

# The Certificate of Necessity Process Evaluation

**RECOMMENDATIONS AND FINDINGS**

**May 2004**

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**Institute for Public Administration**  
**College of Human Services, Education & Public Policy**  
**University of Delaware**  
and the  
**Delaware State Budget Office**



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**College of Human Services, Education & Public Policy**  
**University of Delaware**  
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## Preface and Acknowledgements

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As the director of the Institute for Public Administration (IPA), I am pleased to provide this evaluation of the Certificate of Necessity process. IPA collaborated on this project with the State Budget Office, the Department of Education, the Office of State Planning Coordination, and the Controller General's Office.

The goal of this report is to determine the effectiveness of the Certificate of Necessity given for school construction as it currently exists and recommend possible improvements and changes. Focus was placed on the following topics:

- Financial considerations.
- The planning process involved in a major capital improvement or school construction project.
- Population and enrollment projections.
- Land use planning considerations for school construction and site selection.
- The level and importance of public involvement.
- Communication between state offices and local districts.
- Current and projected infrastructure needs.

I would like to acknowledge those who contributed to this report. My colleague, Peter Ross (Institute for Public Administration, University of Delaware), was the liaison between IPA, the State Budget Office, and the Department of Education. He worked directly with the Budget Director and the Secretary of Education. Anna Wojewodzki Hunter completed research relating to the CN process, coordinated and facilitated working group meetings, organized the interviews with the school districts, and orchestrated the compilation of the report. Nick Vacirca (Department of Education), David Hill (State Budget Office), and David Edgell (Office of State Planning Coordination) attended monthly working group meetings, reviewed research, and helped create the recommendations.

Finally, I would like to recognize the contributions of the following Institute for Public Administration graduate students involved in producing this report. Camille Sawak and Samantha Cleaver provided research support, attended interviews with the school districts, and assisted in the writing and editing of the final report.

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## Executive Summary

The state of Delaware has experienced a continuous increase in its population. As a result, there has been an upsurge in the demand for public services, including infrastructure and roadways and new school construction. The Institute for Public Administration (IPA) at the University of Delaware has been conducting an ongoing study regarding the process by which schools determine when there is a need for a new building or major capital improvement, how school sites are selected, what design standards are in place, and how construction-related issues are addressed.

For this school year, 2003-2004, there are sixteen regular public school districts, three vocational school districts, and thirteen charter schools in Delaware. School enrollment increased in each of the three counties between 1990 and 2000. Sussex County has experienced the largest percentage increase in school enrollment. (*See Appendix A.*)

Current challenges to school districts include:

- **Changes in enrollment:** Some districts have more students than they can house comfortably.
- **The popularity of school choice:** As mandated under the federal *No Child Left Behind* legislation and the increasing number of charter schools, districts produce less accurate enrollment predictions and less defined feeder patterns.
- **Old school buildings are in need of repair:** Renovations and new construction present financial and political challenges for the school districts.
- **Student class size:** Academic success continues to be influenced by changing technology needs, which influences how much space each classroom needs to house new technology items and presents a question of how to maintain the technology once it has been provided.
- **School safety in classrooms:** New school construction and renovations to older buildings must always ensure that they are meeting the latest safety standards.
- **School transportation patterns:** Transporting students to school is a large portion of a district's budget. This cost could be minimized through effective planning and selecting sites adjacent to growth areas so as to encourage shorter bus rides and walking.

Due to a lack of land use planning and communication between state agencies when designating or purchasing land for schools and planning construction projects, districts have contributed to sprawl in Delaware. Governor Minner's Livable Delaware initiative helps the state adhere to smart growth through principles that include guiding growth to areas where the state, counties, and towns are most prepared (in terms of infrastructure and thoughtful planning). With more awareness and a coordination of state and local services, schools could benefit from the expertise of the Office of State Planning Coordination (OSPC) when choosing a new school location, the Budget Office when

determining short and long term fiscal goals, and the Department of Education (DOE) when in need of design guidelines and assistance.

### **Reviewing School Construction in Delaware**

The analysis of school construction in Delaware began in 2000 with a policy forum entitled *Planning Delaware's School Needs: Issues of Location, Design, and Infrastructure*. This forum produced suggestions for further research on funding, school building design, site pre-planning, and projections on population and technology which can be found online at: [www.ipa.udel.edu/research/publications/school-site.pdf](http://www.ipa.udel.edu/research/publications/school-site.pdf).

After this forum, the Delaware Department of Education funded the creation of a school construction committee that met from fall 2000 through spring 2001. The committee systematically reviewed the School Construction Formula and the need for standards in school construction. The committee recommended a small increase in the size of classrooms and additional space to address programmatic needs. Next, the committee gathered and evaluated data on the cost of new construction and the increases in labor and material costs. Subsequently, the members evaluated the need for an increase in guidance for districts during the school site selection process. A final report, *Building Quality Schools: Revisions to the School Construction Formula and Recommendations on Standards*, was completed in August 2001 and can be found online at: [www.ipa.udel.edu/research/publications/building\\_quality\\_schools.pdf](http://www.ipa.udel.edu/research/publications/building_quality_schools.pdf).

Following the release of the August 2001 report, the Delaware Department of Transportation (DelDOT) funded IPA's efforts to conduct further research in preparation for a summit held in March 2003 that focused on the following six issues:

- 1) How can school siting, statewide planning, and infrastructure investments be aligned?
- 2) What data is available to help us select optimal school sites?
- 3) What cost-effective design and construction methods are available?
- 4) What financing innovations can we use?
- 5) What will the school of the future look like?
- 6) What is the potential for co-location of other public services in school buildings?

*The Future of School Siting, Design and Construction in Delaware: Report and Recommendations* was written following the summit. The report can be found online at: [www.ipa.udel.edu/research/publications/school\\_infrastructure\\_rep.pdf](http://www.ipa.udel.edu/research/publications/school_infrastructure_rep.pdf).

As a follow-up to the 2003 summit, IPA, in collaboration with the State Budget Office (SBO), began a comprehensive research project that included meetings, interviews, and a literature review focused exclusively on the Certificate of Necessity process which would culminate in a report that included recommendations on action steps that the state may begin to take immediately. This report, *The Certificate of Necessity Process Evaluation*, is the result of that phase.

*The Certificate of Necessity Process Evaluation* is a compilation of IPA's findings from interviews with current school administrators and intensive comparative research. The research focused on the following questions:

- What issues or concerns do local school districts have with the current CN process?
- What solutions can be found to remedy the problems with the CN process?
- How do other states approach Major Capital Improvement (MCI) projects?
- What solutions have other states pioneered that may work for Delaware and how would those solutions be brought into effect?

The Certificate of Necessity project progressed along a structured timeline in the year of 2003. From March through July, IPA initiated research on the CN process, the school construction process, and the planning procedures followed in other states. In August and September, a working group reviewed potential questions, conducted interviews with the school districts, met as a group to review the findings of the research and interviews, and discussed next steps. In October, the information obtained from the interviews was analyzed and a written report initiated. In December, a rough draft of the report was finalized.

After the above mentioned research was conducted, a two-step process for the Certificate of Necessity was suggested. Step one of the process is to be completed during the months of October through January, not including pre-planning by the districts. Step two is to be completed in the months of February through July, culminating in a CN submission to DOE by July.

## **Step One – Problem Identification Phase**

### **October**

1. Annual population projections should be completed by the state or a state approved agency and should include projected growth patterns. All state agencies and local school districts are required to use this set of data.
2. Annual population projections should include data by school districts in conjunction with state planning maps. These figures should depict existing schools, Livable Delaware maps, and infrastructure – including roads, sewer, and water.

### **December through January**

1. Conversations with district officials should occur to discuss their plans to handle potential growth, including when and where population growth may occur and to review the district's long-term vision.
2. Confirmation of the supporting data and proposed solution by DOE, SBO, and OSPC should occur in this time frame.
3. Utilization of the Facilities Assessment Database should occur when addressing school renovation issues.

## Step Two – Project Solution Phase

### February

1. If the district needs assistance on data projections to prove their need for additional classroom space (which may include either renovations or new construction) they should contact a state-approved agency designed to perform these projections.
2. If the potential solution includes new school construction, the district should be able to access funding through Advanced Planning and Real Property Acquisition Fund. These funds are to assist the district in preparing appropriate plans for siting the location and planning the new building. This effort should result in the development of a detailed request for a CN by the school district. The provision of this funding as an expenditure from the Advanced Planning and Real Property Acquisition Fund is contingent on the approval of SBO and authorization by the Budget Commission.
3. All potential sites must be in compliance with the state strategy maps.

### March through June

1. If funding is granted, SBO, DOE, and OSPC will work with the district in the preparation of the CN. This assistance could include a circuit rider, provisions of prototype building plans, and other program assistance.

### July

1. The district should be required to submit the CN to DOE by July.
2. The CN packet must include the following:
  - a. A detailed project description.
  - b. Justification of the need.
  - c. Population projections.
  - d. The location and size of the new school facility, if applicable.

### July through September

1. The CN should be reviewed and analyzed by SBO, DOE, and OSPC. Growth patterns, population figures, and pending charter school applications should be taken into consideration during this process.
2. The review of the CN should include new construction and renovation requests, including any new methodologies or contractual support.
3. Once a request is completed and able to be approved by SOB, DOE, and OSPC, it will fall into the normal Capital Budget Approval Process.

The following table outlines the revised CN process, and provides supporting evidence through research and interviews conducted by IPA.

**Table 1: Suggestions and Support**

<b>Suggestion</b>	<b>Support (Chapter)</b>
<b>October</b>	
<p>Annual population projections should be completed by the state or a state approved agency and should include projected growth patterns. All state agencies and local school districts are required to use this set of data.</p>	<p>Interviews with Delaware School Districts:                      ➤ <i>Population and Enrollment Considerations</i></p> <p>States That Require an Advanced Planning Process:                      ➤ <i>Washington’s Community and School Enrollment Analysis</i>                      ➤ <i>West Virginia School Building Authority Feasibility Studies</i></p> <p>States with Site Selection Guidelines:                      ➤ <i>Minnesota’s Site Selection Team</i></p>
<p>The annual population projections should include data by school districts in conjunction with state planning maps. These figures should depict existing schools, Livable Delaware maps, and infrastructure – including roads, sewer, and water.</p>	<p>Interviews with Delaware School Districts:                      ➤ <i>Population and Enrollment Considerations</i></p> <p>States that Require an Advanced Planning Process:                      ➤ <i>Nevada’s Clark County New School and Facility Planning Department</i>                      ➤ <i>Washington’s Community and School Enrollment Analysis</i></p> <p>States with Site Selection Guidelines:                      ➤ <i>Minnesota’s Site Selection Team</i></p>
<b>December through January</b>	
<p>Conversations with district officials should occur to discuss their plans to handle potential growth, including when and where population growth may occur and review the district’s long-term vision.</p>	<p>Interviews with Delaware School Districts:                      ➤ <i>State-District Relations</i></p> <p>States that Require an Advanced Planning Process:                      ➤ <i>Washington’s Study and Survey Team</i>                      ➤ <i>Washington’s “Growth Management Act”</i></p>
<p>Confirmation of the supporting data and proposed solution should occur in this time frame by DOE, SBO, and OSPC.</p>	<p>Interviews with Delaware School Districts:                      ➤ <i>State-District Relations</i></p>
<p>The Facilities Assessment Database should be utilized to address school renovation issues.</p>	<p>Interviews with Delaware School Districts:                      ➤ <i>School Construction Authority</i></p> <p>States that Require an Advanced Planning Process:                      ➤ <i>Vermont’s Pre-Construction Evaluation</i>                      ➤ <i>Washington’s Evaluation of Existing Facilities</i>                      ➤ <i>West Virginia School Building Authority</i>                      ➤ <i>NYC School Construction Authority</i></p>

<b>February</b>	
<p>If the district needs assistance on data projections to prove their need for additional classroom space (which may include either renovations or new construction) they should contact a state-approved agency designed to perform these projections.</p>	<p>Interviews with Delaware School Districts:</p> <ul style="list-style-type: none"> <li>➤ <i>Financing the Costs of Major Capital Improvement Projects</i></li> </ul> <p>States that Require an Advanced Planning Process:</p> <ul style="list-style-type: none"> <li>➤ <i>Washington’s “Growth Management Act”</i></li> <li>➤ <i>Washington’s Evaluation of Existing Facilities</i></li> <li>➤ <i>West Virginia’s Comprehensive Education Facilities Plan, Major Improvement Plan, Facility Classification Report, and School Building Authority Feasibility Studies</i></li> <li>➤ <i>NYC’s Contract Procurement Department</i></li> <li>➤ <i>Nevada Clark County Special Projects Department</i></li> </ul> <p>States with Prototype Designs:</p> <ul style="list-style-type: none"> <li>➤ <i>California’s Public School Construction Cost Reduction Guidelines</i></li> </ul>
<p>If the potential solution includes new school construction, the district should be able to access funding through Advanced Planning and Real Property Acquisition Fund. These funds are to assist the district in preparing appropriate plans for siting the location and planning the new building. This effort should result in the development of a detailed request for a CN by the school district. The provision of this funding as an expenditure from the Advanced Planning and Real Property Acquisition Fund is contingent on the approval of SBO and authorization by the Budget Commission.</p> <p>All potential sites must be in compliance with the state strategy maps.</p>	<p>Interviews with Delaware School Districts:</p> <ul style="list-style-type: none"> <li>➤ <i>New School Construction</i></li> <li>➤ <i>Cookie Cutter School Plans</i></li> </ul> <p>States that Require an Advanced Planning Process:</p> <ul style="list-style-type: none"> <li>➤ <i>NYC’s Department of Agriculture and Engineering, DOE Section on Budgets and Requirements</i></li> <li>➤ <i>Vermont Planning Loan</i></li> <li>➤ <i>Vermont’s Architectural and Financial Consultants and Planning Loan</i></li> <li>➤ <i>Washington’s Headcount Enrollment Categories</i></li> </ul> <p>States with Site Selection Guidelines:</p> <ul style="list-style-type: none"> <li>➤ <i>Minnesota’s Site Selection Team</i></li> <li>➤ <i>Step Two of British Columbia’s Two-Step Planning Process</i></li> <li>➤ <i>Washington’s Site Selection Team</i></li> </ul>
<b>March through June</b>	
<p>If funding is granted, SBO, DOE, and OSPC will work with the district in the preparation of the CN. This assistance could include a circuit rider, provisions of prototype building plans, and other program assistance.</p>	<p>States with Prototype Designs:</p> <ul style="list-style-type: none"> <li>➤ <i>California’s Prototype Designs</i></li> <li>➤ <i>California’s Public School Construction Cost Reduction Guidelines</i></li> <li>➤ <i>North Carolina’s Prototype Design Clearinghouse</i></li> </ul>

<b>July</b>	
The district should be required to submit the CN to DOE by July.	States that Require an Advanced Planning Process: ➤ <i>West Virginia Comprehensive Education Facilities Plan</i>
The CN packet must include the following: ➤ A detailed project description ➤ Justification of the need ➤ Population projections ➤ The location and size of the new school facility, if applicable	States with Site Selection Guidelines: ➤ <i>Step One of British Columbia’s Planning Process.</i>
<b>July through September</b>	
The CN should be reviewed and analyzed by SBO, DOE, and OSPC. Growth patterns, population figures, and pending charter school applications should be taken into consideration during this process.	Interviews with Delaware School Districts: ➤ <i>Population and Enrollment Considerations</i> ➤ <i>General Comments</i>  States with Site Selection Guidelines: ➤ <i>Step Two of British Columbia’s Planning Process</i>  States that Require an Advanced Planning Process: ➤ <i>NYC Department of Project Management</i>
The review of the CN should include new construction and renovation requests, including any new methodologies or contractual support.	Interviews with Delaware School Districts: ➤ <i>General Comments</i>  States that Require an Advanced Planning Process: ➤ <i>NYC Capital Planning Department and Contract Procurement Department</i>
Once a request is completed and able to be approved by SBO, DOE, and OSPC, it will fall into the normal Capital Budget Approval Process.	

## Interviews with Delaware School Districts

### Introduction

During the month of September 2003, IPA staff conducted interviews with representatives from eight of the nineteen Delaware school districts. The participating districts included: Appoquinimink, Caesar Rodney, Cape Henlopen, Christina, Colonial, Indian River, Milford, and Red Clay. The district representatives included business and finance directors, building and facilities supervisors, and superintendents. Topics addressed in the interviews included financial aspects of the CN process, population considerations, land use planning, public involvement, communication between the districts and state government, and technical assistance. Participants appreciated the opportunity to be involved in the process. The school district representatives were open to talking with IPA and provided clear, concise, and thoughtful responses. They were willing to help improve the process or speak with IPA again. Many districts provided insightful information in response to the questions asked, providing specific information about their districts' successes. This section summarizes the concerns highlighted by the districts and their suggestions.

### The CN Process

The current CN process is as follows:

1. The school district recognizes and defines their need. The request is due to DOE by June.
2. DOE approves the district's project (October).
3. The project is presented to the State Budget Office (November).
4. The CN is issued to the district (January).
5. After the CN is obtained, the district should take steps necessary to complete their project by:
  - a. Holding a public referendum.
  - b. Selecting and purchasing a site if they do not already have one.
  - c. Developing their educational specifications, design plan, and design drawings to be approved by DOE.
  - d. Submitting the final construction drawings for approval and funding.
6. Once the final plan for a major capital improvement is approved by the state, the district may receive bids, award the contract, and start the building process.

### General Comments

District officials recognize school construction and major capital improvements as a time consuming and vitally important process. They also understood that the state is operating under a heavy workload. In general, they were happy with the assistance they received from DOE and the State Budget Office.

When asked if there were any negative aspects to the CN process, most of the school district representatives stated that the current CN process is bureaucratic, inefficient, and/or rarely covers the scope of school construction projects. In addition, the process is too long and not cost effective. They believe that the CN process does not allow enough time for districts to acquire funds for a construction project, as there are referendums that need to be passed and paperwork involved. Acquiring a CN is viewed by districts as just the first step in a long process.

Next, all interviewed felt that the CN process is reactive, not proactive. For example, the classroom needs in a district are defined after they have exceeded building capacity, thus propagating the reactive versus proactive cycle. The CN provides money for schools that are already overcrowded instead of anticipating which schools are expanding and which buildings will need to be rebuilt. In one district, for example, the overcrowding in elementary and middle schools affected the quality of teaching. Until the district was able to build new schools, administrators worked with the Critical Classroom Acquisition Project to expand the schools with Design-Build additions, which were fast and reasonably priced. Ideally, they would have built a new school before the overcrowding became a concern.

Some districts argued that the wording used in the CN is not specific enough. If a district provides more information than the CN requires they do not think that the additional effort gives them an advantage. Districts argued that the projects should be understood at the local level so that they would be trusted as the experts. In other words, the CN process should work from the bottom-up instead of from the top-down.

There were some concerns that the process was too politicized, thereby perpetuating a disproportionate playing field. Some districts suggested that the CN process should be de-politicized and priorities should be set to ensure that districts that do not have contacts at the state level or that are less aggressive are not overlooked. This could relate to a hierarchy of needs approach when evaluating a CN request.

Suggestions from District Interviews:

1. Encourage districts to construct new buildings or additions prior to reaching building capacity in order to alleviate overcrowding and the use of portable classrooms.
2. Work with local districts to develop long-range plans that include five to twenty year projections.
3. Create a hierarchy of needs to determine who gets funding and in what priority each project should be undertaken. A “first-come, first-served” strategy may not be ideal.\*

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\* This idea requires further study and dialogue prior to being included in a recommendation on whether or not the idea is practical and reasonable for Delaware.

## **Concerns Related to Planning and Financing**

### **Planning Major Capital Improvement Projects**

Districts emphasized the importance and value of long-range planning as it allows the districts to make more accurate budgetary projections. Also, advance planning allows districts to determine where they may come in over or under budget projections.

To facilitate planning, some districts have used land use plans provided by the Office of State Planning Coordination. Advance planning is expensive, and districts agreed that any assistance from the state would be helpful.

Cape Henlopen School District has a twenty-year long-range facilities plan that includes a review of the district's demographics, present and future enrollment projections, and the effect that changes in enrollment will have on the facilities. The plan outlines the renovations, improvements, and replacements that the district will need to make each year.

Red Clay Consolidated School District utilizes a two-phase approach. During the first phase, which lasts from nine months to a year, the district compiles an assessment of its needs. This assessment includes modernization and new construction cost estimations as well as a size and scope analysis. The end result is a Facilities Assessment Plan that is submitted to the District Board. During the second phase, the District Board reevaluates the Facilities Assessment Plan and works to reduce the estimated costs. The process helps to balance the politics of the project and the pending referendum with the wants and needs of the district. Currently, Red Clay has a funding sequence for six years that has been approved by referendum. Its budget milestones are estimated at various project completion levels: 100 percent schematic design, 50 percent design development, 100 percent design development, 50 percent construction development and 100 percent construction development. They also have design plans for a school construction project to start in 2008.

Indian River School District employs Ingram Planning Associates of Salisbury, Maryland for their construction projects. The district is currently working on two new high school construction initiatives that will replace buildings constructed in 1924. Indian River High School is 145,000 square feet and will cost \$19 million to build. Sussex Central High School is 188,448 square feet and will cost \$25 million to finish. Both schools will open in June 2004.

Caesar Rodney School District recently built a new elementary school, two new middle schools, and renovated their high schools and middle schools. When planning a MCI project, the district takes into consideration its experience over the previous ten years and its projection of what the cost will be based on prior experience, wage rates, and the costs of other inputs. The district utilizes the construction management method in conjunction with the Ray Group from Pennsylvania for their MCI projects. The district has found that an effectively planned project is completed within a shorter time frame and is more cost

effective than a longer project with less planning. Their timeline for planning is three to six months. Their high school renovation has taken three years as of October 2003 and has been fully occupied during the renovation. The district uses portable classrooms and moves students while it works on the various wings. Completion of the project is expected in September 2004. Prior to the renovation, capacity in the school was 1700. After the renovation is completed, capacity will be 2000 and the core capacity (plumbing, HVAC, electricity, etc.) will have been improved so that the school can be easily expanded to hold 2200. On average, Caesar Rodney's timeline to complete a new school is three years. The shortest time it has ever taken the district to complete a construction project was fourteen months \_ when two middle schools were built to replace one.

#### Suggestions from District Interviews:

1. Encourage districts to develop long-range plans with the state's input.
2. Certify the CN earlier in the year to provide sufficient time for districts to acquire funds.
3. Provide a funding mechanism that allows and encourages adequate planning by the school districts.\*

#### **Financing the Costs of Major Capital Improvement Projects**

Delaware's school districts are involved in many MCI and school construction projects and continue to plan for more. Renovations must be made to buildings even when there is not an increase in student enrollment. In addition, districts are challenged by the need to maintain safe schools and to secure the necessary funding to do so.

The cost of construction continues to increase due to increasing labor and material costs. Districts expressed concern that the CN's estimates are not concurrent with increasing costs. Solutions to this may include: (1) advance planning to keep costs low and help districts stay within budget projections, and (2) allowing for floating rates for the amount of money schools receive per square foot in the Delaware Department of Education's School Construction Technical Assistance Manual, that are more reflective of the current inflation rates.

Although districts acknowledged that they receive a significant amount of funding from the state, they still found it difficult to initiate their projects since they do not receive a lump sum. For example, some districts were concerned that not having the money to pay contractors may hinder their ability to finalize their projects. Districts finance the portion not covered by the state in a variety of ways; some districts used their local tax revenue or moved money from other projects, while others were forced to wait until they received the remainder of state funds.

The CN should consider the ability of the community to support bond funding. Some districts are better able to manage debt than others. In addition, the CN should consider how much new construction the local community would be able to support and how the proposal would stand up to a referendum. For example, districts found it easier to pass a referendum on new school construction as opposed to school renovation projects. Also,

districts that do not have a large tax base from which to draw found the most difficulty in financing their MCI projects.

Due to high construction costs and limited budgets, districts are usually forced to take the lowest bids. This presents a problem because it puts districts at a disadvantage when it comes to competing for the best construction and highest level of expertise. Projects are more likely to go over budget and there are more problems with the actual construction when districts are working with the lowest bidders as opposed to average bidders. To help alleviate this problem, districts requested more assistance during the initial stages of an MCI project, such as choosing the architect and construction manager and finalizing the plans.

Districts that found themselves strapped for money in the middle of projects stated that it was not difficult for them to go back to DOE and request more funding. An alternate solution being used is value engineering, whereby districts identify basic needs and remove “gingerbread” and other architectural additions.

#### Suggestions from District Interviews:

1. Give districts the ability to take the average bid instead of the lowest.
2. Allot funding for advance planning to keep costs down in the long run.
3. Include yearly adjustments to the school construction cost estimates at the state level based on the concerns listed above.\*
4. Create a new school construction cost formula that considers current inflationary rates.\*
5. Consider the ability of the district to fund MCI projects when allocating funds. Establish a bond program for lower tax bracket districts.\*
6. Provide money in a lump sum.
7. Adjust the square footage formula to allow for increasing construction costs, the varying needs of schools, and the construction of larger schools.

## **New School Construction**

### **School Buildings**

Regardless of population increases or enrollment projections, the state will continue to see a need for school construction in the next five to ten years due to the age of many of Delaware’s schools. Districts found the size restrictions for new buildings frustrating. The “building footprint formula” does not accommodate all the schools’ needs. For example, schools are finding that cafeterias built in new schools are designated as multi-purpose areas or “cafeteriums” and are often smaller than the previous cafeteria. Many districts cited the building size and the square footage formula among their primary reasons for coming in over budget on a project. The districts also wanted more flexibility in classroom size. Depending on the needs of the districts, most preferred larger classrooms and larger schools. For example, classrooms should be enlarged to accommodate increasing use of technology.

Districts found that they were unnecessarily hindered from building an entire school facility at once. Allowing schools to build the entire facilities promptly would reduce costs and ease stress on the districts and the state in terms of planning and paperwork. For example, athletic facilities are not covered under the CN for a new school, but they may be added after five years as a renovation. When athletic fields are constructed with the rest of a facility, however, the schools do not have to share fields, which reduces transportation costs and any inconvenience. Additionally, the funding formula may not allow for furnishings. If a district is building a school, they may have to decide whether to build a larger school with limited furnishings or a smaller school that can be furnished adequately. Building everything concurrently also reduces the extra time and paperwork involved in submitting additional CNs required to construct the additional amenities at a later date.

Other considerations in school construction include road capacity, access to parking lots, sewer capacity, and retention ponds. Next, districts were concerned that there were no tax breaks or incentives to encourage well-built climate control and HVAC systems.

Colonial School District's construction of Southern Elementary commenced in December 1999 and was completed in mid-2001. The district owned the site before they started to build on it. The site formerly housed a high school and had enough land for two schools. Southern Elementary is two schools in one with a single core, site cost, and set of utilities and infrastructure, but has separate teachers and classroom areas. Changing the feeder patterns resulted in less busing for the district, saving about one-quarter million dollars a year.

#### Suggestions from District Interviews:

1. Modify the school building footprint formula to allow for more classroom space. This could involve changing the way the school is viewed from a square foot formula to one that accounts for the various services the facility provides (libraries, computer and science labs, and athletic facilities).
2. Allow schools to invest in building new schools instead of renovating older ones.\*
3. Provide funding for athletic fields and other supplementary amenities at the time of the original new school CN certification.

#### **Cookie Cutter/Prototype School Plans**

The idea of cookie cutter or prototype school plans received mixed reviews. Research indicates that using already-created plans can save money when it comes to architectural fees. On the other hand, the public's involvement in building design is crucial to attaining "buy-in" and cookie cutter plans lessen the public's participation. Also, some sites may not be suitable for cookie cutter school designs. For example, if a school is being built on a steep incline, a cookie cutter school plan might not be appropriate.

There was some concern that cookie cutter plans would not allow for different teaching methodologies and styles. Districts want to have the flexibility to implement various teaching methodologies, as well as the prerogative to determine the schools' function,

technology, and design on a school-by-school basis. There was also concern over whether cookie cutter plans may include items school districts do not want.

One advocate of cookie cutter schools suggested that the state provide design options that districts could choose from but, if the public wanted, would still allow districts to design their schools.

Suggestions from District Interviews:

1. Research the possibilities, benefits, costs, and drawbacks associated with cookie cutter schools with the end goal of providing schools with cookie cutter options for their consideration.

**Site Selection**

Schools are deeply impacted by infrastructure, agriculture, recreational facilities, industrial planning, bus routes and other designated land uses. They see a disconnect between transportation, communities, and roadways that result in an increase in bus use and inefficient use of land. When schools build on land that is not already outfitted with the appropriate infrastructure (water supplies, roads, sewer, etc.) districts spend more money to build and maintain the facility.

The site selection process is tedious and the requirements of state and local agencies are paramount. For example, when building a new school, the Delaware Department of Transportation (DelDOT) may require improvements at intersections and the Delaware Department of Natural Resources and Environmental Control (DNREC) may be concerned about water and wetland issues.

In addition, Governor Minner's Livable Delaware Initiative affects which building sites are acceptable for schools. However, land parcels adequate for schools are scarce and sites that are viable for other buildings or developments may not be ideal for schools. In addition, it is difficult for districts to compete with developers who can pay more for the best land. The availability of land is cost prohibitive in some areas. For example, in Sussex County, land outside of a growth area was \$17,500 per acre compared with the \$150,000 per acre inside the growth area. Districts were concerned with securing enough land within growth areas so as to cut down on future transportation costs. One suggested solution for this problem was to establish a state land bank or a school construction authority outlined in the next section. Another idea revolved around the school's use and modification of vacant buildings to serve the school's needs.

Suggestions from District Interviews:

1. The state should help schools find sites that are close to necessary infrastructure.
2. Land bank and school construction authority options should be investigated.

**State Land Bank**

All of the districts agreed that a state land bank would be "an asset" and noted "that we are too small not to have something like that." A state land bank could also identify vacant buildings suitable for future school sites as well as other public buildings.

Multiple school districts highlighted the need for a land bank to provide districts with usable land located near infrastructure and services and land that can be built on without complication (i.e., no wetlands).

Some mentioned that giving districts fewer choices is more efficient, easier, and cheaper. This would also provide fewer options to superintendents and school administrators who have not built a school before and do not have a background in school construction, which would expedite the process. Districts agreed that the state is the appropriate entity to implement projects of this magnitude.

Suggestions from District Interviews:

1. The state should research the possibilities for a state land bank and how public land should be used in the future.
2. Land should be set aside for all public buildings, not just schools, taking infrastructure considerations into account.\*

**School Construction Authority**

A School Construction Authority (SCA) would consist of a board of members to oversee MCI and construction projects in the state. An SCA was seen as helpful and as a more efficient way to complete the CN process. However, some districts argued that Delaware is a small state and it should not allocate resources to the creation of an SCA. There was concern that an SCA would only increase the bureaucracy and might be counterproductive.

However, since many current directors of operations, superintendents, and other district authorities have come up through the ranks, they lack expertise in construction. A construction authority could alleviate the problem by serving as a resource and a “helping hand” for districts that were inexperienced in school construction.

Suggestions from District Interviews:

1. Investigate School Construction Authority (SCA) options and the potential benefits and drawbacks from the Delaware perspective.

**Population and Enrollment Considerations**

**Population Projections**

Population projections are one of the largest problems for districts. For example, districts find it difficult to predict how many students are going to attend public schools as opposed to private schools. Next, projections focus solely on enrollment. Lastly, districts do not communicate with one another regarding their current and projected enrollment numbers.

Districts use a variety of techniques to calculate their population projections, including in-house projections, out-of-house projections, state and local office information received from developers, live birth data, and population consortium projections. Some districts

also found population projections collected from the Bureau of Vital Statistics to be helpful. Next, monitoring new housing patterns is another method some districts use to collect data. This information is obtained from the state, counties, and local developers. Finally, some have used the University of Delaware to assist with their projections.

Suggestions from District Interviews:

1. Use a standard, agreed-upon set of population projections across districts.
2. Focus on enrollment data and population and growth projections, not just population.

**Housing Developments that Affect Schools**

School districts that have a large amount of developing areas do not know how many students to expect in the coming years or when children will enroll in their schools. A developer could take years to build a development and then longer to sell the houses. In addition, developments are designed to support different demographics. For example, developments designed for an elderly population will have a much different effect on a district than developments geared toward families. Districts must be ready to accommodate additional students as developments are completed. Other issues surrounding developments include transportation concerns such as busing routes and expenses.

While education is considered a form of infrastructure and developers are therefore required to include educational funding in their impact fees in New Castle County, some districts would rather have the money than donated land. Other districts viewed accepting a land donation from a developer as a benefit. When a developer donates a portion of land for “open space,” a school site could be included in that donation. On the other hand, some districts saw that the land donated may not be viable for a new school and thus the district would prefer to have a monetary donation that would cover some of the cost associated with providing education to the increasing population. Districts find that when developers donate land, it is more for their benefit than for the districts’ and land donation is not helpful if taxpayers do not want a new school within their development.

Suggestions from District Interviews:

1. Work with developers to project future construction and assist districts with large population increases that result from development.
2. Charge developers an impact fee that would go towards school infrastructure.

**School Choice and Charter Schools**

School choice and charter schools present a problem for districts when it comes to predicting each school’s enrollment. It was generally agreed that since students who choose another district or a charter school can return to their original districts at any time, they should be counted in the general enrollment numbers for the districts of their primary residence. Administrators view a greater impact on their schools when more students “choice” into the district as opposed to when they “choice” out.

The number of charter schools has increased in recent years (Table 2). There were five charter schools in Delaware in 1999, ten charter schools in 2001, and thirteen charter schools in the 2003-2004 school year. In total, the charter schools are serving 5,610 students in 2003 and 2004, a significant number but not large enough to impact school districts in their school construction projects. In addition, charter schools do not affect some districts.

**Table 2: Charter Schools in Delaware**

School	Location	Students (2003-2004)
Academy of Dover	Dover	450
Campus Community School	Dover	600
Charter School of Wilmington	Wilmington	900
Delaware Military Academy	Wilmington	300
East Side Charter School	Wilmington	145
Kuumba Academy Charter School	Wilmington	250
Marion T. Academy Charter School	Wilmington	675
MOT Charter School	Middletown	600
Newark Charter School	Newark	630
Positive Outcomes Charter School	Camden	120
Providence Creek Academy Charter School	Clayton	790
Sussex Academy of Arts and Sciences	Georgetown	325
Thomas A. Edison Charter School	Wilmington	825
Total Student Enrollment		5610

Source: [www.doe.state.de.us/charterschools/list.html](http://www.doe.state.de.us/charterschools/list.html)

Suggestions from District Interviews:

1. Include charter and choice students in the enrollment projections for the districts in which students reside.
2. Allow for some flexibility in school enrollment numbers because of choice and charter schools.

## **Communication Surrounding Certificate of Necessity and School Construction Issues**

### **Public Interaction and Involvement**

It was generally agreed that the public has a right to be involved in a school construction projects because districts belong to the public. Schools should be designed according to what the public wants, specifically in terms of libraries, athletic fields, and aesthetic issues. Many districts found public meetings to be an integral part of their planning process and developers met with a variety of interests groups, including but not limited to the general public, members of the teaching staff, and administrators.

In general, districts with older populations found it more difficult to pass referenda since this segment of the population is not as involved with school activities and does not use school facilities. One possible solution is the pursuit of joint-use facilities within the

school building, such as a community or senior recreation center. Through a multi-use center, there is a greater chance that the older population will utilize the building, be in closer contact with the school, and be more willing to pass proposed referenda.

Suggestions from District Interviews:

1. Have state agencies provide districts with up-to-date information that is relevant to school infrastructure.
2. Create multi-use buildings to encourage usage by the entire community.

**State-District Relations**

Overall, negotiations with the state have been favorable and the districts have found it easy to work with state agencies. Districts are cognizant of DOE's overwhelming responsibilities and hope DOE will increase its staff so as to assist with projects.

The districts believe there are too many state and local departments involved in the CN process, which creates inefficiency. Another obstacle districts have encountered is timeframes. District representatives stated that other departments have a different understanding of the CN timeline; the districts felt rushed while other departments they must work with seemed to move at a slower pace.

Districts noted the following areas where the state could provide information: traffic and road improvement information (DelDOT), population information, land use planning information (Office of State Planning and Coordination), and technology wiring (DTI). They further recognized the need to communicate with the State Budget Office early, especially if they do not understand the CN process, planning needs, and/or the state's role.

On the whole, districts were pleased with the communication between their offices and the state. Districts believe that they have a comfortable working relationship with DOE and the State Budget Office, but preferred more effective communication. A clerk-of-the-works would better facilitate this level of communication between the state and districts. A clerk-of-the-works would also be able to answer the districts' questions and concerns.

Suggestions from District Interviews:

1. Investigate hiring a clerk-of-the-works at the state level to oversee state building projects and assist the State Budget Office.
2. Research methods that would provide schools with improved wiring and set-up services.\*
3. Provide the districts with training as to how to complete a CN request and how to go about building a school or completing a MCI.\*

## Other School Construction Considerations

### Construction Management Approach

The construction management approach includes a construction manager that administers the project. This approach, already used by some districts, helps keep costs down and facilitates a smooth project completion. Construction managers are experienced with budgeting, managing, and construction and are able to keep architectural and material costs within budget. This person also works as a liaison between the school district and the rest of the team. The construction manager can be a consultant or a member of a new facilities task force. This task force, established by each individual school district would collect information and study issues related to the project, including modernization and construction. The construction management approach simplifies the district's presentation at referenda and decreases project purchasing costs. In sum, an authorized and certified construction manager would save districts money.

One district that has successfully utilized the construction management approach is the Appoquinimink School District. The district works with construction managers and architects on its MCI projects. The use of construction managers helped them come in, under, or within budget projections. The construction manager maintains a concise project schedule and works to ensure that the architect does not "over design" a building. The district recently opened an 800-student elementary school and a 720-student elementary school in 2002. (Due to the significant amount of growth in the district, some of their elementary schools are already at capacity and they will need to build additional schools in three years).

Milford School District spent approximately \$26 million on construction projects over the last three years. These projects included the renovation of a high school (\$11 million), renovations and additions to two elementary schools (\$2.4 to 2.5 million), and construction of Benjamin Banneker Elementary School (\$10.4 million). To renovate the high school, Milford used the construction manager approach and chose 19 sub-contractors. When they constructed Banneker Elementary, they built it next to a school that was no longer in use and passed four CNs to purchase the land that was attached to the existing school site. When Banneker was completed, the old school was demolished, leaving the new school on a larger plot of land than the previous school.

### Suggestions from District Interviews:

1. Provide districts with information on the construction management approach if they have not already used them. This would include a recommended list of reputable construction managers from districts that have utilized their expertise.
2. Develop working relationships between construction managers, the state, and districts so that a small group of managers can assist the entire state.\*
3. Bring in contractors, architects, and others involved in the building process that are state certified.\*
4. Consider putting together a process to certify contractors that considers past performance, lawsuits, etc.\*

5. Annually re-certify those involved in the construction process (architects, construction managers, etc.) so as to decrease costs and time.\*

### **Standardization of Purchasing**

Purchasing in bulk was seen as a positive by some districts. Red Clay Consolidated has saved six million dollars through the standardization of equipment. This included but was not limited to generators, lights, plumbing, door hardware, boilers, chillers, toilets, sinks, sprinkler-heads, tiles, carpet, and security standards. The district posits that standardization has made operations less expensive since they only had to order one type of each item and repairs were efficiently completed. In addition, standardization expedited projects because a construction manager could apply one idea to many buildings.

Standardization and centralized purchasing did have some disadvantages. School districts may not have the same needs and being locked into one vendor by the state could restrict choice. Also, smaller districts may not have as much use for centralized purchasing.

### Suggestions from District Interviews:

1. Investigate statewide standardization options.

### **Conclusion**

The districts raised many concerns and issues that are important to the CN process and school construction. The major conclusion that can be drawn from the discussions with the districts is that communication and pre-planning support between the districts and the state needs improvement. The districts want to be better informed about what information is already available to them through various state departments. For example, some districts were unaware of the state's handbook for school construction, which can be found online. In addition, training of administrators unfamiliar with construction and the school building process is imperative and should be improved. Finally, a forum that brings together districts to discuss their building and renovating needs should be considered.

Overall, the districts were open to change and appreciated their inclusion in the decision making process. Their insight was a valuable tool with which to formulate the recommendations and gain some information on the specifics of the CN process and how the law is applied at the local level.

## **States that Require an Advanced Planning Process or Have a School Building/Construction Authority**

### **Clark County, Nevada**

Clark County is currently the sixth largest and fastest growing school district in the United States. Over the past 15 years, public school enrollment in the county has doubled. Clark County has responded to this rapid increase by building 147 new schools. Another ten new schools are planned for construction in 2003-2004, as the school district has to construct nearly one new school per month to keep up with growth projections. This unprecedented rate of new school construction is managed by the Clark County School District Planning and Engineering Department, which is further subdivided into the New School and Facility Planning Department and Construction Management also called the Special Projects Department.

#### **The New School and Facility Planning Department**

The New School and Facility Planning Department develops program documents, budgets, and schedules for all new school construction and major renovations. Additionally, the department is responsible for the development of educational specifications, budget reviews, coordination of in-district reviews, and the implementation of standards for building materials, equipment, and furnishings. Numerous teams are created within the department to collaborate with developers, city and county planners, utility departments, building departments, and code enforcers. Facility designs and construction-related projects are completed by a contracted team of more than thirty architectural and design consultants. All construction-related documents developed by this department are prioritized and forwarded to the Construction Management or Special Projects Departments for implementation.

#### **The Construction Management or Special Projects Department**

The Construction Management or Special Projects Department functions as a single point of contact for each school district in need of facility construction, building modernizations, and maintenance work. The department actively maintains, supplements, and implements a Master Plan by consolidating information, policies and statistical data to facilitate a coherent approach to construction planning that equitably meets the needs and goals of Clark County school districts. Additionally, this department also acts as an in-house construction company \_ providing electrical, mechanical, carpentry, and painting services.

#### **Prototype School Designs**

Facing unusual logistical and geographical challenges, Clark County has maximized the use of prototype school designs, gaining recognition as a national model. A designated

pool of architectural and design consultants manage this resource of prototype designs as it is difficult to build in Nevada since utilities and roads must be linked to infrastructure networks in the desert. Utilizing identical plans and designs saves time, architect fees, and construction costs. Additionally, the specific standards for building materials and equipment established by the New School and Facility Planning Department restrict the ability of school administrators to implement costly and time consuming changes once construction has commenced.

### **Financial Assistance**

Through four bond initiatives, Clark County voters have tremendously supported funding provisions to accommodate the explosive growth. In 1988, voters approved a \$600 million bond issue that funded the construction of 57 new schools. In 1994, a bond issue of \$605 million financed the construction of 24 new schools and renovations at 116 existing schools. In 1996, voters approved a \$603 million bond program to finance 16 new schools and modernization projects in 194 existing schools. In 1998, the Capital Improvement Program represented one of the most ambitious school construction initiatives in Nevada, allocating \$3.5 billion for the construction of 88 new schools and modernizations of existing buildings over a 10-year period.

## **New York City**

### **New York City School Construction Authority**

The School Construction Authority (SCA) was established by the New York State Legislature in December 1988 to facilitate the building of new public schools and manage the design, construction, and renovation of capital projects. The identification of new construction projects, modernizations, and renovations are determined by the New York City Department of Education (DoED) in its five-year capital construction plan. Following this determination, the SCA collaborates with individual school communities to manage the design and construction of each project. Over the past decade the SCA has built 164 new schools, additions or mini-schools, completed 74 major modernizations, and performed more than 8,304 capital improvement projects. The SCA has been successful in building new schools and additions in record time, completing traditionally constructed buildings within two to three years. This new success rate is attributed to a cohesive approach to school construction, which is primarily administered by the Department of Budget, Finance and Administration, the Department of Architecture and Engineering, and the Department of Project Management. Prior to the establishment of the SCA, it took eight to ten years to build a new public school in New York City.

### **The Department of Budget, Finance and Administration**

The Department of Budget, Finance and Administration is further subdivided into the Capital Planning and the Contract Procurement Departments.

The Capital Planning Department monitors and determines annual amendments to the five-year capital construction plans. Additionally, the department coordinates the funding for individual capital projects and develops and monitors project budgets.

The Contract Procurement Department represents the merger of two separate units, Contract Administration and Project Support. The SCA bidding process requires contractors and service firms to be pre-qualified in order to engage in bids. This process reduces time and money by ensuring that bidders have the resources and experience applicable to the size and technical requirements of each project. Subsequently, Contract Administration conducts technical and financial evaluations of potential vendors for prequalification purposes, and maintains and updates the list of pre-qualified contractors and consultants. Additionally, the agency issues and administers all requests for proposals and invitations for bids and manages the processing of construction contracts. Project Support coordinates the negotiation of contract fees, the processing of contract awards, and the assessment of cost and schedule changes to construction contracts.

### **The Department of Architecture and Engineering**

The Department of Architecture and Engineering is responsible for the scope and design of capital projects under the budgets and requirements of the Department of Education. This is accomplished through five divisions: 1) The Capacity Division is responsible for producing feasibility studies, design and construction documents for new school buildings and additions. 2) The Capital Improvement Division is responsible for producing scope, design and construction documents for renovation projects at existing schools. 3) The Building Design Division produces architectural, structural, and landscaping design for new school buildings, additions, or renovations. The division also develops the architectural and structural standards governing school design and construction. 4) The Building Systems Engineering Division generates the engineering design standards for all electrical, HVAC, plumbing, and drainage components of all capacity and capital improvement projects. 5) The Operations Division provides support services for the SCA and the Department of Architecture and Engineering. The division also supervises value engineering, post occupancy evaluations, and building condition assessment surveys.

### **The Department of Project Management**

The Department of Project Management utilizes a project management model pursuant to the legislation that established the SCA. The department has five project management units that oversee Staten Island and the four boroughs of New York City. Project managers utilize a computerized scheduling and tracking system to coordinate the multiple activities and phases of the school construction projects in each unit.

## **Vermont**

The *Vermont School Construction Planning Guide* was first published by the Vermont Department of Education in 2000, with subsequent revisions in 2001 and 2003. Its purpose is to provide general guidance to persons involved with a school construction project. It outlines a chronology of procedures for school boards to follow when commencing a new school construction project or a major capital improvement project. Please note that these are recommendations, not requirements. The fifteen (15) steps follow:

**1) Facility Analysis**

A facility analysis is required to determine the current school building's deficiencies. The analysis involves an evaluation of (a) the existing building infrastructure, including health and safety conditions and maintenance records, (b) demographic data, (c) enrollment projections, and (d) a space utilization schedule. The analysis requires the input of representatives from the Department of Labor and Industry and the Agency of Natural Resources to determine codes and regulations affecting building occupancy and potential site issues. The completion of the analysis must demonstrate the need for the proposed project, including supporting documentation.

**2) Preliminary Application**

The school board then submits a preliminary application or Letter of Intent to the Commissioner of Education for approval. This preliminary application is submitted a year in advance of the project's initiation to determine the district's eligibility for state construction funding.

**3) Determining the Project's Eligibility for State Funding**

A Department of Education representative advises the school board on whether or not the school district meets the eligibility criteria for state funding. In addition, alternatives for meeting local needs and funding are discussed. These alternatives include (a) renovation rather than an addition meets the district's needs, (b) the use of an existing municipal facility which may be modified for school occupancy, and (c) consolidation of capital funds with that of a neighboring district based on similar needs.

**4) Pre-Construction Evaluation**

The Department of Education schedules a pre-construction inspection and evaluation using the facility analysis to validate the established need for the proposed project. This process incorporates the State Board of Education's System for Rating Proposed School Construction Projects. This system awards priority-rating scores based on the following ten categories: (a) community use, (b) consolidation of buildings or union district formation that demonstrate cost effectiveness, (c) compliance with health and safety regulations, (d) physical condition of the existing building, (e) space utilization, (f) enrollment projections, (g) mid-range projections that determine the degree of immediacy for the proposed project, (h) number of years a school has exceeded a projection, (i) number of years a proposed project has been approved but has not received funding, and (j) schools identified as requiring technical assistance. The subsequent outcome of this rating system is a list of proposed projects in order of priority, which is then submitted to the state legislature for a determination of funding.

**5) Architectural and Financial Consultants**

Following the completion of the facility analysis, pre-construction evaluation, and the state rating, the district can consult an architect to assess the path forward. Additionally, an analysis of the district's financial capacity to support a project should be conducted.

**6) Preliminary Designs**

Once it is decided to begin a new construction or major capital improvement project, an architect should be commissioned to prepare preliminary designs based on the approved educational specifications.

**7) Public Information**

If a public information program is not already established, then one should be developed. It is essential that residents are informed about the needs of the school, the recommendations of the school board, and the sequential development of the proposed project. The recommendations of the architect should be utilized in the process leading up to a public vote on the project.

**8) Site Considerations**

If land must be purchased or leased, then prudent legal procedures should be initiated. In addition, a review of utility services \_ including electricity, water, and sewage disposal at the new school site \_ is required. If the proposed site is not served by municipal systems, the school board must employ professional engineering services to conduct an infrastructure study. The assessment of any site review involves a consultation with the Agency of Natural Resources, the Department of Agriculture, and the Department of Environmental Conservation Regional Permitting Specialist, as these agencies identify necessary permit requirements and regulations.

**9) Planning Loan**

A planning loan can be funded through a State Department of Environmental Conservation Planning Advance or through the Vermont/Federal Environmental Protection Agency (EPA) revolving fund. Loans that are provided through the State Planning Advance are not due for repayment until the project proceeds to construction. Loans offered through the revolving fund must be repaid five years after the approval of a preliminary engineering report or issuance of a water and wastewater permit, or five years after the final imbursement of the loan has been processed.

**10) Preliminary Architectural Plans**

Once the Commissioner of Education approves the preliminary application, the school board submits preliminary architectural plans to the Department of Education for approval. This is done prior to the development of final cost estimates of the proposed project or the initiation of a public vote. The Department of Education arranges a preliminary review that encourages relevant state agencies to provide comments and recommendations pertinent to the project.

**11) Public Vote**

The school board then reviews the legal procedures for conducting a public vote on the construction project and possible acquisition of land. Prior to any referendum, the board presents the estimated total cost of the proposed project to the public.

**12) Securing Financing**

Once voter approval is acquired, the school board secures seventy percent (70%) of project funding. Most projects are primarily financed by the sale of district bonds through the Vermont Municipal Bond Bank or a commercial bank.

**13) Final Application**

Once a referendum has been approved and finances secured, the school board submits (a) a final application to the State Board of Education, (b) an application for construction aid to the Department of Education, and (c) final plans and specifications are presented to the Department of Labor and Industry, the Agency of Natural Resources, the Department of Agriculture, the Department of Transportation, and the Division for Historic Preservation. Prior to final approval, project plans are subject to an environmental compatibility review by the District Environmental Control Commission.

**14) Construction Management**

Following the submission of the final application, the school board should retain the expertise of a clerk-of-the-works to ensure the completion of the project in accordance with the approved plans and specifications. The clerk-of-the-works acts as the board's representative on the project and assumes the following responsibilities: (a) conducts an on-site observation and spot check of the work in progress to determine conformity with contract documents, (b) notifies the relevant state agencies of any structural or material changes during construction, (c) considers and evaluates suggestions or recommendations from the contractor or architect and advises the school board of appropriate adjustments to the project, (d) monitors the construction schedule, (e) accompanies representatives from local, state, or federal agencies on site inspections, and (f) maintains records of all correspondence and documents pertinent to construction.

Additionally, the school board should select a general contractor upon the submission of the final application. If the board awards a contract prior to the approval of final project plans by state agencies, the contract should be made subject to such approvals.

**15) Final Approval**

The Department of Education notifies the superintendent of schools who have completed the construction aid application, as construction may not begin prior to the completion of this application. In addition, the State Board of Education informs the school board of its approval of final applications and the expected commencement of project construction.

**Washington****Office of Superintendent of Public Instruction**

Washington's school construction process promotes advanced planning under the guidance of the Office of Superintendent of Public Instruction (OSPI). All districts that wish to receive state financial assistance when constructing or modernizing of school facilities must prepare a study and survey that includes the following: 1) an evaluation of existing facilities, 2) a long-range education and facilities plan, 3) a community analysis, 4) a school enrollment analysis, 5) an assessment of financial resources, and 6) a project timeline. This pre-planning phase promotes participatory planning through the development of a Study and Survey Team that consists of, but is not limited to, local citizens, the school district's board members, school administrators, staff, students, educational consultants, architects, and engineers. Following is a description of the six elements required in a study and survey.

**1) Evaluation of Existing Facilities**

An evaluation of existing facilities must include an inventory and area analysis of existing school facilities within the district; the development of an overall site plan; a description on the nature of the system and subsystem used in each individual facility; and an update on the physical condition of each facility. This includes a cost/benefit analysis on the need to modernize and/or replace existing school facilities in order to meet current educational needs and the current state building code. In order to support the long-term educational plan, the district must state the type and extent of new construction or additions to an existing school facility.

**2) Long-Range Education and Facilities Plan**

A long-range education and facilities plan provides the district with an implementation mechanism that addresses the district's educational goals and programs, and manages and develops its facilities for growth and change. Additionally, this plan establishes expected standards that consider city or county Comprehensive Plans as required by the state's *Growth Management Act*.

**3) Community Analysis**

An integral part of the planning process is the analysis of the community's present status and a projection of its future character. The following factors are considered: (a) demographic characteristics and population density patterns, (b) population changes due to migration patterns and fluctuations in the birth rate, (c)

socioeconomic patterns that result in population shifts within the community, (d) possible shifts in housing patterns and household size for potential impact on school enrollment, (e) current major highways and street networks and their probable development, (f) current assessed value of properties, (g) potential changes in land use (residential, commercial, and industrial), (h) changes in school district boundaries, (i) availability and location of community services, (j) vocational opportunities in the community, (k) community expectations for its schools, and (l) citizens' attitudes and aspirations. Most of the data needed for this analysis can be acquired through school district records, state agencies and private institutions. Information pertinent to community expectations and attitudes can be collected by conducting public meetings, workshops, and surveys by telephone or written questionnaires.

#### **4) School Enrollment Analysis**

Demographic data is an essential component of the study and survey. It includes a) present and future population projections and characteristics, and b) projected economic growth and development. Sources for this data include the Office of Superintendent of Public Instruction (OSPI) Cohort Survival Enrollment Projection, public school enrollment numbers (including children with disabilities), non-public school enrollment numbers, holding power of school enrollment (dropout rates), population trends, and migration patterns.

#### **5) Assessment of Financial Resources**

Cost estimates of money that can be allocated to construction projects or modernizations are based on the ability of the district to provide capital funds at the local level, the availability of state funds, and the district's eligibility to receive state funding.

#### **6) Project Timeline**

The study and survey report requires each district to provide a timeline that determines when capital improvement projects will be completed. This includes major milestones \_ namely bond issues, design, construction, and project completion.

### **Financial Assistance**

Financial assistance for conducting each study and survey is provided by the state and OSPI regional coordinators are available to assist and advise districts applying for such assistance. School districts are eligible for a study and survey grant once every six years. Financial assistance is determined by a formula that establishes a flat grant for a single headcount enrollment category plus a variable allocation based on the district's existing facilities' gross footage. This formula is reviewed and adjusted annually by the State Board of Education.

To attain financial assistance in a construction or modernization project, Headcount Enrollment Categories must be followed. Table 3 displays the formula the state uses when allocating this funding.

**Table 3: Headcount Enrollment Financial Allocation Guidelines**

Headcount Enrollment	Financial Allocation
1 to 500	Minimum Grant + Square Footage Allocation
501 to 3,000	Minimum Grant + Square Footage Allocation
3,001 to 10,000	Minimum Grant + Square Footage Allocation
Above 10,000	Minimum Grant + Square Footage Allocation

## **West Virginia**

West Virginia has created a School Building Authority to manage the state's school construction process. In doing so, the state introduced a system that provides assistance to school districts initiating school construction projects. This is accomplished through the development of facilities plans, planning grants, and the use of a clerk-of-the-works.

### **West Virginia School Building Authority**

The School Building Authority (SBA) was established by the West Virginia Legislature in 1988 to facilitate and provide state funds for the construction and maintenance of school facilities. The SBA requires that each county develop a Comprehensive Education Facilities Plan (CEFP) to qualify for state funding. CEFPs are developed in accordance with the State Board of Education (SBE) Policy 6200: *Handbook on Planning School Facilities*. This requires that counties utilize professional planning expertise, which provides more accurate facility evaluations and cost estimates outside the local political area. This process then maximizes community input and support for later local bond referenda that are critical to the implementation of the CEFP. Additionally, a CEFP facilitates efficiency by standardizing the planning process and the final plan.

### **Comprehensive Education Facilities Plan (CEFP)**

The Comprehensive Education Facilities Plans (CEFPs) are prepared by a planning committee that consists of Recognized Educational Facility Professionals (REFP) and an architectural professional. The REFP manages the planning process including organization and facilitation of the planning committee's work and the preparation of the final CEFP documents. This planning committee is comprised of educational stakeholders, including parents, grandparents, educators, administrators, and representatives from the community, local businesses, and industries. The professional architect on this committee evaluates all of the existing school facilities and generates budget projections for renovations, modernizations, and new construction. The ultimate goal is to provide the community with a sense of ownership and encourage public enthusiasm pertinent to the development of the CEFP.

The CEFP establishes a ten-year timeline for each project. A Facility Classification Report is then completed. This report classifies and describes each facility in the county, its future use, and scheduled improvements. Following completion of this report, the SBA School Facilities Evaluation and Inventory Instrument forms are completed,

including cost summaries of upgrades. Subsequently, a Major Improvement Plan (MIP) is developed.

CEFPs must identify specific projects that are requesting SBA funds and include how each project will effectively address: (a) student health and safety, (b) economies of scale based on minimum allowable enrollments, (c) reasonable travel time and other demographics, (d) multi-county and regional planning, (e) curricular improvements in diversification, (f) innovations in education, (g) adequate space for projected student enrollment, and (h) a history of the county's efforts to propose and/or adopt local school bonds.

Additionally, each county submits a feasibility study to the SBA/SBE. In the study, potential facility utilization between or among adjacent counties is included. One method used to determine joint-usage is through an analysis of the county's attendance areas and where there are clusters of public service users, including school-age children.

Prior to the final submission of the CEFP to the SBA/SBE, one or more public hearings are held to ensure broad-based community input into the plan. Notice of such hearings must be published as a legal advertisement. Documentation of public notices and a synopsis of public comments must be included in the CEFP.

#### **School Building Authority Planning Grants**

The School Building Authority (SBA) provides funding in the form of planning grants to assist counties in acquiring the services of a professional planning team that then develops the Comprehensive Education Facilities Plan (CEFP). Grants do not exceed 50 percent of a county's cost for consulting services and is limited to \$20,000 per county. In order to receive funds, a county must follow specific procedures which include a) submission of an application to the SBA requesting funding, prior to advertising for a consulting team to assist with the development of the CEFP, b) selection of professional consultants pursuant to an approved SBA Request for Proposal for Professional Services, and c) establishment of a contract with a planning committee that includes the services of an SBA-approved Recognized Educational Facility Professional (REFP) and a professional architect. The SBA and SBE monitor the planning process at various stages and set submission deadlines for sections of the CEFP.

#### **Clerk-of-the-Works**

Depending on the size of a new construction project, a clerk-of-the-works may be employed by the school district to monitor the quality and progress of the construction process and its compliance with the contract. The clerk-of-the-works is responsible for the preparation of progress reports and log books that are submitted to the school district and the SBA's project representative. If it is evident that the construction process does not conform to the contract, the clerk-of-the-works informs the school district, architect, engineer, and the SBA project representative.

Additionally, the clerk-of-the-works considers and evaluates further suggestions or recommendations put forward by the contractor. These evaluations are then discussed

with the school district, architect, engineer, and the SBA's project representative before a final decision is determined. The clerk-of-the-works maintains comprehensive records, data, and documents at the construction site in accordance with the construction development and SBA procedures. Overall, the clerk-of-the-works oversees the construction process to ensure its conformity to contract documents and SBA's guidelines.

## States with Site Selection Guidelines

### British Columbia, Canada

#### **A Two-Step Planning Process**

The School Finance and Capital Planning Branch of the Ministry of Education has developed a School Site Selection Guide to assist school districts in the selection and preliminary evaluation of potential school sites. The guide establishes a two-step process to determine the suitability of potential school sites.

#### ***Step One***

The first step requires the school board to complete a “snapshot analysis” of the proposed building and its site requirements. In order to determine whether a detailed environmental assessment is needed, this information is presented to the consultants involved in the analysis and the regional office of the Ministry of Environment, Lands and Parks. Additionally, a Snapshot Evaluation Matrix outlines the critical indicators or trigger factors in site analysis. These indicators include size, legal requirements, site services, access, location, zoning/land use, adjacent uses, area hazards, site hazards, geotechnical factors, environmental issues, and archaeological significance. Once the site receives a favorable rating, it is considered for facility development and the school district can proceed to the second step.

#### ***Step Two***

This phase requires an Environmental and a Preliminary Geotechnical Assessment to be conducted by registered professionals with experience in site analysis and planning and geotechnical expertise. The Environmental Assessment involves a site visit, a review of the site’s occupancy history, the collection of relevant environmental information, and the inspection of any buildings on the site. The closest regional office of the Ministry of Environment, Lands and Parks is generally consulted to determine the scope of the assessment and to advise the district on current legislation pertinent to the assessment.

The Preliminary Geotechnical Assessment involves a visual survey of the site, as well as limited subsurface investigation. The consultant determines and evaluates geotechnical issues relating to provisions of underground services, suitable foundation types, site grading and surface structure, and septic sewage systems. This step leads to either a site rejection or acquisition. Once the process selects a preferred site, it is then submitted to the Ministry of Education as part of the school district’s five-year capital plan. This submission indicates the criteria for selection, provides a summary of site analyses, and describes the preferred site. When site acquisition is complete, a more detailed analysis is conducted during the schematic design phase.

### Financial Assistance

The cost of this two-step process is financed as a minor capital improvement project in the same year that the Ministry of Education supports a site acquisition project in a school board's five-year capital plan. The Ministry assists school districts with \$4,000 to \$6,000 to cover costs incurred, but this is only approved when the data of the site selection process is forwarded to them.

## Minnesota

### Site Selection Team

In Minnesota, the school site selection process is managed by a Site Selection Team that is comprised of school and district staff, city and county planners, school-community partners, parents, students, and citizens. This team employs or works with consulting architects, engineers, local or state traffic/road officials, real estate specialists, and appraisers to evaluate potential sites and the costs of development. This process considers local and regional planning and zoning requirements. Public input is critical to this process and public meetings are held to discuss the potential impact of school construction and the potential sites.

A school site selection checklist is used to help rank and subsequently choose a preferred site. Factors considered in the checklist include: 1) site size, 2) location, 3) health and life safety, 4) topography and soil, and 5) present or previous use.

#### 1) Site Size

Site size is critical, as it should allow for current and future needs. Additionally, continuous acreage should be acquired whenever possible and the joint use of land in partnership with other local public agencies and private users is recommended. The school site size guidelines are as follows:

**Table 4: Minnesota Site Size**

School Level	Acreage
Elementary School	10-15 acres +
K-8 or Middle Level School	25-35 acres +
K-12 School or Small High School	35-40 acres +
Large High School (Greater than 2000)	60 acres +
Campus (Two or More Schools)	Combine Site Sizes +

*An additional acre for each 100 students of estimated student enrollment and community use of the site is combined with the stipulated acreage guidelines.*

#### 2) Location

In order to encourage smart growth, promote pedestrian traffic, and decrease traffic congestion, four suggestions have been put forth when considering a new school location. The school site should be located near the following: (a) center of the community or school district, (b) a concentration in student population or in

a growth area, (c) community resources and potential school-community partnerships, (d) major transportation links, and (e) site expandable areas.

**3) Health and Life Safety**

Locations that present health and life safety risks should be avoided. These risks include congested highways, busy intersections, and environmental hazards.

**4) Topography and Soil**

Sites should be selected based on an elevation and contour that ensures good drainage away from the site. In addition, soil tests must be conducted in order to determine the viability of the subsoil to provide a solid base for the foundation of a building. Sites located in wetland or lowland areas are avoided.

**5) Present or Previous Use**

The school site should be selected based on its compatibility with land use plans.

## **Washington**

### **Site Selection Team**

A Site Selection Team is assembled by the school district. The team identifies potential sites and conducts a site review study. This study examines and evaluates each site based on physical characteristics, legal requirements, location considerations, infrastructure considerations, site access, health, and safety. Additionally, the team ascertains site acquisition costs and selects preferred sites. Once this is completed, the Office of Superintendent of Public Instruction (OSPI) conducts an on-site review and evaluation of the proposed site for new construction or the existing site for modernization projects.

### **Inter-Agency Communication**

Prior to site selection the school district must complete a site review and have a pre-design conference with city and county officials from the Planning Department, Health Department, and Fire Department.

Selected sites must be in compliance with *The Washington State Environmental Protection Act* (SEPA) and *The Growth Management Act* (GMA). SEPA requires the site selection process to consider environmental issues when initiating a major capital improvement project. This includes an environmental checklist which determines whether or not a proposed project will require the preparation of an Environmental Impact Statement (EIS). The EIS describes the effects of each project on the quality of the environment.

GMA is designed to encourage school districts to utilize growth management planning through their collaboration with the City and County Planning Departments. School districts are then provided information on planned growth areas in the community, and guidance from the planning departments in locating school sites. GMA requires cities and counties to designate urban growth areas (UGAs) as boundaries of infrastructure that

include water, sewer, and streets. The siting of new school facilities within UGAs are then directly limited through land use regulations or indirectly through restrictions on utilities. A school facility may not be approved if it has not been listed in the capital facilities element of the local comprehensive plan.

## States with Prototype Designs

### California

#### **Prototype School Designs**

The Prototype School Designs website was established by the California State Allocation Board and the Office of Public School Construction as a comprehensive resource for construction, planning, and design. This website provides thirty-five prototype designs including site plans, floor plans, plan abstracts, construction data, photographs, architect contacts, and school contacts. This database is accessible to school district personnel and architects as a cost reduction technique.

An overview of prototypes is included in the *Public School Construction Cost Reduction Guideline* published by the California State Allocation Board. This document was developed pursuant to legislation enacted by the California State Legislature in 1998, which required a study and analysis of available cost reduction strategies in public school construction. At that time, state legislators and school districts were cognizant of the simultaneous escalation in public school construction and the associated costs.

*The Public School Construction Cost Reduction Guideline* is based on the premise that construction costs can be reduced through the use of prototypes. This is based on three fundamental principles:

- 1) Time and Resource Allocation: By fully researching the best educational components, prototype designs represent the best research and experiences of colleague districts.
- 2) Prototype Designs Complement Basic Educational Components: By ensuring maximum flexibility for expansion and future use of the resulting construction, not only basic components are met, but the school's individual needs are considered.
- 3) Basic Interior Plan: By allowing for simplicity and the prototype floor plan and design, exterior characteristics are left for the community to determine.

## **North Carolina**

### **Prototype School Design Clearinghouse**

In 1996, the North Carolina General Assembly directed the State Board of Education to establish a central clearinghouse for prototype school designs. This clearinghouse is a resource for local school boards. Prototype schools designs are architecturally planned to allow for repetition and adaptability of the same design at several sites. The design is generic enough to facilitate standard educational programs for standard-size schools, but flexible enough to allow for minor modifications dependent on the site. This clearinghouse is accessed via the Internet and is continuously updated. Presently, there are twenty-five designs available with floor plans, site plans, photographs, construction costs, building area, and design consultants specific to each design.

The Prototype Clearinghouse provides each school board with greater access to architects who specialize in school design, increases awareness of current trends in school design, and creates savings in time and cost through economies of scale. Prototype designs allow districts to save on their design fees \_ if there are only minimum modifications to the original design. More significant savings are evident in the planning process, specifically in the preplanning phase that includes decisions on what to build. Subsequently, with fewer reviews, revisions, or delays, the process of designing and value engineering is shortened. Additionally, this allows districts to receive project bids from contractors who are familiar with prototype plans earlier and may assist the districts in acquiring more favorable bids than in the past.

The use of Prototype Designs as a cost saving strategy is employed in the Wake County Public School System, the second largest school district in North Carolina. Over half of Wake County's school buildings utilized prototype designs, saving the district up to six months of time and between \$300,000 and \$500,000 in design costs, while allowing for design improvements and modifications.

## Appendix A: Delaware School Enrollment and Construction Data

### School Enrollment

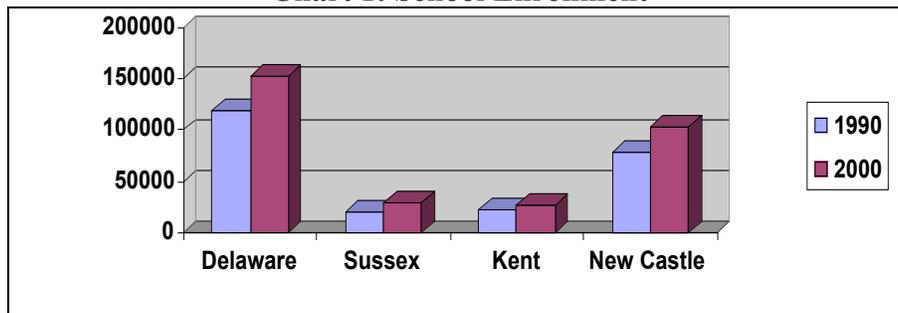
Between 1990 and 2000, all three counties in Delaware experienced increases in school enrollment.

**Table 5: School Enrollment**

	1990 Census	2000 Census	Percentage Increase
Delaware	120,109	152,789	27 %
Sussex County	19,775	28,724	45%
Kent County	21,760	27,396	25%
New Castle County	78,574	102,454	30%

Source: [www.doe.state.de.us](http://www.doe.state.de.us)

**Chart 1: School Enrollment**



Source: [www.doe.state.de.us](http://www.doe.state.de.us)

### District Construction Projects

During the 2001-2002 school year Delaware’s school construction costs amounted to 6.39 percent of their total expenditures.

**Table 6: Delaware State Construction Costs**

Total Schools	185
Total Students	108,285
Average Student/Teacher Ratio	14.9
Total Expenditures	\$862,507,000
Average Expenditures per student	\$15,634.67
Total Capital Outlay	\$69,240,000
Average Capital Outlay per student	\$1,563.94
Total Construction Costs	\$55,148,000
Average Construction Costs per student	\$1,293

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

**New Castle County**

For the 2001-2002 school year, New Castle County schools spent a total of \$173,685,000 on school construction, accounting for 30.56 percent of their total expenditures.

**Table 7: Appoquinimink School District Construction Costs**

Total Schools	7
Total Students	5,815
Student/Teacher Ratio	17.1
Total Expenditures	\$44,543,000
Expenditures per student	\$9,079
Total Capital Outlay	\$7,327,000
Capital Outlay per student	\$1,493
Construction Costs	\$6,456,000
Construction Costs per student	\$1,316

Source: *nces.ed.gov/ccd/districtsearch*

**Table 8: Brandywine School District Construction Costs**

Total Schools	22
Total Students	10,557
Student/Teacher Ratio	15.1
Total Expenditures	\$99,921,000
Expenditures per student	\$8,891
Total Capital Outlay	\$3,600,000
Capital Outlay per student	\$320
Construction Costs	\$2,852,000
Construction Costs per student	\$254

Source: *nces.ed.gov/ccd/districtsearch*

**Table 9: Christina School District Construction Costs**

Total Schools	28
Total Students	19,755
Student/Teacher Ratio	15.1
Total Expenditures	\$186,343,000
Expenditures per student	\$9,114
Total Capital Outlay	\$12,954,000
Capital Outlay per student	\$634
Construction Costs	\$10,121,000
Construction Costs per student	\$495

Source: *nces.ed.gov/ccd/districtsearch*

**Table 10: Colonial School District Construction Costs**

Total Schools	15
Total Students	10,440
Student/Teacher Ratio	16.2
Total Expenditures	\$87,608,000
Expenditures per student	\$8,192
Total Capital Outlay	\$6,067,000
Capital Outlay per student	\$567
Construction Costs	\$4,501,000
Construction Costs per student	\$421

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

**Table 11: Red Clay Consolidated School District Construction Costs**

Total Schools	28
Total Students	15,777
Student/Teacher Ratio	16.6
Total Expenditures	\$149,755,000
Expenditures per student	\$9,521
Total Capital Outlay	\$10,623,000
Capital Outlay per student	\$675
Construction Costs	\$4,371,000
Construction Costs per student	\$278

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

### Kent County

During the 2001-2002 school year, Kent County spent a total of \$8,271,000 on school construction, amounting to 4.05 percent of their total expenditures.

**Table 12: Caesar Rodney School District Construction Costs**

Total Schools	15
Total Students	6,701
Student/Teacher Ratio	15.4
Total Expenditures	\$62,214,000
Expenditures per student	\$9,514
Total Capital Outlay	\$9,363,000
Capital Outlay per student	\$1,432
Construction Costs	\$6,368,000
Construction Costs per student	\$974

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

**Table 13: Capital School District Construction Costs**

Total Schools	11
Total Students	6,259
Student/Teacher Ratio	15.3
Total Expenditures	\$47,819,000
Expenditures per student	\$7,689
Total Capital Outlay	\$1,148,000
Capital Outlay per student	\$1,327
Construction Costs	\$37,000
Construction Costs per student	\$6

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 14: Lake Forest School District Construction Costs**

Total Schools	6
Total Students	3,402
Student/Teacher Ratio	14.9
Total Expenditures	\$26,525,000
Expenditures per student	\$7,644
Total Capital Outlay	\$1,503,000
Capital Outlay per student	\$433
Construction Costs	\$1,032,000
Construction Costs per student	\$297

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 15: Milford School District Construction Costs**

Total Schools	5
Total Students	3,679
Student/Teacher Ratio	14.9
Total Expenditures	\$28,947,000
Expenditures per student	\$7,517
Total Capital Outlay	\$1,690,000
Capital Outlay per student	\$439
Construction Costs	\$1,185,000
Construction Costs per student	\$308

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 16: Polytech School District Construction Costs**

Total Schools	1
Total Students	1,068
Student/Teacher Ratio	11.5
Total Expenditures	\$14,295,000
Expenditures per student	\$12,718
Total Capital Outlay	\$421,000
Capital Outlay per student	\$375
Construction Costs	\$75,000
Construction Costs per student	\$67

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 17: Smyrna School District Construction Costs**

Total Schools	6
Total Students	3,494
Student/Teacher Ratio	16.5
Total Expenditures	\$24,076,000
Expenditures per student	\$7,062
Total Capital Outlay	\$547,000
Capital Outlay per student	\$160
Construction Costs	\$24,000
Construction Costs per student	\$7

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

**Sussex County**

During the 2001-2002 school year, Sussex County spent \$29,055,000 on school construction, amounting to 14.53 percent of their total expenditures.

**Table 18: Cape Henlopen School District Construction Costs**

Total Schools	7
Total Students	4,415
Student/Teacher Ratio	14.3
Total Expenditures	\$37,371,000
Expenditures per student	\$8,826
Total Capital Outlay	\$851,000
Capital Outlay per student	\$201
Construction Costs	\$109,000
Construction Costs per student	\$26

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

**Table 19: Delmar School District Construction Costs**

Total Schools	2
Total Students	977
Student/Teacher Ratio	15.6
Total Expenditures	\$16,892,000
Expenditures per student	\$21,491
Total Capital Outlay	\$11,077,000
Capital Outlay per student	\$14,093
Construction Costs	\$10,820,000
Construction Costs per student	\$13,766

Source: [nces.ed.gov/ccd/districtsearch](http://nces.ed.gov/ccd/districtsearch)

**Table 20: Indian River School District Construction Costs**

Total Schools	14
Total Students	7,516
Student/Teacher Ratio	13.4
Total Expenditures	\$61,197,000
Expenditures per student	\$7,967
Total Capital Outlay	\$1,648,000
Capital Outlay per student	\$215
Construction Costs	\$183,000
Construction Costs per student	\$24

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 21: Laurel School District Construction Costs**

Total Schools	6
Total Students	1,961
Student/Teacher Ratio	14.3
Total Expenditures	\$16,350,000
Expenditures per student	\$7,658
Total Capital Outlay	\$769,000
Capital Outlay per student	\$360
Construction Costs	\$341,000
Construction Costs per student	\$160

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 22: Seaford School District Construction Costs**

Total Schools	7
Total Students	3,381
Student/Teacher Ratio	14.6
Total Expenditures	\$34,103,000
Expenditures per student	\$8,805
Total Capital Outlay	\$2,185,000
Capital Outlay per student	\$564
Construction Costs	\$1,556,000
Construction Costs per student	\$402

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 23: Sussex Technical School District Construction Costs**

Total Schools	1
Total Students	1,195
Student/Teacher Ratio	13.4
Total Expenditures	\$19,392,000
Expenditures per student	\$16,951
Total Capital Outlay	\$5,384,000
Capital Outlay per student	\$4,706
Construction Costs	\$5,117,000
Construction Costs per student	\$4473

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ccd/districtsearch)

**Table 24: Woodbridge School District Construction Costs**

Total Schools	4
Total Students	1,893
Student/Teacher Ratio	14.1
Total Expenditures	\$14,561,000
Expenditures per student	\$7,918
Total Capital Outlay	\$289,000
Capital Outlay per student	\$157
Construction Costs	\$0
Construction Costs per student	\$0

Source: [nces.ed.gov/ccd/districtsearch](https://nces.ed.gov/ipeds/data/districtsearch/)

## Appendix B: Recent Capital Improvement Projects

Delaware's school districts will continue to build new schools, regardless of an increase in student population and other capacity issues. School buildings, because of their constant use, need to be renovated and replaced often. To maintain a high quality of instruction, many schools in Delaware will need to be replaced and technology updated.

Various Major Capital Improvement projects have recently been completed, including sixteen (16) new school construction projects and seven (7) major renovations and additions. An overview of the projects is outlined in Table 25.

**Table 25: Recent MCI Projects**

District	Project	Type	Completion
Appoquinimink	Redding (Louis L.) Middle School	Addition	9/2000
Appoquinimink	Cedar Lane Elementary School	Addition	9/2000
Appoquinimink	New Kindergarten	Addition	9/2000
Appoquinimink	Loss (Olive B.) Elementary School	New Construction	9/2002
Appoquinimink	Brick Mill Elementary School	New Construction	9/2003
Christina	Leasure (May B.) Elementary	New Construction	9/1999
Christina	Keene (William B.) Elementary School	New Construction	9/2001
Capital	BT/ West Dover Elementary School	Renovation	9/2003
Cape Henlopen	Beacon/Mariner Middle School	New Construction	9/2003
Cape Henlopen	Central Elementary School	New School	9/2001
Colonial	New Elementary School	New Construction	9/2001
Caesar Rodney	Fifer Middle School	New School	9/1999
Caesar Rodney	Postlewait (F.Neil) Middle School	New School	9/2003
Caesar Rodney	Caesar Rodney High School	Renovation/Addition	9/2000
Delmar	Delmar High School/Middle School	New school	9/2000
Indian River	Indian River High School	New School	9/2004
Indian River	Sussex Central High School	New School	9/2004
Milford	New Elementary School	New School	9/2003
New Castle County Vo-Tech	New Southern High School	New School	9/2005
Red Clay	Brandywine Springs Elementary School	Expansion	9/2002
Seaford	Blades Elementary School	Expansion	9/2000
SVT	High School	Expansion	9/2001
WB	Middle School	New Construction	9/2004

Source: Delaware Department of Education, compiled by IPA

## **Appendix C: July 22, 2003, Certificate of Necessity Working Group Meeting**

The meeting was held at the State Budget Office. It commenced at 10:00 a.m. and concluded at 1:45 p.m.

Participants included: Dave Hill, State Budget Office; Dave Edgell, Office of State Planning Coordination; Nick Vacirca, Department of Education; Anna Wojewodzki Hunter, Institute for Public Administration; and Camille Sawak, Institute for Public Administration.

### **A. Clarification of Research**

- Evaluate research that is most pertinent to the CN process and review which decision-makers should assess this information.

### **B. Events Leading to the CN Analysis**

- Delaware Policy Forum “Planning Delaware’s School Needs: Issues of Location, Design and Infrastructure” was held in 2000.
- Creation of a School Construction Committee funded by the Delaware Department of Education met from fall 2000 through spring 2001. A final report, “Building Quality Schools: Revisions to the School Construction Formula and Recommendations on Standards,” was completed in August 2001.
- March 2003 Summit, “The Future of School Siting, Design and Construction in Delaware,” was co-sponsored by the University of Delaware (UD) Institute for Public Administration (IPA) and the Office of Governor Ruth Ann Minner and funded by the Delaware Department of Transportation (DelDOT). The March 2003 Summit recommended a more in-depth research project on designing a new CN process.

### **C. An Overview of the Present CN Process**

- School districts submit their request(s) for Major Capital Project(s) to the Department of Education (DOE) no later than June 30.
- DOE reviews each Major Capital Project package. This review includes but is not limited to:
  - One-year enrollment projections
  - Population projections from Delaware Population Consortium
  - Site visits to assess development in the area
  - Discussions with the State Budget Office and the Office of State Planning Coordination

- DOE approves major capital program packages and prepares a capital budget submission to the Budget Office each October.
- DOE prepares a CN and forwards it to the school district for approval no later than January of the following year.
- The school district reviews and signs the CN.
- The CN allows the school district to hold a referendum.

DOE has become more proactive in its recommendations on school capacity. The construction of facilities should be 75 to 80 percent occupied upon completion.

#### **D. Referenda**

The following statements reflect the opinions of the working group and are not necessarily based on any review of referenda in Delaware.

- Four years ago, referenda were more difficult to pass.
- Within the last three years, referenda have been more successfully passed.
- Referenda on Capital Budgets and Operating Budgets are separate and therefore are voted on separately.
- A question was raised on whether this separation of referenda was required by law.
- It is easier to pass a referendum on a Capital Budget than on an Operating Budget.

#### **E. Population Projections**

- Population projections are critical to why, when, and where school facilities are built.
- Projections at the county level are accessible through the Delaware Population Consortium.
- It is more difficult to make population projections in smaller local areas. These districts may use DelDOT commuter traffic analysis to make projections.
- Ed Ratledge, Director of the Center for Applied Demography and Research, has presented data on enrollment projections for the Appoquinimink and Brandywine School Districts.
- The 2000 Census provides population data, but does not represent the most current information.

#### ***Recommendations:***

- 1) Incorporate population projections (that may be five-year projections) in an initial step in the CN process.
- 2) Increase collaboration between state agencies during the CN process so as to facilitate shared population projection data and resources and encourage everyone to use the same numbers.
- 3) Conduct further research on enrollment projections in school districts. This will prevent situations whereby two different schools are competing for the same population.

## F. Ideas

The following ideas were generated by the working group, which may be presented to the larger group (Budget Director Jennifer W. Davis and Secretary of Education Valerie Woodruff) for consideration.

- School construction should incorporate “Smart Growth” principles
  - If the Preliminary Land Use Service (PLUS) process is fully considered as an initial step in the CN process, this could assist school districts in selecting sites that are within the state strategy area for projected growth.
  - PLUS allows for pre-planning in areas pertinent to:
    - policy
    - infrastructure
    - transportation
    - growth
  - If site selection becomes an earlier step in the CN process, then this may more accurately reflect budget requests.
- The size of school facilities should be increasingly regulated based on set guidelines. Regulations may enhance the implementation of neighborhood schools and smaller schools.
  - Smaller schools such as those found in North Carolina may not be practical, but guidelines should be established to preclude the building of large facilities such as Caesar Rodney High School.
- A timeline for construction should be presented in the early stages of the CN process.
  - This will allow for more accurate budget considerations.
  - An established three-, five- or seven-year timeline will allow the State Budget Office to make inflation adjustments and maintain economies of scale.

## G. Next Steps

- Focus on:
  - 1) Population projections
  - 2) Coordination of site selection with the State Planning Office
  - 3) Budgetary timing as a critical factor in the CN analysis
- Conduct research on other states’ steps leading to a decision to build
- Facilitate a dialogue among the working group on potential questions for interviews and persons to be interviewed by August 8, 2003
- Contact Mark Dufendach, Business Manager of Milford, to begin a dialogue between the working group and a school district (Nick Vacirca)
- Update and contact Jennifer W. Davis, Connie Holland, and Mike Morton (Dave Hill and Dave Edgell)

## **Appendix D: October 2, 2003, Certificate of Necessity Working Group Meeting**

The meeting was held at the State Budget Office on Thursday, October 2, 2003. It commenced at 2:00 p.m. and concluded at 3:45 p.m.

Participants included: Dave Hill, State Budget Office; Dave Edgell, Office of State Planning Coordination; Nick Vacirca, Department of Education; Mike Morton, Comptroller General's Office; Anna Wojewodzki Hunter, Institute for Public Administration; and Camille Sawak, Institute for Public Administration.

In a brief synopsis of the eight interviews, Anna Hunter noted that all school districts were receptive and willing to share their experience with the CN process, offering suggestions for its enhancement. Each school district spoke highly of its relationship with DOE but suggested that the department needed supplemental support. Additionally, districts commended the State Budget Office for their attentiveness to the financial concerns of the districts and taking time to conduct personal visits.

The following are comments initiated by the interview data from the eight school districts.

### **Land Bank/Site Selection/Land Acquisition**

One person interviewed proposed that the Certificate of Necessity (CN) process should include a detailed checklist for site selection and construction planning. Most school districts lack expertise on construction planning and suggested that the Department of Education (DOE) develop a detailed guideline manual for this process.

School districts indicated that it would be an advantage to have the Office of State Planning Coordination (OSPC) included in the initial phase of the CN process. Dave Edgell concurred, indicating that the new Preliminary Land Use Service (PLUS) legislation reverses OSPC's input from the latter to the initial stages of the CN process. Edgell acknowledged that the land bank concept could be further explored with OSPC being actively involved in identifying land for school construction projects. Additionally, the use of Geographic Information Systems (GIS) data can be helpful in the analysis and selection of sites within development areas or on its periphery. Collaboration between OSPC and county governments can aid school districts with effective site selection. A land bank will allow the state to preserve open space for public use including schools while simultaneously eliminating the need for school districts to own land that they may not use immediately. Nick Vacirca stated that DOE had previous discussions with counties about keeping open spaces of land for future school construction.

Dave Hill expressed concern regarding the establishment of a land bank \_ in terms of the logistics and possible costs for which the Budget Office may be responsible for. Hill stated that the costs incurred with banking land should be considered, as developers and the community will most likely require the state to maintain open spaces. Additionally, communities may oppose any school construction project on land that has been designated open space for several years. Hill further stated that within New Castle County (NCC), school districts could find sufficient contiguous land. Essentially, from the perspective of incurred costs, it is preferable that the school districts remain responsible for land acquisition rather than the state. Mike Morton added that legislative support for a land bank must be pursued by all 19 School Districts.

Dave Edgell noted that OSPC's recommendations on site selection in the Indian River School District were not readily accepted by the district, and several sites were rejected before a final site was approved. He further explained that the district failed to budget the cost of land acquisition during the CN process and referenda (at least two or three). Dave Hill stated that if the state accepted the responsibility for decisions pertinent to site selection and land acquisition, then a pool of money must be available to pursue this route. Presently, the legislature appropriates all available money. Therefore it may be difficult to hold funds indefinitely for the purpose of purchasing land.

Nick Vacirca recommended that a master plan of potential school sites could be developed. Essentially, this master plan would be similar to a database of school site maps, including projections of future development plans of various state agencies, specifically the Delaware Department of Transportation (DelDOT). This database could facilitate the purchase of land two to three years in advance of projected growth and escalation of land prices. Once land acquisition is complete, this would allow school districts to present more accurate budgetary projections in their referenda.

Nick Vacirca stated that the Christina School District had sufficient money to purchase land; however, they were unable to determine an available location. He further clarified that DOE had discussions with NCC pertinent to the construction of a new school at Glasgow Park on Route 40. The 300 acres of open land would be an ideal location to integrate two schools into one and thereby reduce the acreage. However, an agreement was not reached during these discussions.

### **The Certificate of Necessity Application**

Nick Vacirca responded to the school districts' assessment that the CN process takes too long. He stated that the CN process takes approximately six months; it commences in June and ends in December, with a CN being issued as early as November. Mike Morton stated that land acquisition is a lengthy process. Therefore the school districts need to recognize that they must be proactive and search for possible sites prior to their CN application.

### **Building Size**

Regarding the request for an increase in the square footage size, Nick Vacirca stated that his recent trip to an International Conference on School Construction affirmed that there

are credible arguments for both ends of the spectrum on school size. He stated that the state's current formula was designed to ensure that size would not deduct from the quality of the building. Delaware chose to build moderate size buildings with a potentially long life span rather than follow the example of Maryland, where larger buildings with a relatively short life span were constructed. Vacirca acknowledged the success of Colonial School District's 1200 pupil elementary and middle school, noting that students never perceive they are housed in a large school, primarily due to the school's architectural design. However, he further stated that Colonial School District funded a larger portion through local funds.

Responding to a request for increased funding to cover furnishing and land costs, Nick Vacirca indicated that the current funding allocation of \$175 per square foot does not cover costs pertinent to site selection or land acquisition. However, this figure could be adjusted annually to include inflation. He noted that DOE has increased the allocation for high schools by \$6 per square foot. DOE's primary concerns relate to the ability of money allocated to meet a minimum set of standards.

### **Pre-Planning Funding**

Dave Hill responded to the school districts' request for the state to provide a funding mechanism to facilitate adequate planning. He stated that in past years planning money was available to districts, but this financial resource was never replenished – representatives would forgive this debt. Pre-planning funding is a possibility, but this mechanism must be self-sustaining.

Anna Hunter stated that only two school districts, Red Clay Consolidated and Cape Henlopen, have implemented long-range plans (with local funding) that have facilitated an efficient school construction process, including effective referenda. Additionally, her research indicates that Washington and West Virginia currently have pre-planning funding mechanisms that could offer options for Delaware.

Nick Vacirca agreed that long-range plans alleviate site selection issues and allow school districts to make accurate budgetary projections on funding allocations to individual projects. Additionally, long-range plans can facilitate at least a ten percent flexibility in shifting money between projects that may require more funding, temporarily, than others.

Mike Morton responded to the school districts' concern about signing contracts before they have all the money required to pay for a project. He stated that school districts are cognizant that the legislature budgets annually for school construction projects, therefore funding is guaranteed. Subsequently, school districts can stipulate the terms of their payment schedule with contractors. Mike Morton further noted that districts' concerns relative to bids are based on a fear of being challenged. Both Nick Vacirca and Dave Hill indicated that they were unaware of any problems in the Milford School District and its subsequent wait of three years to sign a contract.

**Politicization**

Nick Vacirca refuted the claim that decisions pertinent to school construction are politically motivated. He contends that each school district prioritizes its capital projects. Additionally, legislators do not adjust any recommendations from DOE for funding allocations to district projects. Once the referendum passes, DOE maintains consistent communication with the school districts on the status of individual projects.

Nick Vacirca observed that complaints vary among school districts but are inevitably linked to each district's level of staffing, competency, expertise, and construction management.

**Population**

Nick Vacirca stated that DOE's single year population projections are based on lateral retention through enrollment and are more accurate than projections over a five-year period. Although Appoquinimink's population projections differed with Ed Ratledge's projections, it is quite likely that Ed Ratledge could not have predicted the rapid rate at which developments were completed. Dave Hill observed that it would be helpful to know how Appoquinimik calculated their population numbers. He noted that future population projections should utilize a valid source that calculates both local and county population numbers. A contract with Ed Ratledge or the University of Delaware to determine population projections for all 19 school districts may be considered. Anna Hunter noted that this would assist school districts tremendously in Sussex County where student population fluctuates due to rapid development and the amount of communities claiming to target retirement-aged individuals.

**“Cookie Cutter” Schools**

Anna Hunter indicated that school districts expressed interest in “cookie cutter” school designs, noting that these designs can potentially save between three to seven percent on architectural costs. Nick Vacirca concurred that “cookie cutter” designs can potentially decrease planning by six months during the design phase. However, school districts will still have an option to select other architectural designs, as “cookie cutter” schools may be limited to specific sites. “Cookie cutter” designs also allow school districts to monitor the creativity of their architects. Nick Vacirca noted that DOE has a repository of plans available to school districts.

**A School Construction Committee**

Nick Vacirca proposed that a committee to oversee school construction could create a more efficient construction process. This committee would include buildings and grounds supervisors and experts in construction management. Anna Hunter noted that school districts suggested that a clerk-of-the-works or a construction manager appointed by the state would be helpful. While the group was discussing this option, the Delaware Auxiliary Group was mentioned. The Delaware Auxiliary was a planning group that was disbanded in the 1970s. Camille Sawak and Anna Hunter volunteered to find more information about the group and find out why it disbanded.

**Path Forward**

It was agreed that Anna Hunter would formulate recommendations pertinent to the above areas. These recommendations would be presented at the next meeting on October 27, 2003. A final report will be completed and will include a comparative analysis of other states and reviewed guidelines.

## Appendix E: October 27, 2003, Certificate of Necessity Working Group Meeting

The meeting was held at the State Budget Office on Monday, October 27, 2003. It commenced at 2:00 p.m. and concluded at 3:30 p.m.

Participants included: Dave Hill, State Budget Office; Nick Vacirca, Department of Education; Anna Hunter, Institute for Public Administration; Camille Sawak, Institute for Public Administration; and Samantha Cleaver, Institute for Public Administration.

Anna Hunter presented a rough draft of eight recommendations based on a review of the school district interviews and supplementary research. It was generally agreed that the primary concern expressed by the school districts related to the management of school construction projects rather than the required steps of the Certificate of Necessity (CN) process. Anna Hunter noted that these proposed recommendations were to be discussed by the working group and will be changed as the group deems necessary.

**Recommendation 1:** The state could provide a funding mechanism to facilitate adequate pre-planning by school districts. This would facilitate the development of long-term financial planning whereby school districts would prepare five-, seven- or ten-year plans of major capital renovations or new construction.

The idea that planning is a capacity issue was addressed. Nick Vacirca stated that most school districts, with the exception of Red Clay Consolidated and Cape Henlopen, do not prepare seven- or ten-year long-range plans. Vacirca noted that it is difficult to predict enrollment figures over ten years or develop new construction projects without knowing the status of future referenda and how this will impact long-term planning. It is easier to develop long-term plans for renovations or replacement of equipment that is no longer functional. Nick Vacirca noted that this concept of preventative maintenance would require school districts to create a grid of facilities assessments. If it is assumed that the life of a building is 40 years then this grid can be broken into four ten-year cycles to facilitate consistent maintenance. It was noted that, in the past, the state allocated pre-planning money through a revolving fund but this funding was rarely recovered. Dave Hill stated that the genesis of the planning process could be linked to a funding mechanism, however if a revolving fund is reinstated money should be recovered.

**Recommendation 2:** School districts should utilize population projections that are based on the same measuring standards. A single state agency or research institution could provide this data.

The working group concurred that school districts should utilize standard population projections. This population data could be obtained through a contract with the Population Consortium or the University of Delaware. The Department of Education (DOE) would inform school districts that they are expected to use annual population projections provided by DOE. The idea of using standard population projections for other projects, not just school construction, was discussed. It was noted that Brandywine, Colonial, Red Clay, and Christina School Districts use a data center that collects student data.

**Recommendation 3:** The state could provide a detailed checklist outlining the steps schools must go through to complete a major renovation or build a new school. This would include all agencies involved, the resources available to school districts, and a repository of construction template designs.

It was suggested that school districts who have recently completed a Major Capital Improvement (MCI) project should work with the DOE to compile a checklist of suggestions and guidelines for the construction process. This checklist would supplement the guidelines included in the School Construction Technical Assistance Manual. It was noted that several school districts employ reputable individuals with expertise in design and construction management that could benefit other districts.

**Recommendation 4:** The Office of State Planning Coordination should play a significant role in the site selection process.

The new Preliminary Land Use Service (PLUS) process would now enhance land use planning and site selection performed by school districts. It was noted that the Office of State Planning Coordination would rather not be responsible for site selection due to the risk of being regarded as a real estate agency for schools. It should be the responsibility of the school districts to consider land use planning prior to site acquisition, and the Office of State Planning Coordination should serve only as a resource for districts.

**Recommendation 5:** School districts could receive assistance from the state in the land acquisition process by working with state agencies that already own or hold land. A master plan or database of school site maps, including projections of future development plans of various state agencies, could assist in the site selection and land acquisition process.

It was suggested that recommendations four and five be combined and changed accordingly.

**Recommendation 6:** A School Construction Committee/Team comprised of buildings and grounds supervisors and experts in construction management could be established. Nick Vacirca would oversee this initiative.

This suggestion was viewed as more feasible than recommendations seven and eight. The establishment of an advisory body or state capital board to oversee the construction

management process could be explored. However, the following questions were raised regarding the scope of this entity: 1) What would the state capital board/body review? 2) What authority would it have? 3) Who would be the appointees? 4) Would it be seen as prestigious position or a career advancement opportunity?

Nick Vacirca indicated that he would prefer to have his name removed from this recommendation.

**Recommendation 7:** The state could provide supplemental staff assistance for Nick Vacirca to further enhance the Certificate of Necessity process.

It was noted that recommendations 7 and 8 are very similar and they were discussed as one.

**Recommendation 8:** A clerk-of-the-works or construction manager appointed by the state could assist school districts in managing each phase of construction.

Dave Hill indicated that the state would prefer not to increase its current staff. Additionally, the state previously employed a clerk-of-the-works, and there must be a justified reason why this position no longer exists.

### **General Discussion**

It was agreed that there is a disconnect or lack of effective communication between the DOE and the school districts, as the districts are unaware of resources that are available to them. Nick Vacirca indicated that he holds quarterly budget meetings, and help is provided and offered by DOE, but districts do not ask or know to ask. He further reiterated that the turnaround time on a CN request is six months as it allows for the finalization of the budget. Additionally, the MCI equalization formula documented in *Building Quality Schools: Revisions to the School Construction Formula and Recommendations on Standards* is currently not dependent on the wealth of districts and will not change as equalization across districts increases the state's share of funding. Nick Vacirca noted that there is no two-story rule for school construction, only first grade classrooms and below are required to be at the exit level.

Anna Hunter suggested that communication between the districts and DOE could be enhanced through internal hand-outs or "FAQ" lists. Additionally, an annual conference or training seminar for new superintendents, who may be unfamiliar with the intricacies of planning and school construction, may be helpful.

Dave Hill noted that the Budget Office is unable to assist districts in paying fees to Fire Marshalls, Delaware Department of Natural Resources and Environmental Control (DNREC), and Delaware Department of Transportation (DelDOT). The state was open to the possibility of looking into standard floor plans and wanted to include it in the next step of the project.

**Path Forward**

It was agreed that Anna Hunter would revise the above recommendations to reflect the discussion and new suggestions. This revised version would be e-mailed to the working group by October 31, 2003.

## Appendix F: References

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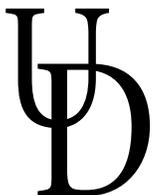


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