DOCUMENT RESUME

ED 471 375 EF 006 193

TITLE	Vermont School Construction Planning Guide.
INSTITUTION	Vermont State Dept. of Education, Montpelier.
PUB DATE	2001-00-00
NOTE	93p.
AVAILABLE FROM	For full text: http://www.state.vt.us/educ/new/pdfdoc/pgm_construction/guide.pdf.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	EDRS Price MF01/PC04 Plus Postage.
DESCRIPTORS	Board of Education Role; Design Requirements; Educational Facilities Planning; School Buildings; *School Construction; *State Standards
IDENTIFIERS	*Vermont

ABSTRACT

This guide for Vermont administrators beginning a school construction project is to be used in conjunction with Vermont State Board of Education Rules for Capital Construction and is not intended to be used in isolation or to supersede any other agency rules for school construction. The document is not a comprehensive summary of such rules; rather, its intent is to identify key state agencies, and the stage or stages in the development of a school project at which each agency should be consulted. Described are the procedures that school officials should follow in the development of a project. If these procedures are adhered to, the Vermont Department of Education will coordinate the preliminary review functions of all the relevant state agencies so that a project receives the necessary permits and approvals as expeditiously as possible. Guidelines are organized in the following areas: (1) the process; (2) professional assistance, construction methods, and the bidding process; (3) suggested procedures for school boards; (4) roles of the different state agencies; (5) other construction issues; (6) capital outlay formula; and (7) applications. (Nine appendices address developing a facility analysis, space needs survey, system for rating proposed capital construction projects, developing educational specifications, preliminary review, developing enrollment projections, site inspections, clerk-of-the-works, and audit information.) (EV)

VERMONT SCHOOL CONSTRUCTION PLANNING GUIDE

A publication providing technical assistance to school boards and administrators

Published by the
Vermont Department of Education
2000
Revised 2001

VERMONT SCHOOL CONSTRUCTION PLANNING GUIDE

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Acknowledgement

The Department of Education expresses its appreciation to the school officials, architects, the legislative and interagency task force on school facility standards, and all other individuals who have contributed to the contents of this document.

SCHOOL BOARDS AND ADMINISTRATORS

This is a joint publication of the agencies of state government with responsibilities relating to school buildings and sites. Its purpose is to provide information to those involved in a school construction project. The contents are relevant to the construction of a new school, school addition, or alterations to an existing school that increases its program or enrollment capacity, or ensures that it remains a safe and healthy place for students, faculty and community members. The contents may only be partially applicable for school construction related to other purposes. *Use the Department of Education as a resource throughout the construction process.*

The Department acknowledges and appreciates the contributions to this publication by the different agencies with rules that affect school construction. *Our intent is to provide general guidance as to how to plan for school construction projects and secure necessary state approvals, but this is not a step-by-step manual.*

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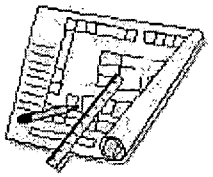


Described here are the procedures which school officials should follow in the development of a project.

Knowing what should happen and when will not make the task simple, but will help ensure that the workload on school officials for a project does not become more of a burden than necessary.

Introduction

What This Guide Is - and Is Not

This School Construction Planning Guide is to be used in conjunction with State Board of Education Rules for Capital Construction and is not intended to be used in isolation or to supersede any other agency rules for school construction. The specific rules of the several agencies of the state that apply to school construction are beyond the scope of this document. This document is not a comprehensive summary of such rules here; rather, its intent is to identify key state agencies, and the stage or stages in the development of a school project at which each agency should be consulted.

Described here are the procedures which school officials should follow in the development of a project. If these procedures are adhered to, the Department of Education will coordinate the preliminary review functions of all the relevant state agencies so that a project receives the necessary permits and approvals as expeditiously as possible.

In short, the task of planning and carrying out a major school construction project is complex. A school board and its superintendent must expect to rely heavily on professional services - particularly architectural and engineering - and close communications with state agencies. Knowing what should happen and when will not make the task simple, but will help ensure that the workload on school officials for a project does not become more of a burden than necessary.

Getting Started

You are running out of space, the learning environment is inadequate or unhealthy and the time has come to do something. What should it be? An addition? A new school? You don't know yet? How do you decide?

Begin with a complete facility analysis to determine the needs of your school. The Department of Education can provide guidance and

materials to help with this task. (See Appendix A) Evaluate every aspect of the school, not just the space needs. For example: How well equipped is the school to handle new technologies? Look at the most recent state inspection report you have. If the building has not been recently inspected by the state fire marshal, you may need to request the Department of Labor and Industry to arrange another inspection. There may be some health and safety issues that need to be addressed. Is the school in full compliance with the Americans with Disabilities Act? Has the fire alarm system been upgraded to meet current codes?

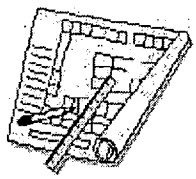
If the school has an Action Plan for improvement, look at the data and all available learning opportunities information. Is there a need for space to provide new or different programs and services? Are existing science and technology labs adequate to provide a quality education? Speak with students and every staff member to find out what improvements would help them do their jobs more effectively. Only by clearly defining the problems can you meaningfully articulate solutions. Ask the Department of Education for help with identifying learning opportunity needs of the school.

Look at your school population projections and any community needs for space for non-school functions (more about these later).

Consider professional assistance. A private consultant or architect might be useful to help identify the long-term needs and alternatives for the district. An architect or engineer can help you analyze any suspected structural problems with your building. If the school uses an on-site or private sewage disposal or water supply system, you must contact the Agency of Natural Resources or have a professional engineer advise you of its future capabilities.

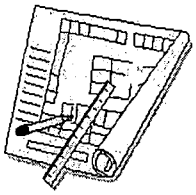
Meet with your local select board and planning officials. Gather information on the non-school use of the buildings. Familiarize yourself with the town plan. Is the school located in a designated growth center? Are there locations in the town where local planners encourage educational land uses and new growth? What are the present traffic conditions at the school site and in the community?

From these sources you should be able to prepare a statement of the current conditions of your building and site. With this information and your sense of the direction in which your programs are moving, you should be ready to describe your future school space and location needs for the 21st century. This facility analysis and needs assessment should ultimately be developed into educational specifications the board and administrators can use to evaluate the options available to the community as to the type of project that it should undertake.



Only by clearly defining the problems can you meaningfully articulate solutions. Well-defined problems result in better answers.

Speak with students and every staff member to find out what improvements would help them do their jobs more effectively.



Each year the General Assembly appropriates funding to the State Board of Education to help school districts with the costs of school construction projects.

Title 16 VSA §3448, the statute for construction aid, requires that school districts wanting to receive state construction aid complete and submit two applications.

Legal Assistance

You will need legal assistance at several points including the purchase of any new site, preparation of the warning for a bond vote by the district, preparation of an actual bond issue, and review of contracts for the design and construction.

School Construction Aid

Each year the General Assembly appropriates funding to the State Board of Education to help school districts with the costs of school construction projects. There are a number of steps that a school board generally must follow to receive all possible state financial assistance for a project. These are described in the section on "Procedures for School Boards." All projects must meet eligibility requirements and are subject to design standards established by various state agencies.

For most types of construction projects, the state's share of the project costs can amount to thirty percent. Site acquisition costs and most movable furnishings are not eligible for construction aid. However, site development is an eligible expense for reimbursement. Maintenance or replacement work is not eligible nor is work attributed to deferred maintenance.

V.S.A., T.16, §3448, the statute for construction aid, requires that school districts wanting to receive state construction aid complete and submit two applications. The first is a preliminary application to the Commissioner for a determination of need. The second application is submitted if the proposed project has voter approval, has been deemed eligible and assigned funding priority.

Construction may <u>not</u> begin before a completed application is submitted to and approved by the State Board of Education. **Except for emergency projects, beginning construction prior to receiving State Board approval will jeopardize state aid.** A school district may submit a written final application to the state board at any time following approval of a preliminary application.

The Planning Process

Preliminary Application

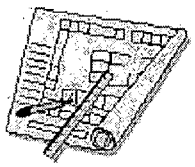
The Commissioner may approve the preliminary application if he/she finds that a need exists that cannot be reasonably met by another means and meets the criteria established by V.S.A., T.16, §3448:

1. facilities that are inadequate to provide programs required by state or federal rule or regulation;
2. deterioration of existing buildings;
3. conditions that are unsafe or threaten the health of students or employees; or
4. excessive energy use resulting from the design characteristics of the building.

The preliminary application needs to include a facilities analysis of the existing school building(s) describing any deficiencies in the facilities of the school (See Application section, page 73). Once the preliminary application is approved, the Department will schedule a pre-construction evaluation to assess the needs of the existing facility in accordance with the criteria established in the State Board Rules.

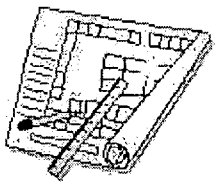
All voter approved major renovation and new construction projects will be placed on a list of priority by the State Board of Education along with a cost estimate for each project. The Board will present these projects in order of priority to the legislature at the start of the session each year.
The legislature will use these figures to determine an appropriation for school construction in the next fiscal year.

Before the State Board can approve the final application for construction aid, except for certain types of emergency work, it must also find that the school district has available sufficient funding specifically authorized by the electorate for the estimated cost of the project. Funding may come from a



Once a preliminary application is approved, the Department will schedule a pre-construction evaluation to assess the needs of the existing facility in accordance with the criteria established in the State Board Rules.

All schools with approved preliminary applications, ratings, and voter authorization will be sent to legislature at the beginning of each year.



Each district must submit an analysis of its present facilities. The analysis shall include:

- *an evaluation of the infrastructure of the existing building(s)*
- *demographic data,*
- *enrollment projections*
- *room utilization schedule*

Educational specifications are a set of statements of performance requirements for a school construction or renovation project.

bond issue, short term borrowing of no more than one year, federal grants in certain cases or other sources. School boards may sell bonds on the open market or through the Vermont Municipal Bond Bank.

School districts will not receive reimbursements on their annual principal and interest cost . The cost for borrowing money and the annual principal and interest payment are eligible education expenses that are to be reported each year on the annual budget submission to the Department of Education. For more information on how this may impact a district's state aid, contact the Financial Management Team at the Department of Education at 828-3151.

Facility Analysis

As part of the preliminary application for new construction or additions to schools, the school district must submit an analysis of it present facilities. The analysis shall identify the areas of deficiency consistent with the criteria listed in V.S.A., T.16, §3448. The analysis entails an evaluation of the infrastructure of the existing building(s), including the health and safety conditions and a history of maintenance on the school(s). The analysis must include demographic data, enrollment projections, and a space utilization schedule. Schools identified as eligible for technical assistance under Act 60 should identify any links between the facility and student performance. The State Board rules on school construction also require that school districts review any alternative educational and physical solutions available to them as part of the facility analysis.

The results of the facility analysis are to be included in the educational specifications. (See Appendix A).

Educational Specifications

Educational specifications are a set of performance requirements for a school construction or renovation project. They describe in outline form the indoor and outdoor facilities the school needs for every area of its curriculum and services provided, as well as the anticipated community uses of its building and grounds. The specifications should incorporate an up-to-date enrollment projection by grade for the next five to ten years. The projections should be based on a ten-year history

of enrollments by grade level and live births for districts sending students to the school. (See page 14).

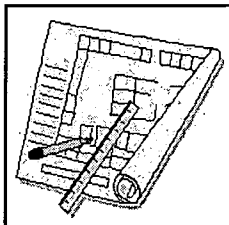
If the school needs new or renovated facilities to provide appropriate space for existing programs or to accommodate new instructional techniques, the educational specifications should articulate the physical space necessary for students to have the appropriate learning opportunities.

The architect will design the facility based on the approved educational specifications. The school board and the Department of Education will evaluate design proposals for the project based on these educational specifications.

Preparing educational specifications should be a collaborative effort of the faculty, school housekeeping and support staff, administration and school board. Students, parents and other community members can and should be asked to help. The end product will be a document which talks about the school's future, and all elements of the community which have interests in the future of the school should be considered in its preparation.

Educational specifications should begin with an opening statement that clearly describes the vision the school board has for the school. In the years ahead, how will instruction be organized? How will students work with each other and their teachers? What new programs will be introduced? Then, based on the enrollment projections, each indoor and outdoor area needed should be described in non-architectural terms:

- Who will use it (age or grade level of students for instructional spaces) and what will they be doing there?
- What will be the maximum number of users at any one time?
- How much space will be needed for the teaching strategies employed?
- What furnishings and equipment are necessary?
- What is the frequency of the room's use during the school week?
- Who will be in charge?
- Are there special requirements as to...
  - a. heating, lighting, or ventilation?
  - b. acoustics?
  - c. relative location within the building or the site?
  - d. other environmental or aesthetics considerations?



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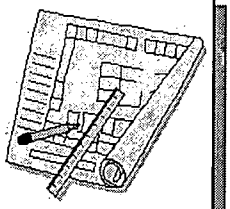


Educational specifications should be able to demonstrate how the current configuration of classrooms and other instructional areas cannot support the curriculum changes the school is required to offer now and in the future.

Generally speaking, projections for enrollment for construction aid purposes must follow the so-called persistence of experience method.

- What storage provisions are necessary?
- How many such spaces or areas are needed for the current school population?
- How many may be needed five to ten years from now?
- How many does the school have now and how well do these spaces work?
- What parts of the school are to be used by the community, and what are the desirable design provisions in anticipation of such use?

Space Utilization Schedule

The facility analysis and the educational specification should include a room utilization chart or schedule showing that the existing facilities are inadequate to provide quality programs and services required by state or federal rule. The educational specifications should be able to demonstrate how the current configuration of classrooms and other instructional areas cannot support the curriculum changes the school is required to offer now and in the future.

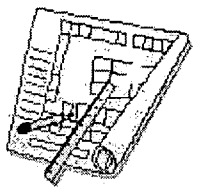
Enrollment Projections

When a construction aid project is primarily intended to accommodate enrollment growth, it must be shown that the existing facilities are overcrowded or are otherwise inadequate to support programs required by state or federal rules. It must also be shown that these conditions are not likely to be relieved by a decline in enrollment for the foreseeable future. The educational specifications must be based on reasonable projections of enrollments for the school over the next five to ten years so that the design of the facility can accommodate such projections.

Generally speaking, projections for enrollment for construction aid purposes must follow the so-called persistence of experience method. This means that you must use the enrollment history of the school together with the live birth history for the district or districts from which the school receives tuition pupils to predict the enrollments that will occur in the years to come. This approach must be used in any school system with yearly live births and grade-by-grade enrollments of twenty or more with a record of growth or stability in it enrollments. If you have a different situation, confer with the Department of Education

to determine a more appropriate basis for predicting future enrollments. The persistence of experience enrollment projections should be based on a ten-year history and limited to ten years ahead. Directions for preparing projections are found in Appendix F.

Attempting to anticipate the number of classrooms a school will need beyond ten years from now becomes too speculative a base for a school construction aid project. If you plan your project for ten years growth and the school reaches capacity enrollment at the end of that time period you will have done your job very well. If you plan for ten years growth and reach capacity in five years you still will have done well. On the other hand, a project which cannot be expected to reach capacity enrollment for more than ten years must be considered to be over-built. Construction aid must be limited to projects that address only the foreseeable space needs of a district.



The location and design of schools and other public buildings often contribute to a community's identity. Throughout Vermont's history, these structures have been symbols of civic pride and important meeting places and cultural environments in the lives of community members.

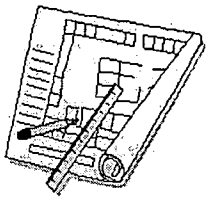
Site Considerations

What makes a good site for a school? There are many different issues to consider when identifying a site for a school, but one issue is clear: the location of a school facility affects many aspects of a community.

A school's location affects transportation needs within the community, as well as school transportation costs. Sites that are accessible to modes of transportation other than the automobile, that students can safely walk and ride their bicycles to and from and that are near municipal bus services may reduce transportation costs.

The location and design of schools and other public buildings often contribute to a community's identity. Throughout Vermont's history, these structures have been symbols of civic pride and important meeting places and cultural environments in the lives of community members. Many are located in the historical center of the community. Their presence defines the image of many Vermont cities, towns, and villages. The historic character of existing buildings should be respected in rehabilitation projects. Attention to the visual character of new construction will contribute greatly to the community's pride and sense of accomplishment with the final product.

Recreation and non-school activities occur during the evening and on the weekends. Sites should be conveniently located for these activities. Recreational facilities on school grounds should also be considered



Many towns in Vermont have town plans that identify important natural, cultural and other resources, and set out visions and goals for how a community would like to grow. The location of existing schools and proposed facilities should fit within that plan.

Many local and regional planning commissions have computerized resource inventories or "constraints" to help in your site planning process.

within the context of the town's existing recreational facilities. Coordination is needed so that facilities are not redundant and meet the future recreational needs of the community.

Many towns in Vermont have town plans that identify important natural, cultural and other resources, and set out visions and goals for how a community would like to grow. The location of existing schools and proposed facilities should fit within that plan. In addition, many towns have identified places where they would like certain land uses to be focused, thus allowing other areas with important natural resource value to be left open. Schools should be located within these growth centers.

It is important to identify what natural and cultural resources may be located at the site of an existing school or at a proposed site. Identification of resources is the first step in planning a construction project that will be environmentally sound and protect or even enhance the surrounding natural environment. Identification of resources is also the first step in avoiding permitting problems related to those resources.

Many local and regional planning commissions have computerized resource inventories or "constraints" to help in your site planning process. Some of these resources include: wetlands; rivers, streams, lakes and ponds and the buffer areas surrounding them; ground water recharge and wellhead protection areas; critical wildlife habitats; rare and endangered species; prime agricultural soils; contaminated sites (from previous use) and archeological resources. The presence of these resources does not automatically preclude development of the site. Steps may be needed to avoid the resources or mitigate certain impacts.

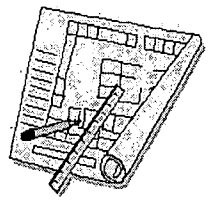
If a choice has to be made between an existing school site and a new one, cost of land is an obvious factor, and must be weighed against the possible proceeds from the sale of the old site. In addition, the site "constraints" noted above will affect both the short-term uses of a site and its potential for expansion. These conditions, combined with the project design, determine whether or not environmental permits issued by the Agency of Natural Resources and Act 250 commissions, can be issued. When reviewing potential sites contact the Department of Environmental Conservation Permit Specialist in your area for guidance. In the end, it is the responsibility of the elected school board to sort out the issues concerning the site and provide the community with its best recommendations. In any case there are constant factors which should enter into the decision making on a school site in any district. These are outlined below.

Site considerations include:

- Convenient location for school activities and non school functions the school facility may serve;
- Safe highway access; and safe traffic pattern around the school;
- Aesthetic appeal;
- Access to municipal services for water supply and sewage disposal or suitable conditions for developing on-site services;
- Sufficient usable land for all the programs the school would provide;
- Conditions for economical construction and site development;
- Enough space for the necessary service delivery areas for the school;
- Noise levels in the surrounding areas; and
- Space to accommodate the growth potential of the district.

The site should also be safe from traffic, and well away from rivers and streams that might flood or threaten student safety, areas that are likely to contain archeological sites, and industrial or agricultural operations that might present environmental hazards.

Land owned by another legal entity may be counted if the school has permanent unrestricted use of it, a community recreation field adjacent to the school property for example. However, state school construction aid can only apply to construction or site development costs on land owned outright by the district or land for which the district has a clear title in fee simple or a permanent deeded easement or right-of-way.



Sites should be safe from traffic, and well away from rivers and streams that might flood or threaten student safety, areas that are likely to contain archeological sites, and industrial or agricultural operations that might present environmental hazards.

Anticipating the Next School Development

While no one can know the future, we can plan intelligently for the choices it might offer us. This is an obligation all elected school officials have to the communities they represent.

A major consideration in planning a school expansion project must be the options that will be available when the school district again needs more space. Several factors beyond the utility issues discussed elsewhere in this document will bear on the choice the district will then have. These include the size of the project site now, and the possibilities for adding more useable land to it at a later date. The

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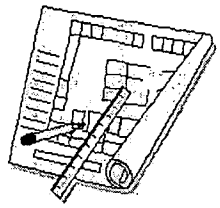


Look for a layout that would allow for the easy addition of more classrooms and ready enlargement of core and support facilities.

Discuss with your architect how best to plan your project so that it will be adaptable to future uses of the building including possible non-educational uses.

desirability and practicality of constructing a future addition to the building, and the similar needs of other schools and districts in the region could eventually lead to joint school operations.

The desirability of a future addition will be an outgrowth of the size and design of the building when the current project is completed. It will also be related to the prospects for consolidation of this school with other schools of the district or of this district with another district in the years ahead. Community concerns about a school becoming too big can sometimes become a real issue in trying to win approval for funding an addition. On the other hand, site limitations may rule out a future addition. If neither of these circumstances exist or even if they might, you should be looking for a design for your project that will keep as many options as possible open to the district in the years to come.

Look for a layout that would allow for the easy addition of more classrooms and ready enlargement of core and support facilities. The design also should allow for low cost reallocation of space if the need arises. In other words, the shape of some rooms should permit them to be subdivided. Others should be easy to combine if larger spaces may someday be needed. This all calls for careful planning of mechanical systems so that adding or removing partitions can be done without major alterations to these systems. You should discuss with your architect how best to plan your project so that it will be adaptable to future uses of the building including possible non-educational uses.

Consolidation

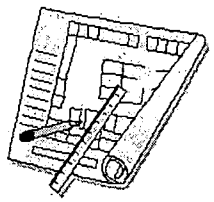
School consolidation and school district consolidation may be part of the thinking going into school building plans. This is especially true where a school board is planning a project that will represent the maximum development appropriate for an existing school site. If this is your situation, look for your next school site now, or talk with other school boards about an eventual merger, or both.

Re-locatable Units

A re-locatable unit is a supplementary educational facility, generally manufactured or fabricated off-site, moved to and erected at the desired location. All prefabricated structures are subject to the same

requirements of the Department of Labor and Industry and the Department of Education as are other construction projects.

Before purchasing a re-locatable unit, a school board must see that all state agency requirements are met. As with other construction projects, an inspection by the required state agencies will be arranged to ensure that all building codes are being met.



A building committee can be a good sounding board to use in selecting an architect and choosing the final design for a project.

The broader the participation in the development of a school construction proposal, the better will be the school board's presentation of the project to the voters for funding.

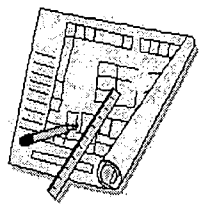
Committees

School boards often find it useful to ask community representatives to help examine school needs, evaluate various alternatives for meeting those needs, and assist with the planning and completion of a construction project. A building committee, for instance, can be a good sounding board to use in selecting an architect and choosing the final design for a project. Such committees may be comprised of people who have special expertise to offer and people who represent various interests within the community. The broader the participation in the development of a school construction proposal, the better will be the school board's presentation of the project to the voters for funding. The board, however, needs to be explicit in its charge to any such committee so that its tasks are clearly defined. The final decision-making responsibility rests with the school board as the elected representatives of the community.

Preliminary Plan Review

State Board of Education Rules require a meeting of school district and state agency representatives to review preliminary architectural plans for school additions, renovations and new buildings. This review should occur before the warning for a public vote on a project is published in order to inform the voters of how much of the project is eligible for construction aid and how much will be fully funded by the district. (See V.S.A., T. 24 , §1758(b)) Preliminary reviews may also be needed for other kinds of projects. Contact the Department of Education for a determination for other types of projects.

The purpose of the meeting is to expedite the final state review of the completed working drawings for the project. At a preliminary review meeting the state agencies will advise school officials of any problems



The Capital Outlay establishes the minimum and maximum square footage allowances for programs and services by grade range and class size. The Outlay formula includes a maximum gross square footage by grade range and school size beyond which the state cannot participate.

they see with the plans with respect to their agency rules and regulations, and the approved educational specifications. Based on the Capital Outlay Financing Formula the Department of Education will usually be able to advise at this meeting the estimated level of state financial assistance the project may receive.

Preliminary plans submitted for review must contain the details listed in Appendix E.

Capital Outlay Formula

Construction aid for a new school or an addition to an existing school is subject to limits established by rule of the State Board of Education. This rule is known as the Capital Outlay Financing Formula. (Details of the formula are included in section starting on page 61). The Capital Outlay establishes the minimum and maximum square footage allowances for programs and services by grade range and class size and the maximum cost for the total construction beyond which the state cannot participate.

Although this step is a requirement of the school capital construction program , it does not limit what a district may choose to build. If a project exceeds the allowances established by the Capital Outlay, the local district must assume the additional costs.

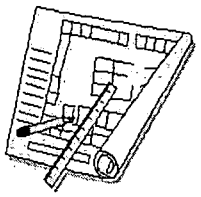
Professional Assistance & Methods of Construction

Consultants

Identifying the best long-term construction project course to recommend demands a great deal of time. Employing a private consultant can be a valuable investment. There are a number of professionals available.

When considering a consultant, look for a person or firm with strong experience with the issues you may be studying and first-rate communication skills. You will want someone who is practical and comfortable to work with and familiar with Vermont's various permitting requirements including Act 250, Agency of Natural Resources permits and Labor and Industry rules. Finding a suitable consultant can entail a similar process to hiring an architect.

Employment of any consultant should be based on a contract that spells out what services the consultant is to provide and when. It should specify how much these services will cost and the manner in which you will pay for them. It should also specify how any extra services you might want the consultant to give you beyond those described are to be billed. Again, the board attorney should review any contract.



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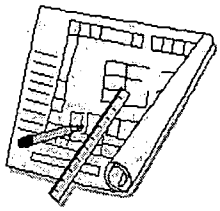


State Board of Education rules require that the plans and specifications for school construction aid projects involving alterations of existing spaces and construction of new instructional space be prepared by an architect licensed to practice in Vermont.

The school board will be looking to the architect to provide the district with a design that can be expected to be economical throughout the useful life of the project.

Selection of an Architect

State Board of Education rules require that the plans and specifications for school construction aid projects involving alterations of existing spaces and construction of new instructional space be prepared by an architect licensed to practice in Vermont. For other types of construction, unless the Commissioner of Education permits otherwise, plans and specifications must be prepared by a registered architect or a registered professional engineer. The architect is responsible for designing the project to meet the approved educational specifications and all pertinent state codes and requirements.

Architecture is a competitive business; however, it does not require going out to bid. Recruiting an architect may begin with letting the design community know that you have a project in mind. A small newspaper advertisement is likely to draw a number of responses from interested firms. The school board is likely to want to interview a smaller number of firms. Choosing which firms to interview takes a bit of work. Start by looking at the information each firm sends you, this will usually include descriptions of recent commissions. Talk to the owners of those projects, and the general contractors. If possible, go visit some of the buildings. If the project is renovation or an addition to a historic school, look for inclusion of a historic preservation professional on the architectural team. Look for a history of good communication, imaginative design, good choices of materials in the design, and good cost estimating. Do not be deterred by lack of school experience. Be concerned more about the scale of previous projects the firm has handled compared to your own.

The school board will also be looking to the architect to provide the district with a design that can be expected to be economical throughout the useful life of the project. Is the firm being considered capable of developing data on life cycle costs for the choices of mechanical and structural systems and the materials with which the project will be built? First, costs must be balanced against the long term costs of upkeep in any construction project. The architect should have a good record of providing prior clients with reliable long-term information.

Look for experience with projects where public bidding was required. Look at the bid histories. Did the projects attract a good number of qualified bidders? Were the bids received relatively close from lowest to highest?

If a firm has previously done school work, the Department of Education and school officials in other districts may be able to share some history with you.

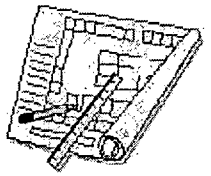
If all of the inquiries lead to positive answers, you have a good prospect to interview.

The interview itself is an opportunity for the board to try to assess what kind of chemistry will exist between you and the architectural firm. Discuss with each interviewee your time frame for the completion of your project to see whether it actually fits the anticipated workload of the firm. You should also ask about the engineering services the firm uses. Does the firm work with the same engineering consultants from one project to another? If not, why?

What about fees? Fees vary between architectural firms and should be discussed/negotiated prior to contracting for services.

Prior to a successful bond vote, what financial arrangement is the firm willing to make to do the necessary preliminary work to get you to the bond vote? There are no standards on this, but a common approach is for a firm to agree to do preliminary design work and cost estimating for you on an hourly rate, up to a maximum figure, to prepare the project for presentation to the voters. The firm should be clear as to exactly what fees and expenses it will bill to the board. The firm you select will be committing real time and professional effort to your project prior to the bond vote. The board should be prepared to pay the reasonable cost of such services. In any event, cost is only one of the factors to be considered in selection of the architect.

After the voters have approved a proposed project, the school board should negotiate a contract with the architect for the final design work and project supervision. The contract should specify precisely what services the firm will furnish to the board and the manner of board payments to the firm. The board should have an attorney review any proposed contracts with the architect before signing. Do not complete such a contract prior to voter approval.



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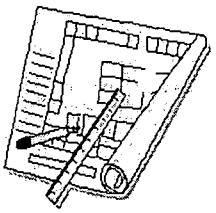


The clerk-of-the-works is the liaison with the contractor and all subcontractors through the contractor's superintendent. He or she needs to attend and report to the board on all conferences held at the project site.

The clerk of the works is the person responsible for overseeing the completion of the project in accordance with the approved plans and specifications and to notify the relevant state agencies of any changes during the construction project.

Clerk-of-the-Works

V.S.A. 16 §3448(a)(5)(B)(iii) requires that the local board hire someone competent in the building trades to supervise the construction project. The clerk-of-the-works is the person responsible for overseeing the completion of the project in accordance with the approved plans and specifications and to notify the relevant state agencies of any changes during the construction project. This is an important position. This person is the board's representative on the project. He or she must be knowledgeable in construction methods and materials and have very good communication skills.

The clerk-of-the-works is the liaison with the contractor and all subcontractors through the contractor's superintendent. He or she needs to attend and report to the board on all conferences held at the project site. A good clerk will maintain orderly files at the site for correspondence, shop drawings and reproductions of all original contract documents. The duties also include keeping a daily log book recording the hours on site, weather conditions, lists of visiting officials and jurisdiction, daily activities, decisions, general observations and specific observations in the case of observing test procedures. The board should take the time to interview a number of applicants and seek the advice of the architect who may have had a previous working relationship with the applicant. Most important, the clerk should have a good record of providing prior clients with reliable service.

To avoid an apparent conflict of interest, this person may not be an existing employee of the school board. (V.S.A., 16, §557-558 and V..S.A., 16, §3448.) The usual duties, responsibilities and expectations for a clerk-of-the-works are included in Appendix H.

Methods of Construction

There are two basic contracting methods utilized in the school construction industry: the general contractor or traditional approach, and the construction management approach. This section of the guide includes some general definitions of the construction management (CM) approach for construction and explains the bidding requirements, including the pre-qualification process for both the traditional approach and CM methods.

Public Bidding Requirements

When any school building improvement of any sort costs between $10,000 and $500,000, the Public Bids statute (T.16, §559) requires that a school board publicly advertises for or invites three or more bids from persons deemed capable of providing the items or services to be purchased.

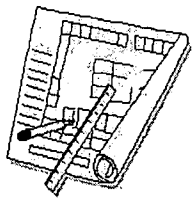
On construction contracts with a value of $500,000.00 or more, school boards are required by statute to publicly advertise at least 60 days prior to the opening of bids for contractors interested in bidding. Furthermore, school boards must pre-qualify bidders on construction contracts by establishing eligibility criteria for bidders. The school board must notify all applicants of their eligibility to bid on the contract at least 30 days prior to the bid opening. The notice to those qualified to bid must contain information on the availability of the plans and specifications and how bids are to be submitted. See State Board Rule 6300.

State Board Rules for Pre-qualification of Bidders on Contracts Over $500,000

State Board Rule 6450 requires a school board, when soliciting bids on a construction project, to publicly advertise that it is seeking interested bidders to apply for pre-qualification. The advertisement must include a description of the project, the anticipated bid opening, where and when pre-qualification statements are to be received, and that the pre-qualification statements are to be received on AIA-A305 forms as amended from time to time.

The board should work with its architect to create these criteria, but at a minimum the criteria needs to include the interested bidder to provide evidence of the following:

- a clear and stable organizational structure;
- hold licenses or registrations appropriate to the work to be performed;
- experience or expertise with related projects;
- a current construction load that would not interfere with the company's ability to perform the work;
- positive references from credible and knowledgeable sources; and

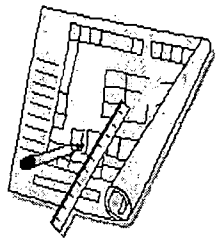


On construction contracts with a value of $500,000 or more, school boards are required by statute to publicly advertise at least 60 days prior to the opening of bids for contractors interested in bidding.

- any other lawful criteria established by the school board specific to the qualifications of the contractor to perform the work required in a timely manner.

School boards must consider all bids submitted by eligible bidders meeting the deadline and, for projects over $500,000, must award the contract to the lowest responsible bidder. If two or more of the lowest bids are within 1%, the board may choose between the bids. (V.S.A., T.16, §559)

The board's architect can gather background information on the bidders and talk to past clients for the board before awarding the construction contract.



The construction manager works as a professional advisor to the school district in much the same way as the architect. The construction manager does not perform any construction activities.

The construction manager typically handles project scheduling, cost estimating, construction process consulting, project management and other pre-bid tasks necessary to fully develop the design to the point where it is ready for bidding.

Construction Management

If a school board chooses to use the Construction Management process for a construction project, the bid process is slightly different.

Construction Management is a service provided by a professional construction manager. The construction manager need not be, and in many cases is not, a general contractor. The construction manager works as a professional advisor to the school district in much the same way as the architect. Furthermore, the construction manager does not perform any construction activities.

The construction manager typically handles project scheduling, cost estimating, construction process consulting, project management and other pre-bid tasks necessary to fully develop the design to the point where it is ready for bidding.

Although school boards are not required to put contracts for this type of service out for public bid, they may choose to bid it.

Selection of a Construction Manager as the General Contractor

The construction manager may also have the capacity to serve as the general contractor. In this form of contract, prior to the start of construction, the construction manager works as advisor to the school district handling project management and other pre-bid tasks necessary to fully develop the design to the point where it is ready for bidding. During the construction period, the construction manager acts as the general contractor, supplying the materials, labor and supervision necessary to complete the project.

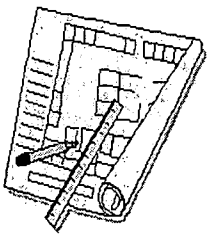
Bidding Requirements for Construction Manager/General Contractor

When selecting the construction management approach for school construction, school districts must still use the process outlined in T.16 §559 and State Board of Education rule 6440 – 6490. The construction manager/general contractor cannot be engaged without competitively bidding against other qualified construction managers/ general contractors.

In addition to the requirements detailed above, upon completion of the pre-qualification process, the school board must request at a minimum the following information from those construction management firms eligible to bid:

- a list and description of services to be provided;
- resumes of key personnel;
- a fixed feed for construction management services with a list and detailed breakdown of each item;
- a fixed fee for construction services to cover overhead and profit; and,
- a fixed fee for the general conditions provided with a list and detailed description of each item

The school board is still responsible for adhering to the public bid requirements. All bids received under this method of construction must be opened and reviewed at a warned school board meeting. The use of artificially small bid packages (less than $10,000) to avoid the need to competitively bid components of the work is not allowable.



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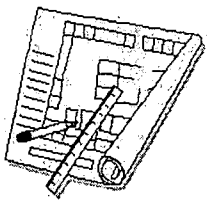
With the construction management method of contracting, it is not unusual for the construction manager/general contractor to establish a "guaranteed maximum cost" (GMC) during the early stages of the project.

Guaranteed Maximum Cost

With the construction management method of contracting, it is not unusual for the construction manager/general contractor to establish a "guaranteed maximum cost" (GMC) during the early stages of the project. This is often an attractive component of this method because it allows the school district to have a higher degree of confidence in the project cost earlier in the process.
This "guaranteed cost" is typically not based on final construction documents but rather on whatever plans and specifications are available at the moment that the "guarantee" is made and may contain some type of contingency amount to cover costs for work not yet shown on the



State Board Rule 6490 requires that whenever the cumulative result of the bidding process for the total scope of the project plus general condition and fixed fees is less than guaranteed maximum cost, 100% of the savings will be returned to the school board.

The State Board requires that contractors chosen for a construction aid project be covered by a performance bond or irrevocable letter of credit in an amount equal to the awarded contract.

documents. **When a school board is considering the construction manager/general contractor with the guaranteed cost approach, it is still necessary to comply with the Public Bid statute T16 V.S.A., §559.**

Furthermore, State Board Rule 6490.1 requires that whenever the cumulative result of the bidding process for the total scope of the project plus general condition and fixed fees is less than guaranteed maximum cost, 100% of the savings will be returned to the school district.

When the bids are received and the project costs exceeds the GMC, the school board may reject any and all bids and solicit new bids for any portion of the work to be done, renegotiate the GMC, or require performance under the GMC agreement.

Performance Bonds

Regardless of which form of construction contracting the school board chooses to use for the project, the State Board requires that contractors chosen for a construction aid project be covered by a performance bond or irrevocable letter of credit in an amount equal to the awarded contract. This is to ensure completion of the work should the contractor be unable to meet the terms of the contract.

If the school board is using a construction management approach to construction, it should know if the construction manager/general contractor will carry the performance bond for all the sub-contractors or if the construction manager is expecting all bidders awarded contracts to carry a performance bond or letter of credit. Regardless of the method, it is important to remember that the requirement for having a performance bond on the project still applies.

Communications

It is necessary to maintain communication throughout the project among the board, clerk-of-the-works, architect, and construction manager when used and superintendent. To ensure the best possible communication among all parties concerned, the board must designate one person, generally the school superintendent, to speak for the board throughout the project to a building committee, the project architect, engineer, state agencies and the general contractor. Failure of a school board to designate such a spokesperson will lead to contradictory signals among the parties, lost time and energy, as well as added costs.

Suggested Procedures for School Boards

The Chronology of a Project:

Some of the steps described may not apply to certain types of projects, or might occur concurrently with others. As you confer with the Department of Education on your project, you will be advised of those steps that can be omitted or occur simultaneously.

1 Complete a facility analysis to determine the school building's deficiencies and space needs (See Appendix A). This study needs to include input from the other agencies with rules affecting school occupancy, such as the Department of Labor and Industry and the Agency of Natural Resources. Schools should ask state agency representatives to identify for the board any areas of the existing building requiring work to meet current codes as well as any the site issues which will have to be addressed. The analysis must demonstrate the need for the proposed project and include the supportive documentation of that need. **Code violations identified by any state agency will need to be corrected within the time frame established by the agency regardless of whether or not construction occurs.** (See agency section beginning on page 37).

2 Prepare to submit to the Commissioner of Education for approval a preliminary application. The preliminary application (or Letter of Intent) must include the facility analysis and the alternative educational and physical solutions available. The preliminary application should be submitted in the year prior to wanting construction aid (See Application section beginning on page 73).

3 A Department representative will advise the board if the school district meets at least one of the criteria for eligibility for construction aid as defined by T.16, V.S.A. §3448, and discuss alternatives for meeting local needs.

Alternatives may include:

a. renovation rather than an addition to meet all needs;
b. use of an existing municipal facility which might be adapted for some school uses;
c. a neighboring district with similar needs might want to talk about consolidation or district formation to make more efficient use of capital and the money going into the operation of school programs;
c. other alternatives; or
e. a new school

4 The Department of Education will schedule a pre-construction evaluation. During these inspections the Department will use the facility analysis to verify the demonstrated need for the proposed project by using the State Board of Education's System for Rating Proposed School Construction Projects (See Appendix C).

The district may appeal the department's findings to the State Board within thirty days of receiving it.

In December of each year the State Board will use the rating system to place voter approved proposed projects on a list in order of priority. The Board will submit the list to the legislature the following January for a determination of funding for the following fiscal year.

5 With the help of an architect, use the facility analysis, the findings of the state inspections and the results of the state rating of the existing need to determine the feasibility of resolving the needs of the district. Assess whether an addition or alterations at the existing site will meet the needs of the school; or, if a new school seems a wiser choice, where it should go. Analyze the financial capacity of the district to support a project with or without construction aid and decide whether planning for a construction project should continue or if the board should pursue alternative means for meeting district needs.

6 If construction planning is to continue, commission the architect to prepare preliminary designs based on the approved educational specifications. An outline to help with the development of educational specifications can be found in Appendix D.

7 Begin a public information program. Throughout all of the steps in this chronology, the board should ensure that the citizens are fully informed of the needs of the school, school board recommendations for meeting those needs, and the progress being made on the development and completion of the project.

8 Utilize the architect to assist the board through the further steps leading to a public vote on the project. Provide the architect with the approved educational specifications for the project and the reports on hazardous containing materials in the school building prepared by the Department of Health or another professional evaluator. Other types of construction projects may require you to engage in the services of a professional engineer. (Refer to Selection of Architect. on page 22).

9 If land must be purchased or leased, care should be taken to see that necessary legal procedures are followed. If state construction aid is desired, a school district must have permanent unrestricted access to any leased land upon which a school is to be erected. Review utility services including electricity, water and sewage disposal conditions at the existing school site and costs for bringing such services to any new site the board may be considering. For any site not served by municipal systems for both water and sewage the board must employ professional engineering services for this review. Any project will require consultation with the Agency of Natural Resources. The cost of engineering reviews of sewage disposal conditions on an existing or proposed school site can be considerable.

10 Depending upon availability, a planning loan can be funded through a state Department of Environmental Conservation planning advance or through the Vermont/Federal EPA revolving fund (CWSRF). Loans that are funded through a state planning advance are not due for repayment until the project proceeds to construction. Loans funded through the CWRSF must be repaid commencing five years following approval of the preliminary engineering report or issuance of a water and wastewater permit, or five years after the last payment under the loan has been processed, which ever occurs first. Planning loans through the CWRSF can be consolidated with construction loans when such construction funding is provided by the Department of Environmental Conservation for wastewater system improvements.

11 Construction activities, either at existing or new sites, may also trigger a variety of other permitting requirements from the Agency of Natural Resources, Act 250 or other local and state or federal agencies. Due to the fact that some permitting processes can require several months to complete and that state agency approvals are necessary for Department of Education approvals for funding, it is very important to initiate these processes as early as possible. Therefore, it is strongly advised that the Department of Environmental Conservation Regional Permitting Specialist be contacted when assessing site considerations during the preliminary steps of the planning process. The permit specialist will help identify all the necessary permits and provide regulatory staff contacts for your project.

I 2 If the Commissioner has approved the pre-application, the school board, once it is satisfied with a design, may submit six sets of preliminary architectural plans to the Department of Education for approval. This should be done before the architect develops the final cost estimates on the project or a vote for funding is warned. Refer to Appendix E for more details.

The Department of Education will arrange a preliminary review where all relevant state agencies can comment on the proposed plans and can provide information essential to the successful completion of the project.

I 3 Review with the school board attorney the procedures for conducting a vote of the electorate both on the project and the acquisition of any new land necessary to carry it out.

I 4 At this point, the school board may warn for and conduct a vote on the project in accordance with V.S.A., T.17, §2641 and V.S.A. , T.24 , §1758. The district must warn for the entire estimated cost of the construction project.

I 5 Establish a checking account and a system of cost accounting for the project separate from the accounting system for district operations when the project has received voter approval. The requirement of separate accounting does not apply to emergency projects for which a school board seeks construction aid under the provisions of T.16, §3448(d).

I 6 Arrange financing for the design and construction work. In most cases school construction projects are financed by the sale of bonds. The school board will need legal assistance to prepare a bond issue. The board may market the bonds of the district through the Vermont Municipal Bond Bank or through a commercial bank. Short-term loans may be needed at the outset of a project to pay bills incurred before the bonds are sold. Smaller projects are often funded entirely through short-term loans of no more than one year.

I 7 Commission an architect to prepare final plans and bid documents. Depending on the size of the project this work may take several weeks up to several months.

18 At this point, the school board can start to submit a final application for State Board of Education approval of the project. The form for applying for a grant of construction aid is available through the Department of Education. Consult with the Department as to what information must be included as exhibits with the form to complete the application. (See Application section beginning on page 73).

Submit final plans and specifications to all applicable agencies:

a) Department of Education,
b) Department of Labor and Industry,
c) Department of Environmental Conservation, Agency of Natural Resources,
d) Division for Historic Preservation (for alterations or additions to buildings more than 50 years old),
e) Department of Agriculture, and
f) Department of Transportation

The school must also submit the project plans to the Act 250 District Environmental Control Commission to determine if the project is subject to review by the commission. If Act 250 review is necessary, the school board must complete that process before the State Board of Education can approve the project for school construction aid.

19 Advertise for and pre-qualify all interested bidders on the project in accordance with State Board Rule 6300 et al and T. 16, §559. The board architect and attorney can advise on appropriate bidding procedures for your project. A school board may request bids on a project any time after the final plans and specifications have been completed.

20 Employ or otherwise retain the services of a clerk-of-the-works to ensure the completion of the project in accordance with the approved plans and specifications and to notify the relevant state agencies of any structural or material changes during the construction of the project. Since this person is the board's representative on the project, she/he should have extensive experience in construction and should be able to perform the duties of the clerk on behalf of the school board as described in Appendix H. (See section on clerk-of-the-works, page 24).

21 Select a general contractor in accordance with V.S.A., T.16, §559. If the board awards a contract for the project prior to approval of final project plans by the state agencies, the bid award should be made subject to such approvals.

Note: If your project includes additions and alterations to an existing building, scheduling of

the work of the general contractor will call for particularly careful planning. The work schedule must be developed to minimize disruptions to school programs and to keep students and staff away from the potential hazards of the work area. The Department of Labor and Industry has specific requirements for protection of occupants during construction. You will also need to budget and plan for relocations of some parts of the school operations to allow for the construction work. This may necessitate renting temporary space for programs and storage, hiring movers, and buying packing boxes and so forth.

22 The Department of Education will notify the superintendent of schools when the application for construction aid is complete.
Construction may not begin before a completed application is submitted to and approved by the State Board of Education **Except for emergency projects, beginning construction prior to receiving State Board approval will jeopardize state aid.**

23 Once the State Board of Education approves the final application, the commissioner or his/her designee will notify the district that construction may begin. Once the project has received State Board approval, any changes you may wish to make that relate to state agency requirements or the approved educational specifications must receive the appropriate state agency's approval before they are incorporated into the construction.

Note: The Department of Labor and Industry will, and the Agency of Natural Resources may conduct progress inspections during the construction phase of the project. Some of these inspections must be made while electrical, plumbing and sewage systems are still visible. Electrical and plumbing inspections must be requested by the licensed persons responsible for the work directly to the appropriate inspector for the region in which the project is located.

24 The school district must notify the Department of Education by letter when construction actually starts, and the school district has incurred expenses equal to or greater than 15 percent of the approved project cost. The Department will then ask the State Board of Education to approve a first award to the school district of half of the estimated construction aid the project is to receive.

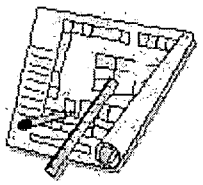
25 With the advice of the architect, the board will normally work out a schedule of payments to the general contractor as the construction progresses, and an agreed percentage of each request for payment to be held back until the project is satisfactorily completed.

26 When the board is satisfied that the construction has been completed according to the approved specifications, schedule an inspection of the work by all concerned state agencies. The inspection will determine that the work meets all state agency requirements necessary for occupancy of the building. School administrators, the project architect, general contractor and the clerk of the works should all participate in the final state inspection. Any discrepancies found in the project during this inspections must be corrected to the satisfaction of the school board and the appropriate state agencies before the Department of Education can issue the school board the balance of the construction aid due on the project. Notify the Department of Education in writing when deficiencies found have been corrected.

27 Request a final inspection of the project from the Department of Education. The district must have available or submitted to the Department a commissioning report and an air balance report on the mechanical ventilation systems that certifies compliance with the minimum requirements specified in Rule 6143 and with all other provisions of the commissioning plan for the project. The completed punch list and all applicable agency approvals must also be available at the time of the Department of Education inspection.

Request a Department of Education audit (Appendix I) of the project when canceled checks and invoices for all project costs are returned. When the audit is completed, and subject to the availability of funds, a final award will be made to the school district based on Department of Education determination of the total eligible cost of the project for construction aid purposes. If the school board is financing the project by a bond issue and the proceeds are insufficient to cover the final bills, the school board may need a short-term loan to complete payment of those bills so that the project can be audited.

28 Upon completion of the project, arrangements need to be made to safely and securely store the "as built" drawings, specifications book, operating manuals, a list of all change orders, and the designs for the septic and water systems. These documents will be necessary if and when an addition or modification is done to the building.



If the board follows the project development chronology as described, the Department of Education will coordinate the initial involvement of each agency with the school board to ensure that the school board and its architect receive all the information they will need when they need it. This will ease the time demands on the school board, administration and architect, as well as state agency personnel.

Roles of State Agencies

For construction projects to be eligible for state aid, they must meet any standards of other agencies that apply to school construction.

By now it is obvious that a number of state agencies may become involved to complete a school construction project. The following section describes the jurisdiction of each agency and where more specific information can be found. If the board follows the project development chronology as described, the Department of Education will coordinate the initial involvement of each agency with the school board to ensure that the school board and its architect receive all the information they will need when they need it. This will ease the time demands on the school board, administration and architect, as well as state agency personnel.

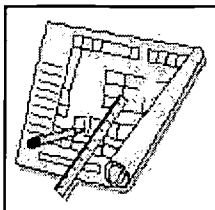
Department of Labor & Industry

The Department of Labor and Industry is concerned with every project that involves modifications to a school building, even if the project will not receive state financial support. This department also has standards for existing school buildings not involved with renovation projects and may make periodic safety inspections as the need may arise. The Fire Prevention Division of this department administers the 1999 Vermont Fire Prevention and Building code adopted April 15, 2000, based on the Building Officials and Code Administrators (1996 BOCA) National Building Code : the 101 Life Safety Code of National Fire Protection Association (1997); NFPA 914, Recommended Practices for Fire Protection in Historic Buildings; the Americans with Disabilities Act; the BOCA Plumbing Code, the National Electrical Code; 1996 BOCA Mechanical Code, and the ASME Standards for boilers and pressure vessels.

Before construction can begin, the Department of Labor and Industry must review the plans for compliance with BOCA, Life Safety and handicapped access standards and issue a construction permit. The

Department's construction permit application requires the architect to certify that the project complies with the "State of Vermont, 1991, Department of State Buildings Energy Conservation Standard for New and Existing Buildings" and that it meets or exceeds the standard for exterior envelope design contained in "Energy Conservation in New Building Design" (ASHRAE 90-80, the 1980 edition). Review of projects for other codes is completed primarily by field inspection. This agency does charge a fee for its services. The fee is based on the total valuation of all construction work to be performed. To ensure permit approval, submit the application and fees with final drawings a minimum of two weeks before the anticipated start of construction.

The Department of Labor and Industry's main office is located in Montpelier and has regional offices Williston, Barre, Rutland and Springfield which are responsible for reviews of plans and construction documents, and scheduling of school inspections (See Pages 45 & 46).



The Department of Education administers the State board rules for school construction and provides technical assistance to school officials on the process of construction planning for projects receiving state school construction aid.

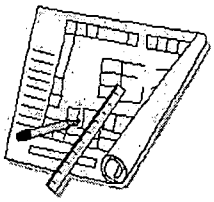
Department of Education

The Department of Education administers the State Board rules for school construction and provides technical assistance to school officials on the process of construction planning for projects receiving state school construction aid. The School Construction Team of the Department administers the School Construction Aid program including standards for classroom lighting, heating and ventilation for school buildings.

Dept. of Environmental Conservation

Agency of Natural Resources

The Department of Environmental Conservation, or DEC, along with the Departments of Forest, Parks and Recreation and Fish and Wildlife comprise the Agency of Natural Resources. DEC is responsible for the overall goal of conserving and enhancing Vermont's natural resources and protecting human health. This is achieved through the administration of more that 40 specific regulatory programs which include dealing with wastewater disposal, water supply, waste management (hazardous waste



Department of Environmental Conservation staff are available to assist schools in understanding water and sewage needs and systems criteria and design. They will make site visits with the sanitary engineering consultant for school boards early in the school planning process.

DEC work activities range from technical assistance and training to development and issuance of regulations and permits.

and solid waste management), contaminated sites, impacts on both ground and surface water quality, erosion control, wetlands wildlife and air quality.

Where municipal water mains and sewers exist, connecting to them is a matter of design and installation of piping and capacity of those systems. Much more detailed evaluations are necessary for schools that must construct water supply and sewage disposal utilities on their own sites. Not all sites can supply safe water in sufficient quantity or adequately treat and safely dispose of sewage generated by the school. Department of Environmental Conservation staff are available to assist schools in understanding water and sewage needs and systems criteria and design. They will make site visits with the sanitary engineering consultant for school boards early in the school planning process. Also the Department administers a no-interest loan program to assist school boards with the cost of engineering studies to determine suitability of school sites for subsurface sewage disposal.

Although school expansions at existing sites or a new school site will probably require review and/or permits for water supply and wastewater, many other permits or reviews may also be required, including Act 250. In addition, there can be site development constraints created both by previous use and current natural or cultural resources that impact both the short-term uses of a site and potential for expansion. Early detection of these factors can make a huge difference in the success of a project. Therefore, it is strongly advised that the permit specialist is contacted when looking at site considerations and doing the preliminary planning steps of the process.

Permit specialists located in each regional office assist applicants in identifying all potential state permits or approvals (including ACT 250) for any given project as well as providing preliminary information on DEC jurisdictions. Use the following address to locate a permit specialist on the internet: www.anr.state.vt.us/dec/ead/eadhome/permit.htm. This team of specialists is also the primary editors of the DEC Permit Handbook, a complete compendium of information on all Vermont regulatory program is available online at http://www.anr.state.vt.us/dec/permit_hb/index.htm.

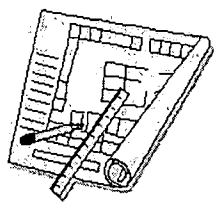
Although DEC and Act 250 interface, they operate under separate authority. However, most environmental permits are issued by DEC. DEC staff are located at the main office in Waterbury and five regional offices located in Essex, Barre, St. Johnsbury, Springfield, and Rutland (See Regional Map page 47). DEC work activities range from technical assistance and training to development and issuance of regulations and permits.

Act 250 Review

School officials involved with the design of a new school or an addition or other improvements to an existing school need to obtain a jurisdictional opinion from the District Environmental Coordinator for their area regarding Act 250 jurisdiction over the project. Assuming that there is jurisdiction, an early determination should help provide for a smooth application process that could take anywhere from 30 to 90 days. The time spent in the process is largely dependent on how well issues such as prime farmland, animal habitat, sewage disposal, architectural compatibility and traffic circulation have been worked out before hand.

A new school project involving more than 10 acres of land including lawns, playing fields, parking areas, roadway, leaching fields and accessory buildings will fall under the jurisdiction of Act 250. Jurisdiction may also attach if you are proposing an addition or other construction of improvements to an existing facility that does not have an Act 250 permit (involving more than ten acres) and if the addition is viewed as a substantial change (i.e. it may result in significant impact with respect to any of the environmental criteria of Act 250). Any construction of improvements involving a material change to an existing facility with an Act 250 permit will require an amendment to that permit.

It is best to ask the local District Environmental Coordinator for a jurisdictional opinion early in the planning process. (See Page 47 for addresses and phone numbers.

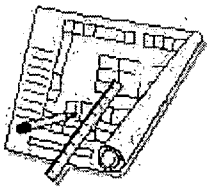


A new school project involving more than 10 acres of land including lawns, playing fields, parking areas, roadway, leaching fields and accessory buildings will fall under the jurisdiction of Act 250.

Federal law requires that prior to a renovation the school check its Asbestos Management Plan to determine if the area being disturbed contains asbestos materials. If so, then those asbestos materials must be removed by certified abatement contractors prior to the renovation.

Department of Health

The Department of Health is responsible for assuring that schools abide by the Federal Asbestos Hazard Emergency Response Act (AHERA). Federal law requires that prior to a renovation the school check its Asbestos Management Plan to determine if the area being disturbed contains asbestos-containing materials. If so, then those asbestos materials must be removed by certified abatement contractors prior to the renovation. Federal law also requires that prior to occupancy of a renovated or new school building, the Asbestos Management Plan be updated or developed by an accredited Management Planner. The Management Plan must include documents that include a signed



The Department of Health can provide information on radon and assist with the collection of air samples to test for the presence of this naturally occurring gas.

If an existing school is over 50 years old, it is probably historic, and work should be planned to preserve its significant historic features, while making the changes necessary to satisfy building codes, access requirements, and other programmatic requirements.

statement that asbestos-containing materials were not used in the renovation or new construction. The architect or project engineer can sign this statement. Once that is obtained, a certified asbestos inspector must then sign off on that statement. Both documents are added to the Management Plan. The school may contact the Department of Health, (asbestos and lead program) and request to have the staff asbestos inspector sign off on the architect's or engineer's statement. There is no charge for this service. (See pages 55 & 56).

The Department of Health is responsible for food service sanitation standards (Chapter 5 subchapter 2 of the Vermont Health Regulations). All food service and food preparation in schools must comply with these standards. Copies of these regulations are available from the Department of Health, or the Department of Health's website.

This agency can provide information on radon and assist with the collection of air samples to test for the presence of this naturally occurring gas. The Department can also provide information regarding testing for carbon dioxide levels in schools. This is often used as an indicator of the quality of indoor air and may be useful when examining a school's ventilation system. The Department can provide information and advice on how to check for adequate ventilation and contacts for HVAC/IAQ companies.

Division for Historic Preservation

Advisory Council on Historic Preservation

The Division is part of the Department of Housing and Community Affairs, in the Agency of Commerce and Community Development and is the state office concerned with preserving historic and archeological resources, including individual structures, groups of historic buildings like village centers, historic landscapes, and prehistoric and historic archeological sites. The Council is a governor-appointed citizen board that under state law (22 VSA 14) reviews state-funded projects that may adversely affect historic and archeological resources.

If an existing school is over 50 years old, it is probably historic, and work should be planned to preserve its significant historic features, while making the changes necessary to satisfy building codes, access requirements, and other programmatic requirements. Schools on the State Register of Historic Buildings must adhere to the Secretary of the

Interior's Standards for Rehabilitation. The State Board of Education's Historic Preservation Policy promotes renovations to existing historic school buildings in order to meet the educational needs of students. The development team for a rehabilitation or addition project on a historic school should include a professional with expertise and experience in historic preservation. New construction in historic areas or places likely to contain archeological sites should be planned with the services of a historic preservation and/or archeological professional. The Advisory Council will review projects that may have an adverse effect on a historic school, surrounding historic district, or potential archeological resources.

Contact the Division to obtain information on historic schools, designated historic districts, the likelihood of archeological resources on a site, rehabilitation guidelines, and information on qualified historic preservation and archeological consultants. The Division staffs the Council, and will schedule a project review upon request. (See Page 51 for State Board policy on Historic Preservation).

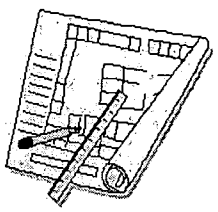
Agency of Transportation

This agency reviews school sites selection when entrance to the site is made from a state highway or state aided highway. It will assist the school board in determining where the entrance to the site should be located to best ensure the safest conditions for highway traffic flow.

When a driveway is to be developed or changed accessing the state highway, a highway access permit is required. A permit is also required to work within the highway rights-of-way. The Traffic Operations Section looks at several other issues regarding traffic at a school site, including:

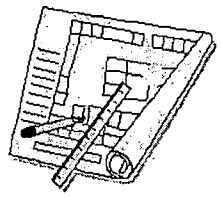
- roadway alignment to ensure adequate sight distances;
- traffic volumes that occur along that portion of the state highway and the impact of the increased volumes;
- highway signs required to be relocated or revised;
- accident history along the stretch of highway involved; and,
- school bus issues.

New school locations may require some additional studies to determine the adequacy of school bus stops on state highways. This should be addressed as part of the traffic study associated with the site selection process. Districts may contact the Traffic Operations Section at 828-2603.



The Agency of Transportation will assist the school board in determining where the entrance to the site should be located to best ensure the safest conditions for highway traffic flow.

New school locations may require some additional studies to determine the adequacy of school bus routes and the associated stopping locations. This should be addressed as part of the traffic study associated with the site selection process.



The Department of Public Service (DPS) has published a 38-page booklet, Putting Energy into School Construction, a planning guide for anyone involved with a school construction project. The guide explains how to incorporate energy efficiency in a school project to gain the benefit of lower, long-term operating costs. Copies are available by calling the Energy Action line, 1-800-642-

Department of Agriculture

This department works with school boards that are selecting new school sites to ensure that site selection and design minimize potential adverse impacts on agricultural soils, and agricultural operations on nearby lands. In addition, the department monitors agricultural operations to ensure that they are in compliance with Vermont's Accepted Agricultural Practice regulations.

Vermont Municipal Bond Bank

The Vermont Municipal Bond Bank is a quasi-state agency that was established in 1970 with a mandate to provide municipalities with access to the tax-exempt municipal bond market at the lowest cost. The Bank can provide assistance from the planning stage to the issuance of bonds. For more information or with questions call 223-2717 or toll free (in Vermont) 800-894-2717.

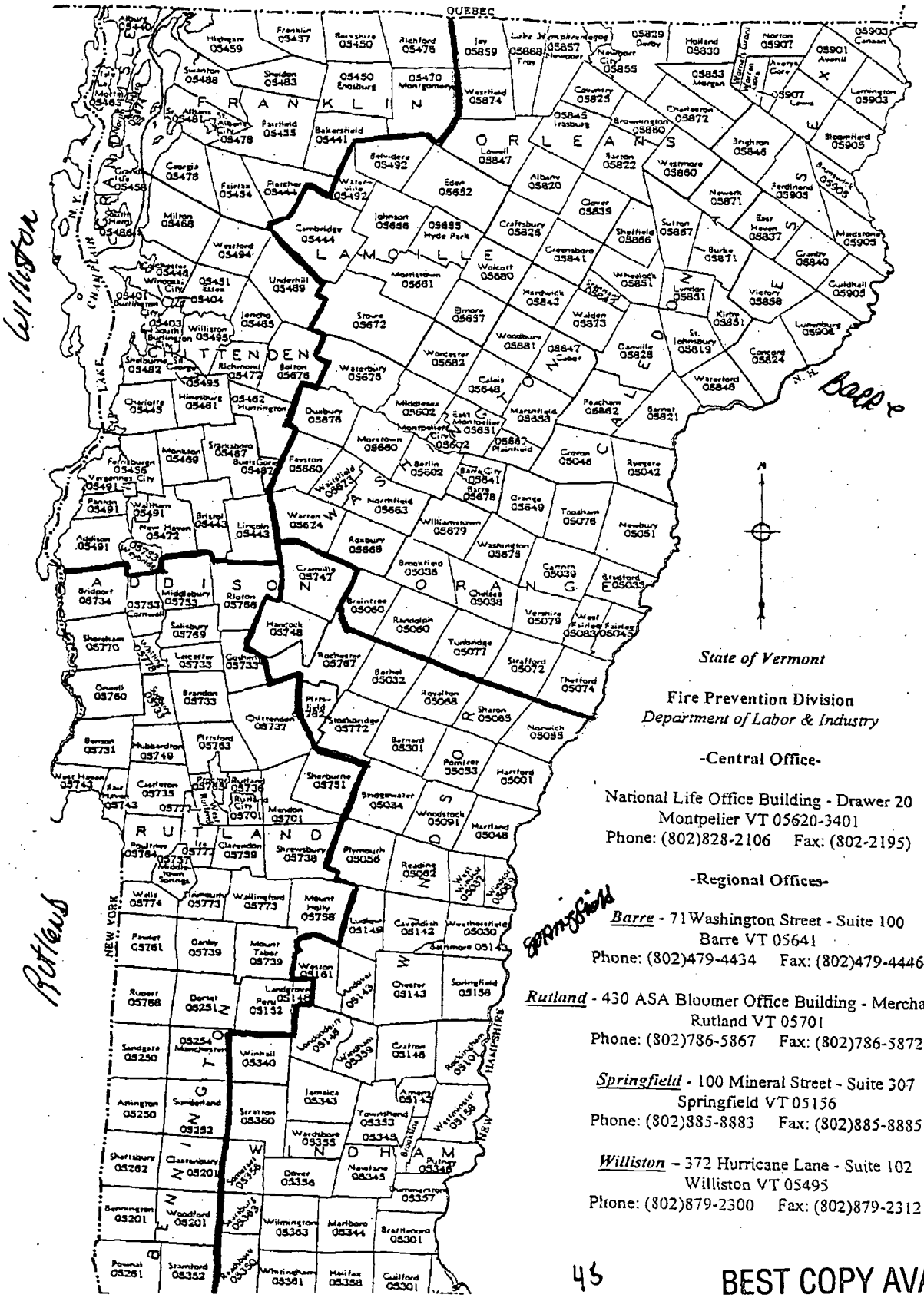
Department of Public Service

The Department of Public Service (DPS) and its Energy Efficiency Division employ staff with expertise in the design, construction and operation of energy efficient buildings. The Department has published a 38-page booklet, *Putting Energy into School Construction*, a planning guide for anyone involved with a school construction project. The guide explains how to incorporate energy efficiency in a school project to gain the benefit of lower, long-term operating costs. Copies are available by calling the Energy Action line, 1-800-642-3281.

The Department also helps support the School Energy Management Program at the Vermont Superintendents Association (VSA). This program has access to a wide variety of resources, including the state-wide energy efficiency utility, Efficiency Vermont. The goal of the program is to assist in making new construction and retrofit projects in schools as energy-and-cost-efficient as possible. Contact the VSA School Energy Management Program at (802) 229-1017.

Information about how schools can take advantage of low-cost wood chip heating systems is also available from the DPS. Contact the DPS biomass staff at (802) 828-4056.

Department of Labor and Industry Regional Map



State of Vermont

Fire Prevention Division
Department of Labor & Industry

-Central Office-

National Life Office Building - Drawer 20
Montpelier VT 05620-3401
Phone: (802)828-2106 Fax: (802-2195)

-Regional Offices-

Barre - 71Washington Street - Suite 100
Barre VT 05641
Phone: (802)479-4434 Fax: (802)479-4446

Rutland - 430 ASA Bloomer Office Building - Merchants Row
Rutland VT 05701
Phone: (802)786-5867 Fax: (802)786-5872

Springfield - 100 Mineral Street - Suite 307
Springfield VT 05156
Phone: (802)885-8883 Fax: (802)885-8885

Williston – 372 Hurricane Lane - Suite 102
Williston VT 05495
Phone: (802)879-2300 Fax: (802)879-2312

Vermont Department of Labor and Industry

- Fire Prevention Division -

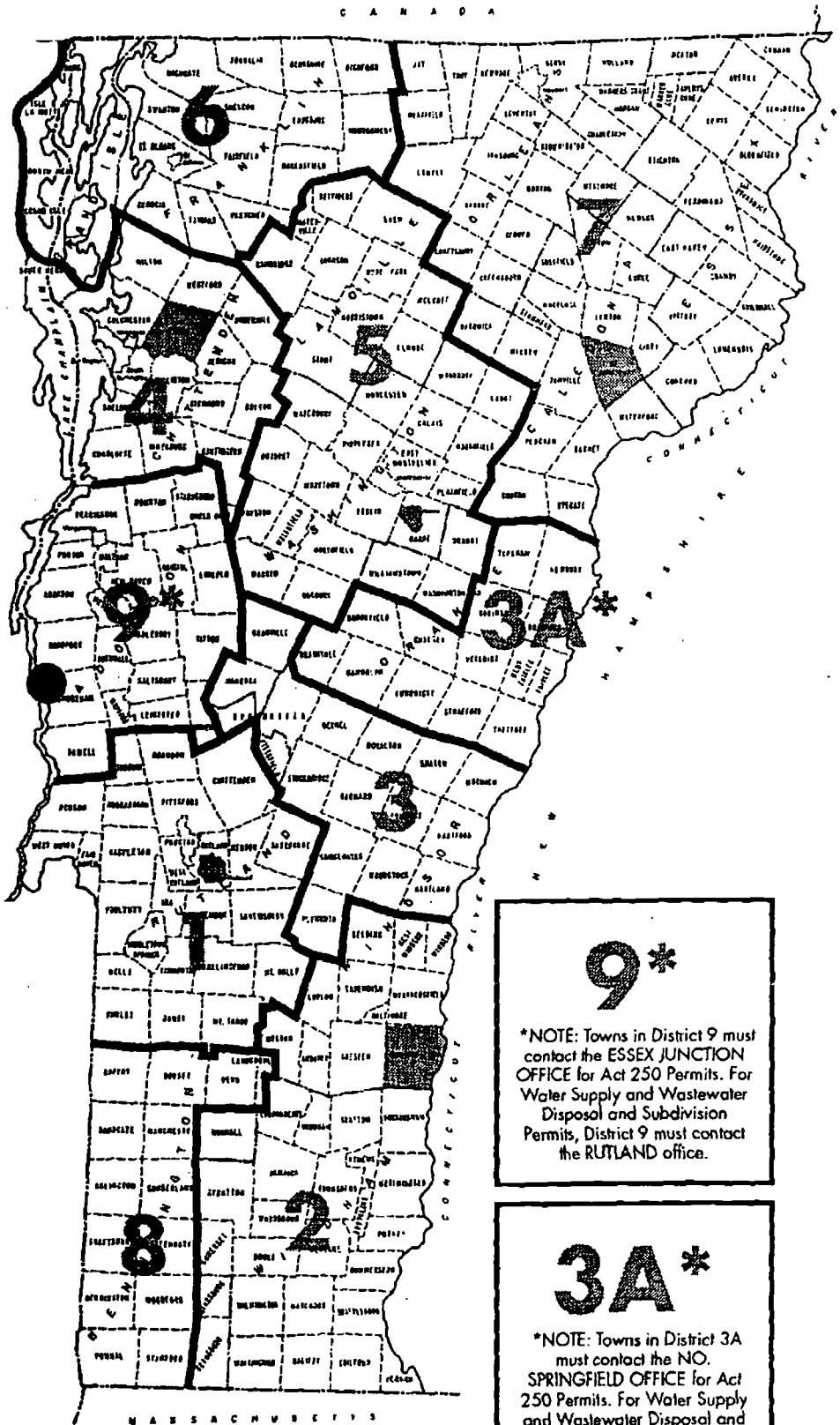
-Main Office – Montpelier –

Division Director, Assistant State Fire Marshall	- All Districts - 828-2747 – Robert Howe
Assistant State Fire Marshal	- All Districts - 828-2744 - Stan Baranowski

Barre	Regional Manager	479-4435 - Robert Mackin
	Boiler Inspector	479-4439 - Wesley Crider
	Electrical Inspector	479-4440 - Wayne Dunlap
	Electrical Inspector	479-4444 - Joe Rutledge
	Assistant State Fire Marshal	479-4437 - Paul Cerutti
	Assistant State Fire Marshal	479-4438 - Brad Charron
	Assistant State Fire Marshal	479-4443 - Ken Pease
	Assistant State Fire Marshal	479-4442 - Mike Desrochers
Rutland	Regional Manager	786-5870 - Dick Schlieder
	Boiler Inspector	885-8968 - Rene Garceau
	Electrical Inspector	786-0071 - Walter Lanzelin
	Electrical Inspector	786-0072 - Pete Olney
	Assistant State Fire Marshal	786-5868 - Frank Chioffi
	Assistant State Fire Marshal	786-0070 - Robert Kilpeck
	Assistant State Fire Marshal	786-0073 - Fran Robillard
	Assistant State Fire Marshal	786-0078 - Michael Skaza
Springfield	Regional Manager	885-8967 - Bruce Martin
	Boiler Inspector	885-8968 - Rene Garceau
	Electrical Inspector	885-8966 - Dave Laplante
	Electrical Inspector	885-8965 - Dave Luce
	Assistant State Fire Marshal	885-8942 - Terry Deen
	Assistant State Fire Marshal	885-8964 - Frank Garaffa
	Assistant State Fire Marshal	885-8971 - Pat Haley
	Assistant State Fire Marshal	885-8970 - Butch Sutherland
Williston	Regional Manager	879-2302 - Robert Patterson
	Boiler Inspector	879-2304 - Malcolm Wheel
	Electrical Inspector	879-2307 - Dave Kenyon
	Electrical Inspector	879-2309 - Monte Mason
	Assistant State Fire Marshal	879-2310 - Joe Benard
	Assistant State Fire Marshal	879-2306 - Chris Boyd
	Assistant State Fire Marshal	879-2305 - Michael Greenia
	Assistant State Fire Marshal	879-2303 - John Vergin

Agency of Natural Resources Regional Offices and District Environmental Commissions

Internet address for Permit Specialist Locator: www.anr.state.vt.us/dec/ead/eadhome/permit.htm



9*

*NOTE: Towns in District 9 must contact the ESSEX JUNCTION OFFICE for Act 250 Permits. For Water Supply and Wastewater Disposal and Subdivision Permits, District 9 must contact the RUTLAND office.

3A*

*NOTE: Towns in District 3A must contact the NO. SPRINGFIELD OFFICE for Act 250 Permits. For Water Supply and Wastewater Disposal and Subdivision Permits, District 3A must contact the BARRE office.

Districts 1 & 8

Rick Oberkirch, Permit Specialist
William Burke, District 1 Coordinator
Warren Foster, District 8 Coordinator
David Swift, Regional Engineer
Ray Dean, Ass't. Regional Engineer
Marsha Thompson, Ass't. Regional Engineer
Fred Nicholson, Stream Alteration Permit
Asa Bloomer State Office Bldg
Rutland, VT 05701-5903
(Act 250) — (802) 786-5920
(ANR) — (802) 786-5900
Permit Specialist — (802) 786-5907

Districts 2 & 3

Sandro Conant, Permit Specialist
April Hensel, District 2 Coordinator
Julia Schmitz, District 3 Coordinator
Linda Matteson, Ass't. District 2 Coordinator
Daniel Wilcox, Regional Engineer
Dolores Kuhn, Ass't. Regional Engineer
Terry Shearer, Ass't. Regional Engineer
100 Mineral St., Springfield, VT 05156
(802) 885-8855
Permit Specialist — (802) 885-8850

Districts 4, 6 & 9*

Dolores LaRiviere, Permit Specialist
Jim Boyd, District 4 Coordinator
Geoffrey Green, District 6 & 9 Coordinator

Ernest Christianson, Regional Engineer
Jessanne Wyman, Ass't. Regional Engineer
Bill Zabiloski, Ass't. Regional Engineer
111 West St., Essex Jct., VT 05452
(Act 250) — (802) 879-5614
(ANR) — (802) 879-5656
Permit Specialist — (802) 879-5676

Districts 5 & 3A*

Susan Haitsma, Permit Specialist
Ed Stanak, District 5 Coordinator
Diana Peduzzi, Ass't. District Coordinator
Donald Wernecke, Regional Engineer
John Klimenok, Jr., Ass't. Regional Engineer
Carl Fuller, Ass't. Regional Engineer
324 No. Main Street, Barre, VT 05641
(Act 250) — (802) 476-0185
(ANR) — (802) 476-0190
Permit Specialist — (802) 476-0195

District 7

Charles Gallagher, District 7 Coordinator
Susan Haitsma, Permit Specialist
Roland Grenier, Jr., Regional Engineer
Barry Cahoon, Stream Alteration Engineer
1229 Portland Street, Suite 201
St. Johnsbury, VT 05819
(Act 250) — (802) 751-0120
(ANR) — (802) 751-0130
Permit Specialist (Tues) — (802) 751-0127

Rev. 5/99

VERMONT AGENCY OF NATURAL RESOURCES (ANR) AND ENVIRONMENTAL BOARD (ACT 250)

PROJECT REVIEW SHEET

THIS IS NOT A PERMIT

TOTAL # DEC PERMITS _____ PRE-APPLICATION REVIEW_____
RESPONSE DATE _____ PENDING APPLICATION #_____
DISTRICT_____ TOWN _____ PIN #_____

OWNER OF PROJECT SITE:	**APPLICANT** OR REPRESENTATIVE:
NAME:_____	NAME: _____
ADDRESS:_____	ADDRESS: _____
_____	_____
TELEPHONE:_____	TELEPHONE: _____

Based on information provided by _____received on_____ a project was reviewed on a tract/tracts of land of _____ acres, located on _____. The project is generally described as:

THIS IS A SAMPLE. PLEASE CONTACT A PERMIT SPECIALIST AT A REGIONAL OFFICE FOR COMPLETION.

Prior Permits From This Office: _____

PERMITS NEEDED FROM THE DISTRICT ENVIRONMENTAL OFFICE PRIOR TO COMMENCEMENT OF CONSTRUCTION

1. ACT 250: THIS IS A JURISDICTIONAL OPINION BASED UPON AVAILABLE INFORMATION. ANY NOTIFIED PARTY OR INTERESTED PERSON AFFECTED BY THE OUTCOME MAY APPEAL TO THE ENVIRONMENTAL BOARD (ACT 250) WITHIN 30 DAYS OF THE ISSUANCE OF THIS OPINION (10 V.S.A. SEC. 6007(C)).

*Commercial, residential or municipal project?*_____ *Length of new/improved road(s)*_____
Has the landowner subdivided before?_____ When/where/# of lots _____
AN ACT 250 PERMIT IS REQUIRED: _____YES _____NO; Copies sent to Statutory Parties:_____YES _____NO
COMMENTS:

PLEASE CONTACT A DISTRICT COORDINATOR AT A REGIONAL OFFICE FOR COMPLETION.

SIGNATURE:_____DATE:_____ ADDRESS: District # Environmental Commission
(Assistant) District Coordinator Telephone:

2. WASTEWATER MANAGEMENT DIVISION REGIONAL OFFICE: PERMIT/APPROVAL REQUIRED _____ YES _____ NO
____ Water Supply & Wastewater Disposal ____ Subdivision &/or Exemption ____ Deferral of Subdivision
____ Tent/Travel Trailer Campground ____ Mobile Home Park ___Floor Drains (UIC) ____ Sewer Extension
REGIONAL ENGINEER ASSIGNED: _____

PLEASE CONTACT A PERMIT SPECIALIST AT A REGIONAL OFFICE FOR COMPLETION.
SIGNATURE:_____ DATE:_____ADDRESS: Agency of Natural Resources
_____ Environmental Assistance Division, Permit Specialist Dept. of Environmental Conservation
_____ Wastewater Management Division, Telephone: 802

THIS IS A PRELIMINARY, NON-BINDING DETERMINATION REGARDING OTHER PERMITS WHICH YOU MAY NEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. PLEASE CONTACT THE DEPARTMENTS INDICATED BELOW AND ON THE REVERSE SIDE.

3. WASTEWATER MANAGEMENT DIVISION, ANR (802-241-3822) Contact:_____
_____ Discharge Permit; pretreatment permits; industrial, municipal _____ Stormwater permits (state and federal, UIC)
_____ Indirect discharge permit _____ Residuals management sludge disposal

OVER

OTHER PERMITS AND REVIEWS YOU MAY NEED: (Continued)

4. AIR POLLUTION CONTROL DIVISION, ANR (802-241-3840) Contact:_____

____ Construction/modification of source ____ Open Burning ____ Wood Chip Burners (>90HP)
____ Furnace Boiler Conversion/Installation ____ Industrial Process Air Emissions ____ Diesel Engines (≥ 200 bHP)

5. WATER SUPPLY DIVISION, ANR (802-241-3400) Contact: _____

____ Well head protection areas ____ Bottled Water ____ New Hydrants ____ Sprinkler Systems
____ Construction Permit, water system improvements ____ Permit to operate ____ New Source

6. WATER QUALITY DIVISION, ANR Contact:_____

____ Hydroelectric Projects (241-3770)
____ Shoreland encroachment (241-3777)
____ Wetlands (241-3770)
____ Stream Alteration (751-0129/786-5906)
____ Use of chemicals in State waters(241-3777)
____ Aquatic nuisance control (241-3777)
____ Section 401 Water Quality Certificate; (241-3770)
____ Water Withdrawal (241-3770)

7. WASTE MANAGEMENT DIVISION, ANR Contact: _____

____ Hazardous waste treatment, storage, disposal facility certificate (241-3888)
____ Hazardous waste handler notification requirement (241-3888)
____ Lined landfills; transfer stations, recycling facilities, drop off (241-3444)
____ Disposal of inert waste, untreated wood & stumps (241-3444)
____ Waste oil burning (241-3888)
____ Underground Storage Tanks (241-3888)
____ Asbestos Disposal (241-3444)
____ Composting Facilities (241-3444)
____ HW transporter certificate (241-3888)
____ Used septic system stone or tanks

8. FACILITIES ENGINEERING DIVISION, ANR Contact:_____

____ Dam operations (greater than 500,000 cu. ft.)(241-3451)
____ State funded municipal water/sewer extensions/upgrades and Pollution Control Systems (241-3750)

9. POLLUTION PREVENTION HOTLINE (1-800-974-9559) Contact: _____
RECYCLING HOTLINE (1-800-932-7100) Contact: _____
SMALL BUSINESS COMPLIANCE ASSISTANCE PROGRAM Contact: Judy Mirro 802-241-3745

10. DEPARTMENT OF FISH & WILDLIFE, ANR (802-241-3700) Contact:_____

____ Nongame & Natural Heritage program (Threatened & Endangered Species)
____ Stream Obstruction Approval

11. DEPARTMENT OF LABOR AND INDUSTRY (802-828-2106) or District Office#_____

____ Construction Permit fire prevention, electrical, plumbing, accessibility (Americans with Disabilities Act)
____ Storage of flammable liquids, explosives ____ LP Gas Storage
____ Plumbing in residences served by public water/sewer with 10 or more customers ____ Boilers and pressure vessels

12. DEPARTMENT OF HEALTH (800-439-8550 in VT) (802-863-7221) (Lab 800-660-9997) Contact:_____

____ Food, lodging, bakeries, food processors ____ Program for asbestos control & lead certification
____ Children's camps ____ Hot Tub Installation & Inspection - Commercial

13. AGENCY OF HUMAN SERVICES Contact:_____

____ Child care facilities (241-2158)
____ Nursing Homes (241-2345)
____ Residential care homes (241-2345) (Dept. of Aging & Disabilities)
____ Therapeutic Community Residence (241-2345)

14. AGENCY OF TRANSPORTATION Contact: _____

____ Access to state highways (residential, commercial) (828-2653)
____ Signs (Travel Information Council) (828-2651)
____ Development within 500' of a limited access highway (828-2653)
____ Construction within state highway right-of way (Utilities, Grading, etc.) (828-2653)
____ Junkyards (828-2067)
____ Railroad crossings (828-2760)
____ Airports and landing strips (828-2833)

15. DEPARTMENT OF AGRICULTURE Contact: _____

____ Use/sale of pesticides (828-2431)
____ Milk processing facilities (828-2433)
____ Golf courses (828-2431)
____ Green Houses/Nurseries (828-2431)
____ Slaughter houses, poultry processing (828-2426)
____ Animal shelters/pet merchant/livestock dealers (828-2421)
____ Weights and measures, Gas Pumps, Scales (828-2436)
____ Retail Sales/Milk/Meat/Poultry/Frozen Dessert/Class "C" Pesticides (828-2436)

16. PUBLIC SERVICE DEPARTMENT (800-642-3281) ____ VT Residential Building Energy Standards (see Enclosure)
17. DIVISION FOR HISTORIC PRESERVATION (802-828-3226) ____ Historic buildings ____ Archeological sites
18. DEPARTMENT OF LIQUOR CONTROL (1-800-832-2339) ____ Liquor licenses ____ General Info (1-800-642-3134)
19. SECRETARY OF STATE (1-802-828-2386) ____ Business registration ____ Professional Boards (1-800-439-8683)
20. DEPARTMENT OF TAXES (802-828-2551) ____ Business taxes (sales, meals & rooms, amusement machines)
21. DEPARTMENT OF MOTOR VEHICLES (802-828-2074) ____ Fuel taxes; commercial vehicle ____ Franchise tax/solid waste
22. LOCAL PERMITS (SEE YOUR TOWN CLERK, ZONING ADMINISTRATOR, PLANNING COMMISSION, OR PUBLIC WORKS)
23. FEDERAL PERMITS U.S. ARMY CORPS OF ENGINEERS, 8 Carmichael St.,Suite 205, Essex Junction, VT 05452 (802) 872-2893
24. OTHER:_____ PRS REV. 11/00

____**Sections #3-#24 above have been completed by the Permit Specialist:** _____**Date:**_____

State Board Policy on Historic Preservation
Adopted August 19, 1997

Policy Statement

1. Whereas, schools traditionally have been located within the physical centers of Vermonts's communities and have been a major contributing factor to the sense of community in Vermont; and

2. Whereas, the State Board recognizes the contemporary and future benefits of maintaining that sense of community in Vermont; and

3. Whereas, even in the event that a historic school is discontinued as an educational facility, it can remain a valued landmark of the community's heritage; and

4. Whereas, the costs and uses of rehabilitated buildings can be comparable to those of new construction;

5. Whereas, continued use of historic schools is consistent with Vermont's effort to focus public and private investment in existing community centers and preserves the public infrastructure already embodied in those centers;

It is therefore in the public interest to protect Vermont's historic schools for future generations and it shall be the policy of the Vermont State Board of Education that:

1. School districts be encouraged to use the existing infrastructure to meet the needs of Vermont's students and therefore funding for renovations, including major repairs, and additions to existing school buildings shall be given preference over new school development taking into consideration the educational needs of students and that the costs of rehabilitation do not unreasonably exceed the costs of such new development.

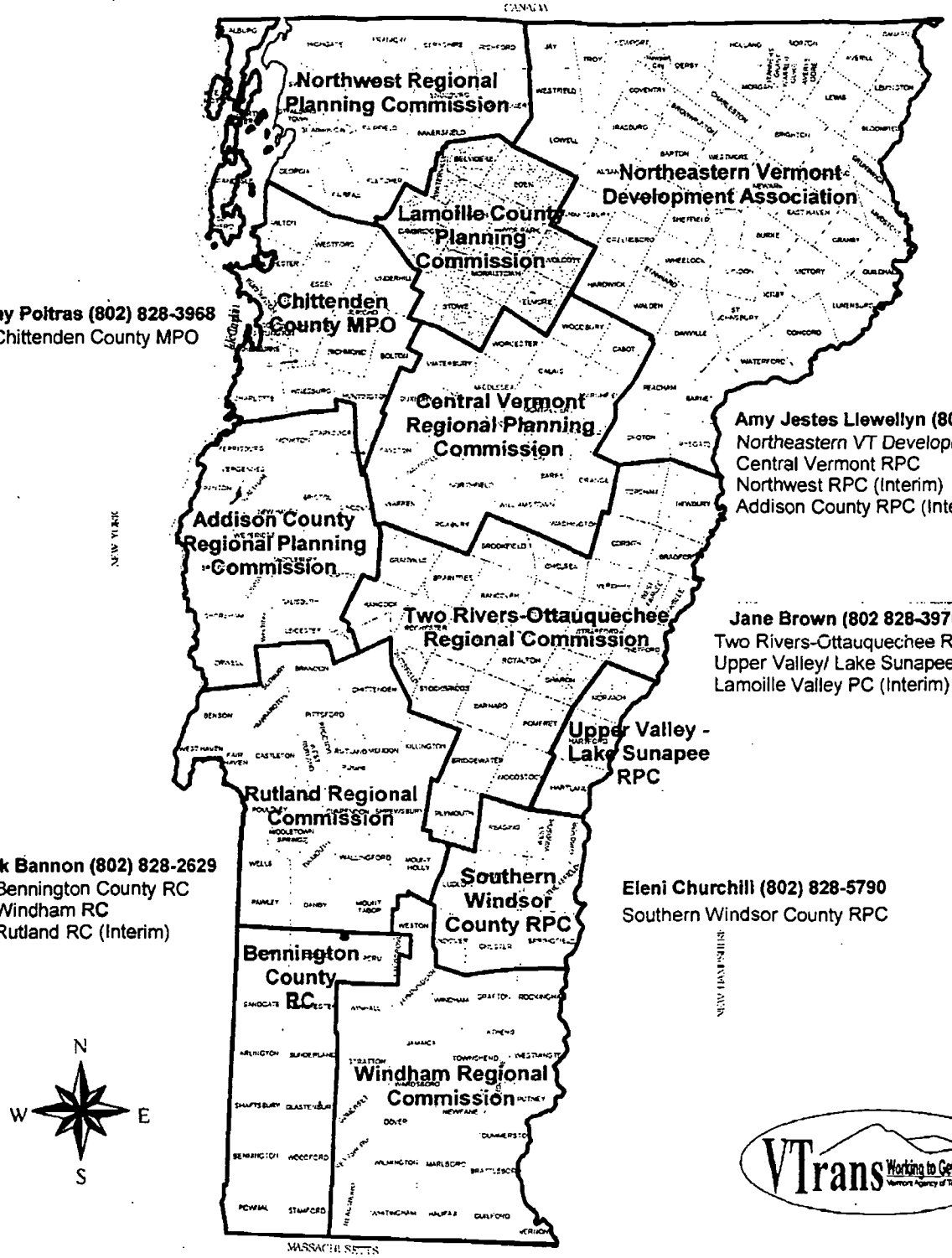
2. With specific respect to historic school buildings listed on or eligible for the state or national register of historic places, school districts shall make all reasonable efforts to preserve and protect such buildings and, wherever possible, rehabilitate or add to such buildings to permit continued use as a school building.

3. Where an historic school building has been determined to be unsuitable for continued use as a school, the Sstate Board encourages school districts to develop an adaptive reuse plan that incorporates a historic preservation easement or covenant on the property in conjunction with any plans for an new school building in order to avoid the abandonment or demolition of the historic building.

4. In furtherance of the above, the Department of Education shall work closely with the Division for Historic Preservation on general rules and policies as well as on individual school construction projects to ensure the Department's responsibilities pursuant to 22 V.S.A. §743 (4) ("assure that ...plans, programs, codes and regulations contribute to the preservation and enhancement of sites, structures and objects of historical, architectural, archeological or cultural significance") are properly carried out.

VERMONT AGENCY OF TRANSPORTATION
POLICY AND PLANNING DIVISION

Regional Planning Commissions and Metropolitan Planning Organization



Clay Poltras (802) 828-3968
Chittenden County MPO

Amy Jestes Llewellyn (802) 828-3967
Northeastern VT Development Assoc.
Central Vermont RPC
Northwest RPC (Interim)
Addison County RPC (Interim)

Jane Brown (802 828-3976
Two Rivers-Ottauquechee RC
Upper Valley/ Lake Sunapee RPC
Lamoille Valley PC (Interim)

Mark Bannon (802) 828-2629
Bennington County RC
Windham RC
Rutland RC (Interim)

Eleni Churchill (802) 828-5790
Southern Windsor County RPC

VTrans Working to Get You There
Vermont Agency of Transportation

Policy & Planning Division Phone: (802) 828-3960
Fax: (802) 828-3983

06JUL00

Asbestos Hazard Emergency Response Act
Title II of the Toxic Substances Control Act
40 CFR, Part 763, Subpart E

Scope and Purpose

The Asbestos Hazard Emergency Response Act (AHERA) requires public and private non-profit elementary and secondary schools to visually inspect school buildings for asbestos-containing materials (ACM) and to have an asbestos management developed. Schools are required to use persons who have been trained and accredited to conduct asbestos inspections, reinspections, develop management plans, or perform response actions.

The rule also includes recordkeeping requirements. Schools may contractually delegate their duties under this rule, but they remain responsible for the proper performance of those duties.

Schools, prior to opening a new building must have a completed asbestos management plan. Under emergency situations where a school moves into an inspected building, such buildings shall be inspected within 30 days after commencement of such use.

New additions to a school building also require the asbestos management plan to be updated.

NOTE:

- No school is excluded from having an asbestos management plan and complying with recordkeeping requirements. School built after October 12, 1988 may be excluded from the inspection requirement only if an architect or project engineer responsible for the construction or an asbestos inspector signs a statement that no asbestos containing building materials (ACBM) was specified as a building material in any construction document for the building or, to the best of his or her knowledge, no ACBM was used as a building material in the building.

- For additional information regarding certified and accredited persons to perform these activities, contact the Vermont Department of Health, Asbestos & Lead Program at 1-800-439-8550. The program can assist you by providing information regarding the federal rule and may be able to assist you in complying with the federal requirements.

- You may also contact the Region I Abatement Coordinator at the U.S. Environmental Protection Agency, Region I, Boston MA., 617-918-1524 for information.

Annual In-House Inspection

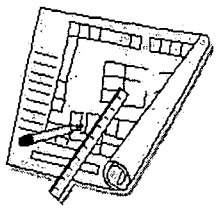
ASBESTOS MANAGEMENT PLAN

The Asbestos Hazard Emergency Response Act (AHERA) requires public and private, non-profit elementary and secondary schools to visually inspect school buildings for asbestos-containing building materials (ACBM) and to have an asbestos management plan developed. Schools are required to use persons who have been trained and accredited to conduct inspections, reinspections, develop management plans, or perform response actions.

Does the school have their asbestos management plan in the Administration office and on-site at the school building?	Yes	No	N/A
Have custodial and maintenance employees been properly trained?	Yes	No	N/A
Are workers and building occupants informed at least once each school year about inspections, response action activities, including periodic reinspection and surveillance activities that are planned or in progress?	Yes	No	N/A
Are short term workers (e.g. telephone repair, utilities, or exterminators) who may come into contact with asbestos in a school provided information regarding the locations of asbestos containing materials.	Yes	No	N/A
Any warning labels posted immediately adjacent to any friable and nonfriable ACBM and suspected ACBM assumed to be ACBM located in routine maintenance areas at each school building?	Yes	No	N/A
Is the asbestos management plan available for inspection and has the yearly notification of such availability been provided to parents and employees?	Yes	No	N/A
Had the school designated a person to carry out the implementation of the asbestos management plan?	Yes	No	N/A

References: 40 CFR Part 763, Asbestos-Containing Materials in School; Final Rule and Notice

Other School Construction Issues



By statute the State Board is not permitted to provide any construction aid for projects that have arisen in whole or in part from significant deferred maintenance.

Emergencies

V.S.A., T.16, §3448 addresses the method for responding to emergency construction in two ways. First, if the cost of any emergency work necessary to address health and safety threats to students and employees created by unanticipated circumstances or events is less than $50,000, the Commissioner may grant 30% construction aid. Schools need to request the emergency construction aid funds on a form prescribed by the Commissioner. The information districts are required to provide when applying for emergency aid is listed in State Board Rule 6129.

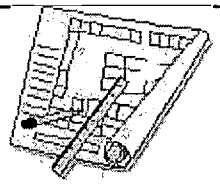
Secondly, if the cost exceeds $50,000, the district may apply for construction aid through the regular application process in accordance with the State Board Rules. The State Board will assign projects deemed an emergency by the Commissioner first priority for funding.

Remember, that by statute the State Board is not permitted to provide any construction aid for projects that have arisen in whole or in part from significant deferred maintenance. See Rule 6136.

Re-Applying for Construction Aid

Under the new priority process, not all school projects that are presented to the legislature are guaranteed funding for the next fiscal year. Those that do not receive funding will be included in the following year's request.

Not all school projects that are presented to the legislature will receive funding for the next fiscal year.



Rule 6119 includes a process for school districts to appeal their rating by the Commissioner of Education within fifteen days of receiving it.

With the help of professionals, schools need to plan for their entire technology infrastructure. Decisions need to be made around the electronic, telecommunication and cable infrastructure necessary to support the school's operations.

The Department recommends school personnel contact the Department of Forests, Parks and Recreation or the U.S. Consumer Product Safety Commission and request a copy of the ***Handbook for Public Playground***

Appealing the Rating

Rule 6119 includes a process for school districts to appeal their rating by the Commissioner of Education within thirty days of receiving it. The district must submit the appeal in writing to the State Board and indicate what aspect of the rating the district is appealing. The letter must provide the State Board with a basis upon which to reconsider the rating given to the district and should include all data necessary to support the appeal.

Technology

Increasingly schools are incorporating and relying on computer technologies to help students achieve academic standards. Students are accessing more software and Internet connections to assist with their studies than ever before. With the help of professionals, schools need to plan for their entire technology infrastructure. Decisions need to be made around the electronic, telecommunication and cable infrastructure necessary to support the school's operations. These will include the installation of public address, security, and telephone systems as well as computer hardware and software.

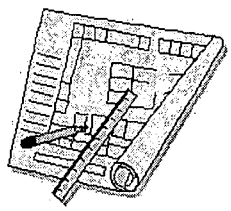
Vermont has established standards for all schools to meet when it comes to technology in their curriculums. Many schools have already developed technology plans to align with these standards. Of course, this plan should be used in planning any school construction project to ensure the objectives of the plan will be achieved with the construction.

Playgrounds

State Board Rules do not specifically address playground requirements or equipment. The Department recommends school personnel contact the Department of Forests, Parks and Recreation or the U.S. Consumer Product Safety Commission and request a copy of the ***Handbook for Public Playground Safety.*** The guidelines are not standards and not mandatory. However, if the recommendations are followed, they will minimize injuries associated with playground equipment and contribute to greater safety awareness when purchasing, installing and maintaining public playground equipment.

Purchase of a Building

Sometimes a district may want to purchase a building to meet its facility needs. The Commissioner has developed a different application form to use when purchasing a building. In addition to the some of exhibits required when constructing a new facility, this application requires an appraisal of the property by two or more independent appraisers, the cost of the building exclusive of site costs, type of construction, and year of construction (See Application section beginning on page 73).



The Commissioner has developed a different application form to use when purchasing a building.

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A copy of the July 1999 subcommittee on Indoor Air Quality in school buildings is available from the Department of Education.

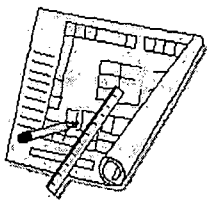
Indoor Air Quality

The 1995-1996 session of the general assembly established a committee on Vermont Indoor Air Quality in response to concerns raised by many Vermont residents who either work in state buildings or attend schools with inadequate ventilation. The legislature asked this committee to examine the quality of indoor air in state buildings and schools and to draft proposed rules to assure acceptable indoor air quality in these buildings.

The statewide committee was divided into a state buildings and school buildings subcommittee. The subcommittee on schools met over the course of a year with the goal of issuing a report on indoor air quality standards for schools. The committee examined standards for designing and maintaining buildings so as to avoid or mitigate indoor air quality problems and explored protocols for dealing with indoor air quality complaints as they arose at the building level.

A copy of the July 1999 report of the subcommittee on indoor air quality in school buildings is available from the Department of Education.

The 2000 session of the general assembly enacted Act 125 relating to Indoor Air Quality in Vermont public schools. Act 125 directed that a model school environmental health policy and management plan be developed.



The protocol requires each school board to ensure that all schools under its jurisdiction are well maintained in a safe and sanitary condition.

Model Safety and Health Protocol for Schools

The 1997 General Assembly charged the State Board of Education with developing a model safety and health protocol for schools. The protocol requires each school board to ensure that all schools under its jurisdiction are well maintained in a safe and sanitary condition. It assigns to the administration of the school the responsibility for maintaining a safe and healthy school and for periodically inspecting the buildings and grounds. The protocol includes an annual in-house inspection to ensure that every student is provided a physical learning environment that is safe, secure and well maintained. To assist schools with conducting an annual in-house inspection, the Department of Education has produced a draft model guideline based on school safety standards and guidelines. These two draft documents are available upon request.

Capital Outlay Financing Formula

State of Vermont
Department of Education
Montpelier, Vermont

EFFECTIVE:
September 1, 2001

STATE BOARD OF EDUCATION

The State Board of Education voted to establish the effective date for implementation of the current Capital Outlay Financing Formula as of September 1, 2001.

On August 18, 1998 the State Board of Education voted to approve that the maximum eligible cost for construction aid shall be determined by applying the capital outlay financing formulas to the approved educational specifications for a proposed project. The maximum cost for state participation shall in no way limit the amount of construction cost that a local district may authorize or expend on a project. The capital outlay financing formulas shall be subject to review by the State Board of Education every year.

State Board Rule: Series 6000

Maximum Eligible Building Costs For State Participation Purposes:

The formulas and procedures that follow are intended to determine the maximum eligible cost for state participation purposes on any school construction project eligible for state construction aid under Vermont statutes and State Board of Education policy. The maximum eligible cost shall be determined by the Commissioner applying the formulas to the approved educational specifications for the proposed project, but shall in no way limit the amount of construction cost that a local district may authorize or expend on a project. If the local district wishes to authorize construction costs in excess of this figure, it may, but the state construction aid will be calculated on the basis of the maximum eligible cost. Any costs in excess of this will be borne by the local district. The space allocation formulas and allowable cost per square foot of construction shall be subject to review by the State Board of Education every year.

Definitions: For purposes of determining eligibility, the following definitions shall apply:

Costs Eligible for Construction Aid

1. Emergency project costs required to address imminent threats to safety and health of students or employees for which construction is necessary.
2. Fees for permits, clerk of the works, and legal, architectural and engineering services.
3. Razing existing on-site structures.
4. Installation of utilities and associated costs either on-site or where legal right-of-way is obtained by the school district, including grading, drainage facilities, power plants, sewer, water, wells and pumps, waste treatment, electricity, roads, walks, parking areas and lighting.
5. Athletic fields and other site development projects necessary to provide exterior facilities to carry out an approved educational program.
6. Landscaping incidental to the construction.
7. Construction to meet state agency regulations, including but not limited to fire and safety, environmental, and VOSHA.
8. Roof replacement if:
   (a) it is a structural improvement which will extend the life of the building, or
   (b) the roof has exceeded its life expectancy and will be completely replaced and upgraded.
9. School building construction or purchase, and extensive additions, alterations and renovations to existing schools consistent with 16 VSA §3448(a)(2)(A).
10. Fixed equipment approved by the Commissioner.

Partially Eligible Costs:

1. Swimming pools, skating rinks, theaters, and other structures with valid education functions but primarily programmed for community use and/or revenue production are to be counted into the total space allowances eligible for construction aid at a percentage which is the ratio of educational use to total use; such percentage to be determined in each case by the Commissioner. Auxiliary spaces, such as locker rooms, changing rooms, spectator areas and mechanical equipment areas may be included as partially eligible costs.
2. School Construction on land or buildings which are part of a permanent deeded easement or right-of-way is eligible for state participation as a partially eligible cost at a percentage to be determined by the Commissioner.
3. Office space for administration.

Non-eligible Costs

1. Structures or spaces designed exclusively for use of other agencies or services such as community centers, town offices, or civil defense shelters.
2. Repair or maintenance projects that do not amount to extensive additions, alterations or renovations.
3. Stadiums
4. School furniture, computers, computer hardware, cleaning equipment and supplies.
5. Interest on bonding or short term borrowing costs.
6. Time spent on the construction project by school board members or employees of the district.
7. Deferred Maintenance. No state construction aid shall be available for any proposed project or construction which has arisen in whole or in part from significant deferred maintenance. For the purpose of this section, "deferred maintenance" means costs for construction repairs or other improvements necessitated by the lack of reasonable and timely maintenance including periodic minor repairs of school buildings and mechanical systems.

Questionable Costs of Spaces

1. Costs or spaces not falling clearly within the list of eligible or partially eligible costs or spaces and not specifically excluded as non-eligible shall be submitted to the Commissioner for status determination prior to project commencement, or shall automatically be considered as not eligible for construction aid.
2. Districts aggrieved by the decision of the Commissioner regarding eligible cost may appeal to the State Board of Education. The State Board after opportunity

MINIMUM SQUARE FEET PER STUDENT FOR PROGRAM AND SERVICES IN GRADES K-6

If one or more of the following are included in the proposed construction aid project, the following minimum requirements shall apply by grade range and school size for the program and service areas.

Program and Services	Minimum Square Footage Required For Design
1. Kindergarten	50 square feet net per student use
2. General Instruction	30 square feet net per student use
3. Library	<250 students: 750 sq. ft. net; >249 students: 3 sq. ft. per student
3a. Library Storage	10% floor area
3b. Lirbrary Workroom/Conference	10% floor area
4. Art	50 square feet net per student use
4a. Art Storage	10% floor area
5. Music Classroom	30 square feet net per student use
5a Music Storage	10% floor area
6. Combined labs for 2 or More Specific Programs, incl Science	50 square feet net per student use
6a. Combined Lab Storage Area	10% floor area
7. Computer Lab	30 square feet net per student use
7a. Computer Lab Service Area	50 square feet
8. Special Services	2 square feet x capacity
9. Multi-Purpose Room	<60 students: 1,200 square feet; >59 students: 2,400 square feet net
9a. Multi-Purpose Storage	<60 students: 10% floor area; >59 students: 15% floor area
10. Gymnasium	3,840 square feet Regulation Court
10a. Gymnasium Storage	10% floor area
11. Cafeteria/Dining Room	7 square feet net x planned seating capacity
11a. Cafeteria/Dining Room Storage	5% floor area
12. Kitchen: Onsite production and includes required storage	<250 students: 500 square feet net: >249 students: 3 square feet x capacity; >500 students: 2 square feet x capacity
13. Auditorium	>499 students: 6 square feet x capacity
14. Theater	>499 students: 2 square feet x capacity
15. Stage	5% floor area multi-purpose, gymnasium or dining rooms
16. Health	<250 students: 150 square feet net plus toilet facilities:
	>249 students: 1 square foot x capacity plus toilet facilities
17. Guidance	1 square foot x capacity
18. Conference	1 square foot x capacity
19. Administration	3 square feet x capacity
20. Project Rooms	3 square feet x capacity less kindergarten population
21. Teacher Planning Room	2 square feet x capacity
22. General Storage	2 square feet x capacity
23. Sub-Total	
24. Supports (toilets, halls, etc...)	No greater than 30% of sub-total

MINIMUM SQUARE FEET PER STUDENT FOR PROGRAM AND SERVICES IN GRADES K-8

If one or more of the following are included in the proposed construction aid project, the followng

Program and Services	Minimum Square Footage Required For Design
1. Kindergarten	50 square feet net per student use
2. General Instruction	30 square feet net per student use
3. Library	<250 students: 750 sq. ft. net; >249 students: 3 sq. ft. per student
3a. Library Storage	10% floor area
3b. Lirbrary Workroom/Conference	10% floor area
4. Art	50 square feet net per student use
4a. Art Storage	10% floor area
5. Music Classroom	30 square feet net per student use
5a Music Storage	10% floor area
6. Music/Instrumental	50 square feet net per student use >100 students; 2,000 square feet
6a. Music/Insturmental Storage	10% floor area
7. Science Laboratory	50 square feet net per student use
7a. Science Preparation Storage	10% floor area
8. Foreign Language	30 square feet net per student use
9. Family Consumer Science	50 square feet net per student use
9a. Family Consumer Storage	10% floor area
10. Combined labs for 2 or More Specific Programs, incl. Science	50 square feet net per student use
10a. Combined Lab Storage Area	10% floor area
11. Computer Lab	30 square feet net per student use
11a. Computer Lab Service Area	50 square feet
12. Special Services	2 square feet x capacity
13. Multi-Purpose Room	<60 students: 1,200 square feet; >59 students: 2,400 square feet net
13a. Multi-Purpose Storage	<60 students: 10% floor area; >59 students: 15% floor area
14. Gymnasium	3,840 square feet Regulation Court
14a. Gymnasium Storage	10% floor area
14b. Locker Rooms	10% floor area
15. Cafeteria/Dining Room	7 square feet net x planned seating capacity
15a. Cafeteria/Dining Room Storage	5% floor area
16. Kitchen: Onsite production and includes required storage	<250 students: 500 square feet net: >249 students: 3 square feet x capacity; >500 students: 2 square feet x capacity
17. Auditorium	>499 students: 6 square feet x capacity
18. Theater	>499 students: 2 square feet x capacity
19. Stage	5% floor area multi-purpose, gymnasium or dining rooms
20 Health	<250 students: 150 square feet net plus toilet facilities: >249 students: 1 square foot x capacity plus toilet facilities
21. Guidance	1 square foot x capacity
22 Conference	1 square foot x capacity
23. Administration	3 square feet x capacity
24. Project Rooms	3 square feet x capacity less kindergarten population
25. Teacher Planning Room	2 square feet x capacity
26. General Storage	2 square feet x capacity
27. Sub-Total	No greater than 30% of sub-total
28. Supports (toilets, halls, etc...)	

MINIMUM SQUARE FEET PER STUDENT FOR PROGRAM AND SERVICES IN MIDDLE OR JUNIOR HIGH GRADES

If one or more of the following are included in the proposed construction aid project, the followng minimum requirements shall apply by grade range and school size for the program and service areas.

Program and Services	Minimum Square Footage Required For Design
1. General Instruction	30 square feet net per student use
2. Library	4 square feet x capacity; minimum 1000 square feet
2a. Library Storage	10% floor area
2b. Lirbrary Workroom/Conference	10% floor area
3. Art	50 square feet net per student use
3a. Art Storage	10% floor area
4. Music Classroom	30 square feet net per student use
4a. Music Storage	10 % floor area
5. Music/Instrumental	50 square feet net per student use >100 students 2, 000 square feet
5a. Music/Insturmental Storage	10% floor area
6. Science Laboratory	50 square feet net per student use
6a. Science Preparation Storage	10% floor area
7. Foreign Language	30 square feet net per student use
8. Tech Ed/Family Consumer Science	50 square feet net per student use
8a. Tech Ed/Family Consumer Storage	10 % floor area
9. Combined labs for 2 or More Specific Programs above	50 square feet net per student use
9a . Combined Lab Storage Area	10% floor area
10. Computer Lab	30 square feet net per student use
10a. Computer Lab Service Area	50 square feet
11. Special Services	2 square feet x capacity
12. Multi-Purpose Room	<60 students: 1,200: >59 students: 2,400 square feet net
12a. Multi-Purpose Storage	<60 students: 10% floor area; >59 students: 15% floor area
13. Gymnasium	3,840 square feet Regulation Court
13a. Gymnasium Storage	10% floor area
13b. Locker Rooms	10% floor area of gym, per locker room
14. Cafeteria/Dining Room	10 square feet net x planned seating capacity
14a. Cafeteria/Dining Room Storage	5% floor area
15. Kitchen: Onsite production and includes required storage	<250 students: 500 sq. feet net: >249 students 3 sq. ft. x capacity >500 students: 2 square feet x capacity
16. Auditorium	8 square feet x capacity
17. Theater	3 square feet x capacity
18. Stage	5% floor area multi-purpose, gymnasium, or dining room
19 Health	<250 students: 150 square feet net plus toilet facilities; >249 students: 1 square feet x capacity
20. Guidance	2 square feet x capacity
21. Conference	1 square foot x capacity
22. Administration	3 square feet x capacity
23. Project Rooms	4 square feet x capacity
24. Teacher Planning Room	2 square feet x capacity
25. General Storage	2 square feet x capacity
26. Sub-Total	
27. Supports (toliets, halls, etc...)	No more than 30% of sub-total

MINIMUM SQUARE FEET PER STUDENT FOR PROGRAM AND SERVICES FOR HIGH SCHOOL

If one or more of the following are included in the proposed construction aid project, the followng minimum requirements shall apply by grade range and school size for the program and service areas.

	Program and Services	Minimum Square Footage Required For Design
1.	General Instruction	30 square feet x capacity @ 70%
2.	Library	4 square feet x capacity; minimum 1000 square feet
2a.	Library Storage	10% floor area
2b.	Library Workroom/Conference	10% floor area
3.	Art	50 square feet net per student use
3a.	Art Storage	10% floor area
4.	Music Classroom	30 square feet net per student use
4a.	Music Storage	10% floor area
5.	Music/Instrumental	50 square feet net per student use >100 students 2,500 sq. feet
5a.	Music/Instrumental Storage	10% floor area
6.	Science Lab	50 square feet net per student use
6a.	Science Preparation/Storage	10% floor area
7.	Foreign Language	30 square feet net per student use
8.	Tech Ed/ Family Consumer Science	50 square feet net per student use
8a.	Tech Ed./Family Cons Sci Storage	10% floor area
9.	Combined Lab of 2 or more Specific Programs above	50 square feet net per student use
9a.	Combined Lab Storage	10% floor area
10.	Computer Lab	30 square feet net per student use
10a.	Computer Lab Storage	50 square feet
11.	Special Services	2 square feet x capacity
12.	Multipurpose Room	<60 students: 1,200; >59 students: 2,400 square feet net
12a.	Multipurpose Room Storage	<60 students: 10% floor area; >59 students: 15% floor area
13.	Gymnasium	5,040 square feet Regulation Court
13a.	Gymnasium Storage	10% floor area
13b.	Locker Rooms	10% floor area of gym, per locker room
14.	Cafeteria/Dining Room	10 square feet net x planned seating capacity
14a.	Cafeteria/Dining Room Storage	5% floor area
15.	Kitchen: Onsite production and all required storage	<400 students: 3 square feet; >399 students: 2 square feet
16.	Auditorium	8 square feet x capacity
17.	Theater	3 square feet x capacity
18.	Stage	5% floor area: multipurpose, gymnasium, or dining room
19.	Health	<500 students: 500 square feet; >499 students: 2 sq. feet x capacity
20.	Guidance	2 square feet x capacity
21.	Conference	2 square feet x capacity
22.	Administration	4 square feet x capacity
23.	Project Rooms/Student Centers	3 square feet x capacity
24.	Teacher Planning Rooms	2 square feet x capacity
25.	General Storage	2 square feet x capacity
26.	Sub-Total	
27.	Supports (toilets, halls,etc....)	No more than 30% of sub-total

MAXIMUM SPACE AND PARAMETERS FOR CONSTRUCTION AID

The space parameters below shall determine the Maximum Gross Square Footage Per Student Capacity for State Participation on portions of a project eligible for construction aid.

Space Allowance Table

Grade Range	Gross Square Footage Per Student, for schools of any size
K-6	120
K-8	125
Middle or Junior High School	140
High School	160

A. The Commissioner will determine an average gross square footage per student when a 7-12 or K-12 combination is proposed.

B. The Commissioner will determine an average gross square footage per student and apply the necessary minimum and maximum square footages to unique combinations of grades.

C. In cases of renovations and additions the Commissioner will determine the gross square footage useable for educational purposes of an existing building establishing the maximum square footage allowable for construction aid.

MAXIMUM COST PARAMETERS FOR CONSTRUCTION AID

The Maximum Cost for State Participation shall be determined by multiplying the basic unit cost by the total allowable square footage. The basic unit cost reflects all costs associated with the construction. The total cost will not exceed **$145** per square foot for new construction except as noted below.

A. BASIC UNIT COST INCREMENTS THAT WOULD BE ELIGIBLE FOR STATE CONSTRUCTION AID

FOR NEW PROJECT 10,000 SQUARE FEET OR LARGER	BUILDING COSTS INCLUDING FEXED EQUIPMENT (OR EQUIVALENT) AND FEES (PER SQUARE FOOT)	DEMOLITION (WHERE NECESSARY) (PER SQUARE FOOT)	SITE WORK (EXCLUDING WASTE TREATMENT) (PER SQUARE FOOT)	WASTE TREATMENT FACILITIES (WHEN NOT ON MUNICIPAL SEWER) (PER SQUARE FOOT)
Elementary K-6	$116.00	$3.00	$9.00	$5.00
Elementary K-8	$122.00	$3.00	$9.00	$5.00
Middle Grades or Junior High School	$122.00	$3.00	$9.00	$5.00
High School	$128.00	$3.00	$9.00	$5.00

B. For remodeling existing educational spaces, the maximum eligible building cost is 70% of the building cost figures above. For site work and waste treatment, when applicable, above figures to apply.

C For conversion of existing non-educational spaces to educational use, maximum building cost to be 65% of above figures. Above figures to apply on site work and waste treatment where applicable.

D. Additional Increments for Special Circumstances:
In the event of unusually difficult and unavoidable site conditions engaging more than normally expensive site work or waste treatment facilities, and renovations to existing buildings to retain their historical features, the unit cost increments for these areas may be increased by the Commissioner of Education.

E. Renewable energy: Additional costs associated with the installation of non-fossil fuel heating/cooling systems will be added to the Maximum Cost for State Participa tion and reimbursed as defined by statute. See 16 VSA §3448 (7) (B).
Districts applying for aid under this section may be asked to submit estimates prepared by qualified professionals to quantify the specific component costs in excess of the cost for a traditional fossil fuel system.

F. Cost Index Relationship: Unit costs will be subject to annual readjustment by the State Board

DETERMINING COSTS FOR NEW SCHOOL CONSTRUCTION, ALTERATIONS AND ADDITIONS

For new school construction, determine the total space allowance for the project from the Space Allowance Tables. Using the Space Allowance chart multiply the approved gross square footage by the maximum square footage cost.

To determine space allowance for an addition, deduct from the total space allowance the area of the existing building adjusted for its current age status by multiplying the area by the applicable use factors listed below.

Use factors for existing structures:

Basement areas	25%
Above grade pre-1945 facilities	70%
Above grade facilities constructed since 1945	80%

To determine the maximum cost for state participation purposes, multiply the new space allowance by the unit cost for new construction and multiply the area in the existing building that is identified for remodeling by the unit cost identified in the Basic Unit Cost chart and the supplemental increment allowed for an addition.

- The following example determines the Maximum Cost for State Participation (M.C.S.P.) for a new elementary school K-6 with an approved design capacity of 340 students. Includes an allowance for site work and on-site waste treatment.

  Total space allowance: 340 X 120 square feet = 40,800
  M.C.S.P.: 40,800 square feet X ($116+9+5) = $5,304,000

- The following example demonstrates the Maximum Cost for State Participation (M.C.S.P.) for a 20,000 square foot addition and alteration to a K-6 elementary school with an approved design capacity of 340 students. The existing building is 20,000 square feet of 1930 vintage, and 12,000 square feet will be remodeled. Includes an allowance for site work and on-site waste treatment.

Total Space Allowance:	340 X 120 square feet =	40,800
Minus Existing Building Sq Footage:	20,000 X 70% =	14,000
Space Allowance for Additional Square Footage:		26,800

Cost per Square Foot for New Construction:	26,800 X ($116+9+5) =	$3,484,000
Renovations to Existing Building:	12,000 X ($116 X 70%)=	$974,400
Maximum Cost for State Participation:		$4,458,400

Minimum Requirements:
Minimum requirements regarding facility planning and construction will be those included in State Board of Education rules 6100.

LETTER OF INTENT TO APPLY FOR CONSTRUCTION AID

Date: _____

School Building: _____

School District: _____

Superintendent: _____

The school directors of this district have determined that a need exists to undertake planning associated with new school construction, major addition or renovations to existing school buildings. The anticipated construction will serve pupils in grades _____to_____.

Notice is hereby given of the intention of the school directors to make eventual application for all state financial assistance available to a project of this type.

The directors hereby request a pre-construction evaluation with a representative of the Department of Education to review requirements to be met in the planning of this project. The necessary documents to complete this preliminary application are completed, enclosed and approved by the directors.

_____ _____

School Board Chair Superintendent of Schools

EXHIBITS ENCLOSED

- ❑ Facilities Analysis
  - Documentation of existing building deficiencies
  - History of maintenance efforts
  - Existing floor plans with square footages

- ❑ Enrollment Projections (for deficiencies that are partial or totally due to student population growth). Calculations of existing building capacity or capacity as approved by the State Board of Education at time of last construction if available.

- ❑ Space Utilization
  - Submit existing floor plan with all spaces identified by their current use.

CONSTRUCTION AID APPLICATION
V.S.A., Title 16, §3448, as amended

This application and all applicable exhibits must be submitted to the Department and approved by the State Board of Education before construction begins.

School District: _____ Project: C-_____

Type of Funding: 30% _____

Application is hereby made for state assistance for the project described below:

Name and location of construction project: _____

_____

PROJECT DETAILS

TYPE OF PROJECTS:

_____ New construction
_____ Renovations or alterations
_____ Compliance with other state agencies
_____ Other (explain)
_____ Major addition
_____ Site development
_____ Relocatable Unit

DESCRIBE PROJECT:

_____
_____
_____
_____

ESTIMATED COST FIGURES:

General Construction: $_____

Area Vocational: $_____

Total estimated cost: $_____

Funds or bond issued and voted: $_____ Date:_____

Grades to be housed: _____ Capacity of building:_____

Usable number of acres in site: _____ Square foot area of this project:_____

Total Square Footage of Building Including New Addition: _____

Architect/Engineer: _____

Address: _____

EXHIBITS REQUIRED

A. Approved Educational Specifications.
B. Certified copy of resolution of legislative branch of school district stating that the public interest or necessity demands the school building improvements applied for as required by V.S.A. Title 24, § 1755.
C. Certified copy of warning voted upon by the school district and the recorded vote.
D. Summary of project budget.
E. Agreement by school district to refund to the State 30% of the sale price or actual grant, whichever is less, upon sale of any item or building for which aid was awarded,. Title 16, V.S.A. §3448 (b).
F. Agreement to provide high school instruction from a prescribed area. (where applicable)
G. Statement of qualifications for person who will supervise actual construction.
H. Evidence of bidding procedures to be followed, V.S.A. Title 16, §559:
   - documentation of prequalification
   - copies of bid summary
   - copies of prequalification, public bid process, selection of subcontractors and bid summary if construction management approach is used
I. Statement that a Commissioning Report will be provided
J. Final blueprints of the proposed construction project.
K. Statement of approval of access roads by the Department of Transportation. (where applicable)
L. Statement of approval of the plans from the Agency for Historic Preservation. (where applicable)
M. Statement of approval of the site from the Dept of Agriculture. (where applicable)
N. Statement of approval of the plans from the Agency of Natural Resources. (where applicable)
O. Act 250 Permit, where required.
P. Statement of approval of the plans by the Department of Labor and Industry ; Labor & Industry construction permit.
Q. Evidence of a performance bond or irrevocable letter of credit for general contractor or construction manager.
R. Proof of adequate builder's risk insurance and professional liability insurance.
S. Copy of title in fee simple or a permanent deeded easement or right-of-way for land. (when applicable)
T. Renewable Energy - Proof of excessive energy use resulting from design of a building, or reliance on fossil fuels or electric space heat, and/or cost analysis of savings of new system.

Signatures:

_____	_____
Chairperson	Superintendent of Schools
_____	_____
_____	_____
_____	_____
School Board Members	School Board Members

TYPE II CONSTRUCTION AID APPLICATION

Type II projects are projects that extend the useful life of a building but do not increase the building's size or capacity. Examples of projects under this subdivision are replacement, addition or repair to utilities, projects which address environmental quality issues, replacement of a roof, or replacement or upgrading of mechanical equipment.

This application and all applicable exhibits must be submitted to the Department and approved by the State Board of Education before construction begins.

School District: _____ Project: C-_____

Type of Funding: 30% _____

Application is hereby made for state assistance for the project described below:

Name and location of construction project: _____

prequalification_____
_____

DESCRIBE PROJECT:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

ESTIMATED COST FIGURES:

Total estimated cost: $_____

Funds or bond issued and voted: $_____ Date:_____

Grades housed: _____ Current enrollment:_____

Architect/Engineer: _____

Address: _____

EXHIBITS REQUIRED

A. Certified copy of resolution of legislative branch of school district stating that the public interest or necessity demands the school building improvements applied for as required by V.S.A. Title 24, §1755.

B. Certified copy of warning voted upon by the school district and the recorded vote.

C. Summary of project budget.

D. Agreement by school district to refund to the State 30% of the sale price or actual grant, whichever is less, upon sale off any item or building for which aid was awarded,. Title 16, V.S.A. §3448 (b).

E. Statement of qualifications for person who will supervise actual construction.

F. Evidence of applicable bidding procedures to be followed, V.S.A. Title 16, §559:
- documentation of pre-qualification
- copies of bid summary
- copies of pre-qualification, public bid process, selection of subcontractors and bid summary if construction management approach is used

G. Statement that a Commissioning Report will be provided (when necessary)

H. Blueprints or engineering specifications of the proposed construction project.

I. Statement of approval of access roads by the Department of Transportation. (where applicable)

J. Statement of approval of the plans from the Agency for Historic Preservation. (where applicable)

K. Statement of approval of the plans from the Agency of Natural Resources. (where applicable)

L. Act 250 Permit (where applicable)

M. Statement of approval of the plans by the Department of Labor and Industry ; L&I construction permit.

N. Evidence of a performance bond or irrevocable letter of credit for general contractor or construction manager.

O. Proof of adequate builder's risk insurance and professional liability insurance.

P. Renewable Energy - Proof of excessive energy use resulting from design of a building, or reliance on fossil fuels or electric space heat, and/or cost analysis of savings of new system.

Signatures:

_____	_____
Chairperson	Superintendent of Schools
_____	_____
_____	_____
_____	_____
School Board Members	School Board Members

EMERGENCY CONSTRUCTION AID APPLICATION

For Construction Projects <u>Under $50,000</u>
that are necessary to address health and safety threats to students
and employees created by unanticipated circumstances or events.

V.S.A., Title 16, §3448 (d), as amended
State Board of Education Rule Series 6129

School District: _____ Project: C-_____

Application is hereby made for 30% state assistance for the emergency project described below:

Name and location of construction project: _____

_____

ESTIMATED COST FIGURES:

Total estimated project cost: $_____

Source of Funds: $_____ Date:_____

Architect/Engineer: _____

Address: _____

_____ _____
Superintendent of Schools School Board Chair

EXHIBITS REQUIRED:

- ❑ Information on how the project will be funded.
- ❑ Summary of Project Budget.
- ❑ Detailed description of the nature and extent of health and safety hazards that exist and the extent they would be alleviated by the project or certification by an independent and qualified authority that a health and safety hazard exists to occupants unless the emergency work is completed.
- ❑ The estimated cost of the emergency construction with documentation where feasible by two or more independent qualified estimators.
- ❑ Agreement by school district to refund to the State 30% of the sale price or actual grant, whichever is less, upon sale of any item or building for which aid was awarded.
- ❑ Approval from all applicable state agencies.

EMERGENCY CONSTRUCTION AID APPLICATION

For Construction Projects Over $50,000
that are necessary to address health and safety threats to students and employees created by unanticipated circumstances or events.

V.S.A., Title 16, §3448 (a)3(A), as amended
State Board of Education Rule Series 6129

School District: _____ Project: C-_____

Application is hereby made for 30% state assistance for the emergency project described below:

Name and location of construction project: _____

_____

ESTIMATED COST FIGURES:

Total estimated project cost: $_____

Funds or bond issued and voted: $_____ Date:_____

Architect/Engineer: _____

_____ _____
Superintendent of Schools School Board Chair

EXHIBITS REQUIRED:

- ❑ Detailed description of the nature and extent of health and safety hazards and the extent they would be alleviated by the project, or certification by an independent and qualified authority that a health and safety hazard exists to occupants unless the emergency work is completed.
- ❑ Summary of project budget.
- ❑ Certified copy of warning voted upon by the school district and the recorded vote.
- ❑ Agreement by school district to refund to the State 30% of the sale price or actual grant, whichever is less, upon sale of any item or building for which aid was awarded,. Title 16, V.S.A. §3448 (b).
- ❑ Statement of qualifications for person who will supervise actual construction.
- ❑ Final blueprints or engineering specifications of the proposed construction project.
- ❑ Approval from all applicable state agencies.
- ❑ Evidence of a performance bond or irrevocable letter of credit for general contractor or construction manager.

ACQUISITION OF PRE-EXISTING BUILDINGS and SCHOOL FACILITIES

Construction Aid Application V.S.A., Title 16, 3448, as amended.

Building Cost Exclusive of Site: $_____

School District: _____

Building Dimensions: _____ Number of Rooms: _____

Grades to be Housed: _____ Building Constructed In: _____Year

Building to be purchased from (current owner:

_____

_____

Planned Use of this Building: _____

_____

Exhibits Required:

A. Certified copy of resolution of legislative branch of school district stating that the public interest or necessity demands the school building improvements applied for as required by V.S.A. Title 24, §1755.
B. Certified copy of warning voted upon by the school district and the recorded vote.
C. Agreement by school district to refund to the State 30% of the sale price or actual grant, whichever is less, upon sale of any item or building for which aid was awarded,. Title 16, V.S.A. §3448 (b).
D. Agreement to provide high school instruction from a prescribed area (where applicable).
E. Statement of bidding procedures to be followed V.S.A. Title 16, §559 (where applicable).
F. Detailed description of building purchased or complete detailed plans and specifications for relocatable unit. Statement of assessment of building to be acquired. (at least two). Statement of assessment of site, separate from building.
G. Statement of approval of access roads by the Department of Transportation. (where applicable)
H. Statement of approval of the plans from the Agency for Historic Preservation. (where applicable)
I. Statement of approval of the site from the Department of Agriculture. (where applicable)
J. Statement of approval of the plans from the Agency of Natural Resources. (where applicable)
K. Act 250 Permit (where applicable)
L. Statement of approval of the plans by the Department of Labor and Industry ; L&I construction permit.
M. Evidence of a performance bond or irrevocable letter of credit for general contractor or construction manager.

Signatures:

_____ _____ Date_____

School Board Chairperson

_____ _____

Appendix A

DEVELOPING A FACILITIES ANALYSIS

The Department of Education recommends that the following procedures be followed when developing the facilities analysis:

1. Collect and evaluate data on deficiencies in the existing building(s), including the program and service areas, heating and ventilation systems, health and safety conditions, technology capacity, etc.
2. Identify deficiencies in specific areas using the space/needs survey.
3. Incorporate inspection reports from Labor and Industry or other professionals.
4. If deficiencies are due to changes in curriculum, develop and analyze a room utilization schedule.
5. If deficiencies are partially or totally due to student growth, include enrollment projections.
   - In elementary schools, determine the student capacity of the existing building by using the combined square footage of all instructional areas and dividing by 30.
   - For middle or junior high schools, determine the capacity of instructional space as outlined above and then divide by 80 percent.
   - For high schools, determine the capacity of instructional space as outlined above and then divide by 70 percent.
   - Information about the capacity of the building as originally designed, or approved by the Department of Education at the time of the original construction, should be included if available.
6. Incorporate a maintenance history on the building.
7. Discuss the findings at a school board meeting.
8. Submit the accepted report to the Department of Education with the preliminary application.

SPACE NEEDS SURVEY

Faculty and staff should use this form to identify their needs to create an effective working environment. Information gathered here should then be transferred to the Educational Specifications.

Under the following headings describe the facilities which would best suit your assignments as a member of the school staff. Return your completed form to the building principal by _____.

Program Area:_____

(1) Space Type (e.g. 1st grade classroom, art storage room):

(2) Who works there (teacher and/or staff persons name):

(3) Description of activities that should go on here:

(4) List and give dimensions of furniture required:

(5) Storage needs associated with space (items to be stored within space and, separately, items to be stored outside of space):

(6) Likely number of occupants of space at any one time:

(7) Physical and environmental requirements of the space (e.g., lighting, sound control, floor surfaces, technology etc.):

(8) Likely frequency of use (includes time of day/night):

(9) Size and adequacy of currently available space (List good and bad features):

(10) Comments:

SYSTEM FOR

RATING

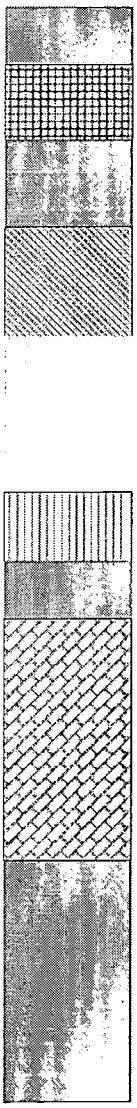
PROPOSED SCHOOL CONSTRUCTION PROJECTS

Adopted By:
The State Board of
Education on
August 21, 2001

Effective:
September 1, 2001

SUMMARY OF PRIORITY RATING SCORES

	Maximum Points
Community Use	2
Consolidation/Union District Formation	10
Health and Safety	24
Building Condition	32
Type of Space	12
Number of Years Exceeding Capacity	5 (1 point per year)
Mid Range Projection	3
Enrollment Projections	40
Years in Process	5 (for each year project is unfunded)
Identified Schools	10



DEFINITIONS OF COMPONENTS

Point System for Rating

All components will be rated equally. The following criteria will be applied to components with identified need.

Excellent:	Exceeds standards, and conditions do not pose a threat to the health and safety of students.
Good:	Is adequate for programs, services, enrollment, health and safety conditions.
Fair:	Demonstrating signs of need.
Poor:	Demonstrating problems.
Unsatisfactory:	Inadequate for programs, services. Enrollment poses a threat to the health and safety of students.

The following definitions and points will be applied when evaluating the different components of the priority system for ranking projects.

Community Use:

Approved educational specifications that include space for a community program that supports the school's educational program will receive 2 additional points.

Consolidation of Buildings or Union District Formations:

Proposals for the consolidation of one or more buildings, or like programs and services, which demonstrate cost effectiveness will receive 10 additional points.

Health and Safety:

Evidence of non-compliance with state and federal fire, health and safety regulations, including regulations of all state agencies with rules for construction and operation of public schools. 24 possible points.

Building Condition:

Evidence provided through professional evaluations of the condition of the existing building(s). 32 possible points.

Type of Space:

Evidence that utilization of current classroom space does not meet current enrollment or future enrollment projections. For the purpose of determining the capacity of an existing building that has not had any major construction within five years, the Vermont Department of Education will take the total classroom space square footage and divide by 30 square feet. Calculations for classroom space for 7-12 or 6-8 enrollments will be at 70% and 80%, respectively, of use.

Core facilities components include: library, cafeteria, auditorium, gymnasium, multipurpose room, science labs, art and music rooms, planning rooms, storage areas, health services, guidance and administration areas. Evaluations of these areas will be based on their availability to meet the needs of the defined curriculum and services.

Enrollment Projections:

When applicable, schools must submit an enrollment history and projections for a minimum of five years and a maximum of ten years using a cohort survival method.

Evaluations are based on the district's percentage of unhoused students based on the approved enrollment projections.

> If the enrollment projection for unhoused students is equal to or greater than 40 percent of existing capacity, **full points are awarded**. (max 40 points)
>
> If the enrollment projection for unhoused students is less than 5 percent of existing capacity, **then 0 points are awarded**.
>
> If the enrollment projection for unhoused students is between 5 and 40 percent of existing capacity, **then points are awarded equal to the percent of unhoused students.**

Mid Range Projection:

The degree of immediacy of a district's capacity problem. Three points will be added to the district's base calculation once it has reached its mid-range projection.

Number of Years Exceeding Projection:

The duration of an unhoused students problem. One point will be added to the calculation for each year the school's student population exceeds its capacity.

Years in Process:

For each year a project with an approved preliminary application and an established need is unfunded, the Department of Education will add five additional points to its rating. The process is as follows:

Year	Points
1	0
1	5
1	10
1	15
1	20

Identified Schools:

Projects for schools currently identified as in need of technical assistance (either by student performance or noncompliance with the School Quality Standards as adopted by the State Board of Education) will receive ten additional points.

Voter-approved school construction for school districts which do not currently operate a school but who propose to build or purchase a building for the purposes of housing a public school will be ranked by the State Board of Education based upon a determination of the immediacy of the district's need. Consideration will be given to such factors as the economic and geographic ramifications of tuition options and the district's long term plan for educating its students.

BUILDING EVALUATION FORM

Date of Evaluation: _____ School Building: _____

Grade(s): _____ Year of Original Construction: _____ Year(s) of Addition(s): _____

School District: _____

Signature of Evaluator: _____

COMPONENTS	SYSTEMS	RATINGS					COMBINED SCORE
		EXCELLENT (0)	GOOD (1)	FAIR (2)	POOR (3)	UNSATIS (4)	
1. Building Condition	1.1 structure						
	1.2 walls						
	1.3 roof						
• **Interior**	1.4 windows						
• **Exterior**	1.5 ceilings						
	1.6 acoustic						
	1.7 mechanical system						
	1.8 electrical system						
SUB-TOTAL COMPONENT ONE							
2. Health and Safety	2.1 labor and industry						
	2.2 asbestos						
	2.3 lead						
	2.4 water system						
	2.5 septic system						
	2.6 handicapped accessibility for programs & services						
SUB-TOTAL COMPONENT TWO							
3. Type of Space	3.1 classroom						
	3.2 core facilities						
	3.3 site						
SUB-TOTAL COMPONENT THREE							
4. Enrollment Projections	4.1 approved projections						
	4.2 mid-range projections						
	4.3 exceeding capacity						
SUB-TOTAL COMPONENT FOUR							

Continued on reverse

5. Consolidation or District Formation	5.1 buildings & programs district formation & cost effective	A single school district that proposes a consolidation of one or more buildings, or like programs and services, and demonstrates cost effectiveness will recevie 10 points.	
6. Community Use	6.1 educational program incorporates approved community plan and use of building(s).	Any approved educational specification that includes implementation of a community use program that supports the educational program will receive 2 points.	
7. Years in Process	7.1 pre-approved projects waiting in the priority system	For each year a pre-approved project with an estalished urgent need is unfunded, the Department of Education will add five additional points to its ranking.	
8. Identified Schools	8.1 Identified by DOE for technical assistance	Schools qulaifying for technical assistance and demonsrat ing a link between the facility and school perfor mance will receive 10 points.	
TOTAL SCORE			

Definitions:

Excellent: exceeds standards or zero indicates no negative information provided

Good: adequate for programs, services, enrollment, health and safety conditions

Fair: demonstrating signs of need

Poor: demonstrating problems

GENERAL COMMENTS:

DEVELOPING EDUCATIONAL SPECIFICATIONS

In developing the educational specifications, the Department of Education recommends that the following procedures be followed:

1. The facility committee develops the first draft of the specifications using the outline enclosed.

2. The draft should be presented to the following for review, critique and change:

   A. Board of School Directors
   B. Staff of School District
   C Community

3. The draft of the specifications reworked based on input from the meetings.

4. The revised specifications presented to the Board for further review.

5. The revised draft copy of specifications submitted to Vermont Department of Education for approval.

SUGGESTED OUTLINE FOR EDUCATIONAL SPECIFICATIONS

1. Introduction – (general overview of project/purpose)

   A. The educational program to be housed
   B. School philosophy/mission
   C. Goals for the educational programs to be housed
   D. Areas to be considered for new construction, addition or renovation

2. The community to be served – (background of the characteristics of the community)

3. The pupils to be served – (enrollment/classroom information)

4. Timetable for project – (outline of project with completion dates)

5. Instructional areas

   A. General Classrooms
   B. Art Room
      Music Room
   D. Laboratories
   A. Computer Room
   F. Library/Media Rooms
   G. Multi-purpose Room/Gymnasium
   H. Project Rooms
   I. Other

6. Student Support Services

   A. Guidance
   C. Compensatory Education

7. Cafeteria/Food Preparation

8. Administrative Area

A.	Principal Office	D.	Work Room
A.	Secretary Office	E.	General Storage
A.	Conference Room		

9. Environmental considerations for the facility:

A.	Lighting	C.	Acoustics
B.	Heating	D.	Aesthetics

10. Site considerations for the facility:

A.	Size	C.	Bus loading
B.	Parking	D.	Water and sewer

11. Community programs to be housed, or accommodated by the facility

12. Maintenance

A. Custodial Room
B. Custodial Storage

13. Parking Area

14. Playground Area

PRELIMINARY PLANS REVIEW

If you are involved in planning a school building aid project, you need to note the following:

State Board of Education rules require a meeting of school district and state agency representatives to review preliminary architectural plans for school additions, renovations and new buildings before application for school building aid is submitted. Preliminary reviews may also be needed for other kinds of projects.

At a preliminary review meeting the state agencies will advise school officials of any problems they see with the plans with respect to building codes and school quality standards. At this meeting, the Department of Education will usually be able to advise school officials of the level of state aid their project may receive based on the capital outlay funding rules of the State Board of Education. The maximum project cost for state participation is calculated from the approved educational specifications and the preliminary architectural plans.

Preliminary plans consist of the following:

1. floor plans of the existing building where an addition and alterations are proposed;
2. floor plans and elevations for proposed construction – 1/8 inch scale unreduced preferred;
3. floor plans for proposed alterations and/or new construction;
4. a plan of the **school site** and **location map**; and

5. proposed locations for on-site sewage disposal and water supply and any wetlands, streams or other significant natural features on the property.

All plans must include for each room:

1. the intended use of room (classroom, library, guidance office, etc.)
2. net usable square foot area and maximum anticipated occupancy for each classroom

Four steps are needed prior to a preliminary plans review:

1. The preliminary application has been submitted and approved.
2. A need has been demonstrated through a pre-construction evaluation, and a rating of the need has been completed.
3. The educational specifications for the project have been submitted to the Commissioner and approved.
4. The architect develops preliminary design and cost estimates for the project based on the approved educational specifications and needs identified at the pre-construction evaluation.

Preliminary reviews should be completed before projects are warned for voter approval.

To request a preliminary review for a project, submit to the school construction office the following information on the proposed construction project along with **seven copies of the preliminary drawings** which clearly indicate the areas of renovation and new construction and **two copies of reduced site plan and location map**:

1. name, address and telephone number of school and superintendent
2. name, address and telephone number of project architect
3. construction type(s)
4. square footage for each existing story and basement
5. square footage for each story and basement, to be added
6. total square footage of area to be renovated
7. existing building footprint
8. extent of fire alarm system
9. extent of sprinkler protection
10. extent of handicapped accessibility
11. known use of asbestos containing building materials
12. fire rated walls
13. basic door schedule
14. heating system type and fuel(s) for both the space and domestic hot water
15. date(s) of existing construction
16. site size in acres
17. maximum planned occupant load
18. water supply and sewage disposal systems

- **Approval by Agency of Natural Resources for on-site sewage disposal and/ or water supply**

19. ventilation provisions, supply and exhaust, for all occupied rooms
20. estimated cost of project
21. starting and completion dates
22. date of bond vote
23. identify features with possible historic significance to the best of your knowledge.

The superintendent, architect and school board chair should attend the preliminary review meeting. It is desirable to have the school principal and other school board members also.

Allow a minimum of three weeks after submissions for the scheduling of preliminary plan review.

For further information call the School Construction Program .

ENROLLMENT PROJECTIONS

Ten-year projections are prepared as follows:

1. List live births by year for the past fifteen years.

2. List enrollments by grade levels for the past ten years.

3. Compare kindergarten enrollments for the past five years to the live births for five previous years. For each year divide the kindergarten enrollment by the live births five years earlier. Find the average of the results. This will be your survival ratio for kindergarten enrollments.

4. Develop grade to grade survival ratios for each year. Divide grades one enrollment for each year by the kindergarten enrollment for the previous year. The average of the results will be your grade one survival ratio.

5. Repeat step four for each succeeding grade. (dividing grade two enrollments by grade one enrollments for the previous year, etc.)

6. Find the average number of lives births for the past ten years. Calculate the anticipated enrollment for each grade for each year ahead. Multiply the number of live births for each of the past five years by the kindergarten survival ratio to get anticipated kindergarten enrollments for the next five years. Multiply the average number of births by the kinder garten survival ratio to get anticipated kindergarten enrollments for years six to ten ahead. Multiply the kindergarten enrollment by the grade one survival ratio to get the anticipated first grade enrollment for next year. Multiply the anticipated kindergarten enrollment for next year by the grade one survival ratio to get the anticipated grade one enrollment for the following year and so forth through ten years ahead. Repeat the process for succeeding grades.

This method is familiar to most school administrators and has proved as reliable as any for predicting school space needs if it can be reasonably assumed that 1) student in-migration and out-migration will continue as in the past; 2) school board policies on promotion and retention will remain unchanged; 3) the percentage of school dropouts will remain constant; 4) and the number of pupils entering your schools from non public schools and/or leaving your school for non-public schools will remain constant.

SITE INSPECTION – CHECK LIST

A. Size

B. Expendability

C. Site relative to surrounding terrain (flooding)?

D. Soil composition: loam____;sand____;shale____;gravel____;clay____;rock____

E. Clearance required (brush/trees)

F. Erosion____ Swamp____ Prime Agriculture_____

G. General shape:_____

H. Development needed:_____

I. Distance to school population center:_____

J. Walking distance to ___% of pupils to be served.

K. Miles to most distant pupils:_____

L. Access from improved highway:_____

M. Safe ingress/egress:_____

N. Distance from: railroad_____; airport_____; heavy traffic_____;
Hazardous chemical plant_____; unsafe structures_____; other_____

O. Distance from objectionable: noises_____; odors_____; nuisances_____

P. Access to: electricity_____; fire protection_____; water_____; telephone_____;
sewage system_____

Q. General Observations:

CLERK OF THE WORKS

DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF CLERK OF THE WORKS FOR SCHOOL CONSTRUCTION AID PROJECT

1. EXPLAIN CONTRACT DOCUMENTS

   Assist the Contractor's superintendent in understanding the intent of the Contract Documents.

2. OBSERVATIONS

Conduct on-site observations and spot checks of the work in progress as a basis for determining conformance of work, materials and equipment with the contract documents, report and defective work to the board.

3. ADDITIONAL INFORMATION

Obtain from the board additional details or information if, and when, required at the site for proper execution of the work. Become acquainted with standard or reference specifications referred to in the specifications.

4. CONTRACTOR'S SUGGESTIONS

Consider and evaluate suggestions or recommendations which may be submitted by the contractor to the architect and report them with recommendations to the board for final decision.

5. CONSTRUCTION SCHEDULE

Be alert to the construction schedule and to conditions, which may cause delay in completion, and report it to board.

6. LIAISON

   Maintain liaison with the Contractor and all subcontractors on the project only through t the contractor's superintendent.

7. CONFERENCES

   Attend and report to the board on conferences held at the project site as directed by the board.

8. TESTS

   Advise the board in advance of the schedules of tests and observe that tests at the project site which are required by the contract documents are actually conducted; observe,

9. INSPECTIONS BY OTHERS

If inspectors, representing local, state or federal agencies having jurisdiction over the project visit the site, accompany such inspectors during their trips through the project, record and report to the board the results of these inspections.

10. RECORDS

10.1 Maintain orderly files at the site for (1) correspondence, (2) reports of site conferences, (3) shop drawings and (4) reproductions of original contract documents including all addenda, change orders supplementary drawings issued subsequent to the award of the contract.

10.2 Keep a daily diary or log book, recording hours on the site, weather conditions, list of visiting officials and jurisdiction, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures.

10.3 Record names, addresses and telephone numbers for all contractors and subcontractors.

11. SHOP DRAWINGS

The contractor is not authorized to install any materials and equipment for which shop drawing are required, unless such drawings have been approved in accordance with the General Conditions by the Contractor and the Architect.

12. SAMPLES

Receive samples which are required to be furnished at the site; record date received and from whom, and notify the board of their readiness for examination; record approval or rejection; and maintain custody of approved samples.

13. CONTRACTOR'S APPLICATIONS FOR PAYMENT

Review the applications for payment submitted by the contractor and forward them with recommendations to the board for disposition.

14. LIST OF ITEMS FOR CORRECTION

After substantial completion check each item as it is corrected.

15. OWNER'S OCCUPANCY OF THE PROJECT

If the board occupies the project for any portion thereof prior to final completion of the work by the contractor, be especially alert to possibilities of claims for damage to

16. OWNER'S EXISTING OPERATION

In the case of additions to or renovations of an existing facility, which must be maintained in operation during construction is alert to conditions, which could have an effect on the existing operating of the board.

17.. REJECTION OF WORK

If a situation arises during construction, which in your view requires that work be rejected, report such situation immediately to the board.

18. LIMITATIONS OF AUTHORITY

Unless specific exceptions are established by written instructions issued by the board:

18.1 Do not authorize deviations from the contract documents.

18.2 Do not personally conduct any tests.

18.3 Do not enter into the area of responsibility of the contractor's superintendent.

18.4 Do not expedite the work for the contractor.

18.5 Do not advise on, or issue directions relative to, any aspect of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work.

18.6 Do not authorize or suggest that the board occupy the project, in whole or in part, prior to substantial completion.

18.7 Do not issue a certificate for payment.

AUDIT INFORMATION

Financial Documentation for Construction Aid Payment

It is a requirement to establish a separate checking account and cost accounting system for all school construction projects. When a district is engaged in a small construction project it may seek approval from the Department of Education to use existing checking account systems, but must maintain a separate accounting system.

PLEASE DISCUSS YOUR SYSTEM FOR ACCOUNTING WITH THE DEPARTMENT OF EDUCATION AT THE BEGINNING OF THE CONSTRUCTION PROJECT.

For the final audit of accounts the Department expects the following information to be documented in a summary report for every payment: (see example below)

- Name of vendor
- Brief description of work performed
- Amount of payment
- Check number
- **Please request that your bank send back original checks for this special account**

At the completion of the construction project and the final inspection and approval by all state agencies and local authorities, the Department of Education will conduct an on-site audit.

- All transactions must be listed on a summary report and available for review.
- Please include all checks and invoices in the same order as the summary report.
- It is not necessary to make copies of all checks and invoices.
  If copies are provided of the checks, they must be photocopied on both sides.
  If checks are not available from the bank discuss alternative approach for verification with the Department of Education.

EXAMPLE OF SUMMARY REPORT

VENDOR	DESCRIPTION OF SERVICES	CHECK NUMBER	AMOUNT OF PAYMENT	NOTES
Toyland	Playground Equipment	00111	2,000.00	
Labor and Industry	Building Permits	00112	4,500.00	
Smith & Smith	Legal Fees for Bonding	00113	400.00	
DE Printing	Printing of Ballots	00114	25.00	

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