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ABSTRACT

The New Jersey Department of Education (NJDOE) presents a study of facilities' needs for the Abbott School District's 28 educational facilities and provides recommendations concerning how the state should address those needs, including appropriate and alternative funding. Study assessment data show the estimated cost for existing facility rehabilitation would be over \$1.8 billion, of which half the amount would be for facility expansion and architectural and structural refurbishing. The study also lists recommended facility specifications deemed necessary to assure students can achieve the Core Curriculum Content Standards. Other state's educational facility construction and funding practices are highlighted as promising approaches for New Jersey to consider. Final comments address the state's plan for Abbott District facilities improvement, including the administrative actions of the NJDOE, and the issues related to the development of a state financing plan which is outside of the special areas of expertise of the department. (GR)

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# A Study of School Facilities and Recommendations for the Abbott Districts

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## I. INTRODUCTION

### A. Court's Order

In its May 1997 decision in *Abbott v. Burke*, the Supreme Court directed the Commissioner of Education to "Review the facilities needs of the twenty-eight Abbott districts, and provide recommendations concerning how the state should address those needs.....including consideration of appropriate and alternative funding, as necessary." The court also found that "The state must, as part of its obligation under the education clause, provide facilities for children in the Abbott districts that will be sufficient to enable these students to achieve the substantive standards that now define a thorough and efficient education and the quality of the facilities cannot depend on the district's willingness or ability to raise taxes or to incur debt."

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This report and its underlying studies:

- 1) identify the available facilities in Abbott districts,
- 2) describe the current conditions of those facilities and assess student capacity,
- 3) estimate the cost to correct all deficient conditions and provide general classroom space for all prekindergarten through grade 12 students at appropriately established class sizes,
- 4) describe the types of educational spaces needed to provide adequate programs to enable students to meet the Core Curriculum Content Standards, and
- 5) outline a state-controlled management and financing plan to address the facility needs of Abbott districts for consideration by the Governor and the Legislature.

## **B. Profile of Abbott Districts' Facilities**

In 1997-98, based on the assessment described in this report, enrollment in the Abbott districts is 261,738 students in prekindergarten through grade twelve. The Abbott districts contain 429 public school buildings with a total capacity of 222,076 students. The average age of an original school building is 56 years old (1941) and the average age of an addition is 33 years old (1964). Of the 429 school buildings, there are 11 preschool/kindergarten schools, 190 elementary schools, 104 elementary/middle schools, 50 middle schools, 5 middle/high schools, 52 high schools, 6 adult schools, 10 special education schools and one other. The 429 school buildings contain 35,594,667 square feet or 135 square feet per student.

## **C. Conduct of the Study**

### **1. Educational Facilities Assessment**

The New Jersey Department of Education (NJDOE) contracted with the Vitetta Group, a recognized expert in school architecture and educational space planning with significant experience in the design of facilities in Abbott districts, to prepare and administer an assessment of all school buildings in the Abbott districts. The assessment was designed to inventory Abbott district facilities, to identify deficiencies in each school building, and to provide an estimate of the costs to remedy those deficiencies. The assessment included information pertaining to:

- Capacity, enrollments, and average class sizes
- Program provisions and functional issues
- Conformance with the State Technology Plan
- Building sizes, ages, and construction types
- Site conditions, including play areas and circulation
- Exterior and interior building components
- Mechanical, plumbing, and fire protection systems
- Electrical and lighting systems
- Current code compliance

### **2. Consultation with Experts**

The NJDOE consulted with nationally recognized educational experts in order to obtain their

professional opinions as to what facilities characteristics, if any, are essential to the successful implementation of the Core Curriculum Content Standards, and students' achievement of the standards. The NJDOE also interviewed two county superintendents who had prepared themselves through dialogues with New Jersey administrators in high performing elementary and middle schools on the same issue.

### **3. Review of Other States' School Facilities Practices**

The NJDOE conducted an extensive search of practices used in other states for school facility planning and financing. While the department found that reference materials and state school facilities standards were limited, West Virginia, Maryland, South Carolina and Pennsylvania were found to have a comprehensive state approach to school facilities design and financing which proved useful in this study.

### **4. Recommendations for Abbott District Facilities Improvements**

The NJDOE, after consideration of the various assessments, analyses and expert opinion, developed recommendations for: (1) creating a facilities management plan for each Abbott district, (2) establishing NJDOE oversight and facility standards, (3) approving Abbott district management plans, and (4) identifying elements of a possible approach for developing a state construction management and financing plan for consideration by the Governor and Legislature.

#### **D. Participation of Parties and Public**

The NJDOE held a community meeting in each of the Abbott districts to permit all stakeholders, including parents and community members, to provide input about the specific needs of the students in their communities. Meetings were conducted with the county superintendent chairing, accompanied by staff from the Office of Program Review and Improvement.

The NJDOE also met with the Education Law Center on the facilities issue. Representatives of the plaintiffs also participated in a meeting held with Abbott districts involving the conduct of the study.

## **II. EDUCATIONAL FACILITIES ASSESSMENT**

The NJDOE retained the Vitetta Group, recognized experts in school architecture and educational space planning, to assess the condition of the 429 schools operated by the 28 Abbott Districts. Concurrently, the NJDOE directed each Abbott district to engage a licensed architect and/or engineer, or to identify appropriately qualified in-house staff to prepare its assessment.

The Vitetta Group developed a standard survey instrument, uniform criteria for evaluating the condition of individual building components, and quality control measures to ensure that accurate and uniform assessments were prepared by Abbott district experts. Based on the assessments, Vitetta prepared a detailed accounting of deficiencies and estimated correction costs for each school building. The survey data were also compiled into an electronic database to serve as the NJDOE's baseline for tracking all future facilities improvements in the Abbott districts.

The survey was conducted in an expedited fashion over a two month period in order to meet the court imposed deadline. The surveys were issued to the Abbott districts' designated experts at a training session on September 4, 1997 with a submission date of October 1, 1997. Abbott district submissions were for the most part timely and Vitetta received the full cooperation of Abbott districts in correcting survey deficiencies identified during quality control review. It is important to note that the tight timelines limited the scope of the study and the degree of quality control applied to the details.

#### **A. The Survey Instrument**

The survey instrument was developed to collect information pertaining to:

- Capacity, enrollments, and average class sizes
- Program provisions and functional issues
- Conformance with State Technology Plan

- Building sizes, ages and construction types
- Site conditions, including play areas and circulation
- Exterior and interior building components
- Mechanical, plumbing, and fire protection systems
- Electrical and lighting systems
- Current code compliance

In order to minimize subjective judgments on the part of the Abbott districts, the survey was designed to elicit descriptive information so that common evaluative criteria could later be applied to all schools. Although functionality judgments were unavoidable, explanations were required for each identified deficiency response rather than a simple "yes" or "no" answer.

## B. Determining Deficiencies

Common standards were created to determine deficiencies pertaining to capacity and infrastructure. Infrastructure deficiencies were further delineated as functional, life cycle and current code as explained below. Since the impact of the Core Curriculum Content Standards on facilities was being analyzed and necessary supplemental programs were being identified concurrently with the assessment of current conditions, program spaces were inventoried without assessment of educational adequacy or associated cost estimates. The review of Core Curriculum Content Standards and supplemental programs were integrated later and are incorporated in Section V of this report, State Plan for Abbott District Facilities Improvements.

In order to equalize calculation methodologies, all **school capacities** were calculated new. Calculations are based on current room usages recorded in the surveys, adequately sized classrooms given the grade level and program, an assumed utilization rate, general classrooms (not specialized spaces such as cafeterias, music rooms, science labs or libraries) and recommended class sizes. Recommended class sizes are 15 for prekindergarten, 21 for kindergarten through grade 3, 23 for grades 4 through 8, and 24 for grades 9 through 12. Based on a comparison of school capacities to current enrollments on a districtwide, school type basis, deficient capacity was translated into additional kindergarten and/or general classroom needs. Rented facilities and trailers were excluded from the calculation of capacity-generating spaces.

Each building component was recorded as **functional or not functional** on the survey forms. Acceptable non-functional responses had to include sufficient explanation or justification. Functioning components which were antiquated and/or in violation of current codes were included as a deficiency under the life cycle or current code compliance categories.

**Life cycle** deficiencies pertain solely to the age of a particular building component. To determine deficiencies the age of each component recorded in the survey was uniformly compared against typical life cycle expectancies to identify those which have exceeded their functional life, and are therefore, prone to failure. The life cycle expectancies used are based on generally accepted industry norms and an assumed low level of maintenance for most components.

**Current codes** were used to calculate code deficiencies and correction cost estimates, regardless of "grandfather" provisions. Code deficiencies were classified as follows:

- Handicapped accessibility
- Life safety
- Mechanical, electrical, and plumbing systems.

Proposed rehabilitation subcode N.J.A.C. 5:23-6 of the Uniform Construction Code would significantly reduce mandated compliance with current code when renovating existing buildings.

## C. Quality Control

Several measures were implemented to ensure accuracy in completion of the survey. The survey instrument

was designed to limit subjective responses, and the descriptive explanations it required were reviewed against common criteria before a deficiency was recorded. A training session was conducted for Abbott district surveyors which included an actual school walk-through where completion of the survey instrument was demonstrated. Detailed instructions, a sample survey and twenty-four hour response time to technical questions were provided. Each survey was checked for completeness and accuracy, and follow-up and adjustments were made as needed. The Vitetta Group was provided an extension on submission of the report to ensure that as much of the necessary follow-up and adjustments were made as was possible given the court's deadline. Random "spot-checks" were conducted on-site by the Vitetta Group to evaluate conformance to evaluation criteria, accuracy and completeness of reporting. No material deviations were noted.

**D. Budget Considerations**

Construction budgets have been developed using nationally published standard unit cost data for new construction. Infrastructure costs are based on industry standard costs published by R.S. Means Company. New school construction costs for capacity are based on data maintained by the Vitetta Group and data published by F.W. Dodge for current New Jersey School Construction. Unit costs have been adjusted to reflect removal and replacement of components. Published unit costs of R.S. Means Company are adjusted national averages which reflect current New Jersey school construction cost trends and generally run from five to 10 percent higher than national averages. Unit costs have been extended based on unit quantities reported in the surveys.

Costs for new construction are based on a value of \$122 per square foot for new building construction budgets plus an allowance of \$3 per square foot for site development costs. The resulting total cost of \$125 per square foot is held to represent average quality construction on an average site.

Extended unit costs include overhead and profit, but no allowance has been made for general conditions of construction contracts, such as performance bonds and insurance, temporary facilities and other special project requirements. These costs could vary from about 5 to 25 percent depending on field conditions, phasing requirements and project size.

Construction budgets included in this report also do not include "soft costs", such as design and engineering expenses, site acquisition costs, legal and administrative expense, or any special project requirements.

**E. Summary of Findings**

The estimated cost for the rehabilitation of existing Abbott district schools and the construction of additional general classroom space to meet current enrollments was computed to be \$1,807,894,610. The estimated correction budget for all 28 Abbott districts is summarized as follows:

Additional Capacity	\$437,317,750
Site Improvements	51,681,671
Architectural/Structural	580,098,937
HVAC	288,295,903
Sanitary & Water Systems	69,418,382
Fire Protection	49,999,802
Plumbing Fixtures	40,709,500
Power & Distribution	242,112,151
Fire Alarm System	8,557,549
Emergency Lighting/ Exit Signs	22,334,063
Communications Systems	<u>17,368,902</u>
Total	\$1,807,894,610

The additional classroom spaces needed are summarized by school type as follows:

Pre-school/kindergarten	141
Elementary (PreK, K and Up)	1,644
Elementary/Middle (PreK, K and Up)	899
Middle&	202
Middle/High&	0
High&	235
Special Education	<u>16</u>
Total	3,137

## F. Validity of Findings

The quality control measures implemented by the Vitetta Group helped ensure that the surveys were generally representative of existing conditions. However, it was noted that some surveys were less comprehensive than others, and time constraints limited comprehensive completion of all survey parts.

Critical considerations concerning the quality of the results are as follows:

- Educational specifications were under development and, therefore, unavailable.
- About 10 percent of surveys still had errors in reporting and/or missing quantities even after the third submission, however, enough information was provided to allow estimations of missing information.
- About 40 percent of surveys appear to be less than comprehensive in noting current code deficiencies based on the age of the building in question.
- No consideration was given to restructuring or "best" use of existing space, potential grade reconfigurations, school sending areas, school sizes or replacement versus renovation costs.

Accordingly, before correction of deficiencies and/or addition of capacity each district should comprehensively examine its school buildings with consideration given to the above issues.

## III. EDUCATIONAL ADEQUACY OF FACILITIES

NJDOE experts on the Core Curriculum Content Standards were asked to develop facilities specifications which would be necessary to enable students to achieve the Core Curriculum Content Standards. In order to assist the team, the NJDOE convened a group of three consultants to receive input on the facilities characteristics, if any, which are essential to successful implementation of the Core Curriculum Content Standards, and students' achievement of the standards. The consultants were: Dr. Emily Feistritz, president, National Center for Educational Information; Dr. Bruno Manno, senior fellow of the Hudson Institute; and Mr. Alton Hlavin, assistant superintendent for facilities in the Arlington School District.

Two county superintendents were also interviewed to determine their views of this same issue. Both were asked to conduct a dialogue with administrators from high performing districts on the facilities implications of the core curriculum content standards prior to the interview.

There appears to be no empirical research that directly establishes a cause and effect relationship or correlation between academic performance and the presence, absence or configuration of specialized instructional spaces, provided that these facilities provide a clean, safe and functional environment which is conducive to learning. The NJDOE has concluded, based on its expertise, field experience, consultation with experts and its focus on an integrated approach to instruction, the facilities standards for Abbott districts should minimally require that:

1. All schools be connected to a high-speed fiber-optic network and all classrooms be wired for integration of technology into the instructional program;
2. All elementary schools include:

- a) Adequate classroom space for class sizes of 15 in prekindergarten, 21 in kindergarten through grade 3, and 23 in grades 4 and 5.
  - b) Space or scheduling accommodations for 90 minutes of reading daily for students in grades 1 through 3 in class sizes of no more than 15;
  - c) Toilet rooms in all prekindergarten and kindergarten classrooms;
  - d) Cafetorium and/or gymnasium with stage for breakfast, lunch, large group presentations, instrumental music and student performances;
  - e) Computer room for keyboard and computer instruction; and
  - f) Media center.
- 3) All middle schools or elementary schools housing grades 7 and 8 include:
- a) Adequate classroom space for class sizes of 23;
  - b) Science demonstration room(s) with demonstration table and perimeter student areas with water for all students in grades 7 and 8;
  - c) Cafetorium and/or gymnasium with stage for breakfast, lunch, large group presentations, instrumental music and student performances; and
  - d) Media center.
- 4) All high schools include:
- a) Adequate classroom space for class sizes of 24;
  - b) Art room;
  - c) Music room;
  - d) Science demonstration room(s) for general science with demonstration table and perimeter student areas with water;
  - e) Science Lab(s) with gas, water and appropriate ventilation for chemistry and physics;
  - f) Auditorium with stage for large group presentations, instrumental music and student performances;
  - g) Cafeteria for breakfast and lunch;
  - h) Gymnasium with bleachers and locker rooms; and
  - i) Media center.

#### IV. OTHER STATES' SCHOOL FACILITIES PRACTICES

Building programs in other states were studied to learn of approaches that might be useful to New Jersey in identifying the facilities needs in the Abbott districts and proposing a plan to address them. States selected for intensive study included Maryland, West Virginia, South Carolina, and Pennsylvania. None of the states contacted had conducted a building program focused on a specific subset of districts. Nevertheless, several trends from their practices suggest promising approaches for New Jersey.

##### A. Context

The programs in Maryland and West Virginia provide up-front grants for the full state-supported portion of

specific projects, which in West Virginia can be up to 100 percent of the project cost, and in Maryland is generally 50 to 80 percent of the project cost. Pennsylvania's is purely a debt service aid program, in which aid on annual principal and interest payments is allocated based on specific projects. South Carolina allocates funds according to a variety of formulas, all but one distributing yearly appropriations on bases unrelated to district needs or specific projects. The one needs-based formula totals a district's capacity and renovation needs, and awards funding based on the proportion of those needs relative to those statewide, without linking the funds to a specific project.

State sales tax provides a portion of the funds in both West Virginia and South Carolina. West Virginia's facilities revenues are augmented by interest earned on awarded funds before they are expended. South Carolina collects significant additional revenues from fees from a nuclear waste disposal facility. Maryland funds the vast majority of its capital facilities aid with state bonds, and a small amount from the general fund. Pennsylvania fully funds its appropriation through general revenues.

## **B. State Involvement in Project Planning and Administration**

States with a stronger state role in districts' facilities planning have facilities programs that are run outside the NJDOE although department personnel help to staff the programs. Maryland's Public School Construction Program (PSCP) is run by an interagency committee. West Virginia's public school construction program is administered by a state School Building Authority (SBA).

### **1. Strong project oversight**

*a. Long-term planning:* Maryland and West Virginia both have a strong emphasis on long-term planning. Each state requires an annual update of a master facilities plan for the district, which figures prominently in the granting of building approvals. In West Virginia, the plan provides the mechanism for application for funding consideration. These plans require that districts address such issues as achieving economies of scale in school sizes and studying options for inter-district facilities use. They also both facilitate public participation in the planning process and ensure that districts plan to maintain buildings properly.

*b. Planning standards:* Specific program and construction planning standards at the state level provide valuable technical assistance to districts that lack the expertise to properly guide their architects and contractors. This encourages the use of best practices from the start, rather than relegating these issues to the criteria for approval or denial at the time of project review. Staff in the Maryland DOE engage in researching design issues, and publish technical bulletins regularly. In West Virginia, a comprehensive and detailed handbook provides program space planning standards that both ensure facilities are educationally appropriate and provide a substantive standard for what state funding will support.

*c. Staff involvement:* Close review of district long-term plans and periodic conferences ensure state staff's close involvement in districts' planning and decision making. In Maryland, PSCP staff are intimately involved in the planning of all state-funded projects, so that approvals are issued following a consultative process that maximizes the efficiency and quality of the investment product. West Virginia's SBA closely monitors districts' long-range planning process and provides a great deal of technical assistance. In both states, the agencies' authority over prioritizing projects and awarding funds fosters districts' cooperative collaboration, whereas a process structured more as a strict review-and-approval process can engender a more adversarial dynamic that impedes the sharing of expertise.

*d. Construction management:* In West Virginia, the funding contract designates the SBA as co-owner of the project in regard to authority with contractors. Districts are required to designate a clerk of the works or construction manager, who serves as the liaison to the SBA, and are required to involve the SBA in the decision-making process in all phases of project planning, design and construction. While the SBA maintains varying levels of involvement through the construction period as appropriate, it can unilaterally halt construction if problems are perceived. This arrangement decreases the incidence of change orders and cost overruns.

### **2. Central state financial management**

Centralizing financial management of building funds can provide benefits both to districts and to the state through the efficiencies inherent in pooling both expertise and management tasks. State

representatives cite several advantages to districts, such as no-cost investment expertise and relief from the management tasks involved in accounting for funds, paying bills, and refinancing. Pennsylvania has a Public School Building Authority that offers its financial services free to districts. In Maryland, districts can choose to have the PSCP process payments to contractors. Advantages inherent to the state issuance of bonds that might be transferable to state management and bundling of local bonding.

West Virginia's program is especially noteworthy. The program is structured to provide management assistance to districts while recapturing all interest earned on awarded funds before they are expended. A separate account is maintained by the SBA in a custodial bank for each district with an active project. Once grant funds are awarded to a district, they are deposited in its account, but a check is not issued to the district until a contractor's services are invoiced and the SBA approves the invoice. Districts are paid within 15 days of the invoice and thus contractors within 30 days. Interest earned on awarded funds prior to expenditure is the property of the SBA, and is then rolled back into the school construction fund, increasing program funds available for distribution to other districts.

## C. Funding Structures

### 1. Funding based on approved costs

Each of the four states determine funding needs based on objective standards defining necessary construction and appropriate costs. This approach fosters greater inter-district equity in both the facilities provided for students and the distribution of funds. It also increases the reach and impact of state funds. Capacity analyses incorporate presumed efficient class sizes or gross square footage allowances per pupil, and efficient utilization through scheduling is assumed. All of the identified states but South Carolina base capacity analyses at the district level or on consideration of reasonably adjacent schools. In addition, most of these states have established within their criteria for facilities plan approvals authority to consider issues of efficiency and preferred practice in the context of individual district circumstances, with the result that state and local investments are maximized to forward long-term interests.

### 2. Renovations: funding and the decision to renovate or replace

The states' policies toward renovations are designed to encourage efficient and well-planned initial construction and subsequent renovations. Only West Virginia will fund renovations to a new building. The other states do not fund renovations to buildings until they reach ten, 15, or 20 years of age. In addition, Maryland and Pennsylvania deny renovation funding to buildings within 15 and 20 years, respectively, of their prior receipt of renovation funding. This encourages districts to be far-thinking in their renovation plans, which results in greater efficiencies.

In these states, approved renovation costs are calculated based on the replacement costs of the facility. These states, except Pennsylvania, then apply a factor to reduce the funded cost according to the age of the building, with older buildings being funded at a higher percentage of the replacement cost. While Maryland and West Virginia apply graduated percentages at set age intervals, South Carolina allots an additional percentage increment for each year in age beyond the ninth. The funding reduction is not intended to be a disincentive to renovate, but to scale funding to expected costs of renovations likely to be necessary in buildings of a given age.

The states' funding formulas are designed to be neutral with regard to the decision of whether to renovate an older building or retire and replace it, although the mechanisms by which states believe the formulas achieve this result vary; and the proper choice of variables appropriate for New Jersey would require further study. Funding neutrality is intended to enable case-by-case decision making based in the best practice for the particular circumstances. The decisions are informed by the varying degrees of state oversight. Maryland and West Virginia both retain the option to deny approval and funding to a project based on a poor decision. While Pennsylvania has an explicit policy of not funding renovations above a certain percentage of the replacement cost, the state grants variances liberally to districts that can justify renovating as more cost-effective or otherwise preferable.

Maryland requires a feasibility study be conducted whenever the decision is in question. The assets inherent in an existing building often make renovation the preferred choice. Thus the state's orientation favors renovation; a very strong case is required to justify abandoning a building. However, some buildings contain multiple limitations that justify replacement instead; West Virginia cites multiple

structural deficiencies and small classrooms that do not well accommodate modern programs. The availability of buildable land may influence a state's preference, a factor that would suggest New Jersey adopt Maryland's orientation favoring renovation.

#### **D. Maintenance**

The states employ various mechanisms to ensure appropriate systemic maintenance of buildings. Long-term plans require states to address this issue. Maryland requires, in addition to its long term plan, a separate comprehensive maintenance plan, which is one of the documents analyzed when funding decisions are undertaken. West Virginia's long-range plan includes a major improvement plan, which directly incorporates requests for funding with documentation of systemic maintenance.

West Virginia and Maryland also maintain separate funding emphases for systemic renovations. In Maryland, such investments are considered a state initiative, and a significant portion of available funding is dedicated to such projects, whose approvals are prioritized. West Virginia has a separate aid program dedicated to major improvements. As a condition of receiving funds under this program, districts are required to demonstrate certain levels of maintenance in their preceding and current years' budgets.

### **V. STATE PLAN FOR ABBOTT DISTRICT FACILITIES IMPROVEMENT**

Section V of the report deals with implementation issues. Parts A and B involve administrative actions of the NJDOE in the development of facilities management plans for the district based upon the inventories. Since these issues are within the expertise of the department, detailed recommendations are provided herein. Section C, however, deals with issues related to the development of a state financing plan which is outside of the special areas of expertise of the department and, therefore, this section is by necessity informational in nature.

#### **A. Abbott District Facilities Management Plan**

- Each Abbott district should prepare and submit to the NJDOE for review and approval by January 1999 a facilities management plan which will ensure that within five years each school building is safe and healthy, in compliance with the Uniform Construction Code, conducive to learning and adequate for the delivery of programs and services necessary to enable all students to achieve the Core Curriculum Content Standards, and that sufficient instructional space is available within the district to house all resident students.
- The NJDOE should explore with each Abbott district the feasibility of utilizing options such as modified scheduling through extension of the school day, extended school year, technology, joint use of municipal or privately owned facilities, business partnerships with private industry, and temporary facilities to address facilities needs as identified in the facilities management plan and to address short-term facilities issues which may arise pending completion of the districts' facilities management plan.
- Each Abbott district should assemble a facilities advisory to assist development of the management plan. The advisory board shall include parents, teachers, school-level administrators, a licensed architect, a licensed engineer, representatives of community groups and a department staff person from the Program Review and Improvement Office.
- Each Abbott district should contract with a professional demographer to conduct a five-year enrollment projection to determine the district's capacity needs at each grade level of instruction.
- Each Abbott district should obtain the services of an expert educational facility planner and licensed architect to conduct a study of and provide for consideration by the advisory board and the board of education the alternatives and associated costs for meeting the requirements of the facilities master plan.
- Educational specifications and schematic plans must be prepared for each school building, even if no improvements are required, and submitted along with the enrollment projections as part of the facilities management plan.
- The facilities management plan adopted by the board of education upon recommendation of the

advisory board must provide for correction of all deficiencies identified during the Abbott district facilities assessment conducted pursuant to the New Jersey Supreme Court decision of May 14, 1997.

## **B. NJDOE Oversight**

- The NJDOE should develop and disseminate by January 1998 facilities standards for school construction, alteration and renovation and general educational adequacy guidelines as to class size, classroom area and educational spaces consistent with industry standards and the Core Curriculum Content Standards which at a minimum shall include the standards set forth in Section III of this report.
- The NJDOE should establish annual facilities maintenance requirements and compel compliance by all Abbott districts.
- The NJDOE should designate appropriate staff of the Department of Education to review each district's facilities management plan and to ensure that all deficiencies cited during the state's facilities assessment are appropriately addressed and that the plan meets or exceeds the Commissioner's educational adequacy guidelines before approval is granted.
- The NJDOE should designate appropriate staff of the Department of Education to see that each Abbott district successfully executes its plan and should see that each Abbott district completes an annual assessment of its facilities and corrective action plan when warranted.
- The NJDOE should establish and maintain on a current basis an electronic database of all Abbott facilities and an assessment of their condition/needs.

## **C. Facilities Management Plan Approval, Construction Management and Financing**

This section of the report will deal with the financial aspects of improving school facilities in the Abbott districts. Since the Department of Education has no special expertise in public financing, the comments provided in this section should serve as considerations for the Legislature and Governor as they craft a facilities financing mechanism with their public finance experts. In this section, the department will first present practices from other states which may be helpful to the Legislature and the Governor in this regard. The second part of this section of the report presents an illustrative model for how the best practices from other states could be implemented in New Jersey. However, this model is just one example of many funding mechanisms which may be successfully implemented by the Governor and Legislature to address this most pressing problem.

Based on the review of other state practices, the department recommends that the Legislature and Executive consider the following elements of a comprehensive financing mechanism:

1. Long-term planning through a master facilities plan for each district incorporating best practices standards and other options to addressing facilities needs (i.e. inter-district facilities);
2. Public participation in the planning process;
3. Close participation of state technical staff;
4. Centralized construction management;
5. Central state financial management;
6. Needs-based funding formula which provides aid only for approved capital project costs;
7. Comprehensive mandatory maintenance plan.

The following is a model of how the above elements could be put into practice. It is likely that a successful program could be structured without all of the above elements or with elements quite different from those indicated above. However, we offer this model to the Legislature and Governor as a guide to what is being done by other states and what might be successful in New Jersey.

- The NJDOE should develop for consideration by the State Legislature and the Governor a formula for providing state aid for school facilities which shall ensure that state resources are targeted at only efficient school construction and renovations necessary for unhoused student capacity, health and

safety, educational adequacy and/or obsolescence and continuation of state aid shall require that school facilities be regularly maintained. The formula should establish facilities standards to determine approved facilities costs including allowances for equipment and furnishings, architect/engineering fees and issuance costs. The facilities standards should be expressed in gross square footage per pupil by grade level and shall be based on a prototypical elementary, middle and high schools. The standards should be consistent with the delivery of programs which will enable students to achieve the Core Curriculum Content Standards and schools to deliver supplemental programs. Approved costs should be based on application of the facilities standards, demonstrated need and an efficiently determined cost per square foot which should reflect average school construction costs in New Jersey.

- The formula proposed to the Governor and the Legislature by the NJDOE could recommend the provision of debt service aid for the full amount of the annual principal and interest on all local school bonds issued to implement the districts' facilities management plans when the associated costs of such plans do not exceed the approved costs calculated using the facilities standards established by the Commissioner. This aspect will also serve to secure repayment to bondholders and substantially lower interest costs. Debt service aid should be prorated based on the percentage of approved costs to actual costs for any plans which exceed the established facilities standards.
- The NJDOE should determine if the facilities management plan of each Abbott district is sufficient to address all cited deficiencies (based upon inventories for capacity, life cycle, code and function) and meets criteria for educational adequacy (through an educational adequacy inventory). If the plan does not exceed the facilities costs standards established by the NJDOE, the school board should approve the bond issuance without the need for voter or board of school estimate approval since all debt service will be paid by the state. If the plan exceeds the facilities costs standards, the amount of the bond issuance above the standards should be submitted to the voters in a Type II district or the board of school estimate in a Type I district since debt service above the amount of the standards will be addressed locally. If rejected by local voters or the board of school estimate, as applicable, the school board should approve the bond issuance in an amount not exceeding the facilities standards.
- The NJDOE recommends that the state consider a financing mechanism which allows for the centralized public issuance of local bonds to obtain the lowest interest and issuance costs possible. The state should also consider centralized construction management in order to implement the construction program more efficiently. One option the state may want to consider is a mechanism which would authorize the district board to issue the debt and sell it to New Jersey Educational Facilities Authority (NJEFA) or a similar state agency. (Since the NJEFA now only deals with postsecondary institutions a statutory change would be necessary). The actual public issuance could then occur through NJEFA which will bundle/pool the local school district bonds and issue NJEFA bonds secured by the local school district bonds. The Authority would also serve as construction manager for all projects. It will review and approve requisitions for disbursement. The NJEFA would also review and approve all construction contracts let by the Abbott districts and oversee the progress of all work to ensure that it conforms to the facilities management plan and the Uniform Construction Code, and that it is performed in a satisfactory and efficient manner. The NJEFA will review the bidding procedures, and coordinate and require joint bidding of multiple projects as much as possible.
- The construction could be prioritized and phased-in over a three-year period beginning in the 00-01 school year.
- Possible Implementation Timeline:
  - Completion of capacity, life cycle, code and function inventory - November 1997
    - Completion of educational adequacy inventory - Summer 1998
    - Completion and approval of Management Plan - January 1999
    - Approval of Local Bonds - March 1999
    - Preparation of Architectural Plans - Fall 1999
    - Bidding - January 2000
    - Groundbreaking - Spring 2000

- Immediate Health and Safety Considerations

In order to address any possible existing facilities deficiencies which directly risk the health and safety of the pupils, the NJDOE will immediately identify those facilities deficiencies set forth in the assessment and work with the district to remedy them.



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