

EXECUTIVE SUMMARY

REPORT ON SCHOOL PROJECT COSTS

The Educational Facilities Committee of the Boston Society of Architects in collaboration with the Massachusetts Association of School Superintendents, has compiled historical cost data on the construction of both New, and Addition & Renovation school projects in Massachusetts. This data covers the period from 1996 through the present, including projects currently in design.

Eleven Massachusetts architectural firms who regularly engage in the design of public school facilities have contributed to the database. Due to the comprehensive size of the study, we believe it accurately represents the costs, past and present, for school construction projects in Massachusetts.

Goals:

Through the following analysis and recommendations, we would like to help:

1. Establish realistic project "costs factors" for school construction;
2. Through the above data, establish clear and realistic guidelines so communities would know what they might expect for reimbursement.

Background:

Producing high quality educational facilities at reasonable and controlled costs is a common goal for everyone.

Many building committees are made up of community volunteers. As such, they are not in the business of developing school construction projects. They don't always understand the opportunities and constraints associated with a school building project. The changes to the SBA program developed last year, have left many communities unclear as to what they might expect for reimbursement.

In the past, communities have come to expect a set percentage reimbursement based on the full cost of the project assuming they stayed within the size and cost criteria defined by SBA. In our experience, most cities and towns view the SBA cost factors as **maximums** when establishing project budgets. It is for this reason, we feel strongly that the SBA square foot "Reimbursable Cost Limits" should accurately reflect the "real cost".

Issues that affect the costs:

We can all be proud of the projects, which have been funded under the SBA program. The educational quality is high, as has been the quality of the structures and their finishes. Many projects have however, been reduced in quality because of the pressures of cost.

The following are some design changes often incorporated in projects in order to reduce costs and keep them within SBA's square foot "reimbursable cost limits":

- Landscaping is often the first item to go or be significantly reduced;
- Building exteriors are designed using concrete masonry units rather than brick, in part or in whole;
- Long lasting flooring materials such as terrazzo or tile are rarely used in public and corridor spaces;
- Interior partitions, often even in corridors, have been changed from masonry to drywall on metal studs;
- Mechanical equipment is often exposed on roof tops rather than enclosed;
- Air conditioning is deleted entirely or limited to minimal areas;
- Flat roofs are built rather than pitched roofs;
- Furnishings and equipment budgets are often compromised for bricks and mortar costs;
- Program spaces are reduced in size to minimum allowable.

Although none of these design components result in poor construction, they do adversely affect the life expectancy and aesthetic quality of the buildings and school environments. It is likely that these buildings will not have the 50 year serviceable life that has been the standard for schools historically and therefore are not in the best long term interest of the communities.

At the same time significant efforts are being made to control or reduce construction costs as described above, there are equally significant demands on a project which will result in added costs. These are often in areas affecting health, security and energy efficiency. Examples of these include:

- Increased requirements for air quality and air conditioning
- Need for better lighting;
- Conformance with the new state energy code Chapter 13;
- Increased school security requirements;
- Increased requirements for technology
- Increased desire for project controls, achieved through hiring of outside project managers

Cost Analysis

The following tables indicate the DOE allowable cost per square foot, the actual cost per square foot, and the variance of the two, from the years 1996 to 2001. The data is presented for the elementary, middle and high school levels.