REPORT BY THE CALIFORNIA DEPARTMENT OF EDUCATION
State Allocation Board Meeting, May 23, 2007

CALIFORNIA DEPARTMENT OF EDUCATION REPORT ON COMPLETE SCHOOLS

PURPOSE OF REPORT

To provide information requested by the State Allocation Board (SAB) on the components of a complete school consistent with the *California Code of Regulations, Title 5* and a representative sample of such schools.

BACKGROUND

The Office of Public School Construction (OPSC) has been analyzing the ability of districts to build a complete school with the grants provided in the School Facility Program (SFP). In order to determine the adequacy of the grant, it is essential to have a definition of a complete school in which to compare the grant. At the March 28, 2007 SAB meeting, the California Department of Education (CDE) committed to providing OPSC examples of complete schools approved by CDE and the components of a complete school. The CDE has also started the analysis if the complete school supports the world-class academic standards to which students, teachers, administrators, and elected officials are held accountable.

DESCRIPTION

Attached is the CDE report.

REPORT ON COMPLETE SCHOOLS

Executive Summary

As part of the effort to assess the adequacy of the grants provided in the School Facility Program (SFP), the California Department of Education (CDE) has been asked by the State Allocation Board (SAB) to:

1. Provide examples of complete schools approved by the CDE, and
2. Determine if the complete school supports the world-class academic standards to which students, teachers, administrators, and elected officials are held accountable.

1. Examples of complete schools approved by the CDE

In order to develop a definition of a complete school, an understanding of the 60 year history of state school construction assistance and of *Title 5* standards is necessary.

History

The first state construction assistance program was created in 1949. In creating the program, the Legislature adopted the low end of a range of square footage per student recommendation made by State Superintendent of Public Instruction Roy E. Simpson in 1947. These square footage standards, with minor increases, formed the basis of the 1976 Lease Purchase Program (LPP), and, in turn, the per student grants provided in the SFP that was established in 1998.

The median amount of square footage per student being built nationally and regionally over the past 20 years is compared to the square footage allowances used in developing the SFP grants below:

Table 1

Square Feet per Student

	1987	**1997**	**2006**
Elementary Schools			
National Median	90	119	122
California (LPP allowance)	59	73	73
Middle Schools			
National Median	111	146	144
California (LPP allowance)	80	80	80
High Schools			
National Median	153	185	167
California (LPP allowance)	95	95	95

Source: 1987 data, Abramson, 2006
1997 and 2007 data, Abramson, 2007

Two facts stand out:

1. The SFP funding model is based on a per student square footage allowance that is significantly less than the amount of square feet being provided per student in school construction projects nation-wide and regionally.

2. The national median amount of space per student has increased over the past 20 years, while the per-student square footage on which the SFP funding model is based has remained static at the middle and high school levels. The elementary square footage increase is the result of K-3 class size reduction.

Title 5 (A summary of *Title 5* is attached as Exhibit 1)
The *Title 5* standards by which projects are evaluated by CDE allow variation in program delivery in response to the varied educational needs of the 1,052 districts in the state. For example, a school that serves a student population with extensive needs for intervention and remediation services will have different facility needs than a school without such demands.

Because the design of a school is in response to the educational program provided by a district, it is not possible to define a complete school that will address the needs of students throughout the state. However, in order to allow an assessment of the adequacy of the SFP grants, the CDE has identified 60 school projects that are complete schools.

Complete Schools
The 60 complete schools have a median square foot per student amount that at the middle and high school levels, is significantly less than the square feet per student than provided for in projects built nationally and regionally.

Table 2

	Elementary (median square feet per student)	Middle School (median square feet per student)	High School (median square feet per student)
60 Projects	71	88	102
California SFP Funding Model	73	80	95
Western Region (2006)	88	106	120
National (2006)	122	144	167

The CDE has developed a list of features that exist in many complete schools. This list is an interim step to a more comprehensive definition that is being developed in consultation with stakeholders.

2. **Do these complete schools support the world-class academic standards to which students, teachers, administrators, and elected officials are held accountable?**

If districts were posed with the opportunity of designing a school without the constraints of the SFP, what features would be included and how large would the spaces be?

The CDE has convened an advisory committee to discuss this critical issue.

REPORT ON COMPLETE SCHOOLS

Background:
As part of the effort to assess the adequacy of the grants provided in the School Facility Program (SFP), the California Department of Education (CDE) has been asked by the State Allocation Board (SAB) to:

1. Provide examples of complete schools approved by the CDE, and
2. Determine if the complete school supports the world-class academic standards to which students, teachers, administrators, and elected officials are held accountable.

These two requests are addressed below.

1. Examples of complete schools approved by the CDE

The Importance of School Facilities

The effects of school facilities on student achievement are well documented in research. CDE can provide SAB members a list of numerous studies that examine and confirm this association. In short, research shows that facilities can increase student achievement from 5-17 percentile points. (Earthman, 2002)

Complete School

In order to understand the term complete school as being used in the grant adequacy discussion, a brief summary of the standards historically used in the programs preceding the SFP, as well as an understanding of school design standards contained in *California Code of Regulations, Title 5 (Title 5)*, is necessary.

Overview of State Standards

In 1949, the legislature responded to the impact the first wave of the baby-boom would have on the need for school facilities by creating the SAB and a process for providing assistance to districts experiencing enrollment growth. A survey of districts (there were 2,554 in 1946 as compared to 1,052 today) conducted by the Senate Investigating Committee on Education noted “that 213 schools and districts were holding double and triple sessions in 1,748 classrooms during the 1946-47 school year” (Senate of the State of California, 1948). Because double and triple sessions reduce available instructional time, about 61,000 K-8 students (of the 1,078,670 K-8 students statewide in 1946) had shortened learning opportunities because their schools were overcrowded. Additionally, class sizes of 35 were not uncommon with some classes being as large as 55 students. (Senate of the State of California, 1948)

It is interesting to note that recently another strategy to compensate for over-crowded classrooms resulted in a multitrack year-round education plan called

Concept 6, which also compromises instructional time. The use of the Concept 6 calendar is being phased out as a requirement of the *Williams* settlement.

In addition to the large number of "unhoused" (the term presently used) students, the Senate Investigating Committee noted that many of the 38,897 classrooms in the state "do not conform to the state code, are obsolescent, and are neither properly lighted nor ventilated. Many of them are not up to standards against earthquakes" (ibid.)

The combined demands of having to replace thousands of inadequate classrooms while also building thousands of new classrooms, created an estimated need of $142,440,000. In order to provide assistance to districts, the Legislature needed to develop standards in order to prioritize and define state assistance.

To assist in this effort, then State Superintendent of Public Instruction, Roy E. Simpson, in 1947 convened a group of school district superintendents as the *Committee on Defining School Plant Adequacy*. This group realized that a square footage standard was more effective in meeting the need for school facilities than a per student dollar amount for two reasons:

1. Square footage standards, unlike a per-student dollar amount, are not subject to inflation. A square foot in 1947 remains a square foot in 2007;

2. An adequate square foot allowance tied to a cost factor would allow districts to respond to local needs more effectively. That is, one district may need, for program reasons, more specialized or more expensive spaces than another district. A per student dollar amount cannot adjust to these differences.

The Committee's recommended ranges of space per student are summarized below (Bursch, 1955):

- Elementary - 55-70 square feet per student
- Middle - 75-100 square feet per student
- High - 86-110 square feet per student

The low end of these ranges was adopted by the Legislature in creating the State School Building Aid Law of 1949 (*Education Code* Section 15700, et seq.).

From the start, the CDE had concerns over the adequacy of these square footage standards. A 1955 CDE analysis of projects built under these standards indicated that "…it has been difficult—in fact well nigh impossible—under these limitations to provide adequate building space…". (ibid.) Of specific concern was the decreased size of classrooms as compared to projects built without state aid—1,200 square feet in non-state aid projects to under 1,000 square feet in

state aided projects. The report also noted that the limited square footage allocation led to districts building high schools for higher enrollments than desired in order to be eligible for sufficient square footage to build a complete school. (ibid.)

These 1949 square footage standards, with minor changes, were incorporated into the Lease Purchase Program (LPP) of 1976. An across the board seven percent increase in square footage was provided in 1987. Other minor increases were provided during the course of the LPP in acknowledgement of educational programs such as special education and the need for speech and resource specialist spaces. At the conclusion of the LPP in 1998, the square feet allocation was:

- Elementary - 59 square feet per student
- Middle - 80 square feet per student
- High – 94.6 square feet per student (for 2,000 student school)

These amounts were not significantly higher than the low end of the square footage range initially proposed by the CDE in 1947.

In response to the limited space allocation, the CDE emphasized the importance of the classroom by recommending that 31 of the 55 square feet allocated in 1949 for elementary students be used for classrooms.

Classrooms, where students spend most of their day and where most instruction occurs, have had additional uses and demands placed upon them since the 1949 standard was established:

- Computers (15-20 square feet per station),
- Access compliance,
- Inclusion students and aides,
- Pull-out and small group spaces,
- Flexibility for changing educational approaches.

Other areas of a school have also been subject to expansion since 1949, including:

- Space for academic intervention and remediation,
- Space for support of at-risk students (counselors, etc.),
- Toilet rooms, elevator shafts, ramps and lifts for access compliance as required by the Division of the State Architect,
- Mechanical space for increased electrical service and computer servers,
- Storage space for an increased amount of instructional materials,
- Pre-kindergarten classrooms and outdoor space.

Additionally, schools are often called to serve as centers of community and provide a variety of supplemental services such as School Based Coordinated Health Centers and after school programs. These demands have implications for school design and the definition of a complete school.

For additional perspective, the chart below compares the square footages of the LPP that formed the basis of the SFP grant to the national median per student square footage for constructed projects.

Table 1

Square Feet per Student

	1987	1997	2006
Elementary Schools			
National Median	90	119	122
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Middle Schools			
National Median	111	146	144
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High Schools			
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Source: 1987 data, Abramson, 2006
1997 and 2007 data, Abramson, 2007

Two facts stand out:

1. The SFP funding model is based on a per student square footage allowance that is significantly less than the amount of square feet being provided per student in school construction projects nation-wide.

2. The national median amount of space per student has increased over the past 20 years, while the per student square footage on which the SFP funding model is based has remained static at the middle and high school levels. The elementary square footage increase is the result of K-3 class size reduction.

States such as California have a climate that allows exterior circulation, and therefore require less interior space, than states with more severe climates. In 2006, schools constructed in four western states—California, Nevada, Arizona, and Hawaii—had median per student square foot amounts of:

- Elementary Schools – 88 square feet per student
- Middle Schools – 106 square feet per student
- High Schools-- 120 square feet per student
  (Abramson, 2007)

Even compared to the median square footage of schools constructed in neighboring states, California's schools are built with a funding model based on significantly less square footage per student. The national and regional median figures include data from California. If the California data were able to be disaggregated from the national and regional data, an even greater disparity would result.

Title 5 Standards

California *Education Code (EC*) Section 17251 charges the CDE with the development of standards for school sites and plans. Plan standards are contained in *California Code of Regulations*, *Title 5* Section 14030. These standards focus on student safety and educational appropriateness. All projects approved by the SAB are required, pursuant to *EC* Section 17070.50, to be approved by the CDE. Projects not requesting state funds must also use the *Title 5* standards but are not required to seek CDE review and approval.

Title 5 standards were developed after the establishment of the state's per student square footage allowance standards in 1949, so educational appropriateness is viewed in light of the *Title 5* standards being developed to exist within the confines of a funding system.

In summary, California has required the educational program model to meet the funding standards instead of the educational program driving the funding standard.

Key to the *Title 5* review is the district's board-adopted educational specifications. The educational specification provides the architect information on the educational program needs that drive the design of a school.

Title 5 is structured to allow flexibility in the review of plans based on the individual needs of a district, as presented in the educational specification, and a district may request a variance to a specific standard if it is documented that student safety and educational appropriateness are not compromised (*Title 5* Section 14030(r)).

For example:
Title 5 Section 14030(g) requires general education classrooms to be a minimum of 960 square feet. A district's educational program may call for project-based learning. The architectural response to this program need is a cluster of 800 square foot classrooms around a shared 300 square foot project area.

Title 5 Section 14030(k)(2) requires a school's administrative space to "…have sufficient square footage to accommodate the number of staff for the maximum enrollment of the school." Each school's needs are different, so what is sufficient in one school may not be sufficient in another. For instance, one district's policy

and program requires additional vice principals, counselors, and a parent room as a strategy to improve student achievement as necessary due to state and federal accountability requirements. The administration building at such a school would be larger than a school without such program requirements. In short, one size does not fit all.

Such decisions are repeated throughout the design process and affect the types and size of spaces, and thus the cost, of a school.

Financial hardship districts

Financial hardship districts, particularly, have limited funding available to respond to program needs. The CDE has seen projects in which the design, while meeting *Title 5* standards, has not provided all of the facilities commonly thought to be necessary for a complete school. For example, a multipurpose room is deleted due to cost pressures and outdoor lunch shelters constructed instead. While unenclosed shelters provide space for food service, the lack of an interior space for eating significantly affects program delivery in inclement weather.

With regard to financial hardship projects, CDE brings to the SAB's attention two trends being employed by many hardship districts in an effort to build complete schools.

1. Larger schools
   Districts, in an attempt to obtain sufficient funds, build schools larger than they would prefer.

   A district, for educational reasons, would like to build elementary schools of no more than 600 students. However, in order to receive sufficient funds from the SFP to build a complete school, a school for 900 students must be built.

   A similar concern was expressed by the CDE in 1955 (Bursch, 1955).

   Research shows the benefits of smaller schools, yet many districts, because of the facility funding model, must build larger schools.

2. Increased use of portables
   Another common response to budget constraints is using portable classrooms instead of permanent construction. Often, financial hardship districts must use both strategies—larger schools and portables—to complete a school.

   The educational program and life cycle costs are compromised by an over reliance on portable classrooms.

Conclusion

The examination of the complete school must be made with the understanding that the LPP square footage standards that form the basis for the SFP per pupil grant were the product of an austere program developed 60 years ago.

Because of the unique needs of each district and school, a definition of complete that is relevant to over 1,000 districts is difficult to achieve. Should an administrative space be a certain size in order for the school to be complete? As seen above, if such a standard is used, a school with extensive needs for academic support and intervention could be seen as "over-building" an administrative building when in fact the building is properly sized for the support of the students.

The CDE, in support of the SAB's efforts to assess the adequacy of the SFP grant, has identified 60 recent CDE approved projects (Exhibit 3) from throughout the state that represent complete schools based on each district's educational specification.

The median square footage per student of the 60 projects is compared to the previously noted national and regional median square footages below:

Table 2

	Elementary (median square feet per student)	Middle School (median square feet per student)	High School (median square feet per student)
60 Projects	71	88	108
Western Region (2006)	88	106	120
National (2006)	122	144	167

The 60 projects determined to be complete schools by the CDE are on average built with significantly less square feet than projects built nationwide and in neighboring states. Recall also, that if California data were to be disaggregated from the national and regional date, the differences would be even greater.

Comparing the 60 projects to the allowances that were used in creating the SFP shows that middle schools and high schools require significantly more square footage to build a complete school than currently provided for in the SFP funding model.

Table 3

	Elementary (median square feet per student)	Middle (median square feet per student)	High School (median square feet per student)
60 Projects	71	88	108
LPP-SFP	73	80	95
Percent increase required in per student square footage to allow complete school	0%	9%	14%

2. Do these complete schools support the world-class academic standards to which students, teachers, administrators, and elected officials are held accountable?

The second question, do these complete schools support California's world-class academic standards, again requires perspective and a review of the constraints of the school building funding model.

Districts have built schools with basically the same funding model for the past 60 years, and it is the changing educational program that has had to adapt to the static funding model. During the nine years in which the SFP has been in place, numerous educational programs have been adopted by the Legislature, but the SFP funding model has not been changed to reflect any needed facilities. Recent initiatives have been enacted to increase the number of counselors and create School Based Coordinated Health Centers. Both of these efforts have space needs which are not reflected in the SFP funding model.

If districts were posed with the opportunity of designing a school without the constraints of the SFP, what features would be included and how large would the spaces be?

The CDE has convened an advisory committee to discuss these critical issues.

Until these questions are answered, CDE offers an interim operational definition of a complete school. This definition consists of a list of features that should be present in a complete school and is attached as Exhibit 2. If a feature is not listed, it should not be viewed that the feature is an enhancement, but rather a response to a local need. Beyond the discussion of the types and size of spaces are the issues of quality and furniture and equipment. The CDE recommends that school facility projects be built to high performance standards and should be constructed of quality materials that will stand the test of time.

Exhibit 1

Summary of Standards for the Design/Construction of School Facilities California *Code of Regulations, Title 5*, Division 14

§ 14030.

a. **Educational Specifications.** Plans are based on school board-approved educational specifications.
b. **Site Layout.** Parent drop off, bus loading areas, and parking are separated to allow students to enter and exit the school grounds safely.
    1. Buses do no pass through parking areas, unless a barrier is provided that prevents vehicles from backing directly into the bus loading area.
    2. Parent drop off area is adjacent to school entrance and separate from bus area and parking.
    3. Vehicle traffic pattern does not interfere with foot traffic patterns. Foot traffic does not have to pass through entrance driveways to enter school.
    4. Parking stalls are not located so vehicles must back into bus or loading areas. Island fencing or curbs are used to separate parking areas from loading areas.
    5. Bus drop off for handicapped students is in the same location as for regular education students.
c. **Playground and Field Areas.** Adequate physical education teaching stations are available to fulfill the course requirements for the planned enrollment. Supervision of playfields is not obstructed.
d. **Delivery and Utility Areas.** Delivery and service areas are located to provide vehicular access that does not jeopardize the safety of students and staff.
e. **Future Expansion.** If temporary or permanent expansion is anticipated, the site layout can accommodate additions without substantial alterations to existing structures or playgrounds.
f. **Placement of Buildings.**
    1. Building placement is compatible with other functions on campus; e.g., band room is not next to library.
    2. Physical relationship of classrooms and support areas allows unobstructed movement of staff and students around the campus.
    3. Building placement has favorable orientation to natural light.
    4. Restrooms are conveniently located, require minimum supervision, and are easily accessible from playground and classrooms.
    5. Parking spaces are sufficient for staff, visitors, and eligible students.
    6. The campus is secured by fencing.

g. **Classrooms.** General classrooms are at least 960 square feet (s.f.). Total classroom space meets or exceeds the capacity planned for the school using the district's loading standards.

h. **Specialized Classrooms and Areas.**

1. Small-Group Areas: are not counted as classrooms; are located near classrooms
2. Kindergarten Classrooms.
    i. 1350 s.f. for permanent structures
    ii. Classrooms are designed to allow supervision of play yards and all areas of the classroom.
    iii. Play yard design provides a variety of activities for developing large motor skills.
    iv. Classrooms are located close to parent drop-off and bus loading areas.
    v. Storage, casework, and learning stations are designed for use in free play and structured activities; e.g., shelves are deep and open for frequent use.
    vi. Windows, marking boards, sinks, drinking fountains, and furniture are at appropriate heights for kindergarteners.
    vii. Restrooms are self-contained within the classroom or within the kindergarten complex.
3. Special Education Classrooms and Areas.
    i. A new school designates at least 240 s.f. for Resource Specialist Program.
    ii. A new school designates at least 200 s.f. for the speech and language program.
    iii. A new school designates office area for the psychologist and counseling program.
    iv. Special day classrooms are at least the same size as regular education classrooms.
    v. The area allowances in *Education Code* Section 17047(a) for special day class programs are used for the design of classroom and support space.
    vi. Special day classrooms are distributed throughout the campus.
    vii. No more than two special day classrooms are together.
    viii. A conference area is available.

ix. Medical therapy units are close to visitor parking and accessible after school hours.

i. **Laboratories shall be designed in accordance with the planned curriculum.**

1. Science Laboratories are at least 1300 s.f., including storage and teacher prep area, and designed for the safe handling of hazardous materials. Storage and safety equipment, including exhaust fume hoods, eyewashes, deluge showers, are provided.
2. Consumer Home Economics Laboratories are at least 1300 s.f., including lecture area and student storage.
3. Industrial and Technology Education Laboratories have lab workstations and a lecture area in or near the lab, are designed for the safe handling and ventilation of hazardous materials.
4. Computer Instructional Support Area labs are at least 960 s.f., provide for student movement around learning stations, sufficient outlets, power sources and network links, proper ventilation, security and lighting provided.
5. Art Studios have adequate ventilation for dust and fumes; kiln is in a safe, ventilated area.
6. Music Rooms are acoustically isolated from the rest of the school and have convenient access to the auditorium.
7. Dance Studios have mirrors, ballet bars, electrical outlets, and a minimum of 2000 s.f. (or 3,500 square feet if performance space is needed.
8. Theater or Auditorium has ramped seating, space for orchestra pit; location provides convenient public access and parking while preserving security of the school campus

j. **Gymnasium, Shower/Locker Area shall be designed to accommodate multiple use activities in accordance with the planned enrollment:**

1. The gymnasium is secured from other parts of the campus for events.
2. The shower/locker area is of sufficient size to allow students enrolled in the physical education program to shower and dress each period.
3. Toilets are available for the public in facilities intended for community use, and not in shower/locker areas.
4. Office space is provided for physical education teachers.
5. Space is available for weight lifting, exercise equipment usage, aerobics, and the like.

k. **Auxiliary Areas.**
    1. Multipurpose room meets minimum essential size standards and accommodates physical education activities, assemblies, and extracurricular activities. Stage may have a dividing wall but is not intended to be a classroom. Ceiling height allows for clearance of light fixtures for physical education activities.
    2. Administrative Office.
        i. Students have direct confidential access to pupil personnel area.
        ii. Counter tops are accessible to the student population, both at a standing and wheelchair level.
        iii. Clerical staff has a clear view of nurse's office.
        iv. The nurse's office has a bathroom separate from staff bathroom(s) in the administration area.
        v. Space is available for private conference and waiting areas.
        vi. A faculty workroom is available for a staff proportionate to the student population.
    3. Library/Media Center and Technology. Library space meets minimum essential facilities standards. Visual supervision from circulation desk is available to study areas, stack space, and student work centers.

l. **Lighting.** Windows allow daylight but do not cause excess glare or heat gain.

m. **Acoustical.** Sound attenuation is a design element in noisy environments.

n. **Plumbing.**
    1. Restrooms allow for supervision.
    2. Fixtures are in accord with the California *Plumbing Code*.
    3. Restrooms having direct outside access are visible from playground and easily supervised.

o. **Year-Round Education.** For multitrack schools, storage and planning space is provided for off-track teachers, and storage is provided for student projects and student records.

p. **American Disabilities Act.** (DSA)

q. **Child Care Program:** complies with the requirements in *Education Code* Section17264 for new schools where space for childcare programs is provided.

r. **Exemptions.** If an exemption to a standard is needed, the school district must demonstrate that the educational appropriateness and safety of a school design will not be compromised by an alternative to that standard.

Exhibit 1

§ 14036. Integrated Facilities.
Special education classrooms are integrated with classrooms for non-special education students when:

a. Special education classrooms are located near regular education classrooms.
b. If relocatables, their ratio to permanent special education classrooms, is the same as for regular education students.
c. Special education classrooms are not located on a special education campus adjacent to another school.

Exhibit 2

Components included in a complete elementary school:

Classroom

- ❑ Standard classrooms supporting both small group and large group instruction
- ❑ Kindergarten classrooms
- ❑ Specialized classrooms for science, art and music
- ❑ Classrooms and support spaces for special education

Physical Education Spaces

- ❑ Hardcourts with a variety of fixed equipment to accommodate basketball and other activities
- ❑ Turf and field areas
- ❑ Apparatus area

Support Facilities

- ❑ Computer room
- ❑ Small group areas
- ❑ Resource Specialist Program (RSP) area
- ❑ Speech specialist office
- ❑ Psychologist office
- ❑ Academic support such as Title 1

Common Essential Facilities

- ❑ Media/center library
- ❑ Administration
    - o Principal's office
    - o Vice Principal's office
    - o Office space for itinerant staff
    - o Healthy professional office
    - o Conference areas
    - o Teacher workroom
    - o Staff room
    - o Parent room
    - o Student record storage
    - o General Storage
- ❑ Multipurpose Room
    - o Dining area
    - o Food service (preparation or serving)
    - o Stage
    - o Outdoor dining area
    - o Storage for chairs and tables

Exhibit 2

Components included in a complete elementary school (continued)

Infrastructure

- ❑ Staff restrooms
- ❑ Student restrooms
- ❑ Storage rooms
- ❑ Custodian room(s)
- ❑ Mechanical, data and electrical space
- ❑ Staff parking area
- ❑ Covered circulation
- ❑ Space for preschool buildings

Exhibit 2

Components included in a complete middle school are:

Classroom

- ❑ Standard classrooms supporting both small group and large group instruction
- ❑ Specialized classrooms for science (both lab and non-lab), art, language, career technical instruction, and music
- ❑ Classrooms for special education and special education support spaces
- ❑ Facilities for performing arts (can be in multipurpose room)

Physical Education Spaces

- ❑ Gymnasium
- ❑ Shower/locker room
- ❑ Office for physical education teachers
- ❑ Physical education classroom
- ❑ Storage for equipment
- ❑ Hardcourts with a variety of fixed equipment to accommodate basketball and other activities
- ❑ Field areas including track, soccer, and softball.

Support Facilities

- ❑ Computer room
- ❑ Small group areas
- ❑ Resource Specialist Program (RSP) area
- ❑ Speech specialist office
- ❑ Psychologist office
- ❑ Academic support such as Title 1

Common Essential Facilities

- ❑ Media/center library
- ❑ Administration
    - o Principal's office
    - o Vice Principal(s)' office
    - o Counselor(s)' office
    - o Health professional office
    - o Office space for itinerant staff
    - o Conference areas
    - o Teacher workroom
    - o Staff room
    - o Parent room
    - o Clerical support
    - o Student record storage
    - o General Storage

Exhibit 2

Components included in a complete middle school (continued)

Common Essential Facilities (continued)

- ❑ Multipurpose Room
  - o Dining area
  - o Food service (preparation or serving)
  - o Adjunct serving areas
  - o Stage
  - o Outdoor dining area
  - o Storage for chairs and tables

Infrastructure

- ❑ Staff restrooms
- ❑ Student restrooms
- ❑ Storage rooms
- ❑ Custodian room(s)
- ❑ Mechanical, data, and electrical space
- ❑ Staff parking area
- ❑ Covered circulation

Exhibit 2

Components included in a complete high school are:

Classroom

- ❑ Standard classrooms supporting both small group and large group instruction
- ❑ Specialized classrooms for science (both lab and non-lab), art, language, career technical instruction, and music
- ❑ Facilities for performing arts
- ❑ Classrooms for special education
- ❑ Student store

Physical Education Spaces

- ❑ Gymnasium(s)
- ❑ Space for wrestling
- ❑ Space for dance
- ❑ Space for weightlifting
- ❑ Shower/locker room
- ❑ Physical education classroom
- ❑ Office for physical education teachers
- ❑ Hardcourts with a variety of fixed equipment to accommodate basketball and other activities
- ❑ Field areas including football, track, soccer, softball, baseball and physical education space.
- ❑ Pool

Support Facilities

- ❑ Computer room
- ❑ Small group areas
- ❑ Resource Specialist Program (RSP) area
- ❑ Speech specialist office
- ❑ Psychologist office
- ❑ Academic support such as Title 1

Common Essential Facilities

- ❑ Media/center library
- ❑ Administration
    - o Principal's office
    - o Vice Principal(s)' office
    - o Counselor(s)' office
    - o Health professional office
    - o Office space for itinerant staff
    - o Security office
    - o Conference areas
    - o Teacher workroom
    - o Staff room
    - o Parent room

Exhibit 2

Components included in a complete high school (continued)

Common Essential Facilities (continued)

- Clerical support
- Student record storage
- General storage
- Career center

- ❑ Multipurpose Room
  - Dining Area
  - Food service (preparation or serving)
  - Adjunct serving areas
  - Stage
  - Outdoor dining area

Infrastructure

- ❑ Staff restrooms
- ❑ Student restrooms
- ❑ Storage rooms
- ❑ Custodian room(s)
- ❑ Mechanical, data and electrical space
- ❑ Staff parking area
- ❑ Student parking
- ❑ Covered circulation

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Additional Reading

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Exhibit 3

Elementary, Middle, High	School District	School Name (see notes)	Grade Level	Square Feet	Master Plan Capacity	Project Capacity (SFP Loading)	Percent Site is of CDE Recommened for Master Plan Enrollment	Kindergarten Teaching Stations	1350 sq ft k ts?	Special Day Class Teaching Stations	Grades 1-6 Teacing Stations	Grades 7-8 Teaching Stations	Grades 9-12 TS	960 sq ft standard ts?	Multipurpose Room Sq. Ft.	Library Sq. Ft.	Food Service Sq. Ft.	Gymnasium Sq. Ft.	Platform /Stage Sq. Ft.	Square feet per student-- Capacity
H	Corona- Norco	Eleanor Roosevelt High	9-12	367,500	3,985	3,985	0.71	0	N/A	6	0	0	145	Y	0	0	3,977	19,051	0	92
H	Desert Sands	High School #4	9-12	245,967	2,610	2,286	0.75	0	N/A	2	0	0	84	Y	4,437	6,236	3,564	21,767	1,156	108
H	Antelope Valley High	Knight High (1)	9-12	211,366	3,429	2,934	0.64	0	N/A	2	0	0	108	N	0	6,304	2,506	21,379	2,240	72
H	Antelope Valley High	Eastside High (2)	9-12	343,000	3,175	3,175	0.86	0	N/A	6	0	0	115	Y	0	9,497	5,841	22,483	3,326	108
H	Capistrano Unified	San Juan Hills High (3)	9-12	236,709	2,694	2,664	0.74	0	N/A	2	0	0	98	Y	0	3,309	3,555	25,710	43,130	89
H	Tulare Joint Union HSD	Third Tulare HS (6)	9-12	157,031	2,070	1,458	1.18	0	N/A	0	0	0	54	N	4,898	7,251	2,371	18,971	812	108
H	Porterville Unified	Arts/Technology Small High School (7)	9-12	51,695	500	499	0.73	0	N/A	1	0	0	18	Y	8,277	1,516	1,403	0	1,978	104
H	Dixon Unified	Dixon High (8)	9-12	161,109	2,236	2,236	0.91	0	N/A	2	0	0	82	Y	5,045	9,032	2,836	29,580	1,767	72
H	San Ramon Valley U	Dougherty Valley (10, 11)	9-12	306,478	2,720	2,504	0.71	0	N/A	6	0	0	93	N	9,406	8,362	5,846	43,726	2,473	122
H	Mojave Unified	California City High	9-12	84,638	1,100	728	0.90	0	N/A	2	0	0	26		3,840	2,500	2,160	10,201	0	116
H	Kern Union High	Frontier High	9-12	200,029	2,106	2,105	1.03	0	N/A	5	0	0	76	Y	9,741	5,358	1,488	14,280	0	95
H	Los Angeles USD	Central High #2	9-12	345,388	2,403	2,403	0.23	0	N/A	0	0	0	89	Y	3,796	6,130	2,892	27,446	2,513	144
H	Los Angeles USD	East Los Angeles HS #1	9-12	139,318	1,026	1,026	0.16	0	N/A	0	0	0	38	Y	3,943	3,125	2,266	12,800	986	136
H	Folsom-Cordova USD	Vista del Lago HS (24)	9-12	233,127	1,808	1,538	0.82	0	N/A	2	0	0	56	Y	6,135	15,267	2,358	31,940	0	152
H	Roseville Jt Union HS	High School #5-Antelope (22)	9-12	201,639	2,269	1,665	0.72	0	N/A	2	0	0	61	Y	6,036	6,137	2,505	32,706	1,952	121
H	Elk Grove USD	Cosumnes Oaks (18)	9-12	230,554	2,867	2,785	0.80	0	N/A	3	0	0	102	N	7,575	14,614	3,271	30,796	0	83
H	Sweetwater UHSD	High School #13	9-12	216,767	2,500	2,195	0.65	0	0	6	0	0	79	Y	7,742	5,544	4,480	13,298	1,500	99
H	Washington Unified	New High	9-12	324,126	3,112	2,572	0.90	0	N/A	5	0	0	98	Y	6,784	9,428	8,762	74,062	0	126
		TOTAL		4,056,441	42,610	38,758									87,655	119,610	62,081	450,196		

		MP	Proj.
Number of Projects	18		
Mean Square Feet Per Student		95	105
Median Square Feet Per Student		93	108
Mean School Size		2,367	2,153
Median School Size		2,452	2,261
Median Percent Site Size			0.75

Exhibit 3

Elementary, Middle, High	School District	School Name (see notes)	Grade Level	Square Feet	Master Plan Capacity	Project Capacity (SFP Loading)	Percent Site is of CDE Recommened for Master Plan Enrollment	Kindergarten Teaching Stations	1350 sq ft k ts?	Special Day Class Teaching Stations	Grades 1-6 Teacing Stations	Grades 7-8 Teaching Stations	Grades 9-12 TS	960 sq ft standard ts?	Multipurpose Room Sq. Ft.	Library Sq. Ft.	Food Service Sq. Ft.	Gymnasium Sq. Ft.	Platform /Stage Sq. Ft.	Square feet per student-- Capacity
M	Imperial Unified	Frank Wright Middle	6-8	86,214	958	958	1.16	0	N/A	1	9	27	0	Y	4,475	2,420	3,628	9,785	1,142	90
M	Val Verde Unified	Stoneridge Middle	6-8	85,642	1,207	1,207	1.08	0	N/A	3	10	34	0	Y	0	4,030	2,900	7,824	1,622	71
M	Placentia Yorba Linda Unif	Valadez Middle	6-8	72,929	836	836	0.72	0	N/A	2	10	20	0	Y	5,116	3,057	1,725	0	1,769	87
M	Sylvan Elementary	Daniel Savage Middle School	6-8	96,464	1,200	1,016	0.79	0	N/A	4	0	36	0	Y	4,828	3,604	612	11,772	0	95
M	Brentwood ES	J Douglas Adams MS (9)	6-8	88,221	1,200	1,000	0.91	0	N/A	1	15	31	0	Y	0	16,218	3,218	18,340	0	88
M	Petaluma Joint UHSD	Kenilworth Jr. High	7-8	83,694	1,050	1,050	0.94	0	N/A	1	0	39	30	Y	4,606	4,891	939	8,708	983	80
M	Delano Union Elem	La Vina Middle	6-8	113,886	1,200	1,107	0.87	0	N/A	0	0	41	0	N	6,729	4,746	1,064	12,893	2,703	103
M	Panama-Buena Vista	Stonecreek Junior High	7-8	76,830	1,012	1,012	0.85	0	N/A	1	0	37	0	Y	4,636	1,800	946	12,896	1,233	76
M	Los Angeles USD	Central L.A. MS #1	6-8	149,814	1,701	1,701	0.32	0	N/A	0	0	63	0	Y	5,023	4,008	1,789	6,763	982	88
M	Los Angeles USD	Central Los Angeles MS #3	6-8	89,655	810	810	0.18	0	N/A	0	0	30	0	Y	3,764	3,314	2,638	6,502	879	111
M	Los Angeles USD	Thurgood Marshall MS	6-8	157,246	1,580	1,580	0.70	0	N/A		20	40	0	Y	4,639	3,893	1,610	0	2,446	100
M	Elk Grove USD	Elizabeth Pinkerton (18)	7-8	97,927	1,434	1,273	0.85	0	N/A	3	0	46	0	Y	5,631	8,233	1,661	11,267	1,504	77
M	Roseville City Elementary SD	W-73 Barbara Chilton MS	6-8	85,258	1,200	1,012	0.87	0	N/A	1	0	37	0	Y	4,551	2,353	3,277	13,232	1,130	84
M	Western Placer USD	Twelve Bridges MS	6-8	69,901	1,241	998	0.98	0	N/A	2	0	36	0	N	10,789	3,995	1,642	16,787	0	70
M	Etiwanda ESD	Heritage Intermediate (21)	6-8	96,488	1,343	1,289	0.70	0	N/A	1	17	32	0	Y	6,140	3,139	1,450	16,278	765	75
		TOTAL		1,450,169	17,972	16,849									70,927	69,701	29,099	153,047		

		MP	Proj.
Number of Projects	15		
Mean Square Feet Per Student		81	86
Median Square Feet Per Student		80	87
Mean School Size		1,198	1,123
Median School Size		1,200	1,016
Median Percent Site Size			0.85

Exhibit 3

Elementary, Middle, High	School District	School Name (see notes)	Grade Level	Square Feet	Master Plan Capacity	Project Capacity (SFP Loading)	Percent Site is of CDE Recommened for Master Plan Enrollment	Kindergarten Teaching Stations	1350 sq ft k ts?	Special Day Class Teaching Stations	Grades 1-6 Teacing Stations	Grades 7-8 Teaching Stations	Grades 9-12 TS	960 sq ft standard ts?	Multipurpose Room Sq. Ft.	Library Sq. Ft.	Food Service Sq. Ft.	Gymnasium Sq. Ft.	Platform /Stage Sq. Ft.	Square feet per student-- Capacity
E	Plum Valley Elem	Plum Valley	K-8	10,103	235	102	1.00	0	0	0	3	1	0	Y	2,911	960	431	0	0	99
E	Richfield Elem	Richfield Elem	K-8	28,743	500	329	0.99	1	Y	0	10	2	0	Y	1,777	960	845	6,764	0	87
E	Irvine Unified	Turtle Ridge	K-8	69,658	643	639	0.88	2	N	4	15	6	0	N	3,432	8,000	1,100	0	625	109
E	Chino Valley Unif	Site#1 at Preserve	K-8	85,823	973	973	0.63	3	N	2	23	11	0	N	0	6,700	3,000	7,720	1,000	88
E	San Marcos Unified	San Elijio Elementary	K-5	54,442	938	838	0.64	3	N	1	30	0	0	Y	3,000	2,700	1,000	0	900	65
E	Chula Vista	Otay Ranch (ES #43)	K-6	63,283	800	776	0.74	4	N	2	26	0	0	Y	4,694	1,913	945	4,218	476	82
E	Cottonwood Elem	Cottonwood Elem	K-6	43,800	1,040	688	1.00	0	N/A	1	27	0	0	N	3,774	1,380	646	0	525	64
E	Irvine Unified	El Camino Real	K-6	67,141	1,000	652	0.58	2	N	4	22	0	0	N	3,490	6,253	2,482	0	1,466	103
E	Carlsbad Unif	Southeast Elem	K-5	49,500	743	584	0.86	3	Y	1	20	0	0	Y	3,883	2,123	1,303	0	622	85
E	Clovis Unified	Harlan Ranch ES (4)	K-6	53,720	825	684	0.93	2	Y	1	25	0	0	N	4,067	2,154	2,010	0	716	79
E	Central Unified	New Elementary @ Ed Center (5)	K-6	56,000	860	851	1.21	3	N	2	30	0	0	Y	3,445	1,211	1,253	0	792	66
E	Visalia Unified	Leila Elementary	K-6	48,627	850	785	0.93	4	Y	3	26	0	0	Y	3,695	1,000	708	0	814	62
E	Visalia Unified	Southeast Elementary	K-6	48,627	750	785	0.78	4	Y	3	26	0	0	Y	3,695	1,000	708	0	814	62
E	Alameda City Unified	Woodstock ES (12)	K-5	49,290	704	704	0.48	4	Y	1	29	0	0	Y	4,067	1,000	2,324	0	1,152	70
E	Gilroy Unified	Greenfield ES	K-5	53,403	750	640	0.64	4	Y	0	30	0	0	Y	4,000	1,974	644	0	435	83
E	Arvin Union	El Camino ES	K-6	54,344	1,100	864	0.68	6	Y	3	27	0	0	Y	4,239	1,780	1,593	0	1,035	63
E	Wasco Union Elem	Theresa Burke (13)	K-6	50,167	1,099	900	0.97	4	N	0	32	0	0	Y	3,425	1,280	325	0	905	56
E	Los Angeles USD	Canoga Park New Elementary	K-5	75,224	600	600	0.18	3	Y	0	21	0	0	Y	7,521	0	1,301	0	903	125
E	Dry Creek Joint Elementary	Barrett Ranch Elementary	K-5	49,962	763	763	93.73	3	N	1	27	0	0	N	4,570	1,893	491	0	978	65
E	Oakley Union Elementary	Carpenter Elementary	K-5	40,720	575	575	101.0	3	Y	0	20	0	0	Y	5,007	0	1,388	0	1,025	71
E	San Diego Unified	Herbert Ibarra ES (16)	K-5	68,754	940	768	0.49	6	N	2	24	0	0	Y	4,980	2,533	784	0	984	90
E	San Diego Unified	Jonas Salk ES (17)	K-5	63,174	768	768	0.81	6	N	2	24	0	0	Y	4,879	2,715	1,242	0	1,000	82
E	Folsom-Cordova USD	Russell Ranch Elem.	K-5	42,468	763	529	0.78	2	Y	6	17	0	0	y	4,940	1,579	385	0	1,006	80
E	Roseville City Elementary SD	W-75 Junction Elementary	K-6	42,025	775	600	0.71	2	N	0	22	0	0	y	3,331	1,644	377	0	867	70
E	Perris ESD	Skyview ES (19)	K-6	44,000	850	825	0.61	2	Y	0	31	0	0	Y	4,073	3,370	1,068	0	725	53
E	Perris ESD	Railway ES (19)	K-6	47,840	900	900	0.96	3	Y / N	0	30	0	0	Y	4,073	3,370	1,068	0	725	53
E	Etiwanda ESD	Miller ES (20)	K-5	51,217	884	884	0.86	2	Y	1	33	0	0	Y	4,073	3,370	1,068	0	725	58
		TOTAL		1,412,055	21,628	19,006									105,041	62,862	30,489	18,702		

		MP	Project
Number of Projects	27		
Mean Square Feet Per Student		65	74
Median Square Feet Per Student		65	71
Mean School Size		801	704
Median School Size		800	763
Median Percent Site Size			0.81

Exhibit 3

Elementary, Middle, High	School District	School Name (see notes)	Grade Level	Square Feet	Master Plan Capacity	Project Capacity (SFP Loading)	Percent Site is of CDE Recommened for Master Plan Enrollment	Kindergarten Teaching Stations	1350 sq ft k ts?	Special Day Class Teaching Stations	Grades 1-6 Teacing Stations	Grades 7-8 Teaching Stations	Grades 9-12 TS	960 sq ft standard ts?	Multipurpose Room Sq. Ft.	Library Sq. Ft.	Food Service Sq. Ft.	Gymnasium Sq. Ft.	Platform /Stage Sq. Ft.	Square feet per student-- Capacity

NOTES
(1) small gym 8,432 large gym 12,947
(2) small gym 8,397 large gym 14,086
(3) small gym 8,590 large gym 17,120
(4) general TS are 940 sq ft
(5) kindergarten rooms average 1,048 sq. ft.
(6) TS vary in size between 899 sq ft - 991 for general classrooms, most are under 960 sq ft.
(7) Arts/Tech High School, part of the small high school project, cafeteria serves as a gym during inclement weather. Uses gym at adjacent Swarthmore HS
(8) 7 TS undersized, joint use gym
(9) 4 TS undersized due to HVAC
(10) 949 sq. ft.
(11) gymnasium and auxiliary gym
(12) TS plus workroom = 960
(13) Theresa Burke ES "wanted 500-550 but built for 850", K rooms 1280, smaller library and M, financial hardship projects are typically twice as large as 50/50
(14) 957 sq. ft.
(15) 1235 sq. ft.
(16) 1134 sq. ft.
(17) 1135 sq. ft.
(18) library shared with adjacent high school, Libray square footage reflced in HS
(19) Skyview ES and Railway ES essentially the same set of plans with the position of buildings changed
(20) Miller ES uitilizes same core facilities as Skyview and Railway with different TS layout
(21) final plan approval letter issued on 12/18/2000
(22) Joint use gym