 years.

Though schools built in either wave of construction may have lasted well past their expected lifespan, maintenance is the critical issue. Buildings that have been carefully maintained have a good chance to provide years of service beyond their expected life-span, particularly if they were well-constructed initially. Investment in maintenance will save you money and may save your facility. *American Schools and Universities* magazine reports that expenditures on maintenance and operations dropped for the fourth consecutive year in 2000 to an all-time low, which is a disturbing indi-

cation that deferred maintenance may be increasing as schools struggle to meet other expenses. See *Section Two Resources (page 18)* for a listing of recent articles on the conditions of the public school facilities and their costs.

### ☆ RESOURCE

#### “Maintain What You Have”

Consider creative financing options such as a “performance contract,” which is a legally binding agreement in which a private company agrees to perform work such as retrofitting an older building with more energy efficient systems, and to be paid over time as savings are realized. For information on current programs specific to your state search online for “performance contract,” including your state in the search criteria.

## 3) RENOVATE.

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It is usually less expensive to renovate than it is to build a new facility, but many people will argue that this is not true. Look carefully at why they may want to build a new facility. Some states insist that a renovation project cost less than a specified percentage of a new building; otherwise, the state will not contribute to funding. If this is true in your state, make your own case to show renovation as less expensive.

Find your own architect and/or engineer (perhaps a parent or someone from the community) who can

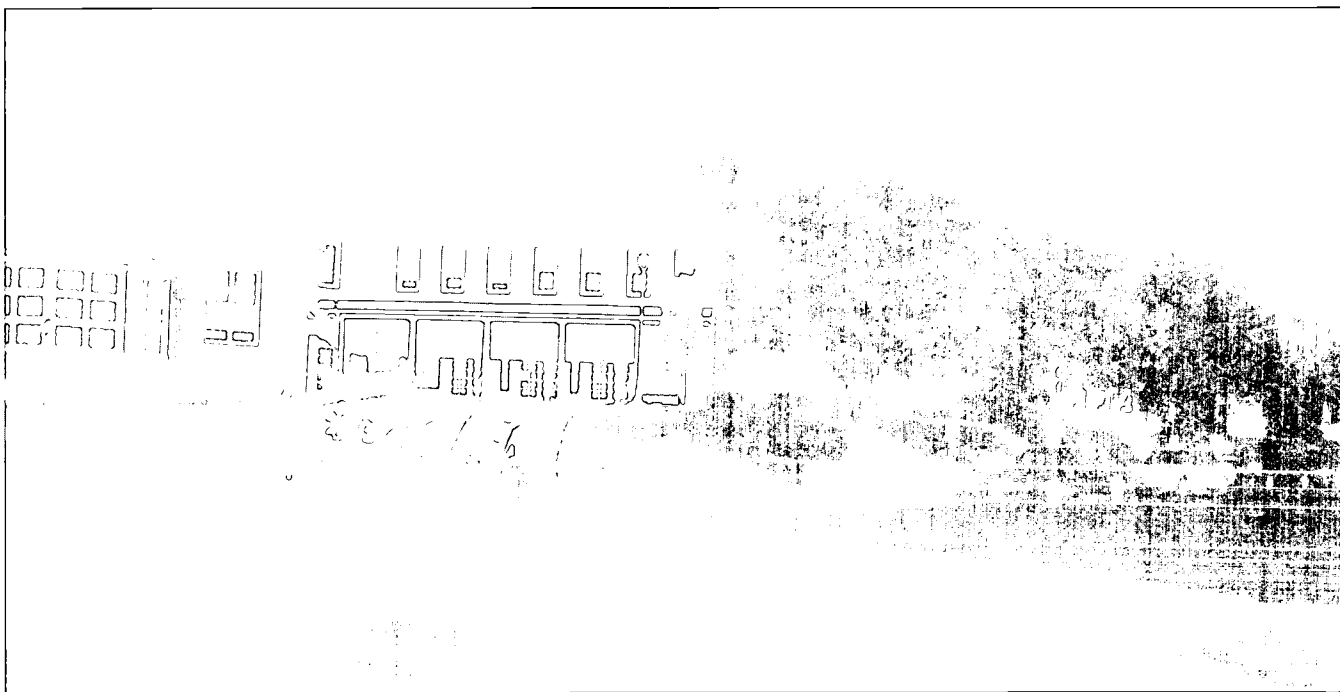
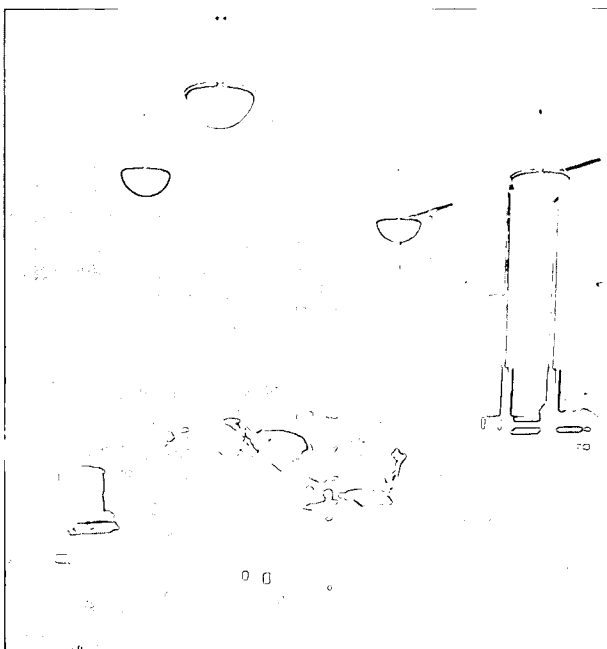
calculate the savings possible in renovating. Even the shell of a building is worth a lot and other savings can be found in numerous ways. Consider the expense of increased transportation and the cost of constructing new sewers, water mains, telephone and power lines, highways and parking lots. You will probably find that when these added costs become apparent, you will end up saving money by renovating your school. See *Section Three Resources (page 19)* for information on the *National Trust for Historic Preservation* and on renovating schools.

## ★ RESOURCE

### “Renovate” McClain School Greenfield, Ohio

Triad Architects in Ohio was able to show the School Facilities Commission (SFC) that renovating McClain School in Greenfield

was important to the community and convinced the SFC to grant a waiver in order to preserve a school that was a landmark and center for the community. Triad updated the facility in many innovative ways including running wiring through existing flues and new soffits, in an effort that was so successful it won an award from the National Trust for Historic Preservation.



*Clockwise from upper right: A hallway inside McClain School; An outside view of the school; and the McClain School library. Photos courtesy of Triad Architects.*

#### 4) QUESTION WHAT YOU REALLY NEED TO BUILD.

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We are not advocating that you pare down the facility so that you are left with only a core – just that you think carefully about what your district actually needs, not what you are told you need. Check on state design requirements and try to find flexibility within them. You may find that some spaces are unnecessary or can be shared with the community and paid for with community funds.

Think too about alternative sources so that you can build a better facility. Some states will not fund a full auditorium/gymnasium for a student body of less than a specified number. Building a half-size facility doesn't give kids much sense of what a game like basketball is all about and a half-sized auditorium may not serve the community well either. But together, you may be able to fund a full auditorium/cafeteria/gymnasium that serves meals to students during the weekdays, to senior citizens on the weekends, and hosts community dinners, community theater productions, and other presentations in addition to regular school functions. Consider moving the classroom not the kids. You can even

#### 5) PLAN WITH THE COMMUNITY.

---

You need to build community support for the project before you build the project. Create a community planning team that includes people who will bring multiple perspectives to the project. Be sure to include students. They don't know what can't be done, so they often bring some of the most creative ideas to the project. Most importantly, take time. Take time for people to get to know each other and identify their own goals for the facility. Allow people time to explore possibilities and think about ways in which their school can be a true center of community that helps sustain and revitalize your community. See *Section Five Resources (page 19) for articles on building community support and working with the citizens of your community.*

outfit “bookmobile” type portable classrooms that can be shared among schools. See *Section Four Resources (page 19) for a listing of articles and their links that will give you some interesting ideas.*

### ★ RESOURCE

#### “Question What You Really Need to Build” North Haven Community School, Maine

Students from North Haven School and members of the community performed their original musical “Islands” on the town's school-community stage. The enormous success of this partnership between the community and school paid off with sophisticated dramatic productions, that even concluded in a performance at the New Victory Theater in New York City.

Go to [www.midcoast.com/~nhcs/info.html](http://www.midcoast.com/~nhcs/info.html) or [www.bangornews.com/editorialnews/article.html?id=35627](http://www.bangornews.com/editorialnews/article.html?id=35627) for more information on this story.

*The “Islands” cast prepares for its trip to New York City to perform their musical at the New Victory Theater. Photo courtesy of North Haven Community School.*



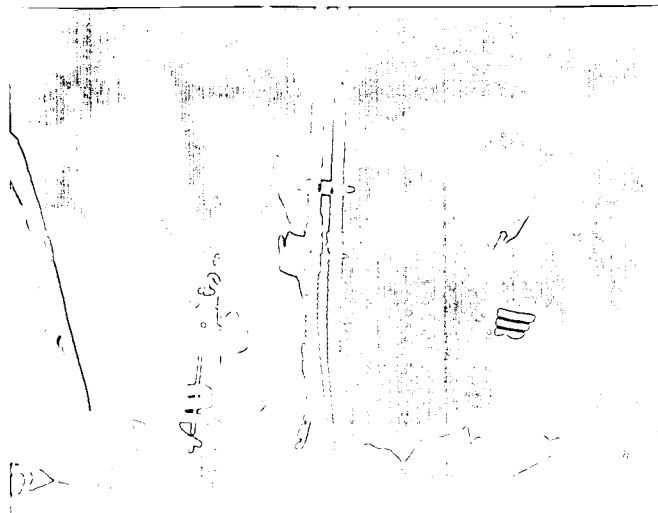
## 6) REDUCE ENERGY BILLS.

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As utility costs soar, it is depressing to see money we would rather spend on teacher salaries, textbooks, and other necessities going to pay unnecessarily high electric and fuel bills.

Using two strategies can help. First, if possible, site your building carefully to maximize the benefits of prevailing winds, passive solar energy, and heat from the ground. Doing this will save a significant amount of money over the life of the building, as will other methods to conserve energy use. *See Section Six Resources (page 20) for links to information about siting your school when taking into account environmental concerns.*

Second, work to reduce energy consumption. Students can be an important resource in accomplishing this goal.



*A Saving Through Energy Management (STEM) team prepares to test the efficiency of their school's oil burner. Find out more about this program on pg. 20. Photo courtesy of Wilson Educational Services, Inc.*

## 7) QUESTION THE PRICE OF DONATED LAND. IT ISN'T ALWAYS FREE.

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Sometimes developers offer land for a school facility in hopes that the community will pay for the extension of utilities, including roads, water, sewer, power, and telephone to the site near which they plan to build residential housing. The trade-off for the developer is cheap, which may suggest that it can be expensive for someone else.

Make sure that this isn't your school district. *Do* "look this gift horse in the mouth" to see what it will

really cost in terms of busing and educating new students who live in the development.

Also, consider the potential loss of farmland and undeveloped and recreational areas. *See Section Seven Resources (page 20) for information on why land isn't always free in these instances, and for an example of a district where donated land worked well.*

## 8) SHARE THE FACILITY WITH THE COMMUNITY.

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Sharing facilities can lower the cost of maintenance and operations through leasing income. Seek out community input or partnerships with public or private organizations in order to design facilities that will house services people want and will pay to use: a community museum operated by students, an eco-

tourism project, a health care facility for students and community members, a recreation and athletic facility, or a media center open to the public. *See Section Eight Resources (page 20) for more examples of community involvement in the building of schools.*

“Share the Facility with the Community”  
Seabird Island School  
Agassiz, British Columbia

Seabird Island School was designed for and with the First Nation Salish tribe of British Columbia by Patkau Architects. The school reflects Salish economy and culture in its design, location, and organization.

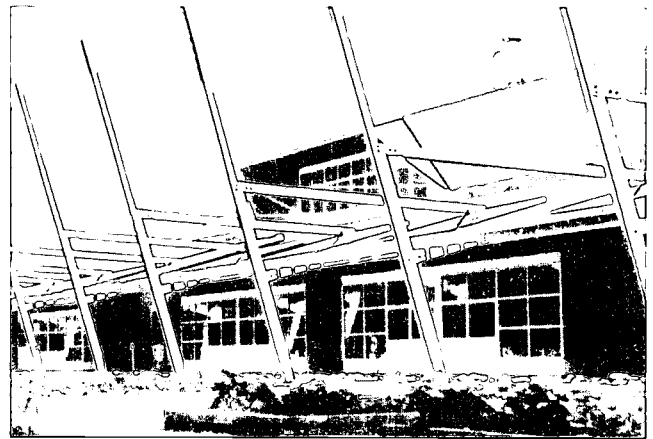
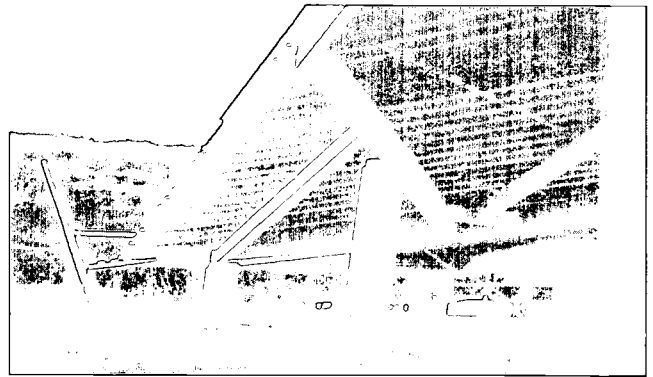
Sited to block prevailing winds from other structures in the village, it forms the fourth side of the village square. Doors open from each classroom onto the village square to allow community members to enter at will. The school serves as a center of community by welcoming people to many social, educational, and cultural events throughout the year. Seabird Island School celebrates the culture of the Salish, who think of themselves as the “salmon people,” in its design: the building resembles a salmon and its bold vertical uprights on the south side resemble drying racks. Built of local cedar, the construction of the school gave younger members of the tribe the opportunity to learn valuable skills.

Go to:

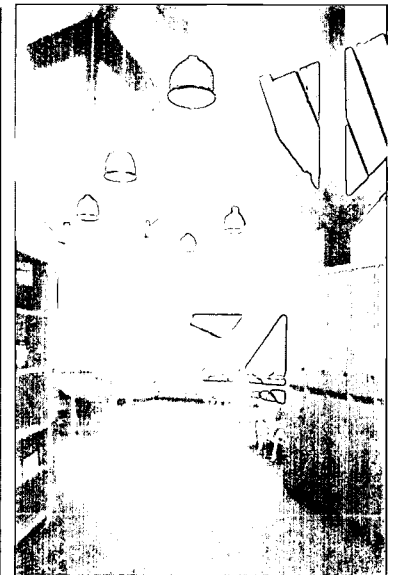
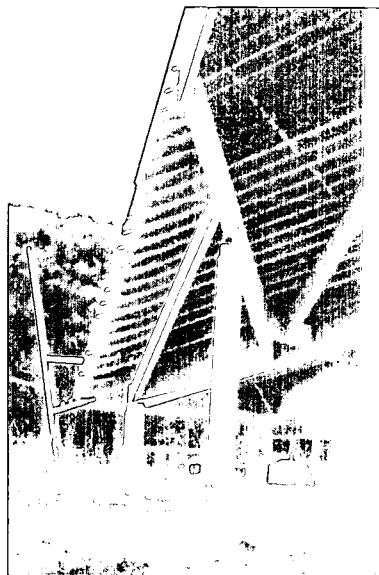
<http://curry.edschool.virginia.edu/curry/class/edlp/800/papers/principles/principles-three.html> and

[www.cwc.ca/publications/fact\\_sheets/fss1\\_5.html](http://www.cwc.ca/publications/fact_sheets/fss1_5.html) to learn more about this project.

Nova Scotia offers members of the community and even tourists a chance to get connected to the Internet by using the Community Access Program and EdNet at centers throughout the province. Many of these are located in schools that welcome visitors after 11:00 a.m. More information on EdNet available at <http://about.ednet.ns.ca/>.



*Above, from top to bottom: An external view of the Seabird Island School, which resembles a salmon; Vertical uprights resemble fish-drying racks; Below, from left to right: Another view of the outside; An inside view of the school. Photos courtesy of Patkau Architects.*



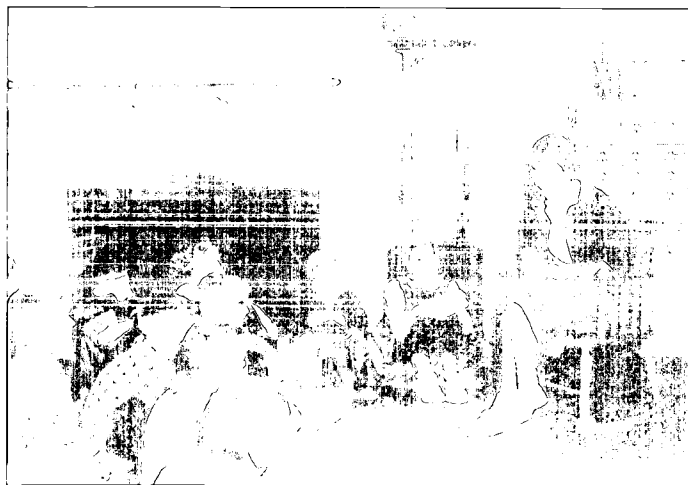


## ★ RESOURCE

“Share the Facility with the Community - 2”  
Sharing resources: a win/win  
Northeast Harbor Library, Maine

The Northeast Harbor Library in Northeast Harbor, Maine provides library services to the towns of Mount Desert and Cranberry Isles, and functions as the school library for Mount Desert Elementary School.

Founded in 1892, the library has been on its present site since 1951, in a unique wood-frame structure designed to resemble a Cape Cod house with barn-like additions. The Northeast Harbor Library has over 35,000 volumes and offers a full range of library services. More information available at <http://home.acadia.net/library/nehlib/>.



*The Northeast Harbor Library is still going strong, after over 100 years in existence. On the left, the library hosts a Valentine's Day tea party involving students and elder ladies in the community; on the right, a high school student reads to younger students for a school-sponsored storytelling program in the 1950s. Photos courtesy of Northeast Harbor Library.*

### 9) USE THE FACILITY AS MUCH AS POSSIBLE.

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This may seem to repeat the thoughts in item eight; however, these items differ because we must rethink not only *who* uses a facility, but *when*. A rural school may be the largest facility in its district, but it is used for a small portion of the day and only for portions of the year. Some communities have addressed this issue by finding ways to use school buildings that add vitality to and opportunity for the community. For example, there are schools in which the library

and media center are open to the public, or in which health and athletic facilities welcome community residents throughout the late afternoon and evening. In others, there are day- and elder-care facilities, health and dental care offices, banks, a great variety of evening classes, and other recreational opportunities. *Go to Section Nine Resources (page 21) for more information on mixed-use facilities and alternative uses for schools.*

**“Use the Facility as Much as Possible”  
Mixed-Use**

In districts where moderately priced housing is in short supply, schools might consider creating mixed-use buildings that include apartments for faculty and staff. In addition to giving an incentive to attract and retain qualified people, on-site faculty-staff housing should reduce the need for other security as school facilities would be occupied at all times. Creating such living spaces presents challenges, but could be done by raising the roof in new construction and finishing attic space, or creative renovation of upper level-space in existing older schools. In some resort communities the shortage of affordable, safe, summer housing is critical. Resident teachers might willing to supervise young workers drawn to the area in the summer who could be housed in dorm-style accommodations set up in classrooms. Though this idea may sound “off-the-wall,” consider the wastefulness of not using expensive space creatively to meet an existing need.



*Raising the Roof: You may not need to if you are renovating an older school with a pitched roof. In 1991-1992 the spacious attic of the elementary school on Little Cranberry Isle, Maine, was turned into an apartment, which is currently rented to a teacher and his family on a 12-month basis. This is an important incentive for attracting teachers to this small coastal community in which there is a serious shortage of affordable housing, particularly in the summer. Photo courtesy of the Town of Cranberry Isle.*

**10) USE LOCAL LABOR AND MATERIALS.**

There are many advantages to using local contractors and buying building materials locally. Keeping money for construction in your area will create goodwill for the school, and contribute to the short- and long-term economic sustainability of the community. Using local contractors and subcontractors allows them to build up experience, and perhaps increase their own bonding capacity so that they become eligible to bid on other large projects. On-the-job training for community workers increases their skills and ability to contribute to the community.

Renovating, building an addition, or constructing an entirely new facility is very expensive and any money

you can spend locally will benefit your community. But, you must provide excellent supervision, perhaps by hiring a very capable construction manager.

You may also find opportunities for students to participate in parts of the project, which will give them practical and supervised work experience. You must be sure that they are prepared for the work they will perform and that the skills they use on the job are reinforcing what they have learned in class. Other communities have used each of these strategies successfully. *Go to Section Ten Resources (page 21) for links on using local resources for your project.*

**“Use Local Labor and Materials”**

*Putting Kids to Work*

You may find that students in vocational education can apprentice with subcontractors under the careful supervision of their instructor. Other students might shadow the Construction Manager and his or her staff working as an assistant in a service learning project coordinated with the math, vocational ed and science teachers, and perhaps professors at a local junior college. Students can do service learning projects with the architect, such as helping to scout community resources, polling community residents about services they feel the school should offer, and coordinating school community meetings.

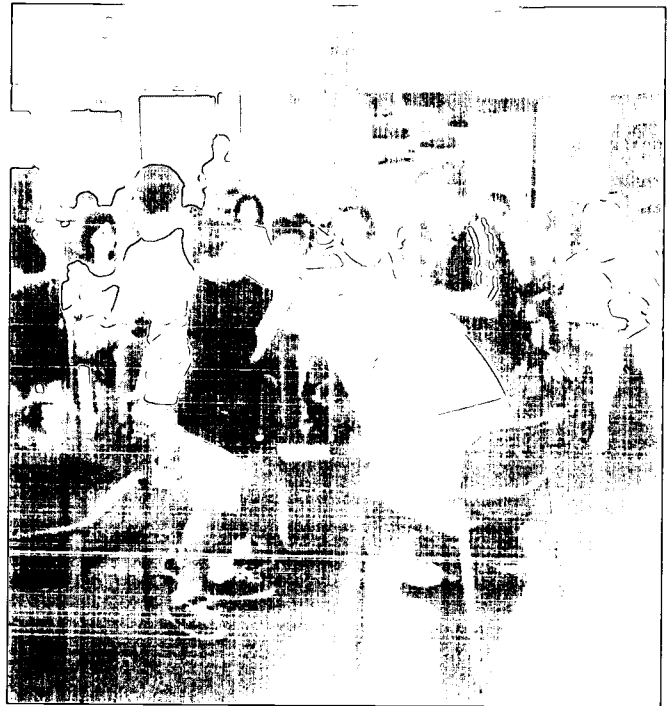
*Putting Parents to Work*

Parent and community volunteers can also help with light construction, renovation, and maintenance projects as they used to in many schools. Certainly the district must be sure to have appropriate supervision, waivers, and insurance, but some school projects could be undertaken by volunteers to reduce costs and build community spirit.

*Using Local Materials*

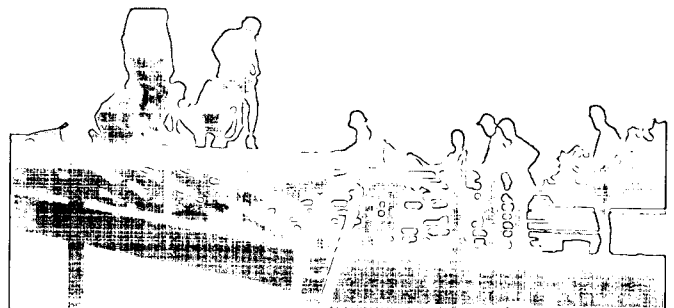
Sometimes it's not possible to use local materials, but when it is you can save money and personalize your school in ways that reflect the economy, culture, and history of your area. Local manufacturers may give you a good deal, and again, you will build goodwill for your project.

At Lincoln High School in Western Placer County, California, a student member of the facility planning team wondered if the Gladding McBean Ceramics Works Company, a major business in the community producing clay pipe and ceramic materials, might support the arts program at the school. He asked and they delivered: the school's art program received an unlimited amount of clay and ceramic tile for decorating the pottery studio.



*Above: Students participating in a design academy at the School of Architecture and Planning at the University of New Mexico. These students are putting together a bridge they designed for a presentation to the class. Photo courtesy of Anne Taylor Associates.*

*Below: Hacker Valley school in Webster County, West Virginia turned to its students' parents to volunteer to complete a roofing project at their school. Photo courtesy of Put Children First, Inc. and Challenge West Virginia.*





## 11) TAKE TIME TO UNDERSTAND LOCAL AND STATE CODES AND REGULATIONS.

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It is wise to check with state fire and safety personnel as well as code enforcement officers very early in your planning, and perhaps invite them to participate in community planning discussions, as they may be willing to work with you and to interpret codes and regu-

lations more flexibly and accurately than people in the SEA or LEA (State or Local Education Authority). *Go to Section 11 Resources (page 21) for sources of information concerning codes and regulations.*

## 12) WORK WITH PROFESSIONALS.

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Most superintendents and school board members will have experience on one major building project and, therefore, not be able to benefit from on-the-job training. You must find an architect and or construction manager (CM) who has gained experience in multiple projects, and can help you avoid costly mistakes.

But, just as important, you must find someone who is willing to listen to your community planning team and help you realize your own vision. Be clear about your priorities, make a wish-list of what you want, and be willing to compromise. Always remember that you are the experts on your community, and that the professionals you hire work for you—not the other way around.

When you create your building committee, try to include someone from the community who has had experience in construction, can ask the right questions and whom you can trust. *See Section 12 Resources (page 22) for the link to the Department of Labor's guidelines on construction managers.*

### ★ RESOURCE

#### “Work with Professionals”

An architect or *Construction Manager* will have had both training and experience in the field. The CM (or his or her assistant) should be available 24 hours every day to help organize the flow of work, coordinate subcontractors, and interpret your intentions, needs, and goals to everyone working on the job. A good construction project is as well choreographed as the finest ballet performance, and it requires an experienced and resourceful director, who knows how to anticipate and resolve problems. It is important to realize that your district may not undertake another major facilities project for decades. Subcontractors are more likely to perform well if they know that good work may lead to other contracts, so a good CM or architect will have more clout with them than your district. At the same time, you should encourage the CM and architect to work with local subcontractors for reasons suggested above.

You can search for “Construction Managers” online and find firms near your area. Check also with school board members, superintendents, and principals who have recent experience with construction projects. Look also at the United States Department of Labor guidelines about costs and the nature of the job.

## 13) USE FEDERAL MONEY.

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Check out the United States Department of Agriculture's Rural Economic Area Partnerships offered through the Office of Community Development <http://www.rurdev.usda.gov/ocdl/index.html>. There is very little other federal support for renovation of school facilities, and none for new construction. Bills aimed at correcting this situation have not passed in recent sessions of Congress.

However, there are two small programs that might be of help if you are trying to renovate a portion of your school building. Be sure you have looked at the Qualified Zone Academy Bond (QZAB) program and the Emergency Repair and Renovations grants in your state to see if either can help you fund your project. Allocations to states for both programs are based on need and may help you pay for a renovation project. There are still states in which no or few applications for QZABs have been submitted or processed successfully. The Emergency Repair program assures that some funds will go to rural communities. *See Section 13 Resources (page 22) for more information on federal renovation and facilities grants.*

## ★ RESOURCE

### “Use Federal Money”

The *Qualified Zone Academy Bond Program (QZAB)* is a federal program for funding school facilities renovation projects. Schools in a federal Empowerment Zone or Economic Community (EZ/EC) or in which 35 percent or more of students can “reasonably be expected to be eligible” for free or reduced-price lunch can apply for interest-free bonds through a lending institution that gets tax credits from the federal government. The bonds may be used for renovation of facilities, equipment, development of curricula, and teacher training but may not be used for new construction. [www.ed.gov/inits/construction/qzab.html](http://www.ed.gov/inits/construction/qzab.html)

### *Emergency School Renovation and repair, IDEA and Technology Grants*

Under this program the federal government distributes \$1.2 billion in grants to states for purposes including emergency repair and renovation of school facilities. Local educational agencies must compete for allocations from their states. Unfortunately, the program was not renewed in the 2003 budget. For more information about this program see: [www.ed.gov/inits/construction/rengants.html](http://www.ed.gov/inits/construction/rengants.html)

## Conclusion

You know good small schools can make a difference for students and their teachers, as well as for everyone in your community. Keep in mind that the decisions you make now, as a community, about

school facilities will have long-lasting consequences. You can make a difference. We hope you will use these strategies, and then share your stories and new ideas with us so we can pass them along to others.

# Resources for Lowering the Cost of Your Small School

## SECTION 1: DON'T BUILD ONE

Examples of ways districts have used community facilities to house school programs.

### 1. *Hugh Gallen Vocational Center* Littleton High School, Littleton, New Hampshire

Students in the school's marketing class meet in their classroom in Chutter's General Store, where they run Chutter's Candy Connection.

[www.chutter.com/CandyCon.html](http://www.chutter.com/CandyCon.html).

The school's spatial information science program operates from a classroom in the local bank. For information about the training program that preceded this class: <http://people.ne.mediaone.net/kevinflanders/schooldays.pdf>.

Envisioning Littleton's Future (ELF) is the community's participatory process created for the town's development and planning.  
[www.sau35.k12.nh.us/elf/](http://www.sau35.k12.nh.us/elf/) and [www.concordia.com/littlepa.htm](http://www.concordia.com/littlepa.htm).

### 2. *Museum in the Community* Hurricane, West Virginia

The museum offers programs that serve art students in local schools. [www.museuminthecommunity.org/](http://www.museuminthecommunity.org/).

### 3. *Coral Springs Charter School* Broward County, Florida

Coral Springs Charter School is located in what was once a mall.

[www.coral Springs charter.org/middle/facility/default.html](http://www.coral Springs charter.org/middle/facility/default.html)

### 4. *Henry Ford Academy* Dearborn, Michigan

The Henry Ford Academy is a charter school operating within a museum. <http://hfacademy.org/>.

### 5. *The Zoo School* Apple Valley, Minnesota

This high school program is located inside the Minnesota Zoo.

[www.ed.gov/offices/OVAE/nahs/nvstudiesmn99.html](http://www.ed.gov/offices/OVAE/nahs/nvstudiesmn99.html).

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## SECTION 2: MAINTAIN WHAT YOU HAVE

Resources on the costs of public school facilities maintenance.

1. "Dwindling Support" by Joe Agron. Maintenance and Operations 30<sup>th</sup> Annual Cost Study, *American Schools and Universities*, April 2001.

<http://images.industryclick.com/files/134/04as21.pdf>

2. "Improving Rural School Facilities for Teaching and Learning" by Sarah Dewees. ERIC, EDO-99-8. December, 1999.

[www.ael.org/eric/digests/edorc998.htm](http://www.ael.org/eric/digests/edorc998.htm).

3. "Condition of America's Public School Facilities – 1999" by Laurie Lewis, et al. *Education Statistics Quarterly*.

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000032>

4. *Save a Penny, Lose a School: The Real Cost of Deferred Maintenance* by Barbara Kent Lawrence. Rural School and Community Trust, Washington, DC, in press.

[www.ruraledu.org](http://www.ruraledu.org); (202) 955-7177

### SECTION 3: RENOVATE

Resources for renovating older schools.

1. *A Community Guide to Saving Older Schools* by Kerri Rubman. National Trust for Historic Preservation. Item # 2135 is available for \$6.00; at [www.nthpbooks.org](http://www.nthpbooks.org) or by calling (202) 588-6296. The organization also lists on its website local groups that are working for historic preservation: [www.nationaltrust.org](http://www.nationaltrust.org).
  2. The Rural Trust's newsletter, *Rural Policy Matters* (RPM) published an article on renovating schools entitled, "Renovating Schools: 'Love 'em or Leave 'em.'" [www.ruraledu.org/rpm/RPM3\\_2.html](http://www.ruraledu.org/rpm/RPM3_2.html).
  3. For more information on the McClain School from page 9, go to [www.entablature.com/project/greenfield/greenfield.htm](http://www.entablature.com/project/greenfield/greenfield.htm) or [www.triadarchitects.com/Green-main.htm](http://www.triadarchitects.com/Green-main.htm).
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### SECTION 4 : QUESTION WHAT YOU NEED TO BUILD

Opinion varies widely about what is necessary, or even ideal, for students and their teachers, but these articles offer interesting ideas to consider.

1. "What If: New Schools, Better Neighborhoods, More Livable Communities" by Steven Binger. [www.concordia.com/files/whatif1.pdf](http://www.concordia.com/files/whatif1.pdf).
  2. "Expecting the Most From School Design" by William Bradley. <http://curry.edschool.virginia.edu/curry/class/edlp/800/papers/principles/principles.html>.
  3. *Design Share* is an online publication with many articles about facilities design. [www.designshare.com](http://www.designshare.com).
  4. *New Horizons for Learning* offers articles, books, links and other information about building the best environments for learning. [www.blarg.net/~building/lrnenvir.html](http://www.blarg.net/~building/lrnenvir.html).
  5. "Thirty-Three Educational Design Principles for Schools and Community Learning Centers" by Jeffery A. Lackney, Ph.D., A.I.A. <http://schoolstudio.engr.wisc.edu/33principles.html>.
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### SECTION 5: PLAN WITH THE COMMUNITY

Resources for building community support and involvement.

1. *Schools As Centers of Community: A Citizen's Guide for Planning and Design* outlines a practical process for engaging all stakeholders in the planning of schools that more adequately address the needs of the entire community. To order: [www.ed.gov/pubs/edpubs.html](http://www.ed.gov/pubs/edpubs.html), [www.ed.gov/inits/construction/ctty-centers.html](http://www.ed.gov/inits/construction/ctty-centers.html), or call toll-free (877) 433-7827 or (800) 872-5327.
2. "Planning Schools for Rural Communities" from ERIC/CRESS discusses the character of a good rural community school and briefly considers the interrelationships of learning, community, and facility construction in rural areas. The document also contains a checklist for the leaders of rural school districts to use in developing a community school. [www.ael.org/pnp/browse/rural98.htm](http://www.ael.org/pnp/browse/rural98.htm)
3. The Rural Trust's facilities network web site offers additional resources at [www.ruraledu.org/fac\\_policy\\_issues.html](http://www.ruraledu.org/fac_policy_issues.html).

*Resources, cont.*

## SECTION 6: SAVING ENERGY

Sources for siting your school while taking into account environmental concerns.

1. *The ABC's of School Site Selection*, by the Maine State Planning Office and the Maine Department of Education, is an excellent introduction to the issues in siting a school. To order: Maine Department of Education, 23 State House Station, Augusta, ME 04333. Tel: (207) 624-6600.
2. The Sustainable Buildings Industry Council offers helpful information about building and retrofitting schools to make them more energy efficient and healthy.  
[www.sbicouncil.org](http://www.sbicouncil.org).
3. The U.S. Environmental Protection Agency (EPA), **Indoor Environments Division** web site offers a great deal of information about indoor air quality and other environmental factors affecting schools.  
[www.epa.gov/iaq/schools/index.html](http://www.epa.gov/iaq/schools/index.html).
4. The EPA also offers an interesting site detailing “**Envirofacts**,” as well as a mapping program that can help identify factors to consider when locating a school.  
[www.epa.gov/enviro/index\\_java.html](http://www.epa.gov/enviro/index_java.html) or [www.epa.gov/enviro/html/mod/index.html](http://www.epa.gov/enviro/html/mod/index.html)
5. The U.S. Department of Housing and Urban Development (HUD) has a site that helps communities locate toxic waste dumps. For the press release and access to the program: [www.hud.gov/pressrel/pr00-247.html](http://www.hud.gov/pressrel/pr00-247.html).
6. A program for high school students called “**Savings Through Energy Management**,” along with three new programs for younger students, promote schoolwide energy conservation by students. All three programs are offered by Wilson Educational Services, Inc. The programs train students to evaluate energy usage in their schools and calculate cost-effective energy conservation solutions.  
[www.WilsonEd.com](http://www.WilsonEd.com).

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## SECTION SEVEN: QUESTION THE PRICE OF DONATED LAND

Information on donated land.

1. “*Historic Neighborhood Schools in the Age of Sprawl: Why Johnny Can’t Walk to School*,” from the National Trust for Historic Preservation shows why “free land,” isn’t always free.  
[www.nationaltrust.org/11most/schools.htm](http://www.nationaltrust.org/11most/schools.htm).
2. *Western Placer Unified District Farm School* Lincoln, California.  
This school offers an example of donated land that serves the district well.  
[www.wpusd.k12.ca.us/farm/default.html](http://www.wpusd.k12.ca.us/farm/default.html).

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## SECTION EIGHT: SHARING RESOURCES, A WIN/WIN

More information about community involvement in schools.

1. EdNet, is a program in Nova Scotia that offers community access to computers and the Internet from school-based media centers.  
<http://about.ednet.ns.ca/aboutednet.html>.
2. **Family Resource Centers** in West Virginia are centers located in schools to provide a variety of services to the community.  
[www.familysupportamerica.org/content/mapping\\_dir/fsstates/fsa\\_wv.htm](http://www.familysupportamerica.org/content/mapping_dir/fsstates/fsa_wv.htm).
3. At **Tishomingo County Schools** in Iuka, Mississippi, the schools *are* the community’s facilities. This rural district has made a conscientious effort to open its schools to the community and offers the cafeteria, gymnasium/fitness center, and auditorium as well as a daycare facility, classes in childcare, and an outreach program to new parents and their children.  
[www.tishomingo.k12.ms.us/](http://www.tishomingo.k12.ms.us/).

## SECTION 9: USE THE FACILITY AS MUCH AS POSSIBLE

Mixed-use facilities information.

1. *Smaller, Safer, Saner Successful Schools*, by Joe Nathan and Karen Febey is an excellent review of schools that share facilities with other organizations, and the benefits of such partnerships. From the Center for School Change, National Clearinghouse for Educational Facilities, Washington, DC, 2001. The publication is free online at [www.edfacilities.org](http://www.edfacilities.org); a hard copy is available for \$10 by calling toll-free (888) 552-0624.

2. *Alternative Use of K-12 School Buildings: Opportunities for Expanded Uses* is a report from the U.S. Department of Education that shows ways in which a community can use what is often the largest

facility in the district (the school) to better serve students and the community. [www.ed.gov/inits/construction/altuse.html](http://www.ed.gov/inits/construction/altuse.html)

3. The concept of keeping schools open as community learning centers can be important for small, rural communities in which children are dependent on school buses for transportation. There is a wealth of information available on community learning centers at these web sites:

[www.ed.gov/pubs/LearnCenters/](http://www.ed.gov/pubs/LearnCenters/);  
<http://ericass.uncg.edu/virtuallib/violence/5003.html>; [www.ed.gov/21stcccl/](http://www.ed.gov/21stcccl/); and  
[www.mcrel.org/programs/21stcentury/](http://www.mcrel.org/programs/21stcentury/)

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## SECTION 10: USE LOCAL LABOR AND MATERIALS

Resources and information on using local resources for your project.

1. The town of Littleton, New Hampshire has partnered with the vocational center's building trades program to renovate the historic town hall. The town's website has additional information on the partnership: [www.sau35.k12.nh.us/elf/](http://www.sau35.k12.nh.us/elf/).

2. "Building A Future, Too," Teri Borseti, Boston Globe, December, 1, 2001, E.1. About sixty student volunteers from Shawsheen Valley Technical School in Massachusetts are building a house with Habitat For Humanity.  
[http://realestate.boston.com/news/2001/12/habitat\\_for\\_humanity.html](http://realestate.boston.com/news/2001/12/habitat_for_humanity.html).

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## SECTION 11: TAKE TIME TO UNDERSTAND LOCAL AND STATE CODES AND REGULATIONS

1. Use the web sites for Design Share ([www.designshare.com/](http://www.designshare.com/)) and the National Clearinghouse on Educational Facilities ([www.edfacilities.org/](http://www.edfacilities.org/)) to locate articles about working with codes and zoning and many other important topics.

2. *Design Principles: Schools as Centers of Community* by Steven Bingler.  
[www.ed.gov/inits/construction/commguide.pdf](http://www.ed.gov/inits/construction/commguide.pdf)

3. *Programming and Designing Learning Environments for the 21st Century*, by Anne Taylor.  
[www.designshare.com/Research/Taylor/Taylor\\_Programming\\_1.htm](http://www.designshare.com/Research/Taylor/Taylor_Programming_1.htm)

4. *A Community Guide to Saving Older Schools*, a publication from the National Trust for Historic Preservation, cites examples of ways officials interpret regulations and codes.  
[www.nationaltrust.org](http://www.nationaltrust.org)

## SECTION 12: WORK WITH PROFESSIONALS

1. The United States Department of Labor's Occupational Outlook Handbook lists criteria for selecting a construction manager and offers suggestions about an appropriate description of his or her responsibilities in managing projects.

<http://stats.bls.gov/oco/ocos005.htm>

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## SECTION 13: USE FEDERAL MONEY

### 1. *Sources of Federal Funds for Renovation*

**Qualified Zone Academy Bonds (QZABs)** offer rural areas a possible federal source of funding for school renovation. [www.ed.gov/inits/construction/qzab.html](http://www.ed.gov/inits/construction/qzab.html).

For a summary article from the Rural Trust's newsletter, *Rural Policy Matters*, see [www.ruraledu.org/rpm/rpm3\\_1.txt.html](http://www.ruraledu.org/rpm/rpm3_1.txt.html).

### 2. *School Facilities Renovation and Finance*

Information about two U.S. Department of Education initiatives: School Renovation, IDEA and Technology Grants, and the Charter School Facilities Financing Demonstration Program.

[www.ed.gov/inits/construction/index.html](http://www.ed.gov/inits/construction/index.html)

### 3. *Urgent School Renovation Grants*

See this link ([www.ed.gov/inits/construction/rengants.html](http://www.ed.gov/inits/construction/rengants.html)) for more information about **School Emergency Repair and Renovation Grants** from the federal government.

4. US Department of Agriculture (USDA), Office of Community Development, offers several programs that can help **rural communities** deal with school facilities issues. The local USDA office will know what funding may be available.

[www.rurdev.usda.gov/ocd/index.html](http://www.rurdev.usda.gov/ocd/index.html)



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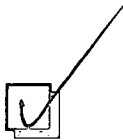


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