

# New School Project Cost Report

A response to the Macias Report

Data Gathered by the  
Association of California  
Construction Managers





# New School Project Cost Report

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## EXECUTIVE SUMMARY

The Association of California Construction Managers (ACCM) is a non-profit membership organization of firms providing construction management services in the public school and community college sectors. The purpose of the New School Project Cost Report is to provide construction cost data for actual projects to foster the State Allocation Board's deliberations on the adequacy of the new school construction grants.

The simple conclusions of this report are that school districts are paying more than the 50% match that the School Facility Program (SFP) envisions. The actual cost research presented in this report demonstrates that the conclusions reached in the Macias study that school districts are being allocated more than the cost of their projects is wrong. Similarly, the conclusions that the state grant is greater or equal to 50% of project cost are wrong. The data collected by ACCM demonstrates that even eliminating the highest and lowest deficiencies the combined SFP grants would have to be increased between 6% and 72% to meet the stated 50% match.

This report demonstrates that the combined grant allocation (SFP Grant plus an equal amount of local contribution) was 58% to 95% of the actual project cost for complete school facilities in California. The balance of those real costs were absorbed by local communities through their school districts.

There are three fundamental factors influencing the disparate conclusions reached by ACCM and the Macias report.

- First, this ACCM Report uses actual costs rather than bid projections.
- Second, this ACCM Report uses complete project costs rather than limited construction costs.
- Third, the terms and language of the SFP are inconsistent with the standard terminology leading to confusion and understatement.

More information about ACCM, this report and construction management issues is available at [www.ACCM.com](http://www.ACCM.com).

ACCM wishes to thank the following members for their contributions to this report:

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Dick Cowan, Clark and Sullivan  
Ed Mierau, Neff Construction  
Dana LeSher, Harris Construction  
Jack Moore, Phase One Construction  
Terry Street, Roebellen  
Joe Ledesma, Ledesma & Meyer

The ACCM Board of Directors also appreciates Meagan Poulos of Murdoch, Walrath & Holmes for her great work in assembling this report.

## **Study Background**

The Association of California Construction Managers (ACCM) is a non-profit membership organization of firms providing construction management services in the public school and community college sectors. ACCM members assist district clients in both accessing school facility funding and maximizing the return on that funding. Upon publication of the Office of Public School Construction's (OPSC) recent New School Construction Grant Adequacy Study (Macias Study), ACCM members decided to provide additional information for review by the State Allocation Board (SAB) to foster understanding of the full costs of school construction based on actual costs of complete schools managed by ACCM members.

## **Purpose**

The purpose of this study is to provide construction project cost data for actual projects to assist the State Allocation Board's deliberations on the adequacy of the new school construction grants.

## **Scope**

ACCM invited members to submit total project costs for elementary, middle and high school projects. This study presents the actual costs and the combined grant allocation amounts of projects identified by both the California Department of Education (CDE) and the Macias Study as being complete schools (i.e., containing specific components identified in the Report by the California Department of Education, State Allocation Board Meeting, May 23, 2007). In addition, this study includes projects that the construction manager believes include the complete school components. Combined grant allocation amounts are the costs presumed by OPSC in a simple doubling of the SFP Grant. ACCM's experience in estimating and managing budgets for school facility projects demonstrates that the actual costs are significantly higher than those presumed by simply doubling the SFP grant.

The projects in this study exclude any modernization projects, and any projects for which construction is not complete. While the projects contained are a smaller subset of those analyzed in the Macias Study, ACCM members believe the cost differences are so significant

as to challenge the conclusions drawn by the Macias Study.

One of the critical differences between the ACCM study and the Macias Study is the baseline for analysis. The ACCM study relies on actual project cost data. That is what was actually spent to build a given project. Schools can be large and complex construction undertakings subject to a variety of state and local laws and regulations. The initial bid, increased by some presumed soft cost dollar amount, is not what is ultimately spent to complete the project. Changes occur, costs increase, and unexpected conditions all impact what the actual cost of a project is. The Macias Study is based primarily on the McGraw-Hill dataset. While many of our members subscribe to products produced by McGraw-Hill, there is a critical distinction between the initial projected subset of construction costs collected by McGraw-Hill and the actual total final project costs of school construction projects.

One way to understand the distinction is to understand the difference between "construction cost" used in the ACCM study and "construction value" provided to Macias. Construction Cost as used here reflects the actual project costs which are part of the construction process, recognized in the SFP and paid by the client. Construction value as collected by McGraw-Hill is the estimate of what a subset of these costs will be based on bids that occur before the project begins. Value is what we think the project will be worth before it's started. Cost is what was actually paid upon completion. Page 8 of the Macias Study demonstrates that the Macias Study ran afoul of this important distinction.

## **Methodology**

### **Overview of Approach**

The ACCM study contains one methodology. Members were invited to provide the actual project costs of completed schools that their firms managed that included the CDE complete schools components. The selection is not a scientific method. It is simply data provided by volunteers. We cannot attest to any particular mathematical significance other than these are the actual costs of actual projects.

The ACCM numbers, with limited exceptions, are the costs actually paid. We believe this a better indication

of school facility construction project costs than any of the four methodologies provided in the Macias Study. We also note that as complex as the four methodologies were, the dramatic cost variations distinctions between the McGraw-Hill cost data and the school district supplied cost data contained in Chapter 3 of the Macias Study are striking.

The preparers of this report are aware that substantial school cost increases occurred during the years of 2004 and 2005 due to numerous forces in the K-12 marketplace. We believe that the impact of cost escalation during this period would be an area for future study. ACCM would be glad to work with the SAB to help identify appropriate variables for such study.

This report does not include a factor to raise all costs to current dollars. Rather the report compares costs and grants in terms of actual contemporary values for the projects bid on in the years 2005 and 2006.

## **Description of Approach**

### **ACCM ACTUAL PROJECT COST SHEET METHODOLOGY**

ACCM members have been involved in the discussions of the complete schools issue with representatives of SAB, OPSC, CDE and school groups. When we first began discussions on an independent cost evaluation we asked for members' feedback on utilizing the OPSC proposed September 2007 Project Information Worksheet. We prepared four pages of clarifying directions to complement OPSC's form and instructions. Many of these clarifications involved OPSC data requests irrelevant to school costs such as Interest Earned on State Apportionment and many of the categories contained in the component types. Other clarifications involved OPSC data requests that appeared to be a way of analyzing the appropriateness of specific types of facilities that were already agreed upon as appropriate for a complete school such as outdoor education and parking facilities.

Ultimately, the ACCM members working on this effort decided that a better approach would be to utilize a project cost sheet like CM firms typically develop for tracking and client presentations. A member firm's cost sheet was volunteered and amendments made by participating firms. The result is the ACCM Cost Sheet

that served to collect the data contained in this report. The Actual Project Cost Sheets contain general project information including: DSA project numbers, OPSC project numbers, student capacity, year bid, delivery method, total square footage and site size. The Actual Project Cost Sheets also include Project Construction Costs including both prime contractor costs and CM fees. Depending on the delivery method used, these costs fall in differing proportions. The prime contractor costs include all phases and trades. The Cost Sheets are posted on the ACCM website ([www.accm.com](http://www.accm.com)).

There are fourteen categories for project related planning costs. These costs are often called "soft costs." The ACCM Cost Sheet lists them each specifically because it is our experience that these actual project costs invariably exceed the "soft cost" presumptions in the SFP program. For some of the planning costs, actual costs were not available to the CM. This can occur when the CM is brought late to a project or when planning costs are incurred significantly before construction occurs. For these projects, participating CM's provided a percentage estimate of such costs. The same percentage is used on each Cost Sheet where actual cost data was not available. Participating firms reached an agreement on what that percentage should be. ACCM and the preparers of this report recognize that each firm may have a different experience with such complicated project specific costs including environmental mitigation, furniture and equipment.

The final lines of the Cost Sheet provides a comparison of grant allocations, the presumed 50% district match contribution and comparison of actual district costs compared to the SFP program grant assumptions.

This study does not include the costs of site acquisition which are not limited to a specific grant amount in the SFP.

## **ANALYSIS OF NEW SCHOOL CONSTRUCTION FUNDING AND CONSTRUCTION COSTS**

For purposes of state school construction funding, we relied on OPSC published data from the SAB 50-04 Application as monitored on the OPSC website. The total construction cost number is derived by subtracting the same Site Acquisition cost from the Total State Grant and the District Contribution amounts. These amounts are then reported on the ACCM Actual Project Cost Sheet as the State Grant Funding Allocation and the District Match Contribution. The actual additional district funding contribution is derived by combining the District Match Contribution and the remainder of the project cost which is the difference between Total State and District Grant Allocation and the Total Project Costs.

The actual project costs include both prime contractors costs and construction management fees coupled with all project related planning costs outlined in the ACCM Actual Project Cost Sheets. These records are from the files of the CM firms responsible for the specific projects and include final cost data kept for close audits and other business purposes. We believe that the actual project costs as reflected in this report provide a much more accurate picture of what it takes to build a complete school in California.

CM fees vary as reported here. They differ depending on the specific type of delivery method offered and the scope of the individual project. ACCM has published the *ACCM Project Delivery Handbook*, which describes the Construction Management services available for a wide variety of delivery methods. In addition, OPSC tracking of fees is complicated because fees for some delivery methods are accounted for as “construction costs” and for other deliver methods as “soft costs”.

One issue where we reach the same implicit conclusion as the Macias Study is that SFP reporting does not accurately isolate the costs associated with the base grant or the total cost of building a school. Costs are not incurred on an SFP base grant basis. The categories used for SFP funding are not consistent with what school districts face in contracting with the construction industry. The industry does not estimate or charge on the basis of things like the undefined “service site” in OPSC Regulation 1859.76 or on a “percentage” basis for multi-level construction as in OPSC Regulation

1859.73. While each grant enhancement has a reason and a constituency, those enhancements further complicate data collection. To parse these costs into base grant versus enhancements to the base grant would be highly speculative and involve more guessing than estimating and again result in projections of values rather than actual costs. The preparers of this report believe that a correlation can still be established between an overall deficiency in the combined base grant with supplemental enhancements and the individual grants and enhancements themselves.

## **ANALYSIS OF CDE IDENTIFIED “COMPLETE” SCHOOLS**

This study leaves to the educational experts what ought to be included in a school meeting today’s world class academic standards. We utilize schools containing the components agreed upon by CDE, SAB and OPSC to be “complete” schools. The test for a complete school is one which includes the components described in the CDE Report on Complete Schools included in the May 23, 2007 report to the SAB. Four of the schools included here are among the schools in the CDE report. In addition, there are four schools which we believe include the complete school components. The cost data is relevant even if they are missing one or more complete school components because the actual costs of each of them exceeded the combined grant allocation amounts.

## Conclusions

The simple conclusions of this report are that school districts are paying more than the 50% that the SFP envisions. This also leads to the invariable conclusion that the state grants and the state estimates of school facility costs are substantially lower than the actual costs being experienced by school districts in the field. In addition, the actual cost data presented in this report demonstrates that the conclusions reached in the Macias Study, that school districts are being allocated more than the cost of their projects, is wrong. Similarly, the Macias conclusion that the state grant is greater or equal to 50% of project cost is wrong.

While the scope of this report is simply to identify the actual cost of specific schools, in our review of the Macias Study three other findings were made about how we could reach such disparate conclusions. First, the ACCM Report uses actual costs rather than bid projections. Second, the ACCM Report uses complete project costs rather than limited construction costs. Third, while the terms and language of the School Facilities Program have evolved in response to education initiatives, the terms and language are inconsistent with standard construction industry terminology. These differences often lead to confusion in reporting of important cost data.

Table 1 demonstrates that the SFP combined grant allocation varies from 58% of actual project costs to 95% of actual project costs. The balance of those real costs were absorbed by local communities through their school districts. In terms of grant adequacy, the combined construction grants would need to be increased by somewhere between 6% and 72% to meet the 50% state share presumed in the SFP.

**Table 1**

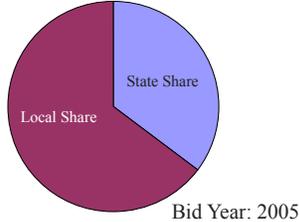
	<b>Actual Project Costs</b>	<b>State Grant Allocation</b>	<b>District Match</b>	<b>District Contribution above Match</b>	<b>Combined Grant Allocation %</b>	<b>Actual 50% Match</b>	<b>Grant Increase to meet 50%</b>
<b><u>Elementary</u></b>							
<b>Navigator Elementary School</b>	\$15,866,420.75	\$5,605,940.00	\$5,605,940.00	\$4,654,540.75	71%	\$7,933,210.38	42%
<b>Monterey Elementary School*</b>	\$25,805,013.63	\$8,117,603.00	\$8,117,603.00	\$9,569,807.63	63%	\$12,902,506.82	59%
<b>ES 26 (New Sunnymead Elementary)*</b>	\$18,469,594.45	\$8,742,442.00	\$8,742,442.00	\$9,726,152.45	95%	\$9,234,797.23	6%
<b>Rosa Parks Elementary School*</b>	\$21,250,949.00	\$9,988,941.00	\$9,988,941.00	\$1,273,067.00	94%	\$10,625,474.50	6%
<b><u>Middle</u></b>							
<b>Valadez Middle School</b>	\$43,586,368.00	\$12,650,558.00	\$12,650,558.00	\$18,285,252.00	58%	\$21,793,184.00	72%
<b>Curtis Middle School*</b>	\$36,377,345.00	\$15,556,771.50	\$15,556,771.50	\$5,263,802.00	86%	\$18,188,672.50	17%
<b><u>High</u></b>							
<b>Heritage High School*</b>	\$91,108,047.18	\$34,974,630.00	\$34,974,630.00	\$21,158,787.18	77%	\$45,554,023.59	30%
<b>Dixon High School</b>	\$67,297,872.00	\$25,937,646.00	\$25,937,646.00	\$15,422,580.00	77%	\$33,648,936.00	30%

\*School contains complete school components, but is not included in the May 23, 2007 CDE Report.

**Summary of Complete School Actual Project Cost Data**

**Navigator Elementary School**

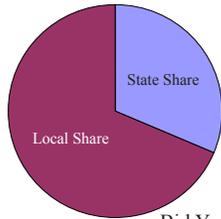
The district contribution for this elementary school was 65% of the total project cost. For this school, the State Grant Allocation would need to be raised 42% to provide a 50-50 match.



Bid Year: 2005

**Monterey Elementary School**

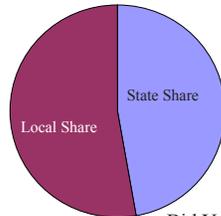
The district contribution for this elementary school was 69% of the total project cost. For this school, the State Grant Allocation would need to be raised 59% to provide a 50-50 match.



Bid Year: 2006

**New Sunnymead Elementary School**

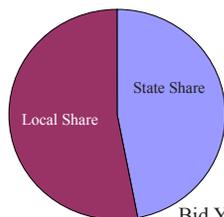
The district contribution for this elementary school was 52% of the total project cost. For this school, the State Allocation Grant would need to be raised 6% to provide a 50-50 match.



Bid Year: 2005

**Rosa Parks Elementary School**

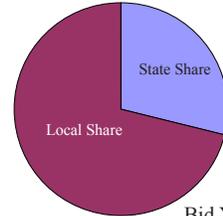
The district contribution for this elementary school was 53% of the total project cost. For this school, the State Allocation Grant would need to be raised 6% to provide a 50-50 match.



Bid Year: 2006

**Valadez Middle School**

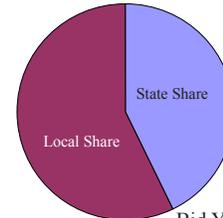
The district contribution for this middle school was 71% of the total project cost. For this school, the State Allocation Grant would need to be raised 72% to provide a 50-50 match.



Bid Year: 2006

**Curtis Middle School**

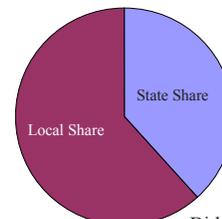
The district contribution for this elementary school was 57% of the total project cost. For this school, the State Allocation Grant would need to be raised 17% to provide a 50-50 match.



Bid Year: 2006

**Heritage High School**

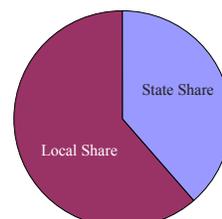
The district contribution for this high school was 61% of the total project cost. For this school, the State Allocation Grant would need to be raised 30% to provide a 50-50 match.



Bid Year: 2005

**Dixon High School**

The district contribution for this high school was 61% of the total project cost. For this school, the State Allocation Grant would need to be raised 30% to provide a 50-50 match.



Bid Year: 2005



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