



Palo Alto Unified School District *FACILITY MASTER PLAN*

APRIL 2007



PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

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PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

ACKNOWLEDGEMENTS

The development of this Long Range Facilities Master Plan has occurred over the past two years with the guidance and assistance from many members of District staff, Consultants and Community Members. The following people deserve special recognition for their contributions to this document.

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EXECUTIVE SUMMARY

Purpose

The Palo Alto Unified School District recently completed an unprecedented investment into its school facilities during the past decade. The Building for Excellence Program focused on modernization of classroom facilities in bringing them up to modern day standards with respect to infrastructure, technology and aesthetics.

In January of 2006, staff presented to the Board a School Site Status Report that provided an assessment of the improvements made to district facilities during the Building for Excellence Program, and outlined the future needs of for the district for the next 20 years. From this report, the Board authorized staff to proceed in preparing a 20 year Facilities Master Plan, which would provide the following information:

- Identify the crucial facilities needs throughout the District that were not funded by the Building for Excellence Program.
- Incorporate findings from ongoing studies being undertaken by the District, including the Attendance Area Advisory Group, and related Demographic studies and produce a plan that outlines the growth strategy for how the district will accommodate projected increases in enrollment.
- Incorporate the latest developments in sustainability and energy efficiency that have taken place since Building for Excellence.
- Provide a comprehensive plan to improve the maintenance of district facilities and protecting the investment of both Building for Excellence and future facilities improvements
- Provide funding for technology, equipment and furnishings for district facilities.

Background

District staff has worked closely with the Planning Review Committee and site staff in the development of the Facilities Master Plan for presentation to the Board of Education and the community. They have been a clearinghouse for staff recommendations on future needs, and overseen the feasibility studies performed by consultants in the development of this report.

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Scope of Future Needs

The future work required to keep Palo Alto Unified School District's facilities updated and in good working order is planned to be accomplished in four separate components. The scope of what work is included in each fund is summarized below, along with the projected financial needs over the next 20 years:

Capital Improvements

The Capital Improvements component will provide funding for Modernization and Growth related projects outlined in this Facilities Master Plan. For the Elementary Schools, this includes new Multi-Purpose facility that includes space to fit the student population in an assembly configuration, as well as a warming kitchen, food service, restrooms and storage space. The buildings will be approximately 6,500 SF to 7,500 SF depending on the school capacity, and a flex room that can accommodate shared science and art workspace for each campus. Each elementary school campus will have new infrastructure provided from street connections to the buildings, and new paving and field space.

At the Middle Schools, the scope of work included will provide growth funding to increase enrollment at Jordan and Stanford, and ease congested classrooms at Terman. It will also improve Athletic facilities, including the gymnasium and the pools, and new infrastructure from the street and between the buildings which was largely left untouched during Building for Excellence. The Terman campus will be upgraded and expanded. The estimated future needs for Middle Schools total nearly \$35 Million of funding.

At Gunn High School, the majority of work will involve upgraded infrastructure and improved athletic facilities. Gunn modernization projects will include renovation of Spangenberg Theater, Industrial Arts, and the Administration wing. A new 35M pool, second gymnasium and stadium lighting are just some of the athletic facilities improvements listed.

At Palo Alto High School, a significant portion of the work will involve modernization and preservation of the Tower and Haymarket Theater buildings. These buildings have been long neglected, and do not currently meet the schools needs in many areas. Other projects at Palo Alto High School include replacement of Building 900, renovation of the Library and improvements to the Gymnasium facilities on campus.

The Central Facilities for the District include the District Office, the Corporation Yard located on the Palo Alto High School campus, the Garland Surplus site and Greendell Pre-School facility. These facilities did not receive any improvements during the Building for Excellence Program. The Garland and Greendell sites will require a substantial investment by the District if they are needed to accommodate future growth.

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Planned Maintenance

The Planned Maintenance component is a continuation of the Building for Excellence fund that is to keep the classrooms, administrative and library facilities modernized during Building for Excellence maintained and replaced on a state standard deferred maintenance schedule. This includes new interior finishes, roofing, furnace replacements, lighting replacements, exterior painting and other preventative maintenance for each campus. Staff has prepared a 20 year maintenance plan specific to each campus to establish the basis for a recommended amount of future funding and to determine what would be classified as maintenance versus capital improvements.

Technology

The Technology component is proposed as a replacement vehicle for computers and networking equipment for each campus as well as district-wide system needs. In-wall infrastructure and cabling is included in Capital Improvements funding, since this will likely be installed in conjunction with other low voltage systems. The funding is based on providing 1 computer for every 5 students and new computers for staff and faculty on a 4 year replacement cycle. A summary of the computer refreshment options studied is included in the Appendix for reference.

Furnishings and Equipment

The Furnishings and Equipment component will provide funding for new desks, tables, chairs, copiers, projectors and screens, blinds or other movable equipment items that are not fixed and considered part of Capital Improvements. Many criticisms received during the Building for Excellence Program involved the lack of new furnishings and equipment being provided, and that staff and faculty were stuck with old desks, chairs, projectors, computers and other equipment that was not on par with the standards of today. A significant investment in this area is necessary not only for the accelerating rate in technological advances, but for the lack of investment made during the past several years.

Under the Building for Excellence bond program, technology and furnishings funding was not included according to state restrictions on voter approved bonds. However, under Proposition 39 bonds, these expenditures may now be included for funding.

Funding the Plan

The primary source of funding for the future improvements is planned to come from passage of voter-approved bond propositions. While there may be other sources of funds available to the District in the future, such as statewide measures, the only source of funds that can be relied upon with any certainty is a voter-approved bond.

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Bond Options

The District will have two options on proposing a bond measure for voter approval. The first option would require a 66 2/3% affirmative vote for passage of the bond measure. If approved, this option would allow the District to be less specific on the scope of work and priorities prior to performing the work. This was the funding vehicle used to fund the Building for Excellence Program.

The second option is a Proposition 39 bond measure, which requires just a 55% voter approval. Since the passage of Proposition 39 in 2000, the majority of school districts have opted to put forward bond measures under these requirements, primarily due to the lower voter approval requirement.

Summary of Financial Need

From this report, it is estimated that the financial needs for Capital Improvement projects throughout the District is nearly \$553 Million in funds over the next 20 years. Funding for a Planned Maintenance program over 20 years would be another \$167 Million, which would essentially maintain the improvements made during Building for Excellence, including classroom finishes, mechanical equipment and electrical systems maintenance.

The Technology fund is proposed to be \$41 Million for the next 20 years. This replaces computers and servers throughout the District on a 4 year cycle. The Furnishings and Equipment fund is proposed to be \$11 Million to provide new chairs, desks, televisions, projectors and other movable equipment for each campus.

Taking these four funding needs into consideration, up to \$772 Million could be used on District facilities needs over the next 20 years.

From the build out of the Building for Excellence Program, staff has determined that the District and the contracting community can comfortably perform up to \$40-45 Million of new construction and modernization work per year. Factors that contribute to this determination include limitations on school site access, placing interim facilities on campuses, the number of bidders in the community and limits on district resources to support the construction program.

Given these criteria, a \$30 Million per year rate of expenditure would allow the District to pursue 2 or 3 voter approved bond measures over the next 20 years that would fund the needs described within this report. An overview of the funding capacity of future voter approved bond measures is currently being studied by the District.

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School Site Summary - By Bond Component

School	Modernization	Growth	Planned Maintenance	Technology	Furnishings and Equipment	Total
Elementary Schools						
Addison	\$5,773,708	\$5,137,667	\$4,281,728	\$926,388	\$458,000	\$16,577,491
Barron Park	\$5,975,045	\$5,147,793	\$4,933,615	\$1,181,568	\$336,600	\$17,574,621
Briones	\$6,842,750	\$6,758,681	\$5,925,453	\$1,483,143	\$336,600	\$21,346,627
Duveneck	\$6,960,430	\$6,602,962	\$5,872,258	\$1,320,756	\$442,000	\$21,198,406
El Carmelo	\$4,406,187	\$5,873,709	\$4,022,060	\$1,251,162	\$336,600	\$15,889,717
Escondido	\$6,484,039	\$4,747,377	\$5,961,951	\$1,336,222	\$442,000	\$18,971,590
Fairmeadow	\$5,227,562	\$6,952,794	\$4,722,649	\$1,057,844	\$389,300	\$18,350,149
Hays	\$6,236,928	\$6,845,030	\$6,191,685	\$1,282,093	\$442,000	\$20,997,736
Hoover	\$8,044,978	\$7,155,969	\$4,815,769	\$1,351,687	\$336,600	\$21,705,003
Nixon	\$7,223,055	\$2,446,953	\$8,513,138	\$1,019,181	\$389,300	\$19,591,626
Ohlone	\$5,657,193	\$6,238,827	\$6,089,445	\$1,135,171	\$425,000	\$19,545,636
Palo Verde	\$5,166,167	\$5,840,572	\$4,569,743	\$1,189,300	\$336,600	\$17,102,382
Middle Schools						
Jordan	\$17,109,344	\$3,313,688	\$13,464,390	\$4,467,405	\$807,500	\$39,162,327
Stanford	\$16,666,524	\$5,598,600	\$15,881,650	\$4,335,949	\$807,500	\$43,290,223
Terman	\$9,667,154	\$20,091,750	\$8,575,105	\$2,565,160	\$573,750	\$41,472,920
High Schools						
Gunn	\$46,886,608	\$27,815,625	\$28,560,308	\$5,973,055	\$1,657,500	\$110,893,095
Palo Alto	\$77,548,877	\$43,766,475	\$26,991,881	\$5,462,697	\$1,657,500	\$155,427,430
Central Facilities						
District Office	\$7,471,683			\$750,000	\$360,000	\$8,581,683
Corporation Yard	\$2,368,206			\$75,000	\$35,000	\$2,478,206
Other Sites						
Garland	\$8,126,886	\$5,892,091	\$3,880,989	\$1,135,171	\$336,600	\$19,371,737
Greendell	\$10,017,116	\$5,659,488	\$3,880,989	\$1,135,171	\$336,600	\$21,029,364
Other Costs						
HSTF Outcome Allowance	\$75,000,000					\$75,000,000
Program Management	\$17,243,022	\$9,094,302				\$26,337,325
Total	\$362,103,464	\$190,980,352	\$167,134,803	\$40,434,124	\$11,242,550	\$771,895,292

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Priorities

A priority system was developed to evaluate future needs on a campus-wide basis. The priority levels below were established for this purpose:

- Priority 1 – Health & Life Safety
- Priority 2 – ADA Compliance
- Priority 3 – Building Shell Integrity
- Priority 4 – Classroom Interior Upgrades and Infrastructure
- Priority 5 – Program Support Upgrades and Infrastructure
- Priority 6 – Athletic Facilities
- Priority 7 – Site Development and Landscaping
- Priority 8 – Expansion of Facilities

Applying these priorities to the work performed during the Building for Excellence Program, the majority of work at each campus focused heavily on Priority 1 through 5 needs. The future needs identified by staff during development of this report consequently lean toward improvement of Program Support and Infrastructure, Athletic Facilities, Site Development and Infrastructure and Expansion of Facilities. Furthermore, the protection of work performed during Building for Excellence is being proposed under the 20 year Planned Maintenance Program, which should extend the life of district facilities through proper funding of maintenance. This will be very crucial during the next 20 years, as the majority of the schools in the district will have turned 50 during this decade.

Sustainable Energy and High Performance Schools Initiatives

The Board of Education has recently adopted Sustainable Energy Guidelines that incorporate California's Collaborative for High Performance Schools (CHPS) criteria as a minimum standard for future construction. CHPS standards were developed with the goal of improving quality of education for our children through incorporating best practices and minimum standards with regard to site design, energy & water conservation and indoor air quality. Staff has incorporated feasible improvements to existing facilities with respect to sustainable energy and conservation.

For future Capital Improvement Projects, staff will approach design and construction decisions to improve the sustainability and energy conservation of our campuses in several ways. For major projects involving new construction or major renovation, CHPS standards will be used to measure the design team's proposed design, emphasizing long term life-cycle cost analysis in the decision making process. In the scope of work detailed within this report, several projects will be solely dedicated to improvements in energy and sustainability, such as exterior lighting and window replacements.

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And finally, we have proposed an energy upgrade budget for each campus to take advantage of technology improvements over the next several years that can be incorporated into the existing campuses for the maximum benefit for energy savings. This concept is based largely on the Energy Management System upgrade we performed over the past two years that have enabled the District to mitigate rising utility costs on our expanded campuses.

Next Steps

Implementation of the Facility Master Plan will enable the District to provide facilities that meet current and future program and enrollment growth needs of the District. An Implementation Plan will be developed during the next several months, which will reflect the final recommendations from the AAAG studies and the High School Task Force outcomes. This plan will outline a project list for the first bond, along with a draft schedule for the program development.

Also taking place in the next several months will be an update of technical standards for schools at each level to achieve equity. In addition, the completion of detailed Educational Specifications for specific spaces will also be developed in conjunction with the curriculum and site staff.

After completion of the above, community input will be solicited once more on the Implementation Plan, and the project list proposed for the first round of financing. The plan will then be incorporated into the Facility Master Plan, for presentation to the Board of Education in January 2008, for a decision on whether to move forward with a bond election in the future.

PLANNING FOR A JUNE 2008 PROP 39 BOND ELECTION

Preparing for a Bond Measure

Planning for a successful bond measure involves five key phases. It has been our experience that thoroughly and thoughtfully executing each of these phases is crucial to the measure's ultimate success at the polls. Most voters will base their vote on the integrity of the facility plan, their perception of the district's facility needs and the affordability of the tax rate. The decisions we make in these early planning phases will have a significant impact on the fate of the bond measure. Following is a description of each of the five phases and a timeline showing the pace at which this process would need to unfold in order to qualify for a June 2008 election.

Phase I – Facility Planning

- Develop Facility Plan and project list
- Develop project cost estimates
- Work with financial advisor to develop bond financing options
- Conduct tax rate analysis to estimate cost to property owners

Phase II – Feasibility Assessment and Scoping

- Seek input on the Facility Plan from key stakeholders within the school community and community at large
- Develop and conduct a public opinion survey to assess community perceptions of the district's facility needs, project priorities, and the feasibility of passing a bond measure at 55%
- Use survey research data and input from stakeholders to scope the Facility Plan, prioritize projects, develop a plan to finance the projects and refine timeline

Phase III – Public Information and Outreach

- Conduct a demographic analysis of the PAUSD electorate
- Develop and implement a public information campaign to educate residents about PAUSD's facility needs and options for addressing facility needs
- Provide opportunities for local residents to give input and feedback on the District's plan
- Utilize new media opportunities such as email, blogs and websites to develop an active dialogue between you and your residents

Phase IV – Developing a Ballot Measure

- Conduct a tracking survey to assess support for refined plan, bond amount and tax rate/measure impact of public information efforts
- Use tracking research to finalize timing of an election, bond amount, tax rate, project list and other key considerations
- Work with legal counsel to prepare a resolution calling for a bond election
- Work with legal counsel to prepare the official 75-word Ballot Statement

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Phase V – Transitioning to an Independent Advocacy Campaign

Note: The campaign to persuade voters must be funded by private sources. By law, campaign activities cannot be funded or coordinated in any way whatsoever using District resources.

- Analyze of voter turnout
- Develop a detailed campaign plan outlining the specific steps the campaign must take in order to win on Election Day
- Develop a campaign budget and raise necessary funds
- Seek key endorsements
- Recruit and train volunteers
- Implement direct mail and advertising campaign
- Contact voters via precinct walking and phone banking
- Coordinate contact with the press

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Bond Measure Timeline

Month	PALO ALTO USD	COMMUNITY CAMPAIGN TEAM
Spring 2007	<p>Phase I – Facility Planning</p> <ul style="list-style-type: none"> • Develop Facility Plan and project list • Develop project cost estimates • Work with financial advisor to develop bond financing options • Conduct tax rate analysis to estimate cost to property owners 	
Summer- Fall 2007	<p>Phase II – Feasibility Assessment and Scoping</p> <ul style="list-style-type: none"> • Seek stakeholder input • Develop and conduct a public opinion survey • Use survey research data and input from stakeholders to refine plan 	
Fall- Winter 2007/08	<p>Phase III – Public Information and Outreach</p> <ul style="list-style-type: none"> • Conduct a demographic analysis • Implement public information campaign 	<p>Community Campaign Team forms</p> <ul style="list-style-type: none"> • Scan for volunteer leaders. • Scan for future \$\$\$ donors. • Engage key volunteers from past campaigns informed/involved.
January 2008	<p>Phase IV – Developing a Ballot Measure</p> <ul style="list-style-type: none"> • Conduct a tracking survey <p><u>IF JUNE 2008 IS VIABLE:</u></p> <ul style="list-style-type: none"> • Finalize timing of an election, bond amount, tax rate, project list and other key considerations • Work with legal counsel to prepare a resolution calling for a bond election • Work with legal counsel to prepare the official 75-word Ballot Statement <p><u>IF JUNE 2008 IS NOT VIABLE:</u></p> <ul style="list-style-type: none"> • Provide update and analysis to Board of Education. • District team begins preparing for Nov 2008 election scenario. 	<p><u>IF JUNE 2008 IS VIABLE:</u></p> <ul style="list-style-type: none"> • Establish campaign leadership & structure. • Plan launch of advocacy campaign <p><u>IF JUNE 2008 IS NOT VIABLE:</u></p> <ul style="list-style-type: none"> • Campaign Team Leaders recalibrates efforts for Nov 2008 election

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Month	PALO ALTO USD	COMMUNITY CAMPAIGN TEAM
February 2008	<p><u>IF JUNE 2008 IS VIABLE:</u></p> <ul style="list-style-type: none"> Finalize bond measure Board of Education votes to call for a June bond election 	<p><u>IF JUNE 2008 IS VIABLE:</u></p> <p>Phase V – Transitioning to an Independent Advocacy Campaign</p> <ul style="list-style-type: none"> Analyze of voter turnout Develop a campaign plan Develop a campaign budget and raise necessary funds
March 2008	<ul style="list-style-type: none"> Mar 7: Filing deadline for June 2008 election! Must file by 5pm deadline! <u>Provide public information ONLY.</u> 	<ul style="list-style-type: none"> Seek key endorsements Recruit and train volunteers Implement direct mail and advertising campaign Contact voters via precinct walking and phone banking Coordinate contact with the press
April/ May 2008	<ul style="list-style-type: none"> <u>Provide public information ONLY.</u> 	<ul style="list-style-type: none"> Implement direct mail and advertising campaign Contact voters via precinct walking and phone banking Coordinate contact with the press
June 2008	<ul style="list-style-type: none"> <u>Provide public information ONLY.</u> 	<ul style="list-style-type: none"> GOTV! Get Out The Vote! WIN on Election Day! JUNE 3, 2008

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Improved Thermal Comfort

The San Francisco bay area has always been considered to be a mild climatic region. For this reason, air conditioning has not been considered to be essential in many K-12 buildings in the region. With the combined focus on energy efficiency AND comfort, it is the intent of the Master Plan to recognize that:

- 1) At some times, and in some situations, air conditioning may be appropriate; and
- 2) As building improvements are considered, the ability to improve comfort conditions (ie. from a heating or cooling perspective) must be addressed as a part of the overall plan; and
- 3) Although “official” engineering design temperatures for cooling are as low as 85 degrees, recent temperatures in May and September have been as high as 97 degrees.

With this as a construct, the District recognizes that using natural (“passive”) methods can have a significant effect on overall comfort and on the learning environment itself. For instance breezes flowing naturally through windows, overhangs (or trees) to block solar radiation and glare, and even large amounts of stone and earth absorbing daytime sunlight, are some of the passive techniques have been developed for many thousands of years as integral parts of building design. Each of these will be considered as a part of this plan.

The Plan also recognizes that these types of “passive” or “natural” design strategies are very limited during particularly hot periods, and/or because of the “high internal heating load” imposed by the 20 to 40+ students and teachers in any given classroom (i.e. who, along with computers and other equipment, give off significant heat). Therefore the District will also consider mechanical cooling if and as the application and “end use” is deemed appropriate.

Even in cases where air conditioning may not, immediately be appropriate, accommodations will be made to build in flexibility. For instance, when installing (replacing) a furnace or heating system, added clearances will be considered in the ductwork dimensions and in the fan sizing, so as to accommodate a future cooling “coil” or system. These cooling improvements or accommodations will also acknowledge that mechanical air conditioning can impose drafts and noise on the teaching and learning environment. Hence, the “benefit” of a potentially cooler environment, can not be counterbalanced by the liability of noise or drafts.

In summary, it is the blend of flexibility, efficiency, and maintenance access, framed against either “passive” and “mechanical” cooling, that is recognized as a key ingredient in the overall Plan.

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Flexible and Efficient Utilities Infrastructure

The Master Plan recognizes the importance of the utilities infrastructure at each site; and the reliance of this infrastructure on ever more valuable (and expensive) natural resources. Even WITH proper (and sustainable) management of these utilities, the Plan recognizes that each of the utilities will continue to increase on a unit cost basis. So, for instance, even if electric consumption is reduced by 10% in a given year, it is highly likely that the unit cost of the power will raise by close to that amount. Likewise, the 21st century teaching and learning environments demand more sophisticated technology and buildings (and related infrastructure) which, even if managed closely, can easily increase the reliance on, and use of, many or all utilities.

At each of the school sites, the Master Plan recognizes the cost and capacity of the utilities infrastructure by providing specific metrics as well as by planning for preventative and recurring maintenance and re-commissioning of the equipment. As importantly, the Plan leverages the use of the existing energy management system (EMS) and prior energy audits as well as the high functioning and supportive relationship already established with the City of Palo Alto Municipal Utility.

Finally, the plan recognizes that the utility infrastructure provides the framework for ultimate District "sustainability". As such, great financial benefit will be derived from a philosophy of good practices which includes a utilities infrastructure that is:

- **Flexible in it's design** (i.e. providing ample capacity to accommodate new buildings, and the changes which will inevitably be demanded by the 21st century teaching and learning environment);
- **Able to be maintained** (equipment access, with the least interference to the classroom environment, will maximize equipment life and efficiency while also minimizing noise and disruption);
- **Appropriate use of resources** (whether with energy or water, the plan will focus on an appropriate use of resources and appropriate management of all wastes);
- **Benign to the environment** (by recognizing the magnitude and impact of the utilities and maintenance infrastructure on the environment, the Plan will afford the District an ability to minimize the environmental impact of normal and planned activities, while also positioning the District to leverage environmental incentives which will certainly present themselves in the coming decade).

In summary, the utilities portion of the plan was developed not on ideology; but rather constructed in a manner that is practical, workable, cost effective and, even, somewhat opportunistic.

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Utility Reduction Program

Like other school districts, PAUSD is concerned about improving student performance, providing a comfortable and healthy learning environment, retaining and recruiting high quality staff, and generating goodwill among parents and the community. At the same time, it is acutely aware that utility costs are the biggest non-salary expense of any school district. High performance school design leverages investments in better buildings and operation practices to minimize operating costs and improve the health and quality of schools in the District. PAUSD is actively identifying building practices that will reduce gas, electricity, and water use, reduce sewage and waste generation, and generate savings that can be utilized for valuable student programs.

History

In 2003-2004 the District identified utilities management as a cost saving measure in its annual budget . With funding from the City of Palo Alto's CARE (Consultant Assistance for Resource Efficiency) program, Salas-O'Brien Engineering was hired to conduct energy audits at each of the school sites served by the City of Palo Alto Utilities (CPAU). These audits revealed a need to expand the Energy Management System to encompass additional buildings, particularly portable classrooms. A second round of grant-funded audits has led to a list of energy efficiency recommendations for each school as well as the pilot for development of a site systems manual for maintenance staff conducting ongoing maintenance improvements. In addition, PG&E has agreed to fund energy audits for the two sites it services, Escondido and Nixon elementary schools, and CPAU has facilitated district-wide water audits through the Santa Clara Valley Water District (SCVWD).

In 2004 , the Board adopted the Guidelines on Sustainable Construction requiring design professionals and District staff to incorporate Collaborative for High Performance Schools (CHPS) design criteria and best practices into all future PAUSD building projects. The Board also asked staff to pay particular attention to lifecycle cost analysis in making decisions during the design process. O'Connor Construction translated CHPS requirements into a strategy document to help guide future construction efforts, and numerous construction and maintenance staff were trained on CHPS design principles. As part of the Master Plan update, District Ed Specs and Technical Standards were reviewed and amended to include high performance design principles. Various projects, including several new libraries and classroom renovations, have already incorporated CHPS elements. The construction of a Science Resource Center (SRC) and the renovation of the Gunn administrative buildings will provide the District further opportunities to apply the best practices outlined by CHPS.

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Most recently, PAUSD has added a behavioral component to its utility reduction efforts. Green Teams at each five pilot schools (Hoover, Escondido, Jordan, Gunn, and Paly) engage students, parents, staff, and community resources to identify energy and waste reduction opportunities and educate the school community about sustainability projects. The Green Teams receive monthly, electronic utility reports from Salas O'Brien in order to track gas, electricity, and water use. The District supports each Green Team with a start-up grant of \$2500, half of any utility savings realized by the site, training in community-based social marketing to foster sustainable behavior, and curricular resources.

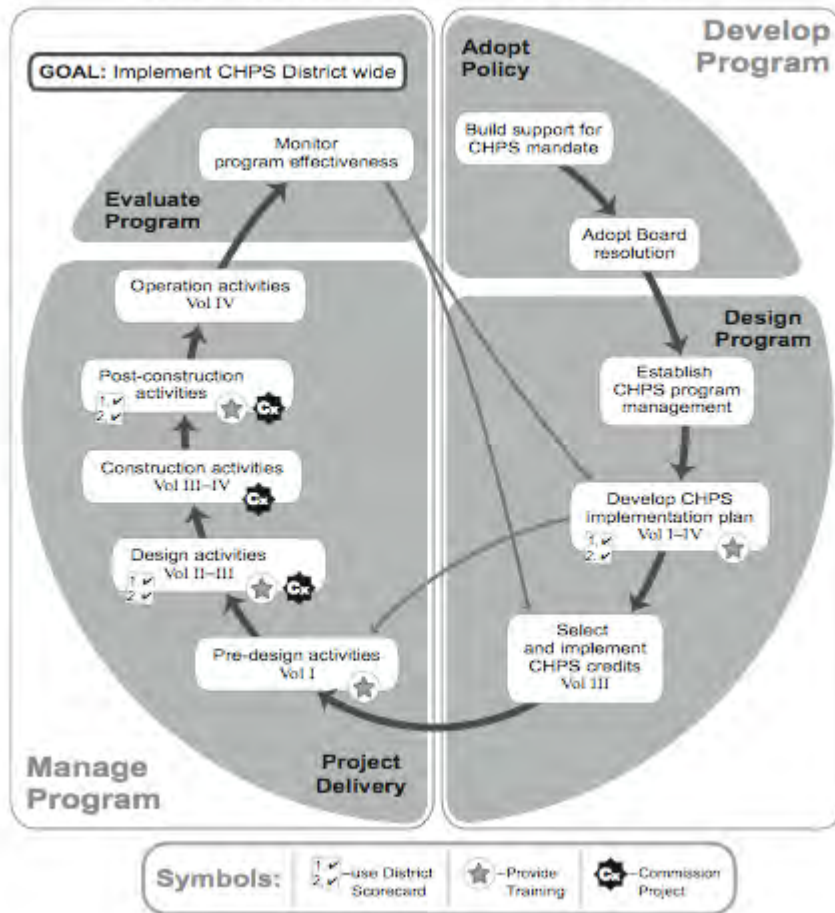
Facilities Design

The CHPS program was created in 2001 to “create a new generation of high performance school facilities in California” . These schools are built to improve student test scores, reduce operating costs, increase daily attendance, enhance teacher satisfaction, reduce environmental impact, increase building life, and reduce district liability . A recent comprehensive study concluded that while the cost of building a high performance school was, on average, \$3/sq. ft. more than a typical school (1.5-2.5%), savings of \$12/sq. ft. over the life of the building in reduced operating costs, increased teacher retention, and minimized health liabilities more than made up for this premium . Until recently, CHPS relied on a self-certification process in which schools filled out a scorecard and reported their compliance with sustainable best building practices. With the November 2006 passage of Proposition 1D, which provides up to \$100 million in matching grants for high performance schools, CHPS has added a more rigorous compliance and third-party verification process as required by the Division of the State Architect (DSA).

In order to take advantage of the performance, health, and financial benefits of high performance schools, the District is working to integrate the CHPS planning guidelines into its construction program as outlined by the CHPS Implementation Flowchart (next page). The execution of this process, developed with the input from early pioneers such as Los Angeles and Oakland Unified School Districts, ensures the success of high performance building programs by engaging all stakeholders and taking advantage of the integrated design that keeps extra costs manageable.

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CHPS Implementation Flowchart



Several elements warrant highlighting:

1. CHPS Program Manager: PAUSD will assign the District construction manager to oversee all CHPS building activities to ensure facilities management support or high performance building practices.
2. Steering Committee (PRC): Designing a sustainable school and optimizing building systems requires a whole building approach in which the design team works closely with District staff and contractors to ensure that the best project is built at the lowest cost. A committee composed of finance, purchasing, design, construction management, maintenance and operations, utilities, contactors, and community members will be trained in CHPS principles and meet to determine the scope of future construction projects, define the District's high performance priorities (daylighting, energy efficiency, etc.), and monitor progress.
3. Monitoring & Reporting: The program will be monitored during the design and construction process and reports given during key points in the construction process: schematic design, design development, construction documents, and post-construction. Commissioning and the

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use of the scorecard will facilitate this process. Data gathered can be fed into a public outreach campaign.

4. RFP's and Contracts: To ensure the needed level of expertise, high performance design language and performance goals will be incorporated into design team RFP's and included in contracts with architects and contractors.

5. Construction: Construction documents will include all required information regarding the high performance elements of the project and ongoing coordination with contractors will ensure design goals are met. Crews with sustainable design experience will be preferred or current contractors trained as necessary. Training should include waste management strategies and indoor air quality (IAQ) mitigation procedures.

6. Commissioning: To ensure the design intent and performance of new buildings, facility performance reviews will be conducted for all new construction.

7. Lifecycle Cost Analysis: Only tested, cost-effective, and defensible strategies will be used in PAUSD construction projects. PAUSD staff will only implement higher cost design elements that have a payback of less than 10 years when adjusted for inflation and discount rate.

8. Bond Marketing: The incorporation of sustainable design elements brings with it a significant marketing advantage for the next bond. Publicity will capitalize on the environmental inclinations of the community and promote CHPS efforts.

Maintenance & Operations

The increase in efficiency of PAUSD-owned buildings will continue to receive a high priority in coming years. The audits have provided the groundwork for a long-term strategy of minimizing energy and water use. In addition, efforts by the site-based Green Teams will reduce waste generation and training of maintenance staff will ensure the maintenance of building systems at optimum levels. The District's maintenance and operations plan includes:

1. Benchmarking & Monitoring: Measurement is the foundation for an effective utility management program. Thus, the District will track energy and water use for each site and monitor developments in order to allow course corrections. Each site will also be fitted with smart meters to allow instantaneous utility monitoring, as these become available, and control over HVAC systems so that thermal comfort can be adjusted more accurately based on specific site conditions.

2. Audit Implementation: The recommendations made by Salas O'Brien and the City of Palo Alto as part of the energy and water audits have been integrated into this Master Plan in the appropriate sections. These projects will be conducted as site work allows, with low payback items (less than 3 years) accelerated to reap the benefits of reduce utility costs.

3. Retrocommissioning: Every five years, PAUSD buildings will be retrocommissioned to ensure their continued efficient operation. Water audits will be conducted every ten years.

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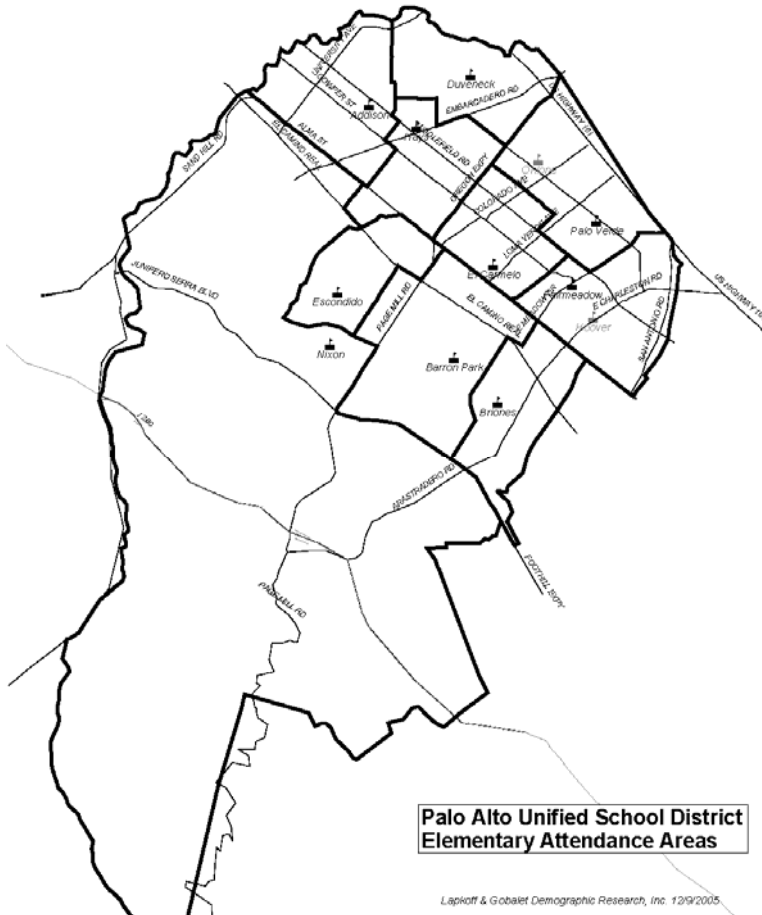
4. Training: The completion of a systems manual for all sites will be accompanied by training of maintenance personnel in their use. In addition, condensed site user training manuals will be distributed to all schools and staff trained on the efficient operation of building systems. Furthermore, the District will continue to certify operations staff as building operators so that they are aware of energy efficient maintenance practices.

5. Procurement: In the future, as old equipment is replaced, the District will replace it with only energy and water efficient equipment as identified in procurement language to be developed by staff and approved by the Board. This will ensure that over time all plug loads and gas appliances operate at the highest efficiency. Donations of equipment will no longer be accepted unless they meet minimum efficiency requirements as set forth in the same policy.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

INTRODUCTION

Palo Alto Unified School District has been educating children and adults from grades Kindergarten to 12th grade for over 100 years. The district includes the city of Palo Alto, Stanford University and areas of Los Altos Hills, Palo Alto Hills and Portola Valley within its attendance area



There are approximately 10,800 students attending 17 schools in Palo Alto today. Elementary schools have over 4,700 students (K-5) in attendance, while secondary schools (6-12) enrollment is just fewer than 6,000. There are 2 High Schools, 3 Middle Schools and 12 Elementary Schools within the district.

The last Master Plan prepared for the Palo Alto was specific to defining the scope of the Building for Excellence Program. This Master Plan was not comprehensive and did not specify the future needs and plan for any scope of work not included in Building for Excellence.

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This Long Range Facilities Master Plan (LRFMP) constitutes a current vision and implementation plan for capital improvements, planned maintenance and equipment and furnishings during the next 20 years. While based largely on the ideals and vision of the Schools for the 21st Century document, it also incorporates current codes and principles from the Collaborative for High Performance Schools (CHPS), which was developed by the State of California in 2002. The purpose of this initiative was to establish as set of guidelines and standards to improve sustainability and energy conservation into school design and construction.

The LRFMP lays out a 20 year plan for developing and maintaining Palo Alto's school facilities to the established standards of today. Changes in technology and the educational mission of the district have been addressed through a plan for funding new technology and planning flexibility in developing future school facilities.

PLANNING HISTORY AND PROCESS

The last Master Plan Report for the Palo Alto Unified School district was prepared specifically for the purpose of defining the scope of Bond Measure A. Bond Measure A was a voter approved initiative to fund the modernization of the existing facilities in Palo Alto. The implementation of Bond Measure A was carried out through the Building for Excellence Program.

The document developed in 1996 by BFGC Architects and Planners, in association with Perkins & Will Architects and Anderson Brule' Architects, Inc. was the starting point for the Building for Excellence Program. However, mid-way through the implementation of Building for Excellence, a Reconfigured Master Plan was prepared in 2000. The Reconfigured Master Plan reduced the original scope of Building for Excellence to bring it in line with the funds available from the bond proceeds. The scope defined in the 2000 Reconfigured Master Plan was what was actually implemented during the Building for Excellence program.

Due to the reduction in scope after approval of the bond, there is a significant amount of work to be done to bring the facilities of Palo Alto up to the standards envisioned while developing the "Schools for the 21st Century" document. This document was prepared between 1992 and 1994 by the Schools for the 21st Century Planning Committee, and set forth the vision and educational specifications for the district's facilities. Since then, District Standards and Design Guidelines have been developed in detail to carry out this initial vision.

PLANNING REVIEW COMMITTEE

Mission

The mission of the Planning Review Committee is to advise and assist district administration and the Facilities staff on the renovation and development of PAUSD facilities. The committee advises on the support of excellence in teaching and learning and represents the community, faculty and administrative staff. The committee also oversees the process for direct community and staff input to the LRFMP.

Purpose

To review and advise the planning team during development of the LRFMP regarding:

- The nexus of the vision for excellence in teaching and learning developed by the Schools for the 21st Century Committee and the Building for Excellence program.
- Fiscal responsibility in the appropriation and expenditure of funds.
- Implementation and updating of the Master Plan for school facilities.
- Application and updating of the Elementary Design Guidelines.
- Application and updating of the Technical Standards.
- Proposed changes to the Master Plan including the secondary and elementary plans, Elementary Design Guidelines, or Technical Standards.
- Newly funded or joint use projects.
- The interests of the community and staff.

Committee Responsibilities

The responsibilities of the PRC include:

- Advise staff and consultants during development of planning documents being incorporated into the LRFMP, including the Program Budget, Design Guidelines, and Technical Standards, or any proposed revisions and amendments to the above documents.
- Advise staff for priorities in allocations of new funding and projects.
- Assist with communication and cooperation among neighborhood residents, institutions, special interest groups, and District staff by maintaining professional and responsible conduct at all times, keeping in mind the best interests of the District.
- Bring forward needs, interests, and concerns of the staff and the community.
- Represent the PRC on school building committees and design committees and report back to the PRC on school committee activities.

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The Planning Review Committee is a Superintendent's appointed committee and is not empowered to make policy or administrative decisions.

Service on the Planning Review Committee is voluntary. No member is paid or given in-kind compensation in exchange for service on the committee (for District employees: beyond his/her normal District compensation). The PRC is not subject to the Brown Act and its meetings are not required to be open public meetings.

COMMUNITY INVOLVEMENT

Background

With the development of the 'Schools for the 21st Century' document between 1992 and 1994, the community of Palo Alto provided a great vision of how District facilities should support the educational curriculum and defined an optimum learning environment.

Given the investment of time and the broad participation of this committee, a great deal of this vision is used as a foundation for this Long Range Facilities Master Plan document. The findings have been reviewed and updated where appropriate with respect to technology and current trends, but the vision and focus on educational excellence is unchanged. Therefore, the focus of this document will be to validate and confirm the findings of the 'Schools for the 21st Century' committee, and document significant changes and expand on improvements based on the lessons learned during the implementation of the Building for Excellence Program.

Palo Alto Community Involvement

There are two major phases of community involvement in the development and implementation of a Long Range Master Plan. The first phase will be the participation in education and input during the development of the plan. In developing a comprehensive plan, the involvement of parents, teachers, business groups, recreational groups and local organizations should be solicited.

The second phase of community involvement will involve generating support and working with the District on implementing the master plan, through gaining voter approval of bonds and participating in the execution of the proposed projects. The success of this second phase is directly tied to how well the community is educated and made part of the process during the first phase. Most communities will support their schools in funding bond initiatives when a) the need is well documented and supported and b) a well defined plan on how the needs will be met is established.

Community Outreach

The purpose of the community meetings were to communicate to the public what future facility needs in the district were needed to meet the requirements of the educational program, and to assess the importance of these needs as the basis for prioritization.

To reach a broad audience in advertising for the public forums, the following methods were used:

1. Utilize existing organizations to encourage participation

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- PRC Members
- PTA Executive Council
- Attendance Area Committee
- School Site Councils

2. Advertisements:

Information on meeting schedule, including dates, locations and times will be placed in local newspapers, school publications, district website and flyers in school offices.

The schedule for the first round of community meetings was:

1. Elementary Schools Thursday, March 8, 2007
2. Middle Schools Wednesday, March 14, 2007
3. High Schools Thursday, March 22, 2007

Given that many members of the community are interested in the material presented but are not able to attend meetings in the evening, the presentation material was also posted on the District's website, where the information could be viewed by the public. As part of the advertisements, an email address was given for those that could not attend so that their opinions could be submitted via email.

Summary of Community Input

Elementary Schools

On March 8, 2007, an open public meeting was held at the District Offices to introduce the Master Plan project to the community, and to solicit input on the scope of work and priorities listed for each Elementary School campus. A brief slide presentation provided an overview of the process and background information.

After the introduction, plans for the existing campuses and the future build out of each campus were presented. In addition, presentation boards for each campus were spread throughout the room, to allow the group to refer to the scope and priorities listed for further review. After providing an overview of the scope listed for each campus, public comment on the plans was provided.

The following is a summary of the comments provided by the eight community members present, in addition to the PRC and staff members in attendance:

- The cost presented is over \$200M for the Elementary Schools alone. The community will need to be convinced on the reasons of why we need to spend the money now.
- At some of the impacted sites, 2 story construction for growth construction should be considered to preserve play fields and hardcourts.

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- The kindergarten playground at Duveneck is too small for the 5 classrooms there. Plans should include expanding this playground area.
- Metrics for site utilization should be included in the plans at some point, so areas of play fields, hard courts, etc.. can be measured.
- Incorporate actual tree locations on plans, especially where heritage oaks or redwoods are existing.
- Address the traffic impacts at each campus that result from expansion of the campuses, and what mitigation measures will be taken.

In addition, the presentation given at the meeting was also posted on the District's website. The following comments were provided by other members of the community through email to staff:

- At Fairmeadow, it appears that the 5th grade classroom relocation is not shown on the future build out plan. It is listed in the scope. (Plan corrected)
- Would like to see district use a 'usable play space' metric as a fair and equitable measure of capacity at each school site. In addition, it would be good to compare out usable space against other similar schools in the Bay Area, to help determine when we've reached capacity with respect to play space.
- At Addison, there is a lack of play space, and the number of portable classrooms removes valuable play space. On rainy days, the kids are confined to the blacktop, which causes kids to run into each other. Would like to see the expansion of the MP room.
- It was suggested that the district look at developing 5th/6th grade schools and 7th/8th grade schools in lieu of Middle Schools. This would relieve the overcrowding at the Elementary Schools, and provide a 5th/6th grade environment for 10-12 year olds, which is sometimes a difficult growth period for students.
- Site plans should reflect bike parking and safe routes and storage of bicycles.

Middle Schools

The community meeting for the Middle Schools was not well attended. Only two community members at large attended, in addition to the PRC and staff members present. Therefore, the presentation of Middle School site plans was deferred to the High school meeting being held the following week. However, the following comments were provided by other members of the community through email to staff:

- The Terman site council and many other parents protested the inclusion of a 2 story classroom building on the Terman campus, due to the density of buildings that currently exist, and

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the ability of Jordan and Stanford to take on additional students. It was clarified that there is no plan to build a two story classroom, but the cost is included as a contingency in case future board actions call for an increased enrollment at Terman).

High Schools

The following comments were provided by the community members present at the meeting. There were 9 members of the community present, plus several PRC and staff members in attendance.

- The second gymnasium at Gunn High School should move up in priority, after the renovation of the RC building and the IA buildings.
- Spangenberg Theater renovation should also be moved up the priority list for Gunn High School.
- Classroom size at Gunn High School was to serve 22 students, not 30. Science classrooms are also undersized. Classrooms will not be able to handle 1900 students.
- Ensure that science equipment is specifically noted in equipment section for bond. Very expensive, and there is currently no funding source other than PAFE for this, and existing equipment will need replacement soon.
- For Athletic Facilities at Gunn High School, priority should be Pool No. 1, Gym Non. 2, and Fields No. 3.
- Some expressed concern about large amount of money being spent on Palo Alto High School's Tower and Haymarket Theater buildings.

In addition, the presentation given at the meeting was also posted on the District's website. The following comments were provided by other members of the community through email to staff:

- At Paly, the Haymarket Theater is inadequate and does not meet the needs of the fine arts programs at the school. The facility is not ADA accessible, and the acoustics are horrible. The stage area is too small, and the lighting is inadequate. Parents would like to see a state of the art facility on the campus, mentioning Woodside High School's Performing Arts Center as an example of what Palo Alto should look like.
- The Library at Paly needs renovation. The ceilings are high, and not conducive to quiet study. The lighting is also inadequate, and there is considerable wasted space. It was suggested that a 2nd level media center be added to the space, and more space be set aside for group study for students engaged in collaborative research projects.

SCHOOL PROGRAMS AND SUPPORT SERVICES

ELEMENTARY SCHOOLS

Organization and Program

Palo Alto Unified School District (PAUSD) has a long-standing commitment to educating the whole child. Our curriculum is designed to help students develop intellectually, physically, emotionally, ethically, aesthetically, and socially. We encourage students to become active, engaged learners and responsible citizens. At each grade level our teachers challenge students and help them achieve academic and intellectual competencies.

We have 12 elementary schools and 4 [choice schools and programs](#) to engage students at all learning levels.

Choice Schools and Program

In addition to the neighborhood schools, Palo Alto Unified School District (PAUSD) offers several choice schools and programs to our students. All students are eligible to attend, and admission is granted through a lottery system. Parents are responsible for providing their children's transportation to and from school.

Hoover Elementary School

Hoover offers a more structured learning environment than other PAUSD elementary schools. Teachers emphasize core curriculum, basic academic skills, and good study habits.

Ohlone Elementary School

Ohlone's open school philosophy focuses on developmental education. Classrooms emphasize open-ended activities, personalized instruction, and peer tutoring. Teachers facilitate academic, social, and emotional learning.

Spanish Immersion Program

The Spanish Immersion Program at Escondido is designed to develop full bilingualism in both Spanish and English. English-speaking students and native Spanish speakers are taught together using Spanish and English instruction to develop bilingual academic fluency. The program begins in kindergarten and continues through fifth grade or middle school.

Young Fives

The Young Fives program at the [Greendell school site](#) for children who are age eligible for kindergarten but are not ready to enter kindergarten. The program is designed for children who exhibit signs of immaturity or

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youngness that may prevent them from succeeding in kindergarten and future school years. Parents participate once a week in the classroom and monthly discussion sessions in the evening.

Library Media Program

Our Library Media program aims to prepare students to become literate, life-long learners and trains them to be effective users of information. School librarians teach library skills and provide access to materials that support classroom programs and curriculum. Library resources are available to students and staff on a checkout basis. Our interlibrary loan service allows school libraries to share resources.

Physical Education Program

Physical education is a valued and integral part of our elementary curriculum. A traveling team of credentialed, physical education specialists provides instruction to all elementary school classrooms. Students are assessed on 5 fitness components—cardiovascular endurance, body composition, strength, muscular endurance, and flexibility. A traveling team of specialist teachers visits each elementary school to give physical education instruction. Teachers hold physical education teaching credentials.

Visual and Performing Arts Program

The arts are a critical and integrated part of our elementary curriculum. Students learn the arts as discrete subjects, each with its own unique content, and, where appropriate, connect the arts to concepts and themes from the academic curriculum. Art lessons are provided by trained specialists who rotate through elementary school classrooms. Music classes are taught by a traveling team of credentialed music teachers. A dance program is currently being piloted.

Academy

The Academy is a before- or after- school intervention program that supports students in first through sixth grade who need extra instruction in reading and mathematics.

Literacy Academy

The Literacy Academy is located at individual school sites. Classes are held before or after school, depending on the school. Reading curriculum uses authentic literature, reciprocal teaching, and graphic organizers to help accelerate student reading growth. Teachers are certificated and trained in our reading curriculum.

Math Academy

The Math Academy, grades 2-5, is held on Saturdays at one of the PAUSD elementary school sites. Students are grouped with other

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children sharing similar difficulties. Each group of no more than 10 students works with a certificated teacher and an instructional aide. Lessons are coordinated with California state standards.

MIDDLE SCHOOLS

Organization and Program

Palo Alto Unified School District (PAUSD) middle schools are committed to providing affective and intellectual experiences to our students. We have **three middle schools** that offer several [choice](#) and [alternative programs](#) to engage students at all learning levels.

Our middle school curriculum serves as a bridge between elementary school and high school and is designed to educate young adolescents in a way that meets their unique developmental needs. All students take seven periods of class. Clubs, athletics, lunchtime activities, and service projects provide many opportunities for students to be involved in school.

Sixth grade students spend the day in self-contained teams with two to four teachers, focusing on core studies. Music and physical education are taught on alternative days. The Exploratory Wheel course cycles students through six-week introductory instruction in subjects they may choose as electives in 7th and 8th grades.

Seventh and eighth grade students choose elective classes to complement their core studies. Students take four core studies and two elective courses.

Intramural Sports

Students at all grade levels can participate in a wide variety of intramural activities during and after school. We have a "no cut" policy to give all students the opportunity to participate in sports activities. After-school intramural sports teams are run in partnership with the [City of Palo Alto Recreation program](#).

Visual and Performing Arts Program

Our Visual and Performing Arts program continues the instruction provided in elementary education and gives interested students the opportunity to further their skills and expression. Classes are aligned with state and District Visual & Performing Arts Standards.

- **Art** classes cover a variety of 2- and 3-D skills and processes and are offered at beginning and advanced levels.
- **Drama** is available to beginning and advanced students and by audition for after-school dramatic and musical productions.
- **Music** participation in band, orchestra, or choir is required of 6th grade students. In 7th and 8th grades, music becomes an elective course, and students can participate in Concert Band,

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Advanced Band, Symphonic Band, Jazz Band, Orchestra, or Choir.

Middle Choice Programs

PAUSD offers several choice programs for grades 6-8. Admission is granted through a lottery system.

Direct Instruction (6th grade offered at all schools; 6-8th grade offered only at Term an).

The Direct Instruction program emphasizes basic academic skills and student acquisition of knowledge and skills. Focus is on core academic subjects in discrete, single-subject areas (rather than an interdisciplinary approach) of English, mathematics, social studies, and science.

Connections (3 year program offered at JLS)

The Connections program takes an interdisciplinary approach to teaching core subjects. A "village" of teachers, students, and parents within the larger school community focuses on interactive, project-based, experiential learning through hands-on experiences and field trips. The program emphasizes:

- Connections among various disciplines—teachers have a block of three to five periods to focus on an interdisciplinary approach to topics
- Connections among students and student-centered learning—students are responsible for their own progress by setting goals and assessing their progress while teachers serve mainly as guides and mentors
- Connections between curriculum and students' lives—core curriculum and student interests are enhanced with examples from current events and field trips
- Connections between curriculum and community—community and environmental service projects are part of the curriculum

Spanish Immersion (3 year program offered at Jordan)

The middle school Spanish Immersion program is a continuation of the bilingual curriculum of elementary Spanish Immersion. We accept students who have been promoted from the elementary-level as well as other students who demonstrate grade-level bilingual fluency in Spanish and English.

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Academy

Middle School Math Academy

The Middle School Math Academy Program is held at each of the three middle schools, for three hours a week. Each group of no more than 12 students work with a certificated teacher who specializes in math.

Alternative Programs

Alternative programs at Palo Alto Unified School District (PAUSD) middle and high schools serve students who need or desire an alternative instructional approach. They offer students opportunities to earn credits in a way that is compatible with their level of ability, interest, talent, and orientation to school. They allow students to complete high school in productive and purposeful ways.

Opportunity Class

The Opportunity Class, housed at JLS, serves 6 – 8th grade students from around the District who need a small, self-contained instructional setting. The program is designed to help students establish successful patterns of attendance, academic achievement, and social behavior. Students are placed in the program with the goal of eventually reentering mainstream programs. Standard curriculum is taught in a small, supportive, and personalized setting.

AVID (Advancement Via Individual Determination)

AVID is a national college preparatory program designed for middle and high school students who are underachieving or underserved learners. The program assists students attain the academic skills, self-confidence, and motivation to attend and be successful at a four-year university.

HIGH SCHOOLS

Organization and Program

Our two highly ranked high schools have been praised for their comprehensive curriculum. We offer a wide variety of educational opportunities to students at all learning levels. Students take courses that challenge them intellectually, correspond with their career interests, and prepare them for life after high school. They can participate in athletic and academic teams, clubs, student government, community service, and arts activities. We aim to help all students succeed and complete high school in productive and purposeful ways.

Through our curriculum and our teaching, we work to ensure that students develop a set of competencies and qualities outlined in our [Expected Schoolwide Learning Results](#) (ESLRs).

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Our high schools offer courses in the following subject areas. Specific courses vary at each school from year to year.

- Arts–Visual and Performing
- Career/Vocational Education
- English
- World Languages
- History/Social Science
- Mathematics
- Programming/Computer Science
- Physical Education
- Science

Athletic Programs

Our competitive [athletic programs](#) complement student academic life. Students can try out for a number of seasonal team sports throughout the school year.

Alternative Programs

Opportunity Class

Each high school has an Opportunity Class that serves 9th and 10th grade students under age 16 who need a small, self-contained instructional setting. The program is designed to help students establish successful patterns of attendance, academic achievement, and social behavior. Students are placed in this program with the goal of eventually reentering mainstream program. Standard curriculum is taught in a small, supportive, and personalized setting.

Opportunity High School

Mountain View/Los Altos School District and Foothill College have partnered to provide a specialized program for students requiring an alternative setting.

Middle College at Foothill Community College

The Middle College program is designed for juniors and seniors who are mature enough to handle a college level environment and take responsibility for their own educational planning and credit completion. Students take both high school and college level classes on the Foothill campus and receive double credit for completed college level courses.

Alta Vista Continuation High School

Students may enter this program the semester they turn 16 with a referral from a counselor or school administrator. The program emphasizes personalized instruction, integrated study, and vocational education and training. Students take core courses alongside elective and vocational education classes. Students may use this program to make up missing credits and graduate from Mountain View/Los Altos School District or PAUSD. Most students choose to return to Paly or Gunn after making-up credits.

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Terra Bella Academy

The North County collaborative is an educational program overseen by the Santa Clara County Office of Education, Palo Alto unified School District, Mountain View-Whisman Elementary School, Mountain View-Los Altos Joint Union High School District and the Fremont School District. The districts have collaborated to develop a unique learning experience for students in 8th-12th grades.

Independent Study

Independent Study programs are available at both Paly and Gunn high schools for students who need credits to graduate. Students meet with an Independent Study teacher to receive work assignments and tests.

General Education Diploma (GED)

PAUSD students can enroll in classes to prepare for the GED shortly before their eighteenth birthday. Classes are offered through the [Palo Alto Adult School](#).

California High School Proficiency Exam

Administered by the State Department of Education, this exam yields the equivalent of a high school diploma. The exam is offered twice a year for high school students aged 16 and older. If students pass the exam and receive parental approval, they are no longer subject to mandatory school attendance and may leave high school to work or attend college.

Santa Clara County Alternative Schools Department

The Santa Clara County Office of Education provides educational programs for students who are under court supervision or who are not attending regular school for a variety reasons. The program emphasizes academic competency as well as behavior and attitude change.

AVID (Advancement Via Individual Determination)

AVID is a national college preparatory program designed for middle and high school students who are underachieving or underserved learners. The program assists students attain the academic skills, self-confidence, and motivation to attend and be successful at a four-year university.

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Foundation for a College Education

The Foundation for a College Education (FCE) aims to increase the number of students of color enrolling in and graduating from four-year colleges and universities. Students and their parents are both involved in programs designed to increase understanding of the full college planning process. FCE relies solely on private sources of funding from individuals, corporations, and private foundations. It serves students of Santa Clara and San Mateo Counties.

DISTRICT-WIDE PROGRAMS

Summer School

PAUSD offers summer school programs for grades K-12 at Palo Alto school sites. Summer School Registration Packets containing registration and emergency forms, a course catalog, and general information about summer school are available in early spring. You can download Registration Packets below for each educational level or pick them up at school offices or the district office.

Special Education

Palo Alto Unified School District (PAUSD) provides support to all students with disabilities. We partner with Los Altos, Mountain View, Whisman, and Mountain View/Los Altos School Districts as well as the Santa Clara County Office of Education (COE) to insure that programs are located within our Special Education Local Planning Area (SELPA).

Students may receive any combination of services, based on their IEP, including:

Speech and Language—offered at all schools

Speech and language specialists provide support for articulation, voice, fluency, and language disorders.

Resource Specialists—offered at all schools

Resource Specialists provide educational planning, special instruction, tutorial assistance, or other services to exceptional individuals in special programs or regular classrooms.

Special Day Classes—offered at selected elementary schools and all secondary schools

Students are grouped with others who share similar instructional needs. Each class has a credentialed special education teacher and an instructional aide. Special Day Classes are available at all secondary schools and the following elementary schools: Escondido, Fairmeadow, Juana Briones, Nixon, Ohlone, Barron Park and Walter Hays.

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Specialized day programs are also available:

- Deaf-Hearing Impaired Program - [Jackson Hearing Center](#) runs programs at Fairmeadow, JLS, and Gunn
- Orthopedic Program—offered at Juana Briones, Terman, and Gunn

Adaptive physical education, nursing services, counseling support, behavior support, occupational therapy, and other services are available when a student's IEP determines this need.

Lucille Packard Children's Hospital School

Students who are hospitalized or undergoing treatment at the Lucille Packard Children's Hospital have the option of continuing their coursework through the Hospital School. The School at Children's Hospital is a unique collaboration between Palo Alto Unified School District (PAUSD) and the Children's Hospital that provides quality education to critically and chronically ill hospitalized children.

School-age inpatients and students receiving regular outpatient services are eligible to participate in the Hospital School program.

Gifted & Talented Education (GATE)

Gifted and Talented Education (GATE) aims to provide gifted and talented students with educational opportunities that match their abilities.

In elementary and middle school, the program model for GATE is differentiation within the mainstream classroom. Teachers enrich and extend the core curriculum for gifted students, giving them the opportunity to understand the curriculum in greater depth and complexity. Advanced math courses are available for the first time in 7th grade and continue through 12th grade. In high school, gifted students are able to take advanced, honors, and advanced placement courses in a wide variety of subjects.

English Language Development (ELD)

The English Language Development (ELD) program supports students who are not proficient in English develop the language skills they need to succeed in school.

Elementary ELD Program (K – 5)

Each Palo Alto elementary school offers ELD instruction. English-learning students participate in small-group or individual ELD classes. ELD teachers carefully coordinate instructional time away from the mainstream classroom to minimize disruption with regular curriculum.

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Secondary ELD Program (6 – 12)

In secondary schools, ELD is taught through language arts and social studies. Programs are hosted at JLS Middle School and Gunn High School.

Primary Language Tutors

At the request of ELD teachers, Primary Language Tutors work with LEP students on their mainstream class assignments during their first year in our District. They coordinate closely with students' mainstream classroom teachers.

Voluntary Transfer Program

The Voluntary Transfer Program (VTP), also referred to as the Tinsley Program, brings students from Ravenswood School District to Palo Alto Unified School District (PAUSD). It supports student learning and achievement, focusing on early literacy.

VTP was created in 1986 as part of a Settlement Order in San Mateo County Court in response to a petition filed by Margaret Tinsley and other parents of the Ravenswood School District. The program aims to:

- Reduce isolation of racial minorities in the Palo Alto, Ravenswood, and Sequoia School Districts
- Improve educational achievement of Ravenswood students
- Enhance inter-district cooperation

Each year, 60 students from Ravenswood School District are assigned to kindergarten, first, or second grade classrooms in PAUSD. Terms of the settlement specify that only new students entering kindergarten, first, or second grade are eligible to enter the program. If VTP students transfer out of our District, PAUSD may be assigned more than 60 students per year. For example, PAUSD was assigned 77 VTP students for the 2002-03 school year because 17 VTP students transferred out of PAUSD during 2001-02.

The San Mateo County Office of Education administers the Tinsley application process. Once students have been assigned to PAUSD, our staff works closely with their parents. We offer early literacy training for parents through workshops and meetings and a "Parent Institute" that supports parent involvement with children's education and schools.

Currently there are about 600 VTP students from kindergarten through twelfth grade are enrolled in our District. As PAUSD students, they receive full District services and are provided bus transportation to and from school.

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Vocational Education

Vocational Education programs instruct, guide, and support students and adults as they prepare for and embark on a working life. We work with many organizations and offer a wide range of programs for students and adults.

Programs for All Students

- ROP–Regional Occupational Program - ROP provides career preparation and skill training for high school students (16 years or older), out-of-school youth, and adults. Classes include Automotive Technology, Bio Technology, Computer Information Technology, Culinary Arts, Robotics, and Web Page Design.
- SASSY - PAUSD students in the SASSY program (run by Opportunities Industrialization Center West) may earn up to 10 academic credits per semester.
- Work Experience, Exploratory Experience & Science Work Experience at Lockheed - Students earn academic credit in classes that combine classroom instruction with hands-on work experience.

Programs for Individuals with Disabilities

- Foothill Transition Program (FTP) - FTP involves students with disabilities who have completed high school in an active college atmosphere and prepares them for independent living. The program includes general coursework, physical education, vocational training, and job placement services.
- Transition Partnership Program (TPP) - PAUSD connects high school students with disabilities to the State of California Department of Rehabilitation (DOR) and assists with their transition to work.
- WorkAbility Programs - WorkAbility I (for high school students in special education) and WorkAbility II (for adults with disabilities) programs provide comprehensive pre-employment training, employment placement, and follow-up consultations for individuals making the transition to independent living.

STUDENT SERVICES

Health Services

By helping students stay healthy, we support student learning. Palo Alto Unified School District (PAUSD) Health Services aims to improve and protect the health of children. Under the supervision of the District Nurse, the school site health staff cares for its students. We try to prevent illness and disability by educating our students about nutrition and safety and detecting early potential health problems. We also help identify and remove health-related barriers to learning.

Meal Plans

Palo Alto Unified School District (PAUSD) provides meal services for our students. Lunch is offered at all schools. Brunch is available at middle and high schools. Snacks or ala carte items are offered during brunch and lunch at middle schools and high schools for students to supplement their meals.

Child Care & Preschool

After-school Programs at Palo Alto Schools

There is a licensed after-school child care program at each Palo Alto elementary school site. Programs are managed by private providers—Palo Alto Community Child Care (PACCC), Creative Learning Center, and Redwood Enrichment Center.

Preschool Family

Parents participate with their children (ages birth to four) in a preschool program that includes adult discussion sessions for parent education and support. Programs are offered through the Palo Alto Adult School and held at the Greendell school site.

Counseling Services

Counselors and psychological services are available at each school in Palo Alto Unified School District (PAUSD) to assist students and parents with social, emotional, academic, and mental health issues.

Counseling Programs

- K - 5 Counseling - Many schools participate in a counseling support program staffed by intern counselors under the supervision of licensed psychologists. With parent permission, counselors work with students for a number of social and emotional needs that may be affecting their learning.

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- 6 - 12 Counseling - Intern counselors under the supervision of Adolescent Counseling Services (ACS) provide support to students. With parent permission, they work with students individually or in groups.

Transportation Services

Palo Alto Unified School District (PAUSD) offers limited transportation to our students for a fee. All students must have a pass to ride the bus. Voluntary Transfer Program (VTP) and low-income students may be eligible for a free pass. The City of Palo Alto offers two free shuttles that stop at Paly, Gunn, JLS, Jordan, and Terman. Schedules and maps are available on the Palo Alto Free Shuttle Web page.

RIDES for Bay Area Commuters has created an online School Pool Request to match PAUSD families who would like to form a carpool, walkpool, or bikepool.

EDUCATIONAL SPECIFICATIONS

ELEMENTARY SPECIFICATIONS

The "Schools for the 21st Century" report describes key elements of architectural design that should be present in all elementary schools. During development of the report, the Elementary Schools subcommittee developed four guiding principles and six key elements for design. These are described below.

The underlying assumption is that the design of school buildings directly affects the climate and quality of instruction which the staff and community are able to provide to the children who come to the school. The focus is on those architectural elements that, by their presence, enhance the vision of teaching and learning of the district.

There are currently ten neighborhood elementary schools within the district, including Addison, Barron Park, Briones, Duveneck, El Carmelo, Escondido, Fairmeadow, Hays, Nixon and Palo Verde elementary schools. There are two choice schools in the district, which are Hoover and Ohlone elementary schools. There is a Spanish immersion program at Escondido, and a Young Fives program at Greendell.

The Greendell site also houses adult education and is partially leased to the Jewish Community Center, which also leases the adjacent Cubberley site. Garland and Fremont Hills campuses have been closed, and are currently being leased to private ventures.

Guiding Principles

An Elementary school should be a place for children to learn, for professional staff to work and the community to use. All benefit from facilities that serve a learning purpose for children and adults. To meet this purpose, the 'Schools for the 21st Century' committee identified six guiding principles for Elementary School design:

1. **Supervision:**
Supervision by staff of areas where children work and play must be maintained. It is highly important that school grounds are visible for the administration building.
2. **Aesthetic:**
Another assumption would be that architectural design should sufficiently incorporate the aesthetics of building systems throughout the campus. Mechanical, plumbing and electrical systems should be integrated into the design, and not cause visual blight to the campus environment.

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3. **Magical and Functional Space:**
The elementary school and classroom should have a quality that stimulates imagination within a learning environment for children. Color, texture and a variety of building materials should be used. The school should not only support the learning environment, it should be an integral part of the learning environment.

4. **Familial Space:**
The classroom is the basic unit of space and provides an instructional setting with a familial quality that is supportive to young students. The school design must have an attractive, inviting quality that continues to provide a familial base for students and teachers. Classroom space must be large enough to accommodate active, constructive learning environments – meaning space for children to move, investigate and to work with a wide variety of resources and materials as they construct their own learning.

5. **Flexible Space**
The size of some of the district's existing elementary classrooms inhibits and restricts the effectiveness of the instructional program. Palo Alto schools will change with time as students; teachers and the community use the facilities in different ways to meet changing needs. Building design should accommodate needs that haven't yet been anticipated. Therefore, the three concepts of flexibility should be incorporated into future school design.
 - **Flexibility over time – class size**
For future classroom design, the end result must accommodate flexibility and adaptability of use. Flexibility will permit multiple uses by various size groups and adaptability will allow substantial changes in classroom configuration over time.

With the implementation of Class Size Reduction (CSR) since the 'Schools for the 21st Century' report, the pressure for increasing classroom size has been relieved. However, conditions do change over time and the district should still enable future generations to implement change.

 - **Flexibility of use**
Classroom spaces should allow the following concepts wherever feasible:
 - Accessibility from classroom to classroom and indoors to outdoors

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- Classrooms that can share experiences
- Creative undedicated open spaces
- Flexibility of use around the campus

Classroom design should support the instructional programs while allowing collaborative work between classes and among teachers. Small and large groups of students should have space to work together and have access to technology and library resources.

- Flexibility of options
Where growing enrollment is possible or planned, the school designs should include space and provisions to accommodate future growth. The school design should leverage opportunities for future indoor and outdoor spaces that the district can build at a later date.

6. Community Access

School facilities should be designed as neighborhood centers open to the community use for a variety of purposes throughout the day. All of the elements of design noted above should also be considered for use to make the campuses focal points for learning and neighborhood activities on a community level.

Classrooms: Items Specific to Special Education Needs

Generic Special Education Needs

- whiteboard
- bulletin board
- storage
- outlets & wiring for computer (s), telephone and network access
- space for lockable file cabinet for student files
- space for desk area and networked computer, telephone and file cabinet
- sink and water with liquid soap and towel dispensers

Reading and Resource Teacher Room (see Generic component above plus):

- space equivalent to 1/2 or 1 full classroom
- cubbies for student materials, backpacks, lunches, musical instruments
- study carrels
- carpeting

ELD Needs Room (see Generic component above plus):

- 1/2 - 1 full classroom space
- mirror at student height

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- sink and water

Speech Teacher

- space equal to 1/4 - 1/2 classroom
- listening station area with adequate wiring
- carpeting
- sound proofing/dampening

Learning & Communication Handicapped Special Day Class

This section addresses the needs of special day classrooms serving learning and communication handicapped students located at various sites. Hearing and orthopedically impaired students' needs should be dealt with site specifically at Jackson Hearing Center on the Fairmeadow campus and the Orthopedically Handicapped (OH) Center on the Juana Briones campus. We recommend teachers at those sites use components in this document as a reference point from which to build guidelines to meet their students needs.

- 1 full classroom for each class at the school
- in general, it should be the same as regular classroom with:
- hot and cold water
- space for special cooking equipment, e.g. small refrigerator, stove top, microwave
- study carrels
- sound proof area or booth for testing

Classrooms in Relocatable Facilities:

Due to class size reductions at primary grade levels and increasing enrollment generally, the district has placed large relocatable classrooms on all elementary school sites with the intention of continuing to use them in the future: four per school. Currently, relocatables house intermediate classrooms, 4th-5th grades. Since these facilities will remain on school sites, it is important to detail design features that apply specifically to them with the understanding that wherever possible we would like them to meet the guidelines below:

- Provide for natural ventilation and light
- Provide overhangs the length of the classroom that protect immediate outdoor area from rain and make a place for picnic tables outside the classroom door
- Provide for storage of student belongings: coats, musical instruments, lunches, etc.
- Provide quiet heating systems
- Dampen noise produced by walking on floors in these rooms
- Provide entries that are quiet and level with floors
- Provide a balance of floor and carpeted area as in permanent classrooms
- Provide technology access, e.g. telephone, networked capability, computer areas, etc. as in permanent classrooms

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- When locating relocatables at a site, consider their placement and arrangement on the property in such a way that it provides for continued student involvement with and connection to the other areas of the school community: these classrooms may become another “wing”.

Classroom: Items Specific to Grade Level(s)

Kindergarten:

- Student counters lower: approximately 24"
- One area with standard ht. counter at 34"
- K-1: more bulletin board space, less whiteboard space, with 4' x 8' acceptable
- Bulletin boards that small students can reach
- Student toilets: standardized to age 5
- Block, playhouse shelves & play area

Primary Classrooms, Grades 1 - 3:

- Student counters lowered to 30"
- One area with standard height counter, at 34"
- Additional whiteboard space: approximately 64 SF
- 1 data drop per every 4 students, plus 1 for teacher

Intermediate Classrooms, Grades 4 - 5:

- Areas for up to seven small groups of students to work
- Partner work may equal up to 10 pairs
- 8 drops for networked technology
- Counter heights at 34"
- Whiteboard minimum area of 96 SF
- Sufficient bulletin board area to display student work

Child Development and Child Care Space

Child Care and Preschool:

The Child Care center is an active familial space for children to be engage. Child care centers need dedicated space while allows children choices of areas to play in groups or for quiet study and privacy. Noisy and quit spaces need to be provided. Both the school and child care program play key roles in the children's lives, and facilities need to provide opportunities for teamwork and links which allow both programs to develop effective methods for helping children whose well-being concerns them. Accessible to the larger school program, child care centers should have:

- 50 SF per child of space, exclusive of washer/dryer, restrooms, administrative or conference space and storage
- Air conditioning
- Full kitchen, washer and dryer

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- Children's restrooms with an equal number for toilets and sinks.
- Administrative space for the program director
- Hot and cold water and a drinking fountain
- Staff restroom with a sink, toilet and some personal storage
- Access to playing fields and play equipment
- Areas for study, reading, science and outdoor play
- Areas that connect to the outdoors
- Sick child space
- Storage and movable furnishings
- Cubbies for student storage
- Conference space

Community resources can support the program and quality child care settings enhance the community. School age children can contribute to and take pride in the community. Child care facilities can support connections with the community by the accessibility to parents and community resources:

- Parking and access for drop off
- Evening lighting for entrances and approaches
- Conference area for parent conferences and health services for families
- Configurable space for large group meetings and parent education programs
- Telephone and network connections, including a small copy center
- Access to school wide program areas
- Niche and bookcases for parent education literature

School wide Program Support Space

The Corridors and "Redtop" areas

- Pavement repair and striping as necessary
- Picnic table placement flexible for reconfiguration by individual teachers: consider circulation paths and the need to keep the area clear.

The Blacktop and Playfields

- Include pavement repair and striping as necessary.
- The footprint of the buildings should leave areas of undedicated space: preserve open fields and playing areas. Use **400 sq. ft.** per child for planning and analysis purposes.
- Include landscape planning in redesign process; designate area for play structures

The Multipurpose Room, Library Resource Center and future Flex Rooms should be linked and centrally located. These will be accessible to all classrooms, and will have an inviting, attractive quality. They are the center of the school complex. All these areas need to be accessible for child care and community use.

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Infrastructure and General Considerations

School renovation includes the “givens” of effective, and aesthetically pleasing heating, lighting, ventilation, insulation, plumbing, and static-free flooring within the architectural redesign.

- traffic flow: service entrance needs to be accessible for maximum vehicle size: 20 ft.
- outdoor public telephone

Supervision and Safety

This includes supervision from the principal's office of large areas where access is important such as fields or the LRC (when the librarian is not there). Other kinds of supervision include teacher visibility of indoor and outdoor class work areas, and yard duty visibility of student play areas during recesses or lunch times. (Visibility needs should be discussed with the architect.)

- Provide visibility of all areas where children work and play
- Provide visibility of grounds from the administrative center of the school.
- Provide visibility of entry areas to the school property from the outer reception area.
- Outside lighting particularly around areas used for evening meetings/programs (MP Room, Office, LRC)
- Consider path of travel to all areas used at night. provide adequate lighting, visibility. Consider visibility from street.

Restrooms

Adult Restrooms: Provide adequate water closets: recommended ratio for adults: 1:10 (at least 4) locate adult restrooms in various areas of school, including but not just the staff lounge, so that adults working farthest from the center of the school do not have too long a walk to reach them. Provide at least one accessible for community/staff use after school hours from common areas.

Student Restrooms

- Review placement of all toilet facilities and proximity to users.
- Review distribution of facilities throughout site.
- Modify all facilities for accessibility per requirements of Title 24 and ADA.
- Consider student toilets in Kindergartens
- Provide toilets accessible from playfields
- All toilet finishes, components, fixtures and details shall be included as defined in technical Guidelines. Review all design and specifications with District Maintenance personal prior to completion of documents.

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Other—Storage

- supply storage for school near access to paper cutters, laminating and xerox machines
- storage for large amounts of PE or other large infrequently used equipment (see MP Room)
- storage for earthquake preparedness equipment/supplies (currently sheds on fields)
- storage for the PTA and community groups
- storage for science equipment and science kits (huge bulk space needed for)
- storage for stage equipment (see MP Room)
- storage for technology equipment
- WEB Room storage (multiple copies of student reading books)

Links to the Community

Child care & preschool programs need to be linked to the parents and wider community in the area. Community resources support these programs, and quality child care settings enhance the community. Child care facilities can support connections with the community by their accessibility to parents and community resources:

- parking and access for drop-offs (may be in common with school)
- evening lighting for entrances and approaches
- conference areas: space for parent conferences, health services to meet with families
- configurable space for large group meetings for parent education programs
- telephone and network connections, small copy center
- access to school wide program areas
- niche and bookcase for parent education literature

Note: individual site plans should allow for projected increases in child care needs. All childcare facilities need to meet licensing requirements.

Community Use of Space

We expect our community to increase use of school facilities. Our plans to improve facilities must include ways in which the community can use them without detracting from our purpose: the education of children. We anticipate our sites being used during non-school hours by children, their parents and other adults (particularly senior citizens) for sports, classes, meetings, social gatherings, business and health services. Most community use will occur in the common areas of the school: the MP Room, the LRC (library), the Flex (Messy) Room, and outdoors. However we recognize that there also may be increased use of the classrooms for educational purposes.

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We will need lockable storage for school and classroom property, as well as storage for organizations like the PTA. Our teachers need access to classrooms until 6:00 PM. Safe access becomes an issue after dark. We should consider lighting, parking and restroom use after school hours. Extending site use makes maintenance more complex.

Community Use for K-5 Students

Students need access to the school before and after school hours for a variety of activities:

- breakfast before school
- Scout and other club meetings
- classes in art, dance, science, writing, foreign languages, photography, etc.
- tutoring and other enrichment activities
- play area
- library, computer access, a quiet place to do homework
- sports groups using fields, black top, and/or multi-purpose rooms
- theater productions
- vacation camps

Community Uses for Adults and Children

- Site Council, and school committee meetings
- health services: inoculations, some health exams
- family services: access to community resources
- adult education classes, particularly parenting and English as a Second Language
- community centers for local seniors: meeting places, classes, and opportunities for service
- folk or ballroom dancing
- business opportunities: off-site training areas during school vacations
- community clubs, include some social gatherings
- election forums and polling places
- access to LRC after hours: include on-line capacity
- fields: facilities for league or drop-in activities
- kitchen facilities (may be same as used by food service for student meals): refrigerator, stove
- general security for public use areas
- access during evening hours should include concern for lighting of paths, parking, and restrooms use
- ease of custodial and administrative care

The School Function as a Disaster Area

Public schools in California, Palo Alto's included, are regulated by the Division of the State Architect and are considered essential services buildings. This is why they are more expensive and require additional

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structural and safety considerations from most other buildings. It is also why private schools operate less expensively: in most cases, they need not meet these requirements.

Existing School Design Concepts

The L-shaped Schools:

Duveneck, El Carmelo, Fairmeadow, Hoover, Juana Briones, Ohlone, Palo Verde

Most of the elementary school sites are of similar design, consisting of an L-shaped plan, commonly referred to as the "L-shaped" schools. Several have been partially remodelled: El Carmelo now has a wing added in lieu of one leg of the "L" as a result of a gasoline hazard, and Hoover's office complex was remodeled following a fire. Additional facilities were added later to the Fairmeadow and Juana Briones campuses to meet the needs of hearing impaired and orthopedically handicapped students respectively. According to Martin Dreiling of CSS Architects Associates, the firm that designed the L-shaped schools,

The L-shaped schools were the result of careful design and planning based on specific education concepts and policies as well as cultural factors. Many of the cultural factors have changed, but many of the education principles have not.

The most general concept that defined the L-shaped schools was that of the Neighborhood School. These sites were seen as specific to neighborhoods, with strong familiarity and comfort both for students and parents. The District envisioned children walking and biking to school. The schools were intended to generate a sense of ownership on the part of the community and this has certainly occurred. They were intended to serve as a focus for children's outdoor activities with expansive green areas and play space.

The schools were intended to be attractive components in a residential community with gracious site planning, landscaping and human scaled architecture. The buildings were low, they used familiar materials, they had a clear sense of entry and hierarchy within the facility. They were specifically not intended to appear as edifice or monument to superficial values of importance and glamour. They were humble and they revealed their integrity via their function and performance.

At the time most of the schools were built, the families of students fit a fairly common suburban American model. This was a time when the mother was most often at home and the student's day at school included fewer components than at present. One example is the minimized importance of lunch facilities. Students typically carried a lunch prepared at home or even went home for lunch.

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Also specific to the time was the expense and relatively low quality of artificial lighting. As a result, the classrooms were designed to collect natural light wherever possible and distribute it throughout the room. Additionally the sites were designed, where possible to provide maximum access to sunlight during typical school hours. The L-shaped schools wings were directed toward the position of the sun at morning and afternoon so that the classrooms, redtop and blacktop had sunlight all day.

The classroom was the primary space where education occurred. During this time the requirements of education were simpler. The interaction with students was relatively uniform and the classrooms were somewhat standardized. Specialized classrooms and related facilities, including various staff and parent components, were not a part of the times. Additionally, the teaching methods of the period did not include as much physical interaction with the students. Component to this was a much lower need for non-specialized storage facilities.

The focus on the classroom did generate a valuable hierarchy within the school spaces. This is true of the L-shaped schools and partially true at Escondido. That hierarchy includes the following components:

- The Classroom
- The Redtop
- The Blacktop
- The Playfield

The classroom is the fundamental place for site based education. For younger students it is one of the first homes away from home. It is a consistent experience with a relatively small local community (20 30 people).

The Redtop is an extension of the classroom that provides valuable alternative teaching space, directed teaching space and, during class time, isolated space when necessary. For the younger student, it is a slightly larger community than the classroom, shared in common with adjacent classrooms. The space is generally possessed and controlled by the nearest classroom.

The Blacktop is a further venture from the controlled community of the classroom to the larger community. Each blacktop area is specific to it's nearest wing. It is shared by the classrooms of that wing and is certainly common to the entire school. But it does still have a feeling of locality with the wing. The playfield is the most common place on the site, shared and possessed equally by all.

This progression from the protected and somewhat isolated environment of the individual classroom to a larger and more

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complex community is not unlike the progression the student makes from the safety and security of the home to the undefined and challenging 'real world.' The existing architecture supports that progression.¹

Individually Designed Schools:

Addison, Escondido, Nixon, and Walter Hays

The notable exceptions to the L-shaped plan are Nixon, Escondido, Addison and Walter Hays. Most elements of these schools were built after the 1950s. However, although their architecture reflects changes in educational practice relative to a later period, they continue the Neighborhood School concept embodied in the L-shaped schools as shown by their locations, low profiles, and open greens.

Addison, which opened in 1925, is the only elementary school with structures which predate the 1950s. The school comprises two wings which remain from the original building: each of which contains two exceptionally large, well lighted classrooms with limited storage space. In 1968, the school underwent major reconstruction which created an enclosed courtyard off one of the older wings around which an office, library and classrooms were situated. Built to accommodate team teaching, these classrooms are separated by seldom used accordion walls. They are small, carpeted, and include walk-in storage closets: minimal natural light is available. Valued attributes are the aura and spaciousness of the older classrooms, walk-in closets of the new classrooms, and ease of access to the library from the staff work area in the office.

Escondido opened in 1960. Built on Stanford land, the school is located on a large site. It consists of sets of two or three classrooms clustered into individual blocks. The classroom clusters are joined by a wide overhang that running much of the length of the school and connecting them into an L-shaped form reminiscent of the 1950s schools. Adjacent classrooms are connected by doorways leading from one to another, have tall windows running along one side of them, and include walk-in closets formed by walls set within the classroom space. An octagonal building, called "the Pod", was added later. Designed to afford team teaching, the small, nearly triangular-shaped classrooms are divided by semi-permanent walls intended to remain partially open. All classrooms open onto a hub-like area in the center of the Pod. The individually designed gutter of the connecting overhang, plentiful use of natural wood, and exposed beams make a distinctive architectural statement, and the interior access between classrooms supports collegial planning among teachers.

Nixon, built in 1970 on Stanford property, encompasses the largest site of any of the elementary schools. Built on a hill, the structures and playing fields are located to account for the character of the slope.

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Envisioned as a school dedicated to team teaching concepts: most of the classrooms are situated along wings formed of enclosed hallways which radiate out from a generous, centrally located library. Classrooms are small, have shared closet areas, and removable walls between them. Each has access to a covered outdoor work area. The multi-purpose room was planned as an integral part of the school design. Due to its design and size, Nixon is occasionally used for elementary staff conferences and workshops. Qualities particularly appreciated in the Nixon school design are the central location, generous size, and accessibility of the library, the ability to access hallway space for small group studies, the indoor-outdoor character of classroom work space, and attractive serviceability of the multi-purpose room.

Walter Hays, opened in 1923, is one of our oldest schools in use. Rebuilt twice, nothing now remains of the original architecture. Situated on the corner of a busy intersection at Middlefield and Embarcadero with playing fields extending towards the large, north city Rinconada Park, the school has a park-like setting which gives it a special identity. Two classroom wings, built around 1955, flank the playing fields: their construction is similar to the classrooms of the L-shaped schools. Additional classrooms and a library and office complex were built in 1968. The large, centrally located library is constructed along the lines of the one at Nixon. The classrooms extending from it are small, and include minimal natural light and storage space. The library, designed to be the center of school life, is much appreciated as are the older, larger classrooms of the wings adjacent to the park.

EDUCATIONAL SPECIFICATIONS

SECONDARY SPECIFICATIONS

This section is based largely on the "Schools for the 21st Century" report dated 1994 and a subsequent update performed by the High School administrative staff in May 2003 for those areas affecting the high schools. Included are key elements of design which support teaching and learning at the secondary school level. The following describes design considerations common to the middle schools and high schools.

Currently, there are three middle schools which have been restructured over the past several years toward the creation of a true middle school model. The schools are organized in departments with teaming arrangements.

The current high school configuration includes two high school campuses that have differences in their instructional methods, and by implication, their facility needs. Staff continues to examine existing instructional models and those that are suggested in the wider national dialog. Factors such as the state content standards, district Expected School-wide Learning Results (ESLRs), and state and local assessment packages challenge traditional assumptions about teaching and learning and raise questions about the way high schools organize themselves for instruction. The challenge is to develop facility design guidelines that can serve these changing needs.

Key Elements of Secondary School Design

For the purposes of this report, the administrative teams and Instructional Supervisor teams reviewed and adjusted the secondary subcommittee's report in the Schools for the 21st Century report 1994. There is agreement that four concepts are regarded as critical to architectural design for any secondary school. Listed below as guiding principles, they apply to all aspects of the teaching and learning environment. These concepts are: *Flexibility and adaptability of space, specialized use of space, accessibility of technology, and human needs.*

The following pages identify applications of the guiding principles to areas within the secondary schools and present important design considerations that result. Applications specific to middle schools and high schools are treated separately.

Guiding Principles

Flexibility and Adaptability of Space

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FACILITY MASTER PLAN

The facilities of the secondary schools need to be modified in order to accommodate a variety of teaching styles as well as instructional organizations.

- Space must be designed for flexible use "in the moment" (for example room design should accommodate movement of furniture to allow for a change in activity.)
- Space must also be designed to adapt to uses over a longer time span. For example, the ability to move a wall easily when the need for a different configuration is required.

The school is a learning community where all work toward mastering of a variety of teaching and learning styles. Some of the best learning occurs in groups: students cooperate to discover a concept or construct an idea. With teacher guidance, they coach each other and communicate their ideas to fellow students. Instruction incorporates building collaborative skills. Students use a variety of media and methods to acquire and express knowledge. Teachers are learners along with their students; (subjects are organized for immediate access by teachers and students) and ideas link classroom activities from many disciplines. Models that appear in the literature include "houses," team teaching, integrated curriculum, and off-campus study.

The schools need to be able to handle these possibilities. The school facilities should express the belief in schools as "learning communities--institutions linked to (rather than separated from) the larger community, flexible institutions on a "human scale" philosophy as well as in architecture, in which all students have the resources necessary for success.

Specialized Use

The facility needs of secondary schools are diverse than elementary schools because of the increased specialization and depth of the study in different disciplines. By way of illustration, in the past, a well-equipped science department might have several teaching laboratories, requiring facilities that were tailored to house large, permanently-installed, heavy equipment. Future labs will also need to house multi-media equipment and student sensitive computerized modeling systems to augment some of the traditional practices. Music facilities must include not only the familiar performing spaces, but also areas for the use of synthesizers and other equipment which are already in use but are currently poorly housed. Athletic facilities, indoor and outdoor, must meet the increasing requirements for interscholastic competition as well as instructional demands.

Human Needs

School facilities should be places where staff and students want to spend their time and are able to study and learn in a productive climate.

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Thus, the school must accommodate human needs beyond instruction: It must include inviting areas for food service for meals or snacks, restrooms, gathering and assembly areas for large and small group meetings. Comfortable surroundings include air-conditioning and heating, adequate lighting, and access for physically challenged individuals during the day and evening hours.

Middle and High School Planning

While there are many commonalities between middle and high schools, there are also significant differences dictated by age and the nature of the middle school program. High school students need more specialized learning areas. In the future, the traditional, departmentalized model may undergo important changes. We seek facility designs that allow staff to plan creatively without the limitation of inflexible physical plants. Although much work has been done to refurbish the current facilities, there should be a call for continuous design creativity in providing flexibility in the physical plants.

Application of the Guiding Principles Available to All Areas within the School

Flexibility and Adaptability of Use

Many Styles of Teaching and Learning

- Teaching may occur in groups of 5 or 10 students, 20-30, 50-100 students or more
- Teaching may be done in collaborative or directed learning groups
- Learning may be the result of individual study
- Learning may be computer assisted
- Learning may occur through cross-curricular or shared activities
- Teaching may be done by teams of teachers

Varied Styles of School Organization

- Current organization follows department lines, with subject areas emphasized
- Schools may be organized in different ways accommodating 100-400 students
- Schools may be organized around 2-4 teacher teams accompanied by a large group of students

Large Group Gathering Areas

- Adequate and well-equipped space for student body assemblies and programs is important
- Large groups of parents/staff members must be able to meet at the school

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- Large community groups need to be able to use the school for meetings

Small Group Spaces

- Individual and small group study areas
- Varying sizes of conference spaces for staff and students
- Parent/teacher/student meeting spaces affording privacy
- Small group project areas.

Technology

For technology requirements at Secondary schools, refer to the 'Education Technology Plan, July 1, 2006 – June 30, 2011.

Human Needs

Increased Ability for Communication

- Staff members must be able to communicate and collaborate easily with each other and with their students
- Communication across the district should continue to be expedited
- Communication with schools and teaches elsewhere should continue to be expedited
- Access to remote information resources should be easily attained

Areas for Professional Staff

- Staff lounge for meals supports a collaborative climate
- Efficient administrative work and reception areas should continue to receive
- attention toward being welcoming and efficient
- Teacher production areas should be provided

Storage Areas:

Adequate space, with regard to safety, for storage of materials should continue to be in all facilities designs, including:

- Custodial supplies
- Laboratory supplies
- Teaching resource materials
- Necessary school records

While equipping the middle and high schools for the students in grades 6-12, the district must plan for expanded use by community groups, adult education, and even local industries. Proper planning should yield multi-use spaces that can enhance the day program and also meet expenses of the district during non-school hours through evening programs.

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Middle School Overview

Middle schools are organized in departments with some teaming arrangements. The direction is moving toward interdisciplinary instruction which is best accommodated by a campus design that clusters rooms and spaces and accommodates flexible organizational arrangements: teaming, houses, departmentalization or combinations of the above.

Cluster Areas

In view of this direction at both of the middle schools toward interdisciplinary teaming the subcommittee recommends the organization of middle school classroom facilities around clusters of students and teachers in localized, generally self contained areas. These would consist of 4 – 6 classroom spaces grouped around a common area which can accommodate up to 150 students and have a multitude of uses including exhibiting work, small performances, group activities or demonstrations. These areas should have sinks and accommodate “messy” activities. The cluster also would need small rooms / spaces for individual studying or tutoring. There should also be a technology center connected to each cluster which would accommodate up to 30 students.

Classrooms

Classrooms should be a minimum of 960 square feet. Each classroom should have a teacher work station which would include a data /voice jack and power, and should have at least eight student workstations. 6th grade rooms need separate play areas, small group areas and connections between rooms.

Specialized Areas

Art spaces will include technology for student work at for assessment and sufficient space for performance and display and special uses such as dark rooms. Music and Drama require expanded performance space, sound proofing, small and large classroom, rehearsal spaces, dressing rooms, lighting and provisions for electronic music. Foreign language rooms need adjacent smaller rooms for paired dialogues and small group work. Rooms should be designed with windows for supervision. Physical Education requires tracks each school, updated pool and fitness facilities.

PALO ALTO UNIFIED SCHOOL DISTRICT

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High School Overview

Restructuring efforts are under consideration at both high schools. In an effort to improve learning, the staffs and administrations of the high schools are engaged in on-going investigation of teaching methodologies which best promote student learning.

From discussions at both high schools, it is evident that spaces must be provided in the future for a variety of teaching and learning experiences: Preparation for an exhibition of student 'products' that reveal what they know and can do in various disciplines, flexible instructional areas which allow for configurations to shift easily from large to small groups; common office and/or planning/conference areas for 'teams' of teachers and spaces with easy access to research facilities and technological tools such as multimedia labs and computer research stations. 'Commons' areas that facilitate informal teaching and learning among students, faculty and community members are also needed.

General Classrooms

While some are generous in size, many are too small to accommodate different seating arrangements or varied classroom activities such as cooperative learning: These should be expanded. Larger rooms that can accommodate functions such as combined or interdisciplinary activities, large group presentations or simulations should be adjacent to general classrooms. Smaller rooms should also be available to accommodate small group activity such as seminars or individual study.

Specialized Facilities

Because of the growth in students' skills, abilities and sophistication as they enter the high school level, some facilities require greater scale and complexity. Following are more detailed requirements:

Fine Arts

In addition to needs for adequate space, lighting, equipment, and the like which have been identified for high schools in general, facilities, like the one at Gunn High School set the District standard for the Visual Arts. Like facilities at both high schools and spaces for exhibition would complete the space needs.

Performing Arts

A modern facility with professional lighting and sound systems, stage equipment, shop, practice areas, classrooms, dressing rooms, costume and prop storage is needed. Music programs require space for large and small groups, individual and small group practice spaces and instrument storage areas for high school and adult school use. The facility should support both student and

PALO ALTO UNIFIED SCHOOL DISTRICT *FACILITY MASTER PLAN*

community use and should be easily accessible from parking areas.

Science

Completion of the new Science facilities in the Building for Excellence project will address the needs in this content area.

Vocational Education

There continues to be a shift away from the traditional shop classes to courses that focus on technology. Technology labs must be designed and equipped to support instruction in modern technologies such as robotics, pneumatics, hydraulics, and electronics. Students learn through individual and group problem solving involving hands-on techniques including both projects and competitions. While these still need to be supported by conventional shop skills and some equipment, different equipment and reconfigured spaces are needed.

Physical Education/Athletics

The athletic programs at the high school level require facilities on a larger scale. Since the athletic facilities at both of the high schools were built, the number of participants in interscholastic sports has roughly doubled as a result of the dramatic increase in the numbers of young women participating over the last 15 years. The facilities need upgrading and expansion which include:

- Complete home and visitor locker rooms
- Expansion of the gymnasium space through the replacement of permanent seating with roll-out bleachers at one site, and addition of another indoor facility at both
- Upgrade/expansion of the fitness and weight rooms
- Development of new soccer fields and softball diamonds
- Added classrooms, coaches' rooms, storage and office space

Improvement in these facilities will enhance community use.

Student Academic Center

This is a supervised facility which is open before, during, and after school where students can come to study, to get help from adult or student tutors, to make up tests, and to have access to computers for assignments. It is best situated near the library/media center for access to resource materials. The room should accommodate 50 students.

Language Laboratory

To support foreign language study, each school requires an area large enough to house up to 60 students equipped with recording/listening/video/DVD/internet stations for individual and group work. The space should also include two or three small

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

rooms for small group or paired communicative practice. These facilities should be close in proximity to the foreign language classrooms.

Computer Facility

While it is clear that classrooms need to each have several computer stations, it is also necessary to have two centralized computer labs which accommodate full classes of students. These labs need equipment which will support a range of uses including word processing and desk-top publishing and Computer Science AP class instruction.

Video Production Laboratory

The schools are moving toward the convergence of video and computer technologies. The lab will be used for elective classes and be available for staff and student use in the production of instruction materials, in support of other school activities, and for student projects.

A photograph of the exterior of Addison Elementary School. The building is a single-story structure with a light-colored facade and a red-tiled roof. It features several arched windows and a prominent entrance. The school is surrounded by greenery, including trees and bushes. A paved road with a white curb is visible in the foreground. The sky is clear and blue. The text "ADDISON ELEMENTARY SCHOOL" is overlaid in large, white, sans-serif capital letters in the center of the image.

ADDISON ELEMENTARY SCHOOL

ADDISON ELEMENTARY SCHOOL

Profile

Addison Elementary School

650 Addison Avenue

Built: 1925, 1956, 1969, 2002

Current Land Use:

Total Site Area:	4.6 Acres
Building Area/Miscellaneous Circulation	1.7
Parking Area	0.2
Hard-Court Play Area	1.1
Turf Play Area	1.6

Building Area:	41,939 SF
Existing Classroom Size	835 to 1440 SF
2006/2007 Enrollment:	426

Addison Elementary School sits on a 4.6 acre site bordered on four sides by Addison Ave., Middlefield Rd, Lincoln Ave and Webster St.

The school is composed of several permanent single story buildings in a rectangular layout with an open courtyard in the middle. Two classroom buildings were constructed in 1925. A Multipurpose Building was constructed in 1956. In 1969, an expansion of the school was undertaken, which included the addition of two new classroom buildings and the administration/Library building.

In 2002 another classroom building was added, along with modernization of all the other classrooms. Several relocatable buildings, including 4 classrooms and 2 day care classrooms were located along the Middlefield boundary as part of the project. In 2005, two more relocatable buildings were placed on the hardcourt area to house an additional classroom and computer lab.

Facilities Conditions

The Addison campus is bordered by three neighborhood streets and Middlefield Rd., a major thoroughfare in Palo Alto. Combined with the relatively small size of the campus and lack of on site parking and drop off facilities, this creates a significant amount of conflicts between vehicles and pedestrians. The school has implemented a largely successful traffic plan with parents, which has made the current configuration livable.

The asphalt parking lot is undersized for the size of the campus, but necessary due to the space available. Incorporating additional parking

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FACILITY MASTER PLAN

or drop off space on site would reduce an already undersized playfield and hardcourt area. The lot was recently overlaid and re-stripped, and appears to be in good condition. The hardcourt areas were also in good condition after a recent overlayment. Concrete walkways are cracked, with evidence of patching to remove past trip hazards. The City sidewalk along Addison Ave. has uplifted significantly in some spots, and should be removed and replaced in its entirety.

The site sanitary sewer is original, and has not been replaced to date. These lines should be evaluated and replaced if necessary. The water service is copper, and was installed in 1989 with a new backflow preventer. All four fire hydrants serving the site are located off site in proximity to the campus. A new electrical service was installed during Building for Excellence. The gas service was replaced in 1969, and is run overhead exposed on the canopy, or within the buildings. Site drainage systems are also original, but appear to be in good condition.

The existing buildings on the Addison Elementary School campus are in generally good condition, having just recently be renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new clay tile or rolled roofing, new hollow metal doors and fresh paint on the exterior. However, the original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The classroom interiors were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

The Library and Administration areas were renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

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The Library at 2,115 SF and the Multipurpose building at 2,880 SF are both undersized for the current campus capacity of 420 students. However, given the scarcity of available developable land on the campus, future expansions should be balanced against the impact on play fields and hard court space.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Addison is one of the Elementary schools that may not be as good a candidate for passive cooling because of the limitations of the peaked roof and its Spanish tile in most areas. However, given fan coil units in all classrooms, and the gas-only, unit heater in the Multi-Use area the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$115 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 210 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Addison Elementary include the following improvements:

- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade

PALO ALTO UNIFIED SCHOOL DISTRICT *FACILITY MASTER PLAN*

- New fencing and site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Addison Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 450 students. The cost includes demolition of the existing Multipurpose building, 1 year lease and set up of a temporary cafeteria and relocation of a Day Care unit.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Multipurpose building.
- A 400 SF expansion and 400 SF renovation to the Administration / Library building is planned to enlarge the Library to the standard library size required for a school of 450 students. The addition will house Administration functions, with the Library being expanded into adjacent Administration spaces, for a total of 800 SF.
- In conjunction with either the Multipurpose building or Administration building expansions, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom buildings and computer lab on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Addison to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Addison to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Addison for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

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FACILITY MASTER PLAN

Another potential consideration for long range planning on this campus include the possibility of replacing the existing relocatable classrooms with a new permanent classroom building configured in a way that will maximize field and play space on this small campus. Play field and hardcourt space at Addison is among the lowest in the district on a per student basis.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Addison Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$723,129	\$903,912
M2	Remove and replace anti-graffiti coating on exterior, south and west	\$415,747	\$519,684
M3	Improve security systems	\$108,360	\$135,450
M4	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$528,126	\$660,158
M5	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$379,002	\$473,753
M6	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M7	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$359,891	\$449,863
M8	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$504,853	\$631,066
M9	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections Add dry well drainage in courtyard	\$1,240,787	\$1,550,983
M10	Site Furnishings Improvements Provide new picket fencing along front of school along Addison to Upgrade miscellaneous site elements such as trash enclosures,	\$114,165	\$142,706
M11	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$4,618,966	\$5,773,708

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Addison Elementary School



GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 1 cost - Demo old MP Room Option 1 cost - Relocate Day Care Option 1 cost - Temporary Cafeteria, 1 yr lease & Move on site	\$2,902,694	\$3,628,367
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$135,450	\$169,313
G4	Expansion of Library up to 2,500 SF	\$387,000	\$483,750
G5	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G6	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$4,110,134	\$5,137,667

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,466,526	\$1,833,158
P2	10 - 20 Year Maintenance Schedule	\$1,958,856	\$2,448,570
SUBTOTAL - PLANNED MAINTENANCE		\$3,425,382	\$4,281,728

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$239,603
T2	Campus Technology Refresh Budget - years 7 thru 12	\$303,174
T3	Campus Technology Refresh Budget - years 13 thru 18	\$383,612
SUBTOTAL - TECHNOLOGY		\$926,388

FURNITURE AND EQUIPMENT

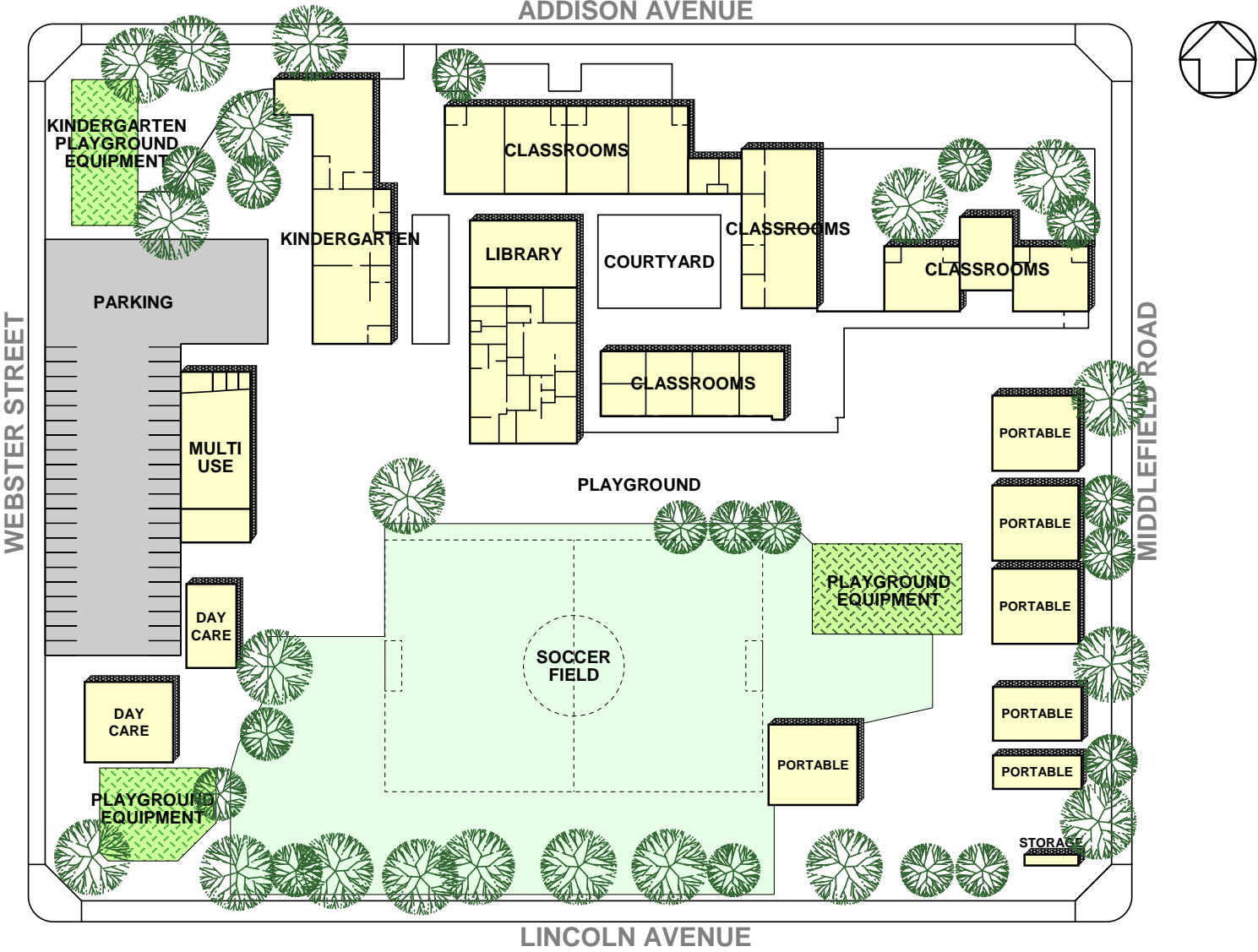
Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$229,000
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$229,000
SUBTOTAL - FURNITURE AND EQUIPMENT		\$458,000

POTENTIAL LONG TERM NEEDS

Contract	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025

ADDISON ELEMENTARY SCHOOL

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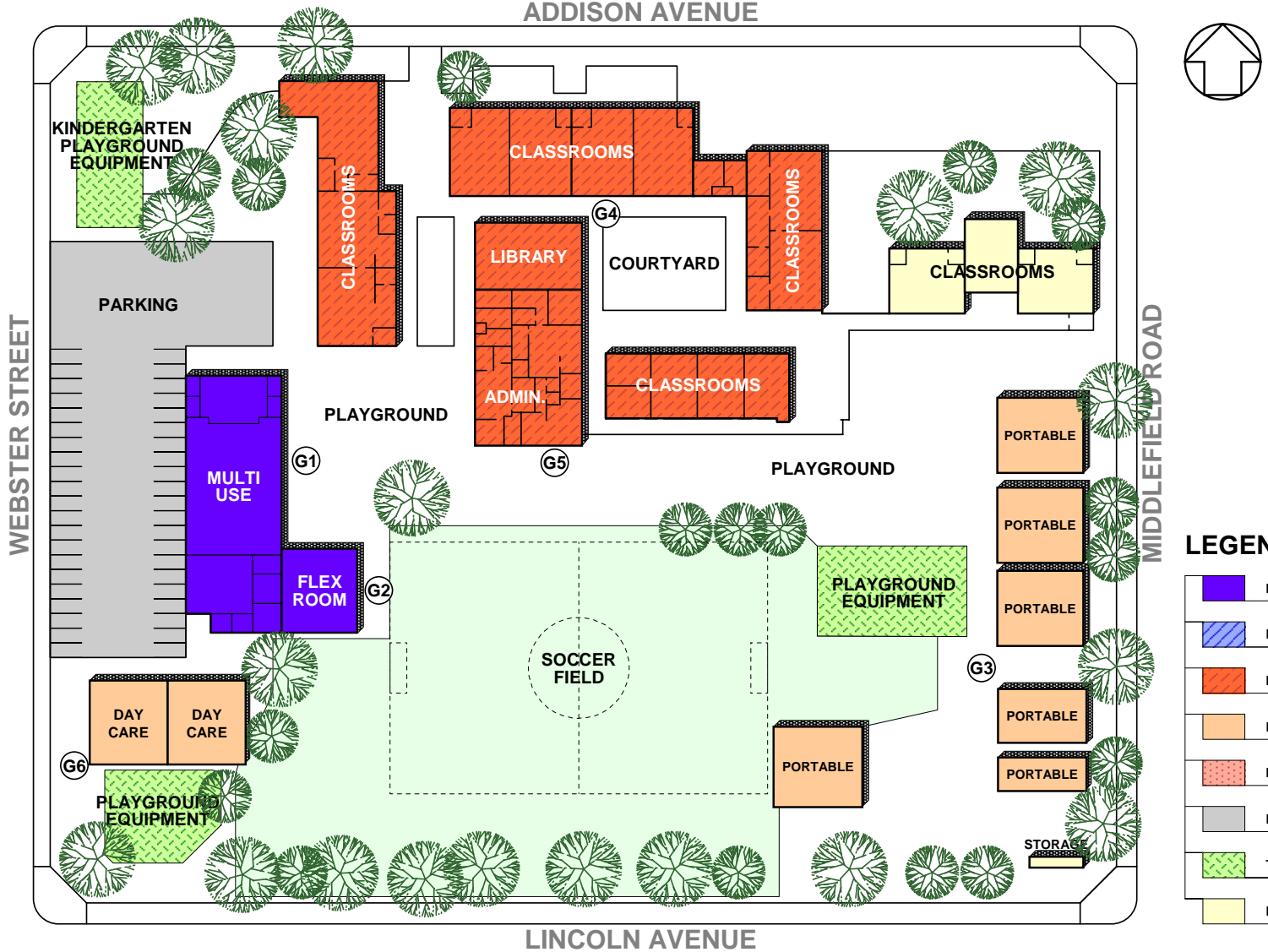


EXISTING PLAN









A E D I S Architecture & Planning

ADDISON ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

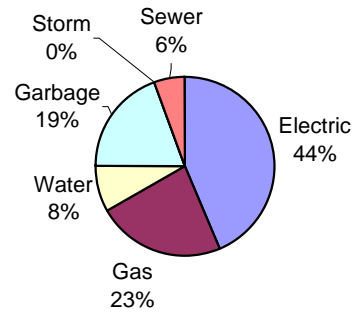
Addison Elementary School *enrollment 426*

summaries and trends

Utilities Data Sheet

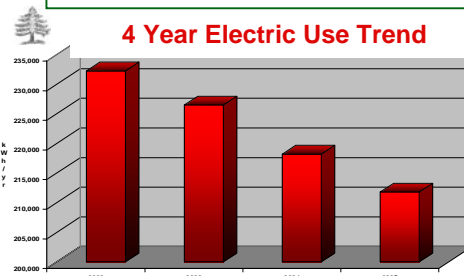
Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	212,516 kWh	\$21,366
Gas	9,737 therms	\$11,362
Water	1,013 ccf	\$4,077
Garbage	N.F.S. bins	\$9,534
Storm		\$0
Sewer		\$2,712
<i>per student \$115</i>	TOTAL	\$49,051



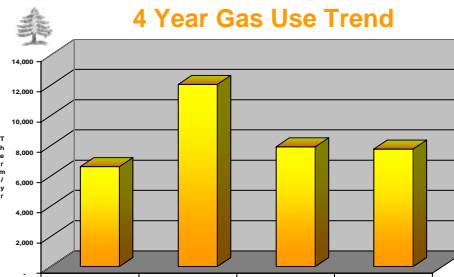
Electric

Peak Demand (KW)	70
Annual kWh	212,516
Annual Electric Cost	\$21,366
Main Service Size (AMPS)	-
Service Voltage	-
Meter # 1	02131
Meter # 2	N/A



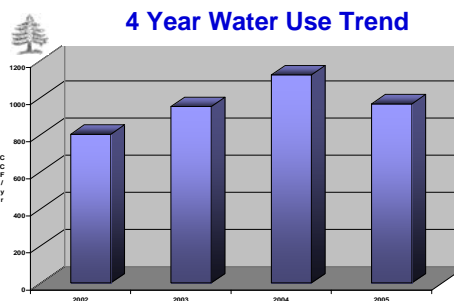
Gas

Annual therms	9,737
Annual Gas Cost	\$11,362
Meter # 1	36558
Meter # 2	N/A



Water

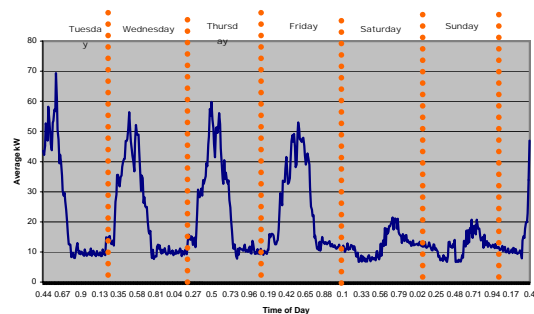
Irrigation Water Meter #	31778
Potable Water Meter #	27234
Annual CCF (irrigation)	328
Annual CCF (potable)	685
Annual CCF (total)	1,013
Annual Cost of Irrigation	\$1,320
Annual Cost of potable	\$2,757
Annual Cost (total)	\$4,077
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-



Sewer

Annual cost	\$2,712
Service Pipe Size	-

Weekly Utility Use Profile



Storm

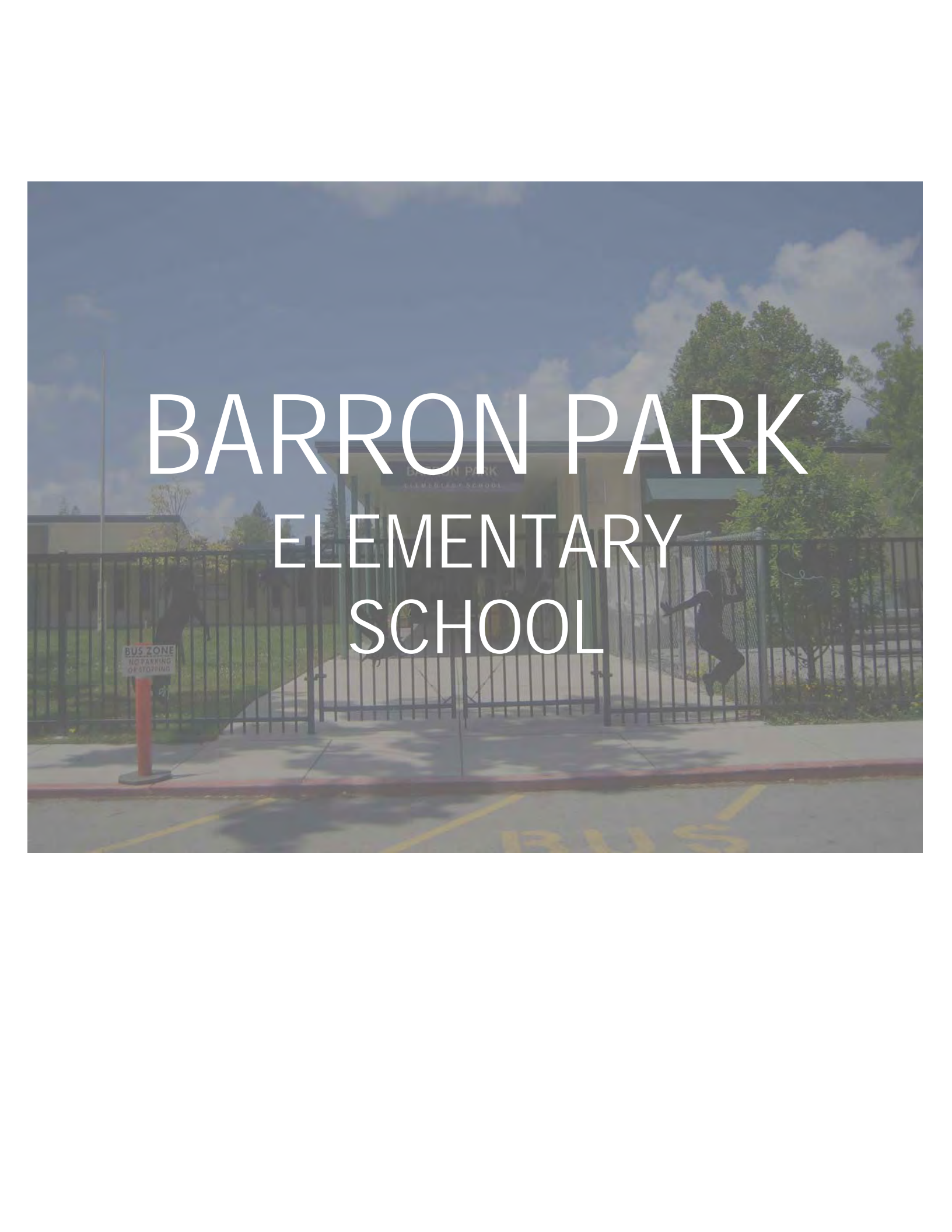
Annual cost	\$0 *
Service Pipe Size	-
*Storm Drain Costs calculated from Hardscape S.F.	

Garbage

Annual cost	\$9,534
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Addison Elementary, Salas O'Brien Engineers, Inc.*

A photograph of the entrance to Barron Park Elementary School. A black metal fence runs across the foreground, with a person climbing over it on the right side. To the left, a sign on a red post reads "BUS ZONE NO PARKING OR STOPPING". In the background, the school building is visible with "BARRON PARK ELEMENTARY SCHOOL" written on its facade. The sky is blue with some clouds, and there are trees to the right. The overall image has a semi-transparent dark overlay.

BARRON PARK ELEMENTARY SCHOOL

BUS ZONE
NO PARKING
OR STOPPING

BUS

BARRON PARK ELEMENTARY SCHOOL

Profile

Barron Park Elementary School

800 Barron Avenue

Built: 1947, 1950, 1978, 2001

Total Site Area:	7.0 Acres
Building Area/Miscellaneous Circulation	2.9
Parking Area	0.8
Hard-Court Play Area	1.0
Turf Play Area	2.3

Building Area:	36,400 SF
Existing Classroom Size	920 to 1440 SF
2006/2007 Enrollment:	307

Barron Park Elementary School, formerly known as Herbert Hoover Elementary School is comprised of 4 single story buildings in an L configuration surrounding a central playground and field space.

The Administration building and adjacent classroom wing was originally built in 1947. In 1950, a second classroom wing and the Multipurpose buildings were added. A fire in 1977 destroyed much of the original wing and the Administration building, which was reconstructed in 1978. Also on site are 4 relocatable buildings, including 1 classroom, 1 science resource center and two Day Care facilities.

During Building for Excellence, a new Library building and classroom wing were added to the campus, and the remainder of the classrooms and support spaces were renovated.

Facilities Conditions

The Barron Park site was extensively renovated during the Building for Excellence Program. The school is located on Barron Ave., and has no major traffic conflicts between vehicle and pedestrian patterns. ADA site accessibility and parking was improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

The asphalt fire lanes on campus were installed during the Building for Excellence Program. However, there are some smaller paved areas that will need to be replaced soon. The hardcourt and parking lot spaces have been resurfaced, and are showing no signs of failure. The redtop areas under the canopy are heavily cracked and heaving in some locations, and will need to be replaced in the future.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The site sanitary sewer and domestic water lines feeding the campus are original, and have not been replaced to date. These lines should be evaluated and replaced if necessary. Some portions of the fire water lines were installed during Building for Excellence, as was a new electrical service. The gas service is run overhead exposed on the roof. Site drainage systems were installed during the Building for Excellence Program.

The existing buildings on the Barron Park Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new asphalt shingle or built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus has three major classroom wings that surround the central play areas. The two original classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. The third classroom wing includes 4 new classrooms and the Library, and was constructed in 2001 during the Building for Excellence Program.

The classroom interiors in the two original classroom wings were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

A new 2,500 SF Library was completed on this campus as part of the Building for Excellence Program. These new buildings will require no modernization, except for the addition of teaching walls in the 4 classrooms.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 3,075 SF is undersized for the planned campus capacity.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Barron Park is one of the Elementary schools that may be a good candidate for passive cooling because of the sloped roof. However the myriad of heating and (limited) air conditioning equipment (furnaces in the classrooms, heat pumps in the Resource Center and Admin; and package units in the Library) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$157 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 135 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Barron Park Elementary include the following improvements:

- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls

PALO ALTO UNIFIED SCHOOL DISTRICT *FACILITY MASTER PLAN*

- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Barron Park Elementary School include:

- Add two modular classrooms to the campus, to bring the campus capacity to a three and a half strand school.
- A new, larger Multipurpose building to accommodate the board approved potential capacity of 450 students. The cost includes demolition of the existing Multipurpose building and 1 year lease and set up of a temporary cafeteria.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Library building.
- In conjunction with the Multipurpose building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom buildings and computer lab on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Barron Park to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Barron Park to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Barron Park for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Another potential consideration for long range planning on this campus include the possibility of replacing the existing lower classroom wing with a new classroom building configured in a way that will maximize

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

field and play space on this small campus. The classrooms in this wing are undersized, and would be improved with larger classrooms. This new wing could also accommodate three new classrooms to replace the modular classrooms either existing or planned for this campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



Barron Park Elementary School

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$671,271	\$839,089
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade cabinets New tackwall and base cabinets, where not replaced in B4E	\$514,323	\$642,904
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$182,858	\$228,572
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$565,168	\$706,460
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$1,158,515	\$1,448,144
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections Add dry well drainage in courtyard	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Provide new picket fencing along front of school along Upgrade miscellaneous site elements such as trash	\$114,165	\$142,706
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$4,780,036	\$5,975,045

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Place new modular growth classrooms on campus	\$646,445	\$808,056
G2	Replacement of Multipurpose Room Bldg Option 3R cost - Temporary Cafeteria, 1 yr lease & Move on site	\$2,800,022	\$3,500,028
G3	Provide new Flex Room	\$495,360	\$619,200
G4	Provide permanent foundations and ramps for Relos	\$33,863	\$42,328
G5	Provide teacher/staff workroom for meetings and visiting faculty	\$74,820	\$93,525
G6	Reconfigure Day Care facilities, including new play area and	\$67,725	\$84,656
SUBTOTAL - GROWTH		\$4,118,235	\$5,147,793

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



Barron Park Elementary School

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,765,446	\$2,206,808
P2	10 - 20 Year Maintenance Schedule	\$2,181,446	\$2,726,808
SUBTOTAL - PLANNED MAINTENANCE		\$3,946,892	\$4,933,615

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$305,603
T2	Campus Technology Refresh Budget - years 7 thru 12	\$386,685
T3	Campus Technology Refresh Budget - years 13 thru 18	\$489,280
SUBTOTAL - TECHNOLOGY		\$1,181,568

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$168,300
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$168,300
SUBTOTAL - FURNITURE AND EQUIPMENT		\$336,600

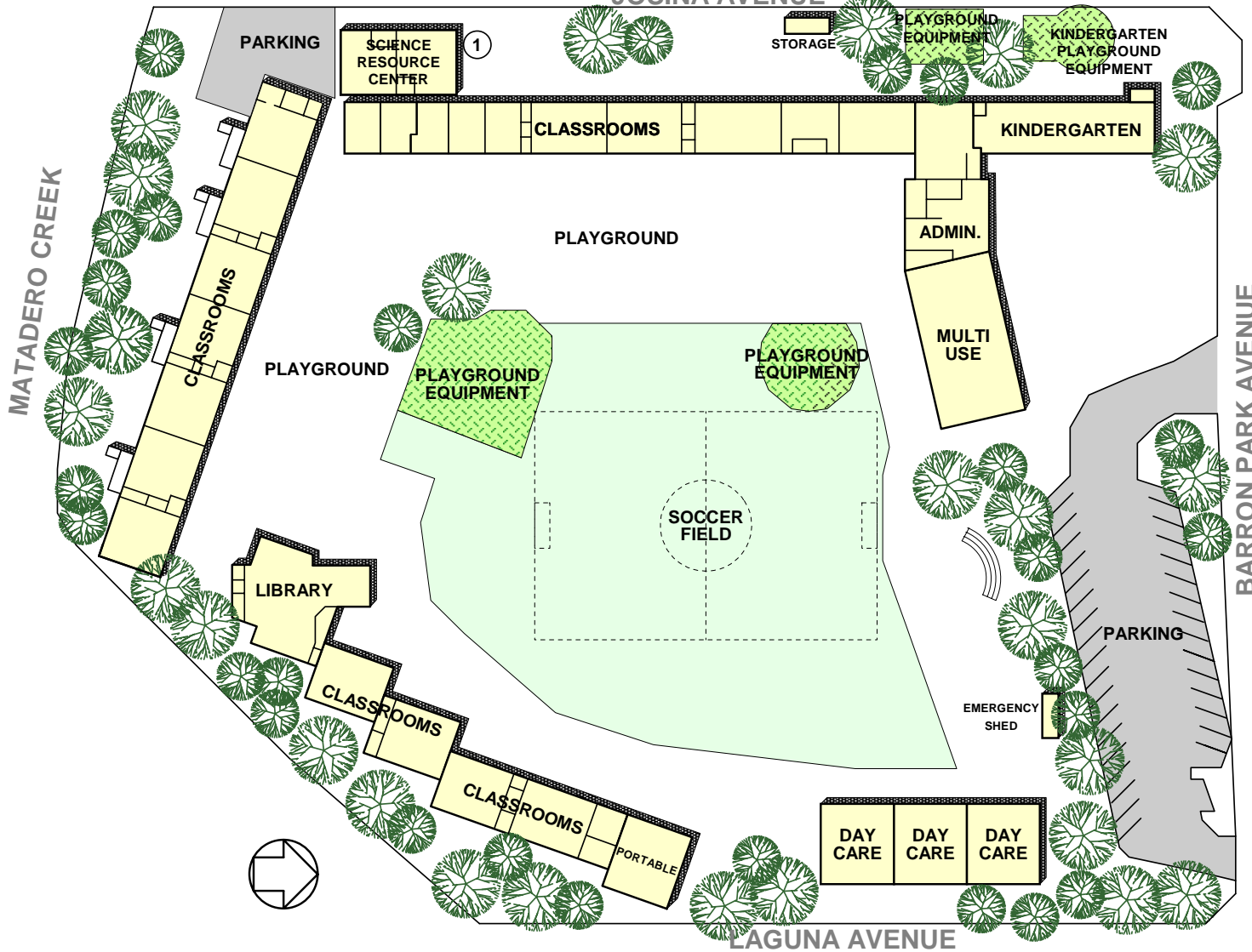
POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025

BARRON PARK ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT

JOSINA AVENUE



LEGEND

- ① SCIENCE RESOURCE CENTER TO BE RELOCATED TO JLS/ NOOVER

EXISTING PLAN

A E D I S Architecture & Planning

BARRON PARK ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT

JOSINA AVENUE



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK
	SCIENCE RESOURCE CENTER TO BE RELOCATED TO JLS/ NOOVER

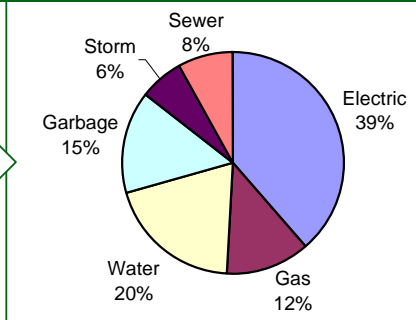
PROPOSED PLAN

A E D I S Architecture & Planning

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

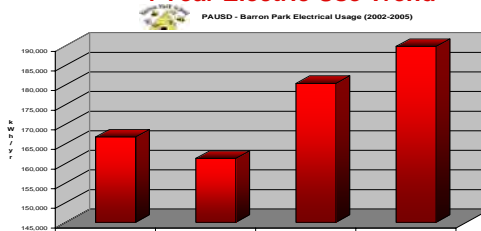
	use units	cost
Electric	185,920 kWh	\$18,667
Gas	5,050 therms	\$5,885
Water	2,342 ccf	\$9,513
Garbage	N.F.S. bins	\$7,321
Storm		\$3,060
Sewer	-	\$3,873
<i>per student \$157</i>	TOTAL	\$48,319



Electric

Peak Demand (kW)	28
Annual kWh	185,920
Annual Electric Cost	\$18,667
Main Service Size	-
Service Voltage	-
Meter # 1	35402
Meter # 2	N/A

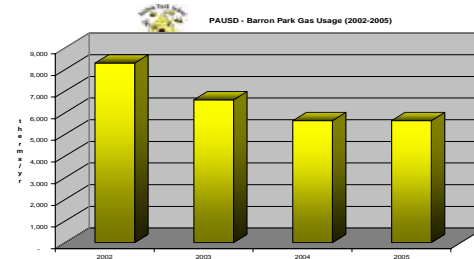
4 Year Electric Use Trend



Gas

Annual therms	5,050
Annual Gas Cost	\$5,885
Meter # 1	52049
Meter # 2	N/A

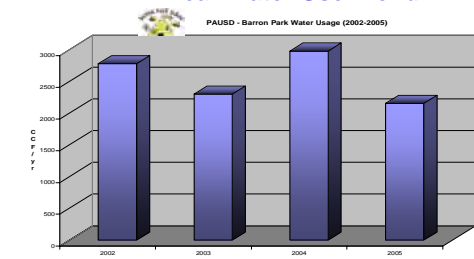
4 Year Gas Use Trend



Water

Irrigation Water Meter #	33372
Potable Water Meter #	33369
Annual CCF (irrigation)	1,435
Annual CCF (potable)	907
Annual CCF (total)	2,342
Annual Cost of Irrigation	\$5,819
Annual Cost of potable	\$3,694
Annual Cost (total)	\$9,513
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

4 Year Water Use Trend



Sewer

Annual cost	\$3,873
Service Pipe Size	-

Storm

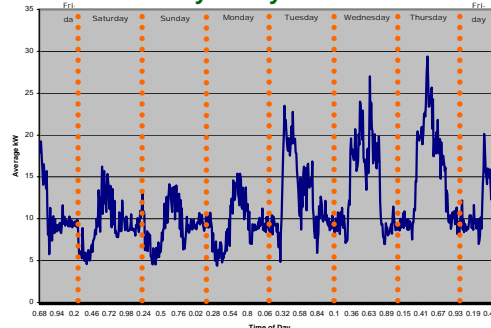
Annual cost	\$3,060 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$7,321
Number of Bins	N.F.S.

Weekly Utility Use Profile



Reference Documents

CPAU CARE Audit: Energy Efficiency Report, Barron Park Elementary, Salas O'Brien Engineers, Inc.

A photograph of Briones Elementary School. A large, leafy tree is in the foreground on the left. The school building is in the background, featuring a sign that reads "JIM BRIONES ELEMENTARY SCHOOL". The text "BRIONES ELEMENTARY SCHOOL" is overlaid in large white letters on the image.

BRIONES ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

BRIONES ELEMENTARY SCHOOL

Profile

4100 Orme
Built: 1952, 1954, 1969 (OH Center) 2003

Total Site Area:	6.9 Acres
Building Area/Miscellaneous Circulation	2.4
Parking Area	2.1
Hard-Court Play Area	1.1
Turf Play Area	1.3

Building Area: **58,165 SF**
Existing Classroom Size **930 to 1440 SF**
2006/2007 Enrollment: **320**

Briones Elementary School consists of six permanent single story buildings and 3 relocatable buildings arranged in an elongated L configuration around a central playground and field.

The original buildings were the Administration building and the two classroom wings, constructed in 1952. In 1954, the Multipurpose building was added. In 1969, the large Juana Briones Orthopedic Center was constructed on the southern end of the site. There are two relocatable buildings near the OH center housing Day Care facilities, and a single relocatable north of the lower classroom wing housing a single classroom.

In 2003 as part of the Building for Excellence program, a new Library building was constructed, in addition to complete renovation of the Classroom wings and the Administration building.

Facilities Conditions

The Briones site is very tight, both for play space and access to the school. The school is located at the ends of Orme Ave. and Georgia Ave., with both streets leading to the parking lot on the northeast corner. This causes congestion and safety problems for drop off and pick up times. While the situation was improved during the Building for Excellence program, it is still a less than desirable layout. The Orthopedic wing has a separate access and parking area. ADA site accessibility and parking was improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

The primary asphalt paving areas on campus were recently paved at the completion of the Building for Excellence Program. However, there are some smaller paved areas that will need to be replaced soon. The

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

redtop areas under the canopy are cracked and heaving in some locations, and will need to be replaced in the future.

The site sanitary sewer and domestic water lines feeding the campus are original, and have not been replaced to date. These lines should be evaluated and replaced if necessary. Some portions of the fire water lines were installed during Building for Excellence, as was a new electrical service. The gas service was replaced in 1977, and is run overhead exposed on the roof. Site drainage systems are also original, and should be evaluated and replaced if necessary.

The existing buildings on the Briones Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. The exception on the Briones campus is the Orthopedic wing, which had only minor cosmetic improvements made. This modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather. The campus also underwent restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus has two major classroom wings that form an elongated 'L' configuration around the central play areas. The classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space.

The classroom interiors were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

A new 2,695 SF Library was completed on this campus as part of the Building for Excellence Program, and will require no modernization in the foreseeable future.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

The Administration area was renovated with new roofing, flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. However, the mechanical equipment on the roof is exposed, and is quite visible from the ground level. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted. However, the Multipurpose building at 2,666 SF is undersized for the planned campus capacity, and is inadequate for delivering food service for the campus.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Briones is one of the Elementary schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However the myriad of heating and (limited) air conditioning equipment (furnaces in the classrooms, furnace with D/X cooling in the Library, unit heater in Multi-Use room; and an air handler/boiler/chiller serving OH Therapy) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$134 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 119 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Briones Elementary include the following improvements:

- Replacement of windows

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Renovation of the OH wing
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Briones Elementary School include:

- Add two modular classrooms to the campus, to bring the campus capacity to a three and a half strand school.
- A new, larger Multipurpose building to accommodate the board approved potential capacity of 450 students. The cost includes demolition of the existing Multipurpose and Administration buildings, 1 year lease and set up of a temporary cafeteria and replacement of the Administration wing.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Library building.
- In conjunction with the Multipurpose building or Administration building replacement, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom buildings and computer lab on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Briones to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Briones to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Briones for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases,

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Some considerations for long range planning on this campus include the renovation or replacement of the Orthopedically Handicap wing, or replacing the planned modular classrooms and flex room with a new classroom building configured in a way that will maximize field and play space on this small campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Briones Elementary School



MODERNIZATION			
Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$595,254	\$744,068
M2	OH Wing Modernization, refurbish classrooms	\$660,996	\$826,245
M3	Improve security systems	\$108,360	\$135,450
M4	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$532,061	\$665,076
M5	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space Replacement of Boiler in OH Wing	\$225,428	\$281,784
M6	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M7	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$379,292	\$474,115
M8	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$1,439,710	\$1,799,637
M9	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M10	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, benches	\$67,725	\$84,656
M11	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$5,474,200	\$6,842,750
GROWTH / EXPANSION			
Contract	Scope of Work	Construction Cost	Project Cost
G1	Place new modular growth classrooms on campus	\$646,445	\$808,056
G2	Replacement of Multipurpose Room Bldg Option 3 cost - Replace Administration wing Option 3 cost - Temporary Cafeteria, 1 yr lease & Move on site Option 3 cost - Temporary Admin portable	\$4,041,647	\$5,052,059
G3	Provide new Flex Room	\$495,360	\$619,200
G4	Provide permanent foundations and ramps for Relos	\$33,863	\$42,328
G5	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G6	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$5,406,945	\$6,758,681

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Briones Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,646,284	\$2,057,855
P2	10 - 20 Year Maintenance Schedule	\$3,094,078	\$3,867,598
SUBTOTAL - PLANNED MAINTENANCE		\$4,740,362	\$5,925,453

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$383,603
T2	Campus Technology Refresh Budget - years 7 thru12	\$485,380
T3	Campus Technology Refresh Budget - years 13 thru18	\$614,160
SUBTOTAL - TECHNOLOGY		\$1,483,143

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$168,300
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$168,300
SUBTOTAL - FURNITURE AND EQUIPMENT		\$336,600

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025
L2	Modernize or Replace OH Center

JUANA BRIONES ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

JUANA BRIONES ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

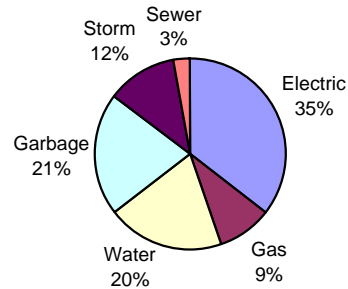
Briones Elementary School enrollment 320

summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

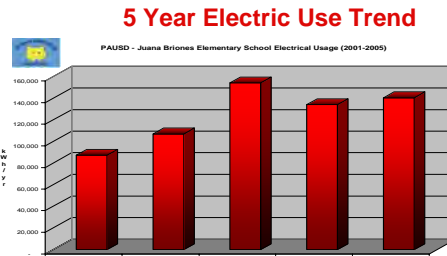
	use units	cost
Electric	136,267 kWh	\$15,262
Gas	3,359 therms	\$3,920
Water	2,269 ccf	\$8,454
Garbage	N.F.S. bins	\$9,002
Storm		\$5,052
Sewer		\$1,228
<i>per student \$134</i>		TOTAL \$42,918



Electric

Peak Demand (KW)	43
Annual kWh	136,267
Annual Electric Cost	\$15,262
Main Service Size	-
Service Voltage	-
Meter # 1	38776
Meter # 2	38517

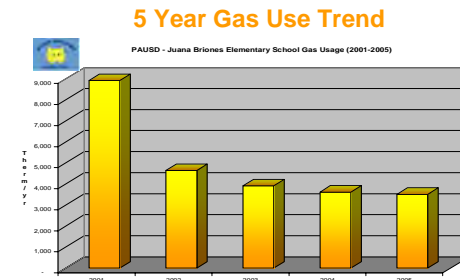
Note: 2nd meter and significant space is currently leased



Gas

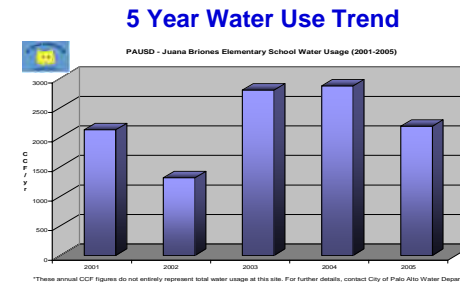
Annual therms	3,359
Annual Gas Cost	\$3,920
Meter # 1	52698
Meter # 2	5239

Note: 2nd meter and significant space is currently leased



Water

Irrigation Water Meter #	33377
Potable Water Meter #	44019
Annual CCF (irrigation)	1,603
Annual CCF (potable)	666
Annual CCF (total)	2,269
Annual Cost of Irrigation	\$5,846
Annual Cost of potable	\$2,608
Annual Cost (total)	\$8,454
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-



Sewer

Annual cost	\$1,228
Service Pipe Size	-

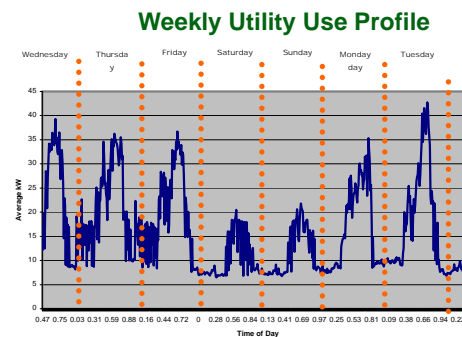
Storm

Annual cost	\$5,052 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.


Garbage

Annual cost	\$9,002
Number of Bins	N.F.S.



Reference Documents

CPAU CARE Audit: Energy Efficiency Report for, Briones Elementary, Salas O'Brien Engineers, Inc.



DUVENECK ELEMENTARY SCHOOL

DUVENECK ELEMENTARY SCHOOL

Profile

Duveneck Elementary School
705 Alester Avenue
Built: 1950, 1955, 1969, 2002

Total Site Area:	6.5 Acres
Building Area/Miscellaneous Circulation	3.0
Parking Area	0.6
Hard-Court Play Area	1.1
Turf Play Area	1.8

Building Area: **57,513 SF**
Existing Classroom Size **960 to 1440 SF**
2006/2007 Enrollment: **481**

Duveneck Elementary School is comprised of six permanent single story buildings arranged in an elongated L configuration around a central playground and field space.

The original buildings were the two classroom wings and the Administration building, which were built in 1950. A Multipurpose building was constructed in 1955, and the library building was built in 1969.

In 2002, a new classroom wing was built as part of the Building for Excellence program, which also renovated the existing classrooms, Administration building and the Library. There are seven relocatable buildings on this site, five housing classrooms and two housing Day Care facilities.

Facilities Conditions

The Duveneck site was extensively renovated during the Building for Excellence Program. The school is located on Alester Ave., and has significant traffic issues with respect to drop off and parking. The site parking on Alester combined with student drop off and bus parking creates major conflicts between vehicles and pedestrians. ADA site accessibility and parking spaces were improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

The asphalt parking lot on campus was patched during the Building for Excellence Program, and has recently been overlaid. The fire lane was installed in 2003, and is in good condition. The hardcourts were recently resurfaced, and are showing no signs of failure. The redtop areas under the canopy are cracked badly and will need to be replaced in the future.

The site sanitary sewer and most of the domestic water lines feeding the campus are original, and have not been replaced to date. A portion of the domestic water system was installed in 1989, along with a backflow preventer. These lines should be evaluated and replaced if necessary. The fire water lines and hydrants were installed during Building for Excellence, as was a new electrical service. The gas service is run overhead exposed on the roof, and was installed in 1976.

Site drainage systems were installed on campus during the Building for Excellence Program in some areas, and site drainage was improved at the front of the school. However, like some other campuses in northern Palo Alto, the City's drainage system is undersized and cannot handle the runoff in periods of heavy rainfall, causing local flooding along Alester.

The existing buildings on the Duveneck Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus has two major classroom wings that surround the central play areas, and a third new wing built during the Building for Excellence Program. The two original classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy,

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. The third classroom wing consists of four new classrooms, and is located adjacent to the Administration building.

The classroom interiors in the original classroom wings were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

The Library interior was renovated as part of the Building for Excellence Program, but was one of the campuses that did not receive a new facility. The building exterior is wood shingle, and is built using a modular classroom unit on a concrete foundation. The interior spaces are new, but are dark and could use improvement when compared to the new facilities on other campuses. In addition, at 2,461 SF, it is one of the smaller libraries in the district, though the campus is approaching an enrollment of 500 students.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 2,666 SF is undersized for the planned campus capacity, and is also poorly located on campus for lunch service and night activities.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Duveneck is one of the Elementary schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. Likewise, the consistency of the heating equipment (furnaces in all classrooms and library, furnace with economizers in Administration) will ensure that the budget provided affords a reasonable

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$92 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 133 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Duveneck Elementary include the following improvements:

- Library Modernization and Expansion, approximately 1,200 SF addition, to 3,600 SF.
- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Duveneck Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 520 students. The cost includes demolition of two classrooms and restrooms, and 1 year lease and set up of a temporary cafeteria, and

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

renovation of the existing Multipurpose building into new classrooms.

- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Kindergarten classroom along Channing.
- In conjunction with the Multipurpose building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Duveneck to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Duveneck to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Duveneck for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

A potential consideration for long range planning on this campus include the possibility of replacing the Multipurpose building and neighboring portable classrooms with a new one or two story classroom building configured in a way that will maximize field and play space on this small campus. There are currently 7 portable classrooms on this campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Duveneck Elementary School



MODERNIZATION			
Contract	Scope of Work	Construction Cost	Project Cost
M1	Library Modernization - Exterior and Addition Expand library by 1,200 SF for 520 school Modernize exterior	\$840,564	\$1,050,705
M2	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$773,303	\$966,629
M3	Improve security systems	\$108,360	\$135,450
M4	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$542,897	\$678,621
M5	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$239,069	\$298,837
M6	LAN/WAN infrastructure to support Technology Upgrades	\$77,142	\$96,428
M7	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$498,363	\$622,954
M8	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$986,312	\$1,232,890
M9	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M10	Site Furnishings Improvements Provide new picket fencing along front of school along Alester Upgrade miscellaneous site elements such as trash enclosures, flagpoles,	\$114,165	\$142,706
M11	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$5,568,344	\$6,960,430
GROWTH / EXPANSION			
Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 4 cost - Demo 2 classrooms on lower wing Option 4 cost - Renovate old MP to classrooms Option 4 cost temporary portables for displaced classrooms	\$4,326,479	\$5,408,099
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$270,900	\$338,625
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$5,282,369	\$6,602,962

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Duveneck Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,741,297	\$2,176,621
P2	10 - 20 Year Maintenance Schedule	\$2,956,509	\$3,695,636
SUBTOTAL - PLANNED MAINTENANCE		\$4,697,806	\$5,872,258

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$341,603
T2	Campus Technology Refresh Budget - years 7 thru 12	\$432,236
T3	Campus Technology Refresh Budget - years 13 thru 18	\$546,917
SUBTOTAL - TECHNOLOGY		\$1,320,756

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$221,000
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$221,000
SUBTOTAL - FURNITURE AND EQUIPMENT		\$442,000

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace 8 portables with permanent 1 or 2 story classroom building by 2025

DUVENECK ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

DUVENECK ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

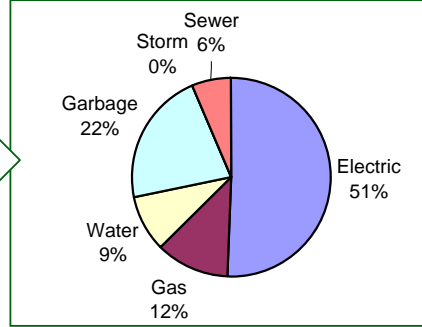
Duveneck Elementary School enrollment 481

summaries and trends

Utilities Data Sheet

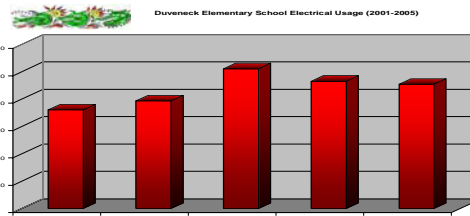
Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	223,205 kWh	\$22,408
Gas	4,574 therms	\$5,340
Water	985 ccf	\$4,122
Garbage	N.F.S. bins	\$9,712
Storm		\$0
Sewer		\$2,813
<i>per student \$92</i>		
TOTAL		\$44,395



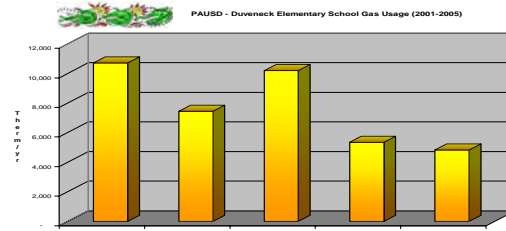
Electric

Peak Demand (KW)	29
Annual kWh	223,205
Annual Electric Cost	\$22,408
Main Service Size	-
Service Voltage	-
Meter # 1	38740
Meter # 2	N/A



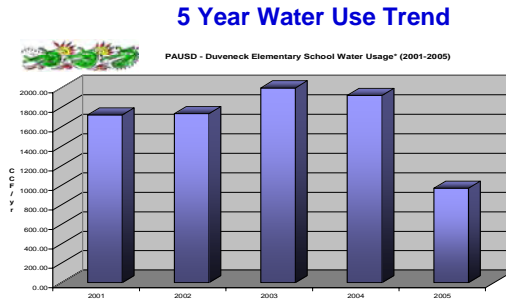
Gas

Annual therms	4,574
Annual Gas Cost	\$5,340
Meter # 1	52406
Meter # 2	N/A



Water

Irrigation Water Meter #	included
Potable Water Meter #	35193
Annual CCF (irrigation)	-
Annual CCF (potable)	-
Annual CCF (total)	985
Annual Cost of Irrigation	-
Annual Cost of potable	-
Annual Cost (total)	\$4,122
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-



Sewer

Annual cost	\$2,813
Service Pipe Size	-

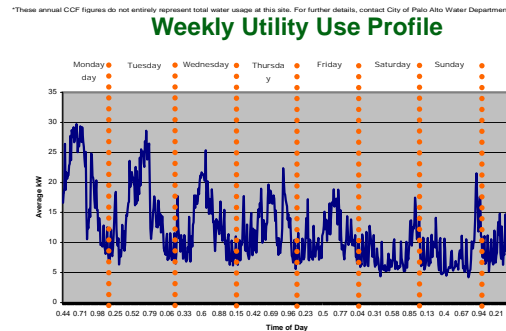
Storm

Annual cost	\$0 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.


Garbage

Annual cost	\$9,712
Number of Bins	N.F.S.



Reference Documents

CPAU CARE Audit: Energy Efficiency Report, Duveneck Elementary, Salas O'Brien Engineers, Inc.

The image shows the exterior of El Carmelo Elementary School. A paved sidewalk leads towards the school building, which is partially obscured by trees and bushes. A red-painted curb on the sidewalk is marked with the words "BUS ZONE". The school's name, "EL CARMELO", is visible on a sign in the background. The overall scene is captured in a slightly dim, overcast light.

EL CARMELO ELEMENTARY SCHOOL

EL CARMELO ELEMENTARY SCHOOL

Profile

El Carmelo Elementary School

3024 Bryant Ave

Built: 1955, 1957, 1967, 2001

Total Site Area:	4.0 Acres
Building Area/Miscellaneous Circulation	1.4
Parking Area	0.1
Hard-Court Play Area	0.8
Turf Play Area	1.7

Building Area: **39,280 SF**

Existing Classroom Size **960 to 1440 SF**

2006/2007 Enrollment: **361**

El Carmelo Elementary School is comprised of six permanent single story buildings arranged in an elongated L configuration around a central playground and field space.

The site is bounded on all four sides by El Carmelo, Bryant, Loma Verde and Ramona Streets. The original buildings were the classroom wing and the Administration building, which were built in 1955. A Multipurpose building was constructed in 1957. A library resource building was built in 1967, which was rebuilt in 2001 along with a new classroom wing as part of the Building for Excellence program.

The 2001 project also included renovation of the existing classrooms and Administration building. There are three relocatable buildings on this site, one housing a classroom and two housing Day Care facilities.

Facilities Conditions

The El Carmelo site was extensively renovated during the Building for Excellence Program. The school is located on Bryant Ave. The student drop off was separated from the parking, and occurs around the perimeter of the site. ADA site accessibility and parking spaces were improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

The asphalt parking lot on campus is very small, but similar to Addison, is due to the lack of space on campus in general. The

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

hardcourts were recently resurfaced, and are showing no signs of failure. The redtop areas under the canopy are cracked badly and will need to be replaced in the future.

The site sanitary sewer system is original, and has not been replaced to date. The domestic water system was replaced in 1977, with the backflow preventer being installed in 1989. These lines should be evaluated and replaced if necessary. The fire water lines and hydrants are located off site, and in close proximity to the campus structures. A new electrical service was provided to the site during Building for Excellence, and the gas service is run overhead exposed on the roof, and was installed in 1976. The site drainage systems around the perimeter of the campus, consisting of City gutter and drainage structures, appear to be in good condition.

The existing buildings on the El Carmelo Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new asphalt shingle or built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus consists of a single major classroom wing and three smaller classroom wings that surround the central play areas. The three smaller wings were built during the Building for Excellence Program. The original classroom wing has large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. The smaller classroom wings consist of three new classrooms each.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

The classroom interiors in the original classroom wing were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

The Library was constructed as part of the Building for Excellence Program, and is 3,180 SF. There is no modernization work scheduled for the Library.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 2,566 SF is undersized for the planned campus capacity.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. El Carmelo is one of the Elementary schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However the myriad of heating and (limited) air conditioning equipment (gas furnaces with economizers in classrooms, gas furnace with D/X cooling in Library, heat pumps in portables, heating-only, multi-zone units in Administration; and unit heaters in the Multi-Use room) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$151 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 128 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at El Carmelo Elementary include the following improvements:

- Replacement of windows in original classroom wing
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for El Carmelo Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 450 students. The cost includes demolition of the Multipurpose and Administration buildings, 1 year lease and set up of a temporary cafeteria, and reconstruction of the Administration wing in a new location adjacent to the parking lot.
- A new 1,440 SF Flex Classroom will be added to the campus, as a renovation to one of the smaller classroom wings added during Building for Excellence.
- In conjunction with the Multipurpose and Administration building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom on permanent foundations, eliminating ramps.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for El Carmelo to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for El Carmelo to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for El Carmelo for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Most of the buildings on this campus are new, or are proposed to be rebuilt. The exceptions are the original classroom wing, and a single portable classroom, which are both in good shape for the foreseeable future

PALO ALTO UNIFIED SCHOOL DISTRICT
PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



El Carmelo Elementary School

MODERNIZATION			
Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$662,305	\$827,881
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$428,603	\$535,753
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$160,508	\$200,635
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$320,260	\$400,325
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$311,814	\$389,767
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles,	\$67,725	\$84,656
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$3,524,950	\$4,406,187
GROWTH / EXPANSION			
Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 4 cost - Demo Admin and MP buildings Option 4 cost - Replacement of Admin Bldg	\$3,980,114	\$4,975,143
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$33,863	\$42,328
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$4,698,967	\$5,873,709

PALO ALTO UNIFIED SCHOOL DISTRICT
 PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN



El Carmelo Elementary School

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,380,982	\$1,726,228
P2	10 - 20 Year Maintenance Schedule	\$1,836,666	\$2,295,833
SUBTOTAL - PLANNED MAINTENANCE		\$3,217,648	\$4,022,060

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$323,603
T2	Campus Technology Refresh Budget - years 7 thru 12	\$409,461
T3	Campus Technology Refresh Budget - years 13 thru 18	\$518,098
SUBTOTAL - TECHNOLOGY		\$1,251,162

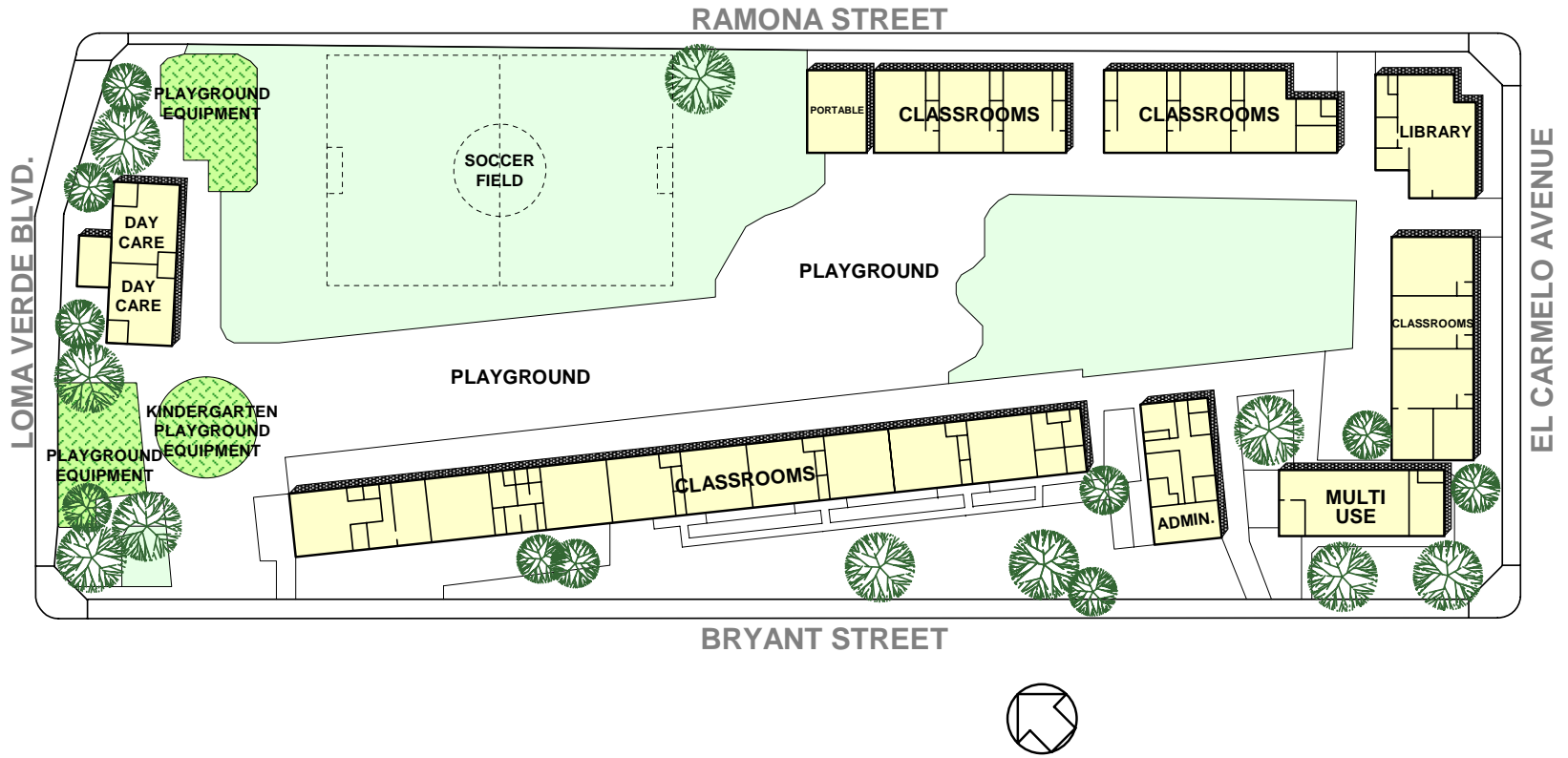
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$168,300
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$168,300
SUBTOTAL - FURNITURE AND EQUIPMENT		\$336,600

POTENTIAL LONG TERM NEEDS

Contract	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025

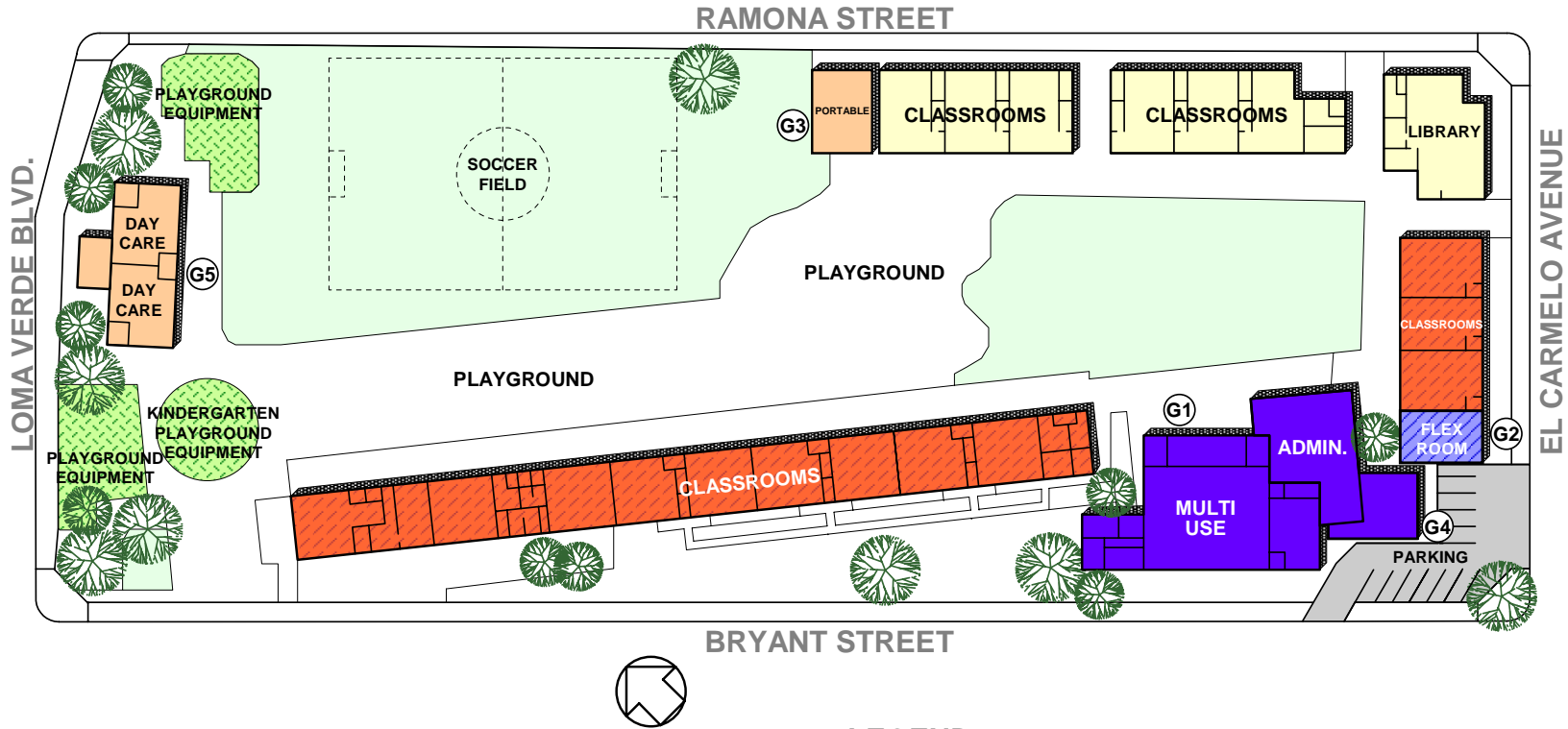
EL CARMELO ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

EL CARMELO ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION		NEW MODULAR CLASSROOMS
	EXTENSIVE MODERNIZATION		PARKING
	MINOR MODERNIZATION		TURF PLAYGROUND
	EXISTING PORTABLES		EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

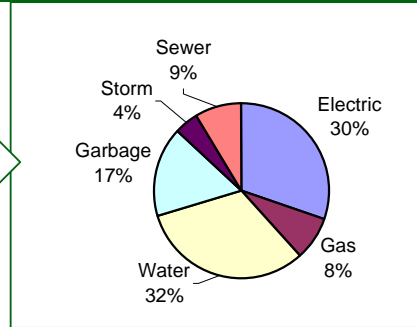
El Carmelo Elementary School enrollment 361

summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

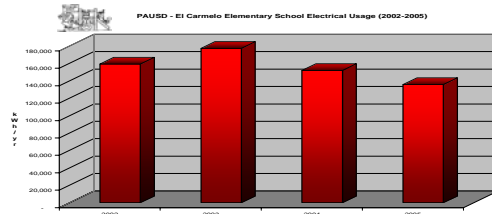
	use units	cost
Electric	139,754 kWh	\$16,444
Gas	3,796 therms	\$4,432
Water	4,281 ccf	\$17,227
Garbage	N.F.S. bins	\$9,108
Storm		\$2,398
Sewer		\$4,664
<i>per student \$150</i>		
TOTAL		\$54,273



Electric

Peak Demand (KW)	50
Annual kWh	139,754
Annual Electric Cost	\$16,444
Main Service Size	-
Service Voltage	-
Meter # 1	29962
Meter # 2	27929

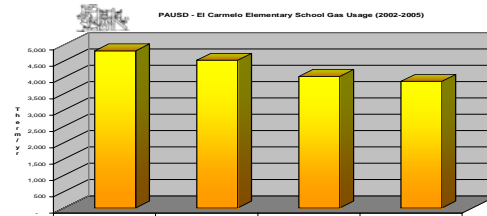
4 Year Electric Use Trend



Gas

Annual therms	3,796
Annual Gas Cost	\$4,432
Meter # 1	52048
Meter # 2	N/A

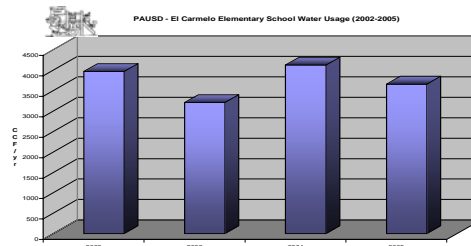
4 Year Gas Use Trend



Water

Irrigation Water Meter #	43448
Potable Water Meter #	33397
Annual CCF (irrigation)	4,046.00
Annual CCF (potable)	235.00
Annual CCF (total)	4,281
Annual Cost of Irrigation	16,283.18
Annual Cost of potable	944.00
Annual Cost (total)	\$17,227
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

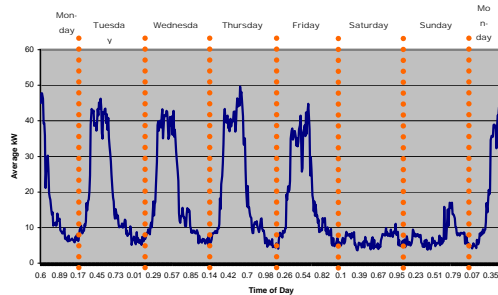
4 Year Water Use Trend



Sewer

Annual cost	\$4,664
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$2,398 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$9,108
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, El Carmelo Elementary, Salas O'Brien Engineers, Inc.*

The image shows the exterior of Escondido Elementary School. The building is a single-story structure with a light-colored facade and a green roofline. In the foreground, there is a paved parking lot with a red and blue curb. A signpost holds two signs: a white "NO PARKING BUS STOP ZONE" sign and a blue "HANDICAPPED PARKING" sign. The school's name, "ESCONDIDO ELEMENTARY SCHOOL", is visible on a sign on the building. The scene is surrounded by lush green trees and a clear sky. A semi-transparent white overlay covers the entire image, with the school's name written in large, white, sans-serif capital letters in the center.

ESCONDIDO ELEMENTARY SCHOOL

ESCONDIDO ELEMENTARY SCHOOL

Profile

Escondido Elementary School

890 Escondido Road

Built: 1960, 1061, 1967, 2001

Total Site Area:	7.9 Acres
Building Area/Miscellaneous Circulation	2.5
Parking Area	0.5
Hard-Court Play Area	2.5
Turf Play Area	2.4

Building Area: **46,825 SF**

Existing Classroom Size **920 to 1440 SF**

2006/2007 Enrollment: **514**

Escondido Elementary School is comprised of eight permanent single story buildings set in a configuration around a central courtyard and field space to the north.

The site is bounded on all two sides by Stanford Ave and Escondido Road. In 1960, two classroom wings, a Kindergarten wing and the Administration / Multipurpose buildings were built. In 1961, two more classroom buildings were built, with another added in 1967.

As part of the Building for Excellence program, a 2001 project remodeled classrooms, the Library and the Administration building and added a final classroom wing. There are seven relocatable buildings on this site, with six housing classrooms and one housing a Day Care facility.

Facilities Conditions

The Escondido site was extensively renovated during the Building for Excellence Program. The school is located on Escondido Road, just off of Stanford Ave. The student drop off and parking area are located at the front of the school, and were improved during the Building for Excellence program to improve traffic flow. ADA site accessibility and parking spaces were improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The asphalt parking lot on campus is of adequate size, and has recently been resurfaced. The hardcourts were also resurfaced, and are showing no signs of failure. The redtop areas under the canopy are cracked locally, but are in much better shape than the other campuses.

The site sanitary sewer and domestic water system is original, and has not been replaced to date. The domestic water backflow preventer was installed in 1989. These lines should be evaluated and replaced if necessary. The fire water lines and hydrants on site were added during Building for Excellence, and should not require any new work. A new electrical service was also provided to the site during Building for Excellence. The gas service is run overhead exposed on the roof, and was installed in 1975. The site drainage around the campus has some local areas of ponding, but generally appears to be in good condition.

The existing buildings on the Escondido Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus consists of six small classroom pods of two to four classrooms each. The play areas are split, with a central yard with a playground near the classrooms, and a second play field located on the north end of the campus. There are 5 pods from the original design that house three or four classrooms each. Two smaller wings housing two classrooms each were built during the Building for Excellence Program. The original classroom pods have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. There are also seven modular classrooms on this campus, six of which are located in a row along the western edge of the north playfield.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

The classroom interiors in the original classroom wing were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

The Library was renovated as part of the Building for Excellence Program, and at 4,032 SF is adequate in size. There is no modernization work scheduled for the Library.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 2,240 SF is undersized for the planned campus capacity, especially given this campus has the largest enrollment in the district..

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Escondido is one of the Elementary schools that may not be as good a candidate for passive cooling because of the peaked roof. Likewise the myriad of heating and (limited) air conditioning equipment (gas furnaces in classrooms, heat pumps in portables, and furnace with D/X cooling in Administration and Library) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is not fully documented because unlike most of the other schools, power and gas and water are provided by other utilities; and this is the one school where a significant amount of power is self-generated, from a 20kW solar (photovoltaic) system. However, the utility data sheet which follows provides much of the

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

specific cost and use data associated with major, current site utilities.

These metrics are a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 185 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Escondido Elementary include the following improvements:

- Replacement of windows in original classroom pods
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Escondido Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 520 students. The cost includes demolition of the Multipurpose building and a 1 year lease and set up of a temporary cafeteria.
- A new 1,440 SF Flex Classroom will be added to the campus, as a renovation to the Library building.
- In conjunction with the Multipurpose building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom on permanent foundations, eliminating ramps.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Escondido to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Escondido to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Escondido for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

A potential consideration for long range planning on this campus include the possibility of replacing the portable classrooms with a new one or two story classroom building configured in a way that will maximize field and play space on this small campus. There are currently 7 portable classrooms on this campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Escondido Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$909,337	\$1,136,671
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$600,044	\$750,054
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$205,207	\$256,508
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$540,341	\$675,427
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$1,267,622	\$1,584,528
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Provide new picket fencing along front of school along Escondido	\$90,945	\$113,681
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$5,187,232	\$6,484,039

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 1 cost - Demo of MP building Option 1 cost - Temporary Cafeteria, 1 yr lease & Move on site	\$2,875,874	\$3,594,843
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$237,038	\$296,297
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$3,797,902	\$4,747,377

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Escondido Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,924,657	\$2,405,821
P2	10 - 20 Year Maintenance Schedule	\$2,844,904	\$3,556,130
SUBTOTAL - PLANNED MAINTENANCE		\$4,769,561	\$5,961,951

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$345,603
T2	Campus Technology Refresh Budget - years 7 thru12	\$437,298
T3	Campus Technology Refresh Budget - years 13 thru18	\$553,321
SUBTOTAL - TECHNOLOGY		\$1,336,222

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$221,000
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$221,000
SUBTOTAL - FURNITURE AND EQUIPMENT		\$442,000

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace 7 portables with permanent 1 or 2 story classroom building by 2025

ESCONDIDO ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT

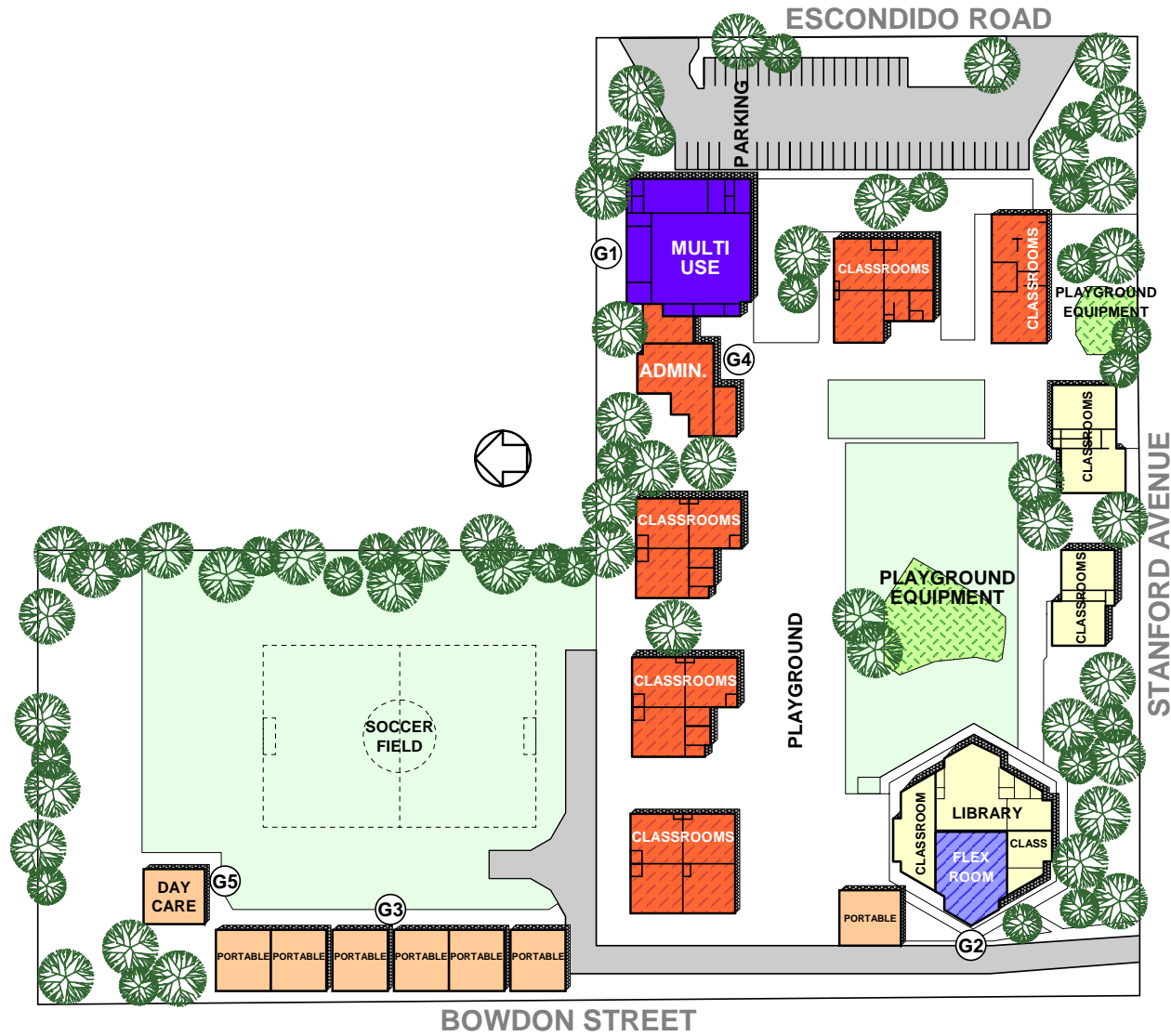


EXISTING PLAN









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ESCONDIDO ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

Escondido Elementary School *enrollment 514*

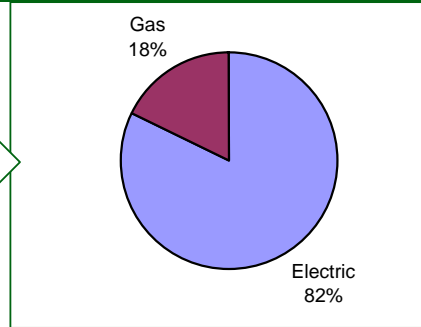
summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	208,331 kWh	\$30,900
Gas	4,834 therms	\$6,732
Water	ccf	
Garbage	N.F.S. bins	
Storm		
Sewer		
<i>per student \$73</i>	TOTAL	\$37,632

This site is NOT CPAU, but rather PG&E



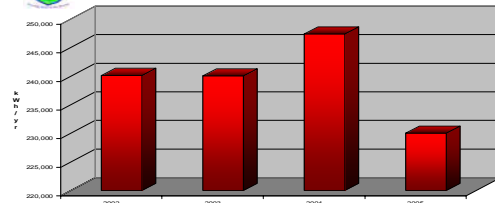
Electric

Peak Demand (KW)	<i>not available</i>
Annual kWh	208,331
Annual Electric Cost	\$30,900
Main Service Size	-
Service Voltage	-
Meter # 1	1P8765
Meter # 2	N/A



4 Year Electric Use Trend

PAUSD - Escondido Elementary School Electrical Usage (2002-2005)



Note: Escondido has a 20kW PV system, producing approximately 30,000 kWh/year

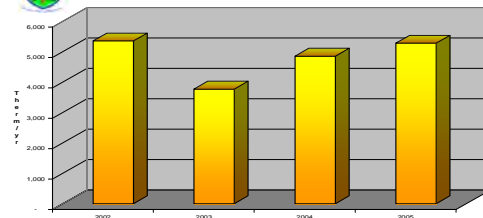
Gas

Annual therms	4,834
Annual Gas Cost	\$6,732
Meter # 1	39256767
Meter # 2	N/A



4 Year Gas Use Trend

PAUSD - Escondido Elementary School Gas Usage (2002-2005)



Water

Irrigation Water Meter #	Not Available
Potable Water Meter #	-
Annual CCF (irrigation)	-
Annual CCF (potable)	-
Annual CCF (total)	0
Annual Cost of Irrigation	-
Annual Cost of potable	-
Annual Cost (total)	\$0
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

Sewer

Annual cost	Not Available
Service Pipe Size	-

Storm

Annual cost	Not Available
Service Pipe Size	-

Garbage

Annual cost	Not Available
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Escondido Elementary, Salas O'Brien Engineers, Inc.*

A photograph of Fairmeadow Elementary School. The school is a single-story building with a brick facade and a green roof. In the foreground, there is a paved parking lot with yellow and white markings. A flagpole with an American flag stands to the left of the building. The background is filled with lush green trees under a clear blue sky. The text 'FAIRMEADOW ELEMENTARY SCHOOL' is overlaid in large, white, sans-serif capital letters across the center of the image.

FAIRMEADOW ELEMENTARY SCHOOL

FAIRMEADOW ELEMENTARY SCHOOL

Profile

Fairmeadow Elementary School

500 East Meadow Drive

Built: 1950, 1956, 1972, 2003

Total Site Area:	5.5 Acres
Building Area/Miscellaneous Circulation	1.8
Parking Area	0.4
Hard-Court Play Area	1.3
Turf Play Area	2.0

Building Area: **41,237 SF**

Existing Classroom Size **960 to 1440 SF**

2006/2007 Enrollment: **366**

Fairmeadow Elementary School is comprised of six permanent single story buildings set in an elongated L configuration around a central playground and field space to the north. The site is bounded on one side by East Meadow, and J.L Stanford and Mitchell Park on the remaining boundaries.

In 1950, the Administration building and two classroom wings were built as part of the original campus. The Multipurpose building was built in 1956 along with a Library Resource building in a relocatable. In 1972, the Jackson Hearing Center was constructed along the boundary with J.L. Stanford.

As part of the Building for Excellence program in 2003, existing classrooms and the Administration building were renovated, and a new Library building was constructed. There are four relocatable buildings on this site, with two housing classrooms and two oversized units housing the Besse Bolton Child Care facility.

Facilities Conditions

The Fairmeadow site was extensively renovated during the Building for Excellence Program. The school is located on East Meadow, and is adjacent to the Jane Lathrop Stanford Middle School campus. The student drop off and parking area are located at the front of the school, and is similar to Duveneck in that the configuration causes congestion. ADA site accessibility and parking spaces were improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The asphalt parking lot on campus is small, but street parking along East Meadow provides the balance of parking spaces for faculty and staff. The hardcourts were recently resurfaced, and are showing no signs of failure. The redtop areas under the canopy are cracked in some areas, and should be replaced as the paving deteriorates. There are also some miscellaneous paving areas on the backside of the upper wing and near Bessie Bolton day care facilities that are due for replacement.

The site sanitary sewer and domestic water system is original, and has not been replaced to date. The domestic water backflow preventer was installed in 1989, but it would appear that original galvanized piping remains from 1950's. These lines should be evaluated and replaced if necessary. The fire water lines and hydrants on site were added during Building for Excellence, and should not require any new work. A new electrical service was also provided to the site during Building for Excellence. The gas service is run overhead exposed on the roof, and was installed in 1976. The site drainage around the campus has some local areas of ponding, but generally appears to be in good condition as a result of the improvements made during Building for Excellence.

The existing buildings on the Fairmeadow Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus has two major classroom wings that surround the central play areas, and the Jackson Hearing Center, a semi-circular third wing of specialized classrooms that house hearing impaired students for the district. The two original classroom wings have

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. The Jackson Hearing Center consists of six large classrooms and five smaller classrooms, and is located adjacent to the service road along the southwest boundary that separates Fairmeadow from Stanford Middle School.

The classroom interiors in the original classroom wing were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles. Renovation work in the Jackson Hearing Center was similar, though the work required was less extensive.

The Library was constructed as part of the Building for Excellence Program, but at 2,571 SF is smaller in size, and may be inadequate if plans to add up to six classrooms in the near future are carried out. While no modernization of the current Library is planned, the need for an expansion has been included to coincide with the additional classrooms to the campus.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 2,666 SF is undersized for the planned campus capacity, especially given the planned expansion planned for the campus.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Fair Meadow is one of the Elementary schools that may be a good a candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However the myriad of heating and (limited) air conditioning equipment (gas furnaces in classrooms, heat pumps in

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

portables, air handling units with economizers in Administration, and furnaces with D/X cooling in the Jackson Hearing Center) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$101 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 132 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Fairmeadow Elementary include the following improvements:

- Replacement of windows in original classroom wings and Jackson Hearing Center
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Fairmeadow Elementary School include:

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 520 students. The cost includes demolition of the Multipurpose building and a 1 year lease and set up of a temporary cafeteria.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Library.
- In conjunction with the Multipurpose building or Flex Room expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Fairmeadow to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Fairmeadow to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Fairmeadow for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

A potential consideration for long range planning on this campus include the possibility of replacing the portable classrooms with a new one or two story classroom building configured in a way that will maximize field and play space on this small campus. There are currently two portable classrooms on this campus, with plans to add up to six more to accommodate growth, making Fairmeadow a four strand school.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Fairmeadow Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$719,302	\$899,128
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$560,634	\$700,793
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$190,307	\$237,884
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$425,689	\$532,111
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$644,657	\$805,821
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Reroute roof top utilities underground, no re-roof	\$67,725	\$84,656
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$4,182,050	\$5,227,562

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Place new modular growth classrooms on campus (Includes rework of Day Care and JLS fencing and yard)	\$1,939,334	\$2,424,168
G2	Replacement of Multipurpose Room Bldg Option 1 cost - Demo existing MP and portable Option 1 cost - Temporary Cafeteria, 1 yr lease & Move on site	\$2,904,048	\$3,630,060
G3	Provide new Flex Room	\$495,360	\$619,200
G4	Provide permanent foundations and ramps for Relos	\$33,863	\$42,328
G5	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G6	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$5,562,235	\$6,952,794

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Fairmeadow Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,597,765	\$1,997,206
P2	10 - 20 Year Maintenance Schedule	\$2,180,354	\$2,725,443
SUBTOTAL - PLANNED MAINTENANCE		\$3,778,119	\$4,722,649

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$273,603
T2	Campus Technology Refresh Budget - years 7 thru 12	\$346,195
T3	Campus Technology Refresh Budget - years 13 thru 18	\$438,047
SUBTOTAL - TECHNOLOGY		\$1,057,844

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$194,650
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$194,650
SUBTOTAL - FURNITURE AND EQUIPMENT		\$389,300

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025

FAIRMEADOW ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT

EAST MEADOW DRIVE



LEGEND

- ① DAYCARE TO BE RELOCATED

EXISTING PLAN

A E D I S Architecture & Planning









FAIRMEADOW ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT

EAST MEADOW DRIVE



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S Architecture & Planning

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

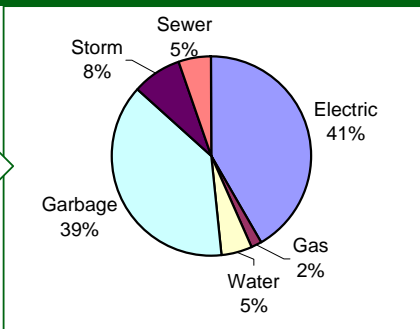
Fairmeadow Elementary School *enrollment 366*

summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

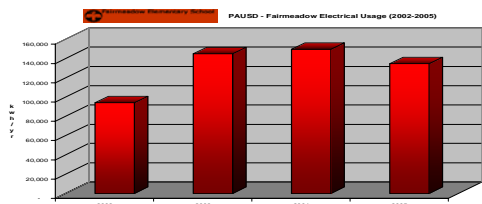
	use units	cost
Electric	134,000 kWh	\$15,350
Gas	576 therms	\$671
Water	416 ccf	\$1,803
Garbage	N.F.S. bins	\$14,239
Storm		\$2,943
Sewer		\$1,931
<i>per student \$101</i>	TOTAL	\$36,937



Electric

Peak Demand (KW)	26
Annual kWh	134,000
Annual Electric Cost	\$15,350
Main Service Size	-
Service Voltage	-
Meter # 1	02239
Meter # 2	N/A

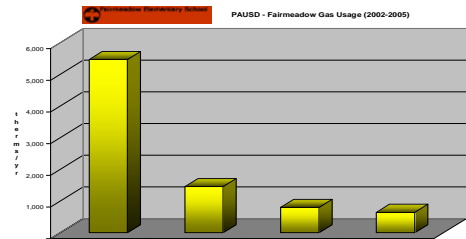
4 Year Electric Use Trend



Gas

Annual therms	576
Annual Gas Cost	\$671
Meter # 1	52404
Meter # 2	N/A

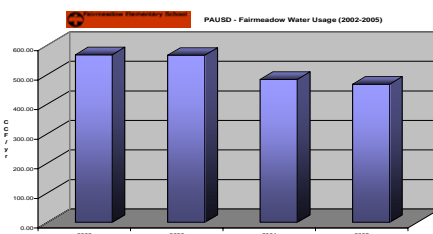
4 Year Gas Use Trend



Water

Irrigation Water Meter #	included
Potable Water Meter #	16837
Annual CCF (irrigation)	-
Annual CCF (potable)	416
Annual CCF (total)	416
Annual Cost of Irrigation	-
Annual Cost of potable	\$1,803
Annual Cost (total)	\$1,803
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

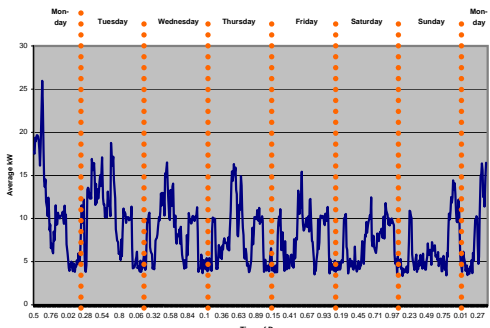
4 Year Water Use Trend



Sewer

Annual cost	\$1,931
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$2,943 *
Service Pipe Size	-
*Storm Drain Costs calculated from Hardscape S.F.	

Garbage

Annual cost	\$14,239
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Fairmeadow Elementary, Salas O'Brien Engineers, Inc.*

A photograph of the exterior of Hays Elementary School. The building is a single-story structure with a light-colored facade and a red-tiled roof. In the foreground, there is a paved area with a concrete curb. To the left of the curb, there is a grey trash bin and a sign on a post that reads "NO PARKING". The school is surrounded by lush green trees and a clear blue sky. The text "HAYS ELEMENTARY SCHOOL" is overlaid in large, white, sans-serif capital letters in the center of the image.

HAYS ELEMENTARY SCHOOL

HAYS ELEMENTARY SCHOOL

Profile

Walter Hays Elementary School

1525 Middlefield Road

Built: (1923) 1947, 1956, 1970, 2001

Total Site Area:	7.2 Acres
Building Area/Miscellaneous Circulation	2.4
Parking Area	0.4
Hard-Court Play Area	1.7
Turf Play Area	2.7

Building Area: **49371 SF**

Existing Classroom Size **960 to 1440 SF**

2006/2007 Enrollment: **481**

Walter Hays Elementary School consists of six permanent single story buildings and eight relocatable buildings surrounded by playground and field space.

The original building built in 1923 was demolished in 1969 as part of an earthquake safety rebuilding program. The buildings now on site include a classroom wing, constructed in 1947 and the Multipurpose building constructed in 1957. A large triangular building housing the Administrative areas, the library and eleven classrooms was built in 1970. There are six relocatables housing classrooms and 2 relocatables housing Day Care facilities.

In 2001 the Building for Excellence program added another classroom building and renovated the Classroom wings and main Administration / Library building.

Facilities Conditions

The Walter Hays campus was most recently renovated during the Building for Excellence Program in 2001. The school is located at one of the busiest intersections in Palo Alto, Middlefield Rd. and Embarcadero Ave. The student drop off and parking area are located on campus at the front of the school. However, the main challenge for this campus is the proximity to two busy streets that many students must cross, causing a major safety concern. ADA site accessibility and parking spaces were improved during Building

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

for Excellence, and the campus is currently in compliance with ADA requirements.

The asphalt parking lot on campus is small, and available parking spaces for faculty and staff on surrounding streets is limited. The parking lot was recently resurfaced and re-striped to maximize the available space, but parking spaces are still at a premium. The hardcourts were also recently resurfaced, and are showing no signs of failure. The concrete walkways are locally cracked in some areas, generally due to adjacent tree roots. These sections should be replaced soon to remove potential tripping hazards as trees continue to impact the paving. There are also some miscellaneous paving areas near the Multipurpose room and Kinder Play areas that are older and are due for maintenance.

The site sanitary sewer is original, and has not been replaced to date. The domestic water main and some branch lines were replaced in 1970, and a new backflow preventer was installed in 1989. However, the remaining lines serving the campus are original and have not been replaced to date. These lines should be evaluated and replaced if necessary. The fire water lines and hydrants on site were added during Building for Excellence, and should not require any new work. A new electrical service was also provided to the site during Building for Excellence. The gas service is run both underground and overhead, and was replaced in 1970. The site drainage around the campus has some local areas of ponding, but generally appears to be in good condition.

The existing buildings on the Walter Hays Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

The main Library and classroom buildings have new built up roofing, clay tile mansards, new hollow metal doors and fresh paint on the exterior. The two original classroom wings and Multipurpose building have only built up roofing. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The campus has a triangular classroom building, that also houses the Library and Administration offices for the campus. The two original classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. A new building with four classrooms was constructed during Building for Excellence is located near the Middlefield / Embarcadero intersection. There are also six modular classrooms located along the northern boundary of the campus, with two additional Day Care modulars located in their midst.

The classroom interiors in the original classroom wing and the main building were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles

The Library was renovated as part of the Building for Excellence Program, and at 3,648 SF is adequate in size. No modernization of the current Library is planned.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 2,666 SF is undersized for the planned campus capacity, especially given the planned expansion planned for the campus.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Walter Hayes is one of the Elementary schools that may not be as good a candidate for passive cooling because of the flat roofs typical of most of the classrooms. Likewise, the myriad of heating and (limited) air conditioning equipment (gas furnaces and unit ventilators in the classrooms, unit heater in the Multi-Use room, rooftop package rooftop air conditioning units for the Library, Office and rooms 1 through 4) will

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$169 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 252 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Walter Hays Elementary include the following improvements:

- Replacement of windows in original classroom wings.
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Walter Hays Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 520 students. The cost includes demolition of an existing classroom building, renovation of the existing Multipurpose building, addition of

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

a modular classroom, and a 1 year lease and set up of a temporary cafeteria.

- A new 1,440 SF Flex Classroom will be added to the campus as part of the renovation of the old Multipurpose building..
- In conjunction with the Multipurpose building or Flex Room expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Walter Hays to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Walter Hays to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Walter Hays for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

A potential consideration for long range planning on this campus includes the replacing the portable classrooms with a new one or two story classroom building configured in a way that will maximize field and play space on this small campus. There are currently six modular classrooms on this campus, with another two planned when the Multipurpose building is replaced.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Walter Hays Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$945,760	\$1,182,200
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$713,370	\$891,713
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$197,757	\$247,196
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$689,188	\$861,485
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$764,855	\$956,069
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Reroute roof top utilities underground, no re-roof	\$104,877	\$131,096
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$4,989,543	\$6,236,928

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 2 cost - Demo of Classroom wing Option 2 cost - Renovate old MP to classrooms Option 2 cost - New classroom portables on playground	\$4,587,859	\$5,734,824
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$203,175	\$253,969
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$5,476,024	\$6,845,030

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Walter Hays Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,894,131	\$2,367,664
P2	10 - 20 Year Maintenance Schedule	\$3,059,217	\$3,824,021
SUBTOTAL - PLANNED MAINTENANCE		\$4,953,348	\$6,191,685

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$331,603
T2	Campus Technology Refresh Budget - years 7 thru12	\$419,583
T3	Campus Technology Refresh Budget - years 13 thru18	\$530,907
SUBTOTAL - TECHNOLOGY		\$1,282,093

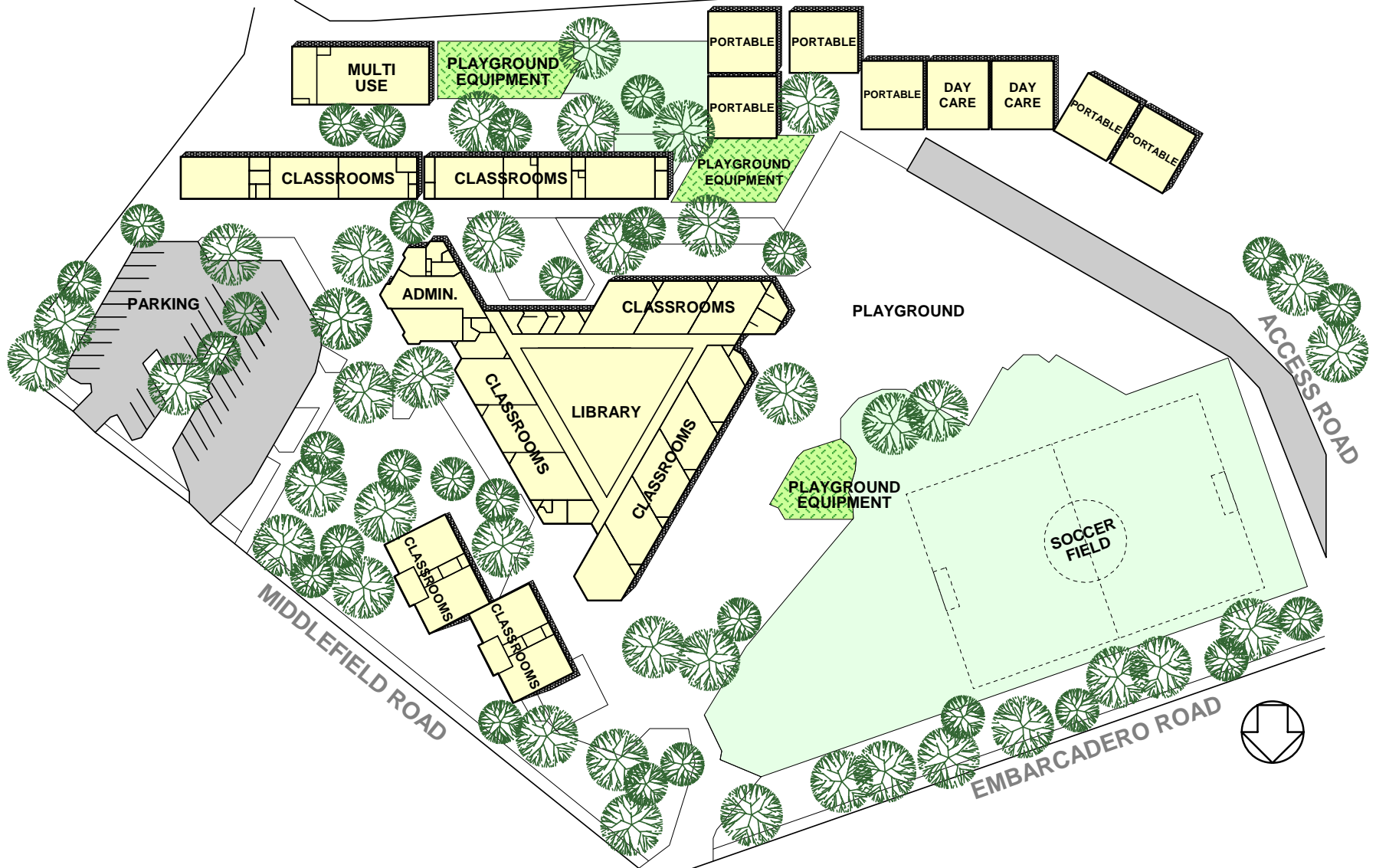
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$221,000
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$221,000
SUBTOTAL - FURNITURE AND EQUIPMENT		\$442,000

POTENTIAL LONG TERM NEEDS

- | | Scope of Work |
|----|--|
| L1 | Replace 6 portables with permanent 1 or 2 story classroom building by 2025 |
| L2 | Relocate Day Care to old MP, build new classroom building to replace CR wing |

WALTER HAYS ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

WALTER HAYS ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



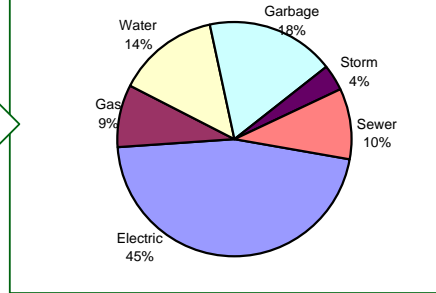
PROPOSED PLAN

A E D I S *Architecture & Planning*

Utilities Data Sheet

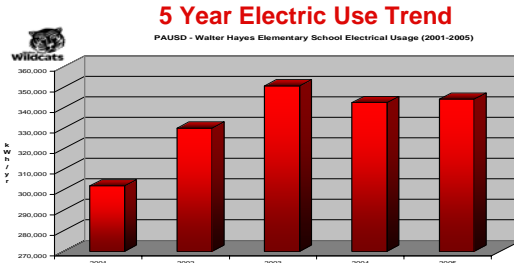
Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	339,701 kWh	\$37,422
Gas	6,028 therms	\$7,038
Water	2,987 ccf	\$11,575
Garbage	N.F.S. bins	\$14,339
Storm		\$3,097
Sewer		\$7,843
<i>per student \$169</i>		TOTAL \$81,314



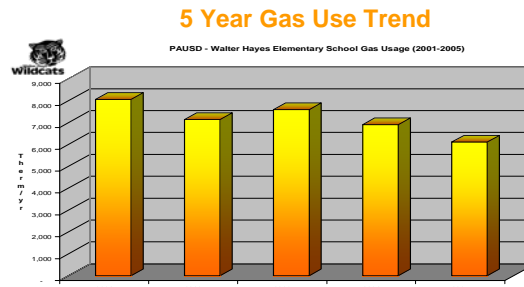
Electric

Peak Demand (KW)	53
Annual kWh	339,701
Annual Electric Cost	\$37,422
Main Service Size	-
Service Voltage	-
Meter # 1	37723
Meter # 2	N/A



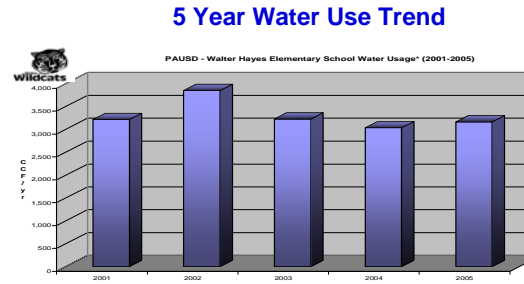
Gas

Annual therms	6,028
Annual Gas Cost	\$7,038
Meter # 1	51772
Meter # 2	N/A



Water

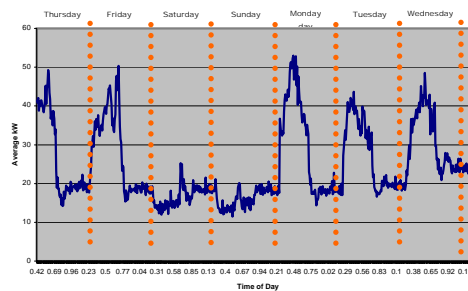
Irrigation Water Meter #	31020
Potable Water Meter #	20114
Annual CCF (irrigation)	1,302
Annual CCF (potable)	1,685
Annual CCF (total)	2,987
Annual Cost of Irrigation	\$4,859
Annual Cost of potable	\$6,716
Annual Cost (total)	\$11,575
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-



Sewer

Annual cost	\$7,843
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$3,097 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$14,339
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: Energy Efficiency Report, Walter Hayes Elementary, Salas O'Brien Engineers, Inc.

The image shows the exterior of Hoover Elementary School. The building is a single-story structure with a light-colored facade and a dark green trim along the roofline. A covered walkway with dark green support posts runs along the side of the building. Large trees with green leaves are visible in the foreground and background, casting shadows on the building and the ground. The overall scene is bright and clear.

HOOVER ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

HOOVER ELEMENTARY SCHOOL

Profile

Hoover Elementary School

445 E. Charleston Road

Built: Approx 1950, 1956, 1998, 2004

Total Site Area:	5.6 Acres
Building Area/Miscellaneous Circulation	1.6
Parking Area	1.5
Hard-Court Play Area	0.9
Turf Play Area	1.6

Building Area: **32,200 SF**

Existing Classroom Size **960 to 1440 SF**

2006/2007 Enrollment: **364**

Hoover Elementary School is comprised of four permanent single story buildings set in an L configuration around a central playground and field space.

The site, known also as "Old Ohlone", is bounded on one side by East Charleston, and J.L Stanford, with a driveway circling the campus on three sides. Around 1950, the Administration building and two classroom wings were built as part of the original campus. The Multipurpose building was built in 1956 along with a Library Resource building in a relocatable. After an extended school closure, the site was re-opened in 1998 after renovation.

As part of the Building for Excellence program in 2004, HVAC and Fire Alarm system improvements were made to the buildings. There are seven relocatable buildings on this site, with five housing classrooms and two housing the Day Care facilities. The Day Care facilities are actually located on the J.L. Stanford fields across the access road to Hoover.

Facilities Conditions

The Hoover campus was partially renovated for its opening in 1998, and has undergone minor modernization during the Building for Excellence Program. The school is located on Charleston Ave., and has significant traffic issues with respect to drop off and parking. The loop road and associated parking lot, combined with student drop off and bus parking creates major conflicts between vehicles

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

and pedestrians. ADA site accessibility and parking spaces were improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

The asphalt parking lot on campus was patched and has recently been overlaid. The hardcourts were recently resurfaced, and are showing no signs of failure. The redtop areas under the canopy were replaced in 2006.

The site sanitary sewer and the domestic water lines feeding the campus are original, and have not been replaced to date. These lines should be evaluated and replaced if necessary. The fire water lines and hydrants were installed prior to re-opening the campus in 1998. There is no record of gas or electrical service upgrades for this campus, so we assume that similar upgrades to these services will be required for future development and improvements to the campus.

Site drainage systems appear adequate, though there are some local areas of ponding.

The existing buildings on the Hoover Elementary School campus are in generally good condition, having been renovated in 1998 and subsequently in 2004. However, not all of the improvements made to the other campuses as part of the Building for Excellence program were done at Hoover Elementary. There are significant improvements that will need to be addressed with future funding to bring Hoover up to the District Standard established by Building for Excellence..

All of the buildings on campus have new built up roofing and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the 1998 renovation, with path of travel and restroom upgrades throughout the campus. However, no seismic upgrades were undertaken for any of the buildings and canopy structures on campus.

The campus has two major classroom wings that face the central play areas, and a row of five modular classrooms on a third side. The two original classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. The modular classrooms are placed along the inbound portion of the access road.

The classroom interiors in the original classroom wings were renovated in 1998 with new flooring, and paint, and in 2004, were outfitted with new furnace units and lighting. No improvements were made to electrical panels and data distribution, nor was any of the casework replaced. The glue up acoustic ceiling tiles were either replaced or left in place as part of the lighting replacement.

The Library interior was only slightly renovated as part of the 1998 renovation, and remains as the single campus without a Library meeting the district standards. The building exterior is wood shingle, and is built using a modular classroom unit on a concrete foundation. The interior spaces are new, but are dark and could use improvement. In addition, at 2,230 SF, it is one of the smaller libraries in the district.

The Administration area was also renovated with new flooring and paint. Mechanical equipment, and lighting were replaced in the past two years. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior.

The Multipurpose building at 2,596 SF is undersized for the planned campus capacity.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Hoover is one of the Elementary schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However the myriad of heating and (limited) air conditioning equipment (gas furnaces in classrooms, heat pumps in portables, unit heater in the Multi-Use room, and an air handling unit with duct furnace in the Library) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$142 per student, per year. The utility data sheet which follows, provides specific cost and

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 137 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Hoover Elementary include the following improvements:

- Classroom Modernization to Building for Excellence standards, including seismic upgrades, electrical upgrades, replacement of doors, water, gas and waste lines, new ceiling tiles and new flooring and casework.
- Administration Modernization to Building for Excellence standards, including electrical upgrades, new casework, ceiling tiles and flooring.
- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Hoover Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 450 students. The cost includes demolition of the existing Multipurpose and Library buildings and a 1 year lease and set up of a temporary cafeteria and temporary Library.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Administration wing
- In conjunction with the Multipurpose building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Hoover to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Hoover to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Hoover for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

A potential consideration for long range planning on this campus include the possibility of replacing the portable classrooms with a new one or two story classroom building configured in a way that will maximize field and play space on this small campus. There are currently five portable classrooms on this campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Hoover Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	Classroom Modernization - B4E standards Seismic structural upgrades to all buildings (30,760 @ \$10 sf) Removal of asbestos wrapping on piping Remove and replace all exterior doors and frames 1 CHECK???? POSSIBLE 36# Upgrade water supply, gas and waste/venting Upgrade electrical panels Provide new casework (approx 20 lf) Replace ceiling tiles in classrooms Replace flooring in classrooms (av 32' X 30")	\$2,059,253	\$2,574,066
M2	Administration / Support Space Modernization - B4E standards Upgrade electrical panels (assume other than classroom interior as above) Provide new casework in Admin Replace ceiling tiles in Admin Replace flooring in Admin	\$88,107	\$110,134
M3	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$620,877	\$776,096
M4	Improve security systems	\$108,360	\$135,450
M5	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets	\$372,488	\$465,609
M6	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$153,059	\$191,323
M7	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M8	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$396,025	\$495,031
M9	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$1,048,987	\$1,311,233
M10	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M11	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Subtotal - Priority 5	\$123,453	\$154,316
M12	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$6,435,983	\$8,044,978

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Hoover Elementary School



GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 2 cost - demo old library and MP buildings Option 2 cost - Replace library building Option 2 cost - Temporary Cafeteria and Library, 18 mo lease & Move on site	\$4,870,472	\$6,088,091
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$169,313	\$211,641
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$5,724,775	\$7,155,969

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,596,726	\$1,995,908
P2	10 - 20 Year Maintenance Schedule	\$2,255,889	\$2,819,861
SUBTOTAL - PLANNED MAINTENANCE		\$3,852,615	\$4,815,769

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$349,603
T2	Campus Technology Refresh Budget - years 7 thru 12	\$442,359
T3	Campus Technology Refresh Budget - years 13 thru 18	\$559,725
SUBTOTAL - TECHNOLOGY		\$1,351,687

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$168,300
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$168,300
SUBTOTAL - FURNITURE AND EQUIPMENT		\$336,600

POTENTIAL LONG TERM NEEDS

Contract	Scope of Work
L1	Replace 5 portables with permanent 1 or 2 story classroom building by 2025

HOOVER ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

HOOVER ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

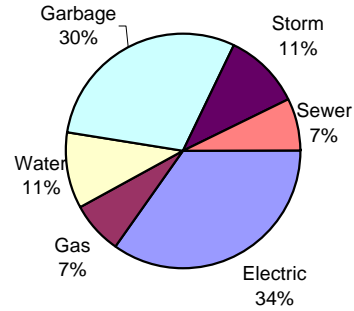
Hoover Elementary School enrollment 364

summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	150,760 kWh	\$17,948
Gas	4,251 therms	\$3,639
Water	1,361 ccf	\$5,502
Garbage	N.F.S. bins	\$15,227
Storm		\$5,479
Sewer		\$3,725
<i>per student \$142</i>		TOTAL \$51,520



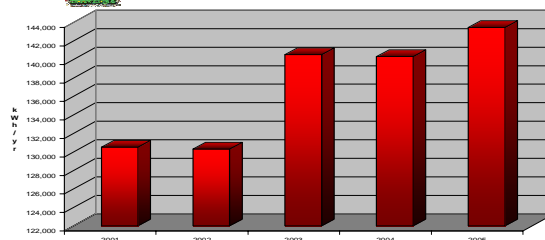
Electric

Peak Demand (KW)	54
Annual kWh	150,760
Annual Electric Cost	\$17,948
Main Service Size	-
Service Voltage	-
Meter # 1	01355
Meter # 2	33603
Meter # 3	19356



5 Year Electric Use Trend

PAUSD - Hoover Elementary School Electrical Usage (2001-2005)



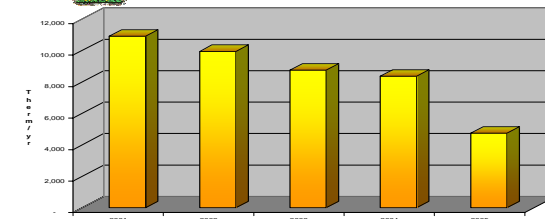
Gas

Annual therms	4,251
Annual Gas Cost	\$3,639
Meter # 1	23269
Meter # 2	N/A



5 Year Gas Use Trend

PAUSD - Hoover Elementary School Gas Usage (2001-2005)



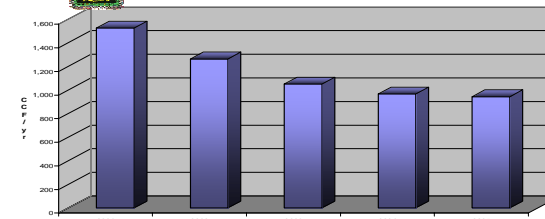
Water

Irrigation Water Meter #	39735
Potable Water Meter #	34146
Annual CCF (irrigation)	1,240
Annual CCF (potable)	121
Annual CCF (total)	1,361
Annual Cost of Irrigation	\$5,013
Annual Cost of potable	\$489
Annual Cost (total)	\$5,502
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-



5 Year Water Use Trend

PAUSD - Hoover Elementary School Water Usage* (2001-2005)

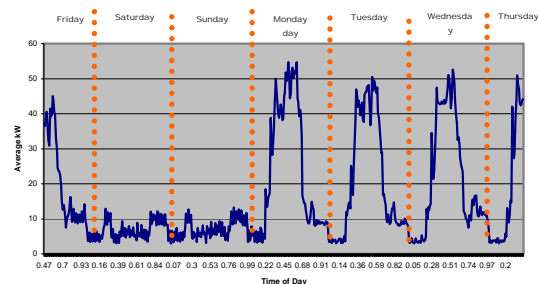


*These annual CCF figures do not entirely represent total water usage at this site. For further details, contact City of Palo Alto Water Department.

Sewer

Annual cost	\$3,725
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$5,479 *
Service Pipe Size	-

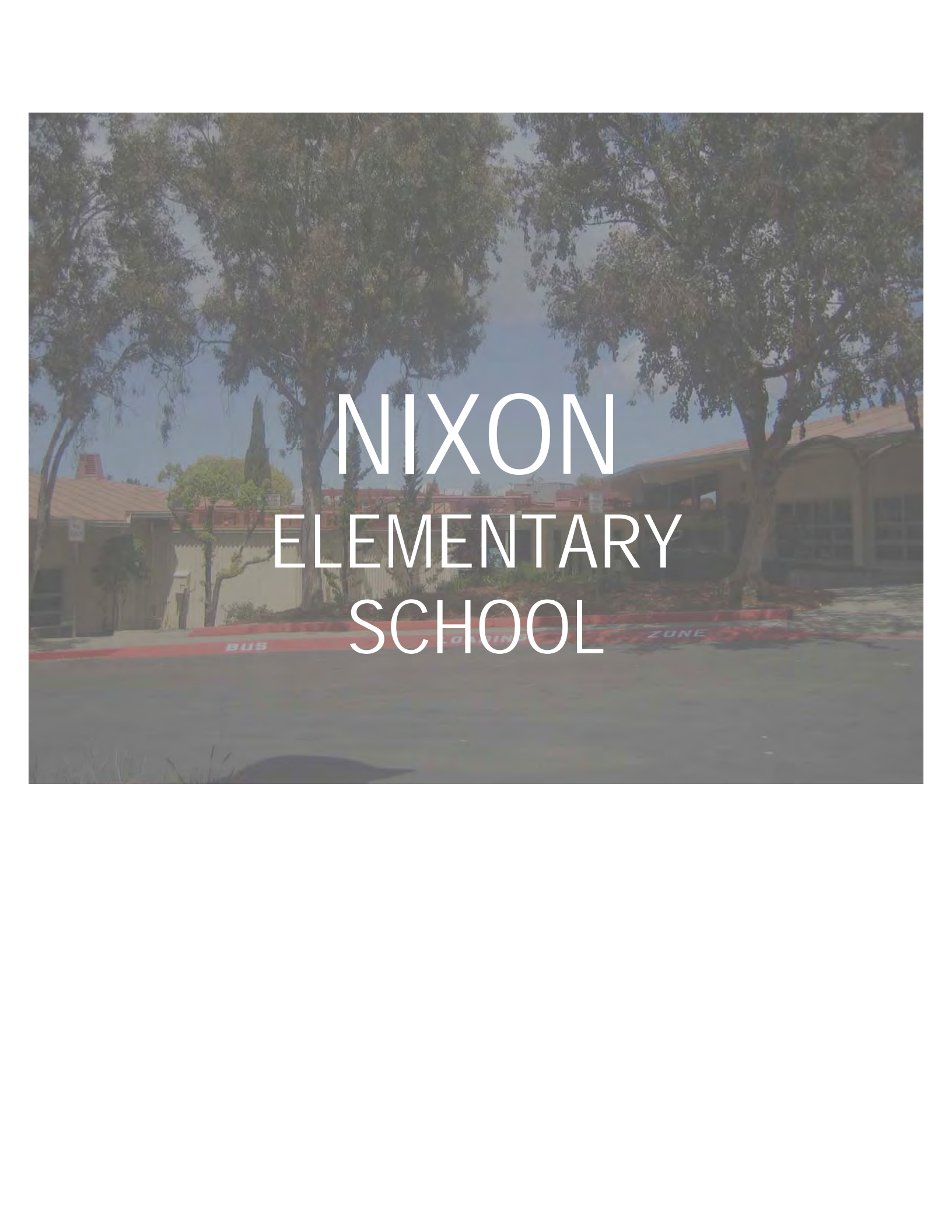
*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$15,227
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Hoover Elementary, Salas O'Brien Engineers, Inc.*

A photograph of Nixon Elementary School. The school building is a single-story structure with a light-colored facade and a red-tiled roof. Large, leafy trees are scattered around the building. In the foreground, there is a paved area with a red-painted curb and the words "BUS STOPPING ZONE" painted on it. A white bus stop sign is visible on the left side of the image. The sky is clear and blue.

NIXON ELEMENTARY SCHOOL

NIXON ELEMENTARY SCHOOL

Profile

Nixon Elementary School

1711 Stanford Ave.

Built: 1970, 2004

Total Site Area:	10.3 Acres
Building Area/Miscellaneous Circulation	2.2
Parking Area	1.8
Hard-Court Play Area	2.3
Turf Play Area	4.0

Building Area: **59,403 SF**

Existing Classroom Size **960 to 1440 SF**

2006/2007 Enrollment: **408**

Nixon Elementary School is set on a 10 acre sloping site off of Stanford Ave. and is terraced into three major levels.

Parking is at the top of the site, with the buildings toward the middle terrace and the playfields on the lower terrace. There are two permanent buildings built in 1970 that house the classrooms, Administration and Library functions of the campus. Also included in the main building is an MP room. The smaller building is the Kindergarten classroom wing.

In 2004, the Building for Excellence program renovated all the interior spaces of the campus except for the MP room, and re-roofed the facility. Some slope stabilization work was also done in the latest renovation work.

Facilities Conditions

The Nixon campus is in the Stanford community, off of Stanford Ave., a major thoroughfare in Palo Alto. Though modified to create more efficient traffic flow, the on site parking and drop off facilities are limited which creates some congestion on Stanford as parents wait to enter the drop off areas. The school has implemented a traffic plan with parents, which has made the current configuration livable.

The asphalt parking lot is undersized for the size of the campus, but they use an upper hardcourt area for overflow parking for events.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Incorporating additional parking or drop off space on site is limited due to the slope of the site. The lot was recently overlaid and re-striped, and appears to be in good condition. The hardcourt areas were also in good condition after a recent overlayment. Concrete walkways are original, and vary in their condition around the campus based on drainage.

The site sanitary sewer system is original, and has not been replaced to date. These lines should be evaluated and replaced if necessary. A new copper domestic water service was installed in 1992. New fire hydrants serving the site were added during Building for Excellence, and a new electrical service was also installed. The gas service was replaced in 1992, and is run underground to the buildings. Site drainage systems are also original, but appear to be in good condition. Roof drainage was improved greatly during re-roofing in 2004, but downspouts are not yet connected to the storm drain system, causing local flooding in some areas.

The existing buildings on the Nixon Elementary School campus are in generally good condition, having just recently be renovated as part of the Building for Excellence program. The modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new single ply membrane roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, but the glazing in these units are in good condition. This is the single Elementary School campus in the district that has air conditioning.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. However, some transitions and ramps on the campus are not in compliance. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures.

The classroom interiors were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The acoustic ceiling tiles were replaced on this campus.

The Library and Administration areas were renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose room was only slightly modernized, with new flooring and a handicap lift placed

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

within the interior. The building doors were replaced and the building was painted.

The Library at 5,289 SF and the Multipurpose room at 4,553 SF are both adequate for the current campus capacity, though the Multipurpose room and adjacent spaces will be fully renovated in the future to meet new Multipurpose room standards.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Nixon is one of the Elementary schools that may not be as good a candidate for passive cooling because of the peaked roof. It should be noted, however, that Nixon is one of the few elementary schools that is almost fully air-conditioned. Fan coils with D/X cooling serve most of the classrooms and the Administration lobby. A furnace serves the Theater and parts of the Administration building. Therefore the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$127 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 170 point, Alerton energy management system.

Site Needs

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

Modernization:

The scope of work proposed for the existing buildings at Nixon Elementary include the following improvements:

- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from roof to below grade
- New site furnishings
- Interior renovation and upgrades to existing Multipurpose room and kitchen areas.

Growth & Expansion of Facilities:

New construction or additions proposed for Nixon Elementary School include:

- Four modular classrooms are planned to increase capacity of Nixon to a three and a half strand school.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the planned modular classrooms on the lower playground.
- In conjunction with renovation of the Multipurpose building, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom buildings and computer lab on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Nixon to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Nixon to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The funding proposed for Nixon for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Another potential consideration for long range planning on this campus include the possibility of building a new permanent classroom building to match the campus architecture that will maximize field and play space on this small campus, as well as maintain supervision on campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



Nixon Elementary School

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$907,788	\$1,134,736
M2	Rework exterior ramps and walkways to comply with ADA	\$101,588	\$126,984
M3	Improve security systems	\$108,360	\$135,450
M4	Classroom Casework Upgrade Provide new casework in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$216,720	\$270,900
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$676,465	\$845,582
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$1,655,276	\$2,069,096
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles,	\$67,725	\$84,656
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
M11	Interior upgrades for Multipurpose Bldg and support facilities	\$579,146	\$723,932
SUBTOTAL - MODERNIZATION		\$5,778,444	\$7,223,055

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Place new modular growth classrooms on campus	\$1,292,890	\$1,616,112
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$33,863	\$42,328
G4	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$1,957,562	\$2,446,953

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN



Nixon Elementary School

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
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PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$2,661,320	\$3,326,650
P2	10 - 20 Year Maintenance Schedule	\$4,149,190	\$5,186,488
SUBTOTAL - PLANNED MAINTENANCE		\$6,810,510	\$8,513,138

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$263,603
T2	Campus Technology Refresh Budget - years 7 thru12	\$333,542
T3	Campus Technology Refresh Budget - years 13 thru18	\$422,037
SUBTOTAL - TECHNOLOGY		\$1,019,181

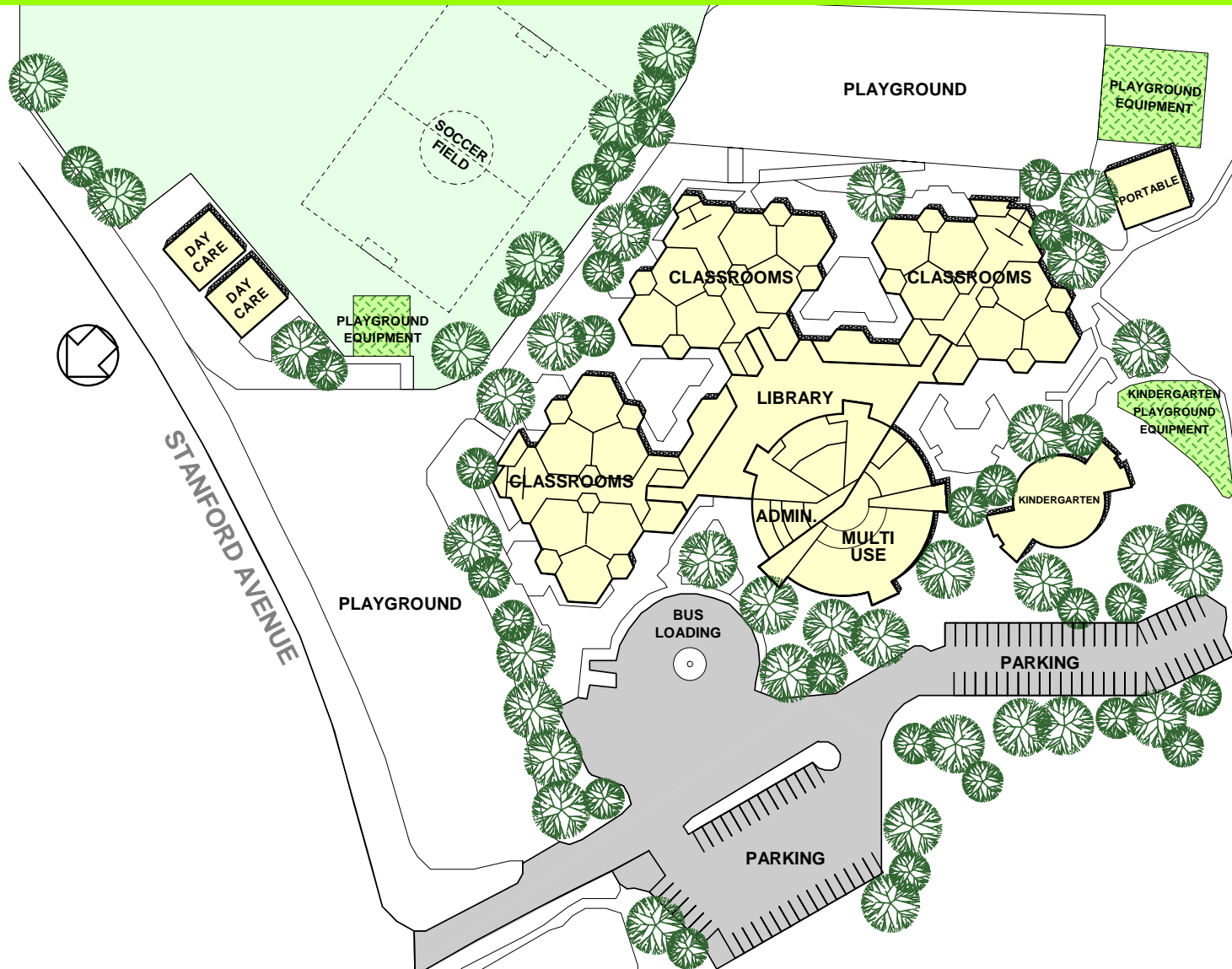
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$194,650
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$194,650
SUBTOTAL - FURNITURE AND EQUIPMENT		\$389,300

POTENTIAL LONG TERM NEEDS

Contract	Scope of Work
L1	Expand terrace for additional classrooms, including retaining wall

LUCILLE NIXON ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN









A E D I S *Architecture & Planning*

LUCILLE NIXON ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

Nixon Elementary School *enrollment 408*

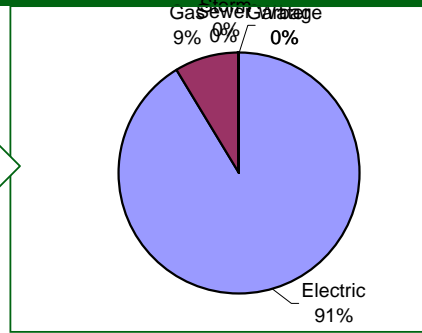
summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	341,842 kWh	\$49,770
Gas	4,173 therms	\$4,650
Water	0 ccf	\$0
Garbage	N.F.S. bins	\$0
Storm		\$0
Sewer		\$0
<i>per student \$133</i>		TOTAL \$54,420

This site is NOT CPAU, but rather PG&E



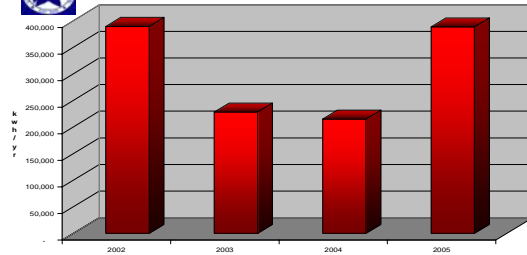
Electric

Peak Demand (KW)	170
Annual kWh	341,842
Annual Electric Cost	\$49,770
Main Service Size	
Service Voltage	
Meter # 1	
Meter # 2	



4 Year Electric Use Trend

PAUSD - Nixon Electrical Usage (2002-2005)



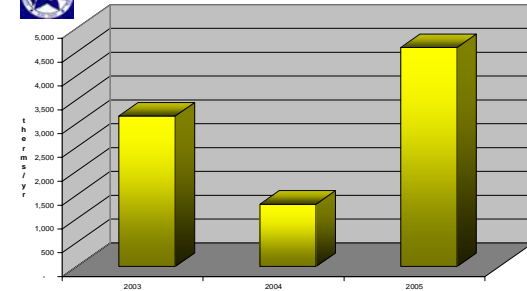
Gas

Annual therms	4,173
Annual Gas Cost	\$4,650
Meter # 1	
Meter # 2	



3 Year Gas Use Trend

PAUSD - Nixon Gas Usage (2003-2005)



Water

Irrigation Water Meter #	
Potable Water Meter #	
Annual CCF (irrigation)	
Annual CCF (potable)	
Annual CCF (total)	
Annual Cost of Irrigation	
Annual Cost of potable	
Annual Cost (total)	
Service Pipe Size (irrigation)	
Service Pipe Size (potable)	

Sewer

Annual cost	
Service Pipe Size	-

Storm

Annual cost	
Service Pipe Size	-

Garbage

Annual cost	
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Nixon Elementary, Salas O'Brien Engineers, Inc.*

A photograph of Ohlone Elementary School. The school building is a single-story structure with a light-colored facade and a dark roof. In the foreground, there is a paved parking lot with yellow and blue markings, including a blue handicapped parking space. A person is standing in the middle of the parking lot. The background features several large green trees and a cloudy sky. The text "OHLONE ELEMENTARY SCHOOL" is overlaid in large white letters on the center of the image.

OHLONE ELEMENTARY SCHOOL

OHLONE ELEMENTARY SCHOOL

Profile

Ohlone Elementary School

950 Amarillo Avenue
Built: 1949, 1962, 2003

Total Site Area:	7.2 Acres
Building Area/Miscellaneous Circulation	3.3
Parking Area	0.8
Hard-Court Play Area	1.1
Turf Play Area	1.5
Farm	0.5

Building Area: **43,029 SF**
Existing Classroom Size **928 to 1440 SF**
2006/2007 Enrollment: **421**

Ohlone Elementary School is comprised of six permanent single story buildings arranged in an elongated L configuration around a central playground and field space.

The site is access from Amarillo Ave, and is bounded on the remaining sides by residences. The original buildings were the classroom wings and the Administration building, which were built in 1949. A Multipurpose building and Library Resource Center were constructed in 1962.

In 2003, the Building for Excellence program added another classroom building, and included renovation of the existing classrooms and the Administration building. There are seven relocatable buildings on this site, five housing classrooms and two housing Day Care facilities.

Facilities Conditions

The Ohlone site was extensively renovated during the Building for Excellence Program. The school is located on Amarillo Ave., and with its on site parking and drop off layout, has fewer traffic conflicts between vehicle and pedestrian patterns than the other campuses. ADA site accessibility and parking was improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The asphalt fire lanes on campus were installed during the Building for Excellence Program. The hardcourt and parking lot spaces have been resurfaced, and are showing no signs of failure. The redtop areas under the canopy are cracked and heaving in some locations, and will need to be replaced in the future.

The site sanitary sewer serving the campus is original, and has not been replaced to date. These lines should be evaluated and replaced if necessary. The domestic water lines were partially replaced in 1989 with copper piping, along with a new backflow preventer. The water line serving the upper wing remains galvanized, and should be replaced. The fire water lines were installed during Building for Excellence, as was a new electrical service. The gas service is run overhead exposed on the roof, and was replaced in 1976. Site drainage systems were installed during the Building for Excellence Program to improve drainage on the playgrounds. There are some local ponding areas, and the dry well system serving the campus may need to be evaluated for its ability to handle heavy runoff.

The existing buildings on the Ohlone Elementary School campus are in generally good condition, having been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus has three major classroom wings that surround the central play areas. The two original classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. The third

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

classroom wing includes four new classrooms, and was constructed in 2004 during the Building for Excellence Program.

The classroom interiors in the two original classroom wings were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood. The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

The existing 4,092 SF Library is adequate in size, and was renovated as part of the Building for Excellence Program. Air conditioning was added to this library in 2006. Only minor modernization will occur in this building to the exterior with future funding.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building at 2,832 SF is undersized for the planned campus capacity.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Ohlone is one of the Elementary schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However the myriad of heating and (limited) air conditioning equipment (gas furnaces with dampers in classrooms, heat pumps in portables, unit heater in the Multi-Use room, and H&V unit in Administration) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$123 per student, per year. The utility data sheet which follows, provides specific cost and

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 161 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Ohlone Elementary include the following improvements:

- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Ohlone Elementary School include:

- Add three modular classrooms to the campus, to bring the campus capacity to a four strand school.
- A new, larger Multipurpose building to accommodate the planned capacity for the campus. The cost includes demolition of the existing Multipurpose building and 1 year lease and set up of a temporary cafeteria.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the new Multipurpose building.
- In conjunction with the Multipurpose building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- Place existing relocatable classroom buildings and computer lab on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Ohlone to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Ohlone to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Ohlone for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Another potential consideration for long range planning on this campus include the possibility of replacing the modular classrooms on campus with a new classroom building configured in a way that will maximize field and play space on this small campus. There are currently five modular classrooms on this campus, with another three more planned for future growth.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Ohlone Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$737,996	\$922,495
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$485,750	\$607,187
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$224,170	\$280,212
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$456,506	\$570,632
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$940,205	\$1,175,256
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,213,697	\$1,517,121
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Provide new picket fencing along front of school along Amarillo	\$114,165	\$142,706
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$4,525,754	\$5,657,193

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Place new modular growth classrooms on campus	\$969,667	\$1,212,084
G2	Replacement of Multipurpose Room Bldg Option 2 cost - Demo existing MP building Option 2 cost - Temporary Cafeteria, 1 yr lease & Move on site	\$3,092,594	\$3,865,743
G3	Provide new Flex Room	\$495,360	\$619,200
G4	Provide permanent foundations and ramps for Relos	\$243,810	\$304,763
G5	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G6	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$4,991,062	\$6,238,827

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Ohlone Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$2,262,515	\$2,828,144
P2	10 - 20 Year Maintenance Schedule	\$2,609,041	\$3,261,301
SUBTOTAL - PLANNED MAINTENANCE		\$4,871,556	\$6,089,445

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$293,603
T2	Campus Technology Refresh Budget - years 7 thru12	\$371,501
T3	Campus Technology Refresh Budget - years 13 thru18	\$470,067
SUBTOTAL - TECHNOLOGY		\$1,135,171

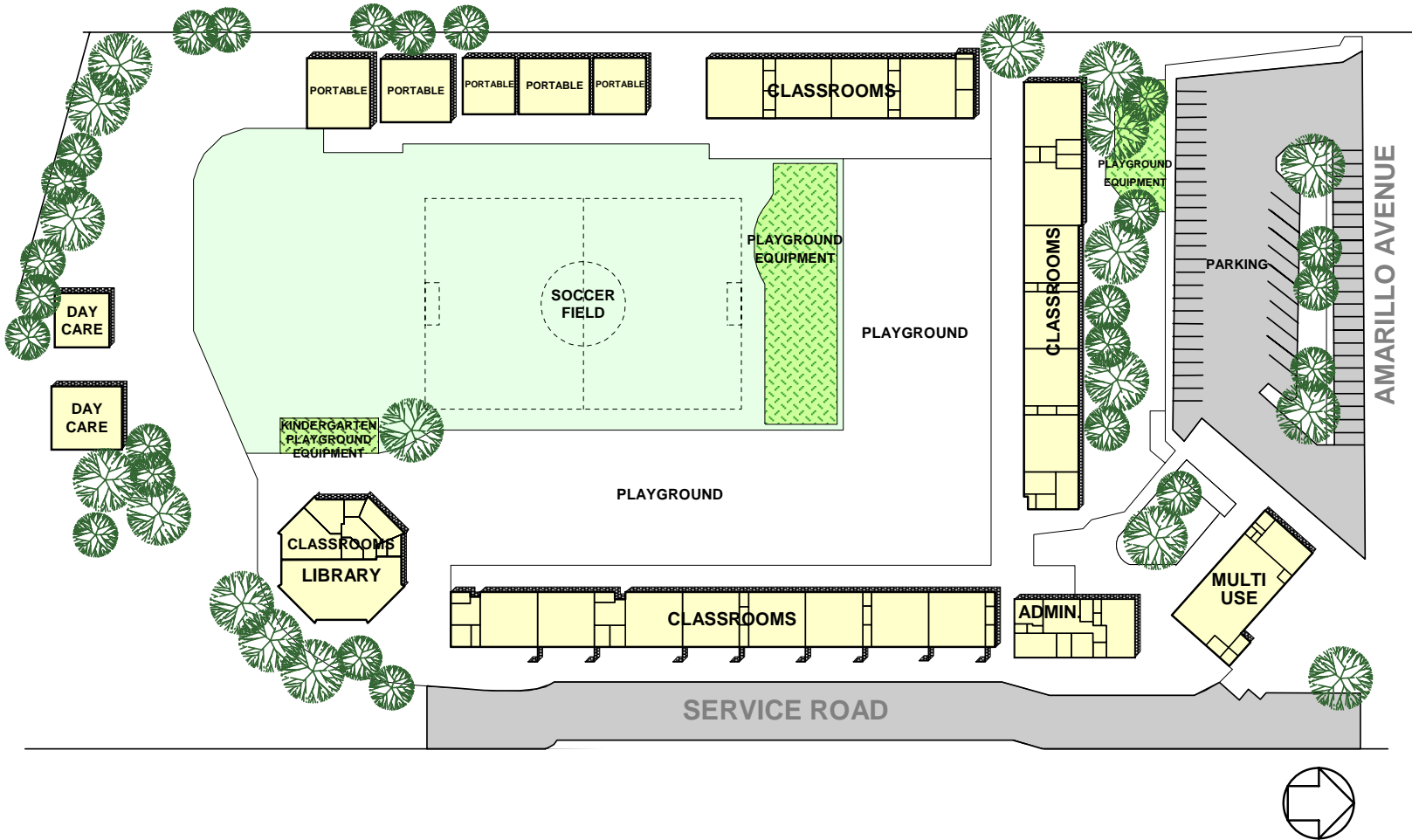
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$212,500
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$212,500
SUBTOTAL - FURNITURE AND EQUIPMENT		\$425,000

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025
L2	Replace library with new building

OHLONE ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

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PROPOSED PLAN

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**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

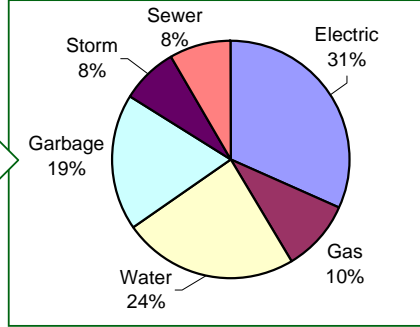
Ohlone Elementary School enrollment 421

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Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

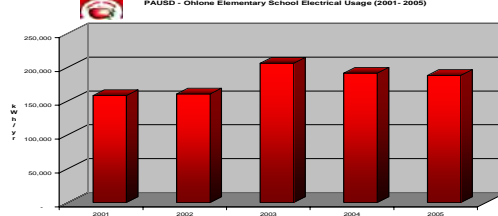
	use units	cost
Electric	163,094 kWh	\$16,463
Gas	4,236 therms	\$4,944
Water	3,061 ccf	\$12,426
Garbage	N.F.S. bins	\$9,632
Storm		\$4,153
Sewer		\$4,251
<i>per student \$123</i>		TOTAL \$51,869



Electric

Peak Demand (KW)	87
Annual kWh	163,094
Annual Electric Cost	\$16,463
Main Service Size	-
Service Voltage	-
Meter # 1	38162
Meter # 2	40740

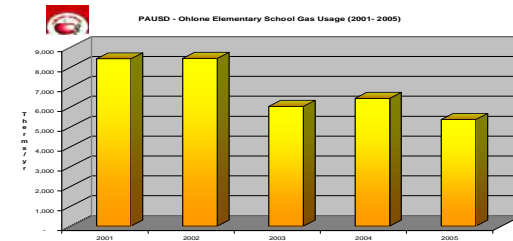
5 Year Electric Use Trend



Gas

Annual therms	4,236
Annual Gas Cost	\$4,944
Meter # 1	52467
Meter # 2	N/A

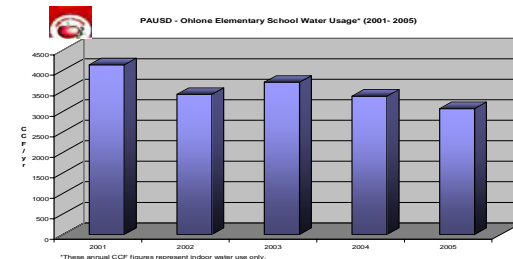
5 Year Gas Use Trend



Water

Irrigation Water Meter #	34139
Potable Water Meter #	18475
Annual CCF (irrigation)	2,148
Annual CCF (potable)	913
Annual CCF (total)	3,061
Annual Cost of Irrigation	\$8,660
Annual Cost of potable	\$3,766
Annual Cost (total)	\$12,426
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

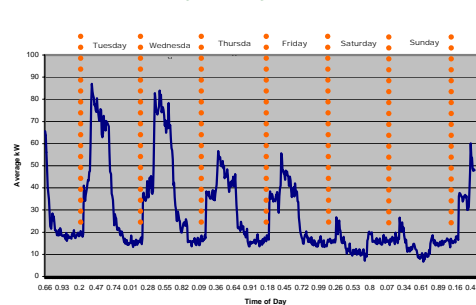
5 Year Water Use Trend



Sewer

Annual cost	\$4,251
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$4,153 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$9,632
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Ohlone Elementary, Salas O'Brien Engineers, Inc.*

A photograph of the Palo Verde Elementary School building. The building is a long, single-story structure with a dark roof and large windows. In the foreground, there is a concrete sidewalk and a yellow curb. To the left, a flagpole stands with a California state flag. Several trees are scattered around the building, and a few cars are parked in a lot to the right. The sky is overcast.

PALO VERDE ELEMENTARY SCHOOL

PALO VERDE ELEMENTARY SCHOOL

Profile

Palo Verde Elementary School

3450 Louis Road

Built: 1953, 1955, 2004

Total Site Area:	5.0 Acres
Building Area/Miscellaneous Circulation	1.2
Parking Area	1.3
Hard-Court Play Area	0.7
Turf Play Area	1.8

Building Area:	35,443 SF
Existing Classroom Size	960 to 1440 SF
2006/2007 Enrollment:	363

Palo Verde Elementary School is comprised of six permanent single story buildings arranged in an elongated L configuration around a central playground and field space.

The site is accessed from Louis Ave in front and Rorke, and is bounded on the two remaining sides by residences. The original buildings were the classroom wings and the Administration building, which were built in 1953. A Multipurpose building and relocatable housing the Library Resource Center were constructed in 1955.

In 2004, the Building for Excellence program added a new library building, and included renovation of the existing classrooms and the Administration building. There are six relocatable buildings on this site, four housing classrooms and two housing Day Care facilities.

Facilities Conditions

The Palo Verde site was extensively renovated during the Building for Excellence Program. The school is located on Louis Ave., and has no major traffic conflicts between vehicle and pedestrian patterns with its drop off and parking layout. ADA site accessibility and parking was improved during Building for Excellence, and the campus is currently in compliance with ADA requirements.

The asphalt fire lanes on campus were replaced during the Building for Excellence Program. However, there are some smaller paved areas that will need to be replaced soon. The hardcourt and parking

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FACILITY MASTER PLAN

lot spaces have been resurfaced, and are showing no signs of failure. The redtop areas under the canopy are cracked in some locations, and will need to be replaced in the future.

The site sanitary sewer and domestic water lines feeding the campus are original, and have not been replaced to date. These lines should be evaluated and replaced if necessary. Some portions of the fire water lines were installed during Building for Excellence, as was a new electrical service. The gas service was replaced in 1976, and is run overhead exposed on the roof. Site drainage systems were installed during the Building for Excellence Program to improve site drainage, but some areas of ponding remain around the perimeter of the site.

The existing buildings on the Palo Verde Elementary School campus are in generally good condition, having just recently been renovated as part of the Building for Excellence program. However, this modernization program did not address several areas of the campus, which will need to be addressed with future funding.

All of the buildings on campus have new built up roofing, new hollow metal doors and fresh paint on the exterior. The original windows were left in place, and include the original single pane glazing in most cases. This is causing significant air infiltration and heat loss, which impacts the heating systems for the buildings during cold weather.

The campus was also made accessible during the renovation, with path of travel and restroom upgrades throughout the campus. In addition, voluntary seismic upgrades were undertaken for all the buildings and canopy structures, except for the Multipurpose building.

The campus has two major classroom wings that focus toward the central play areas. The two classroom wings have large windows running the length of the exterior walls, and have volume ceilings and clerestory windows in each classroom. Toward the center of campus, each classroom opens below a large canopy, where picnic tables are arranged outside each classroom to serve as an outdoor learning area for each classroom space. In addition to the two classroom wings, there are four modular classrooms located along the southern boundary and fire lane.

The classroom interiors in the two original classroom wings were all extensively modernized, with new flooring, wall surfaces, markerboards, furnace units, lighting, power and data distribution. Portions of the casework were replaced with new plastic laminate units, with the remaining casework left in place as painted wood.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

The glue up acoustic ceiling tiles were either replaced or left in place, and painted to appear uniform, diminishing the acoustic qualities of the tiles.

A new 2,986 SF Library was completed on this campus as part of the Building for Excellence Program, which included a single classroom. The Library is adequately sized, and no modernization is planned for this building except for adding a teaching wall to the classroom.

The Administration area was renovated with new flooring, casework and paint. Mechanical equipment, plumbing and lighting were replaced throughout. The Multipurpose building was only slightly modernized, with new flooring and a handicap lift placed within the interior. The building doors were replaced and the building was painted.

The Multipurpose building is undersized at 2,666 SF, and will be expanded to accommodate the planned campus capacity.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Palo Verde is one of the Elementary schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However the myriad of heating and (limited) air conditioning equipment (gas furnaces in classrooms and Administration, unit heater in the Multi-Use room, and air handling unit with D/X cooling and duct furnace in the Library) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$135 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 141 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Palo Verde Elementary include the following improvements:

- Replacement of windows
- Upgrading cabinets in the classrooms and adding teaching walls
- Improved cooling to classrooms
- Playfield and landscaping
- Replacement of concrete walkways
- Utility main replacement and relocation of utilities from canopy roof to below grade
- New site furnishings

Growth & Expansion of Facilities:

New construction or additions proposed for Palo Verde Elementary School include:

- A new, larger Multipurpose building to accommodate the board approved potential capacity of 450 students. The cost includes demolition of two classrooms in the upper wing, renovation of the existing Multipurpose building and a 1 year lease and set up of a temporary cafeteria.
- A new 1,440 SF Flex Classroom will be added to the campus, adjacent to the Multipurpose building.
- In conjunction with the Multipurpose building expansion, include an additional 200 SF teacher workroom to accommodate visiting faculty and meeting space.
- Place existing relocatable classroom buildings and computer lab on permanent foundations, eliminating ramps.
- Reconfigure the Day Care facilities and play space, with new fencing and play equipment.

Planned Maintenance:

Planned maintenance funds are being proposed for Palo Verde to continue the current planned maintenance schedule beyond the 10

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Palo Verde to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Palo Verde for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Another potential consideration for long range planning on this campus include the possibility of replacing the modular classrooms on campus with a new classroom building configured in a way that will maximize field and play space on this small campus.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Palo Verde Elementary School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$695,506	\$869,383
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade Provide new teaching walls in classrooms, to match B4E cabinets New tackwall and base cabinets, where not replaced in B4E	\$428,603	\$535,753
M4	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$160,508	\$200,635
M5	LAN/WAN infrastructure to support Technology Upgrades	\$77,207	\$96,508
M6	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$338,316	\$422,896
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$822,100	\$1,027,625
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,220,469	\$1,525,586
M9	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Reroute roof top utilities underground, no re-roof	\$114,165	\$142,706
M10	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$4,132,934	\$5,166,167

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg Option 3 cost - Demo classrooms Option 3 cost - renovate existing MP to classrooms Option 3 cost - Temporary portable classrooms	\$3,792,419	\$4,740,524
G2	Provide new Flex Room	\$495,360	\$619,200
G3	Provide permanent foundations and ramps for Relos	\$195,048	\$243,810
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$4,672,457	\$5,840,572

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Palo Verde Elementary School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,489,796	\$1,862,245
P2	10 - 20 Year Maintenance Schedule	\$2,165,998	\$2,707,498
SUBTOTAL - PLANNED MAINTENANCE		\$3,655,794	\$4,569,743

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$307,603
T2	Campus Technology Refresh Budget - years 7 thru12	\$389,216
T3	Campus Technology Refresh Budget - years 13 thru18	\$492,482
SUBTOTAL - TECHNOLOGY		\$1,189,300

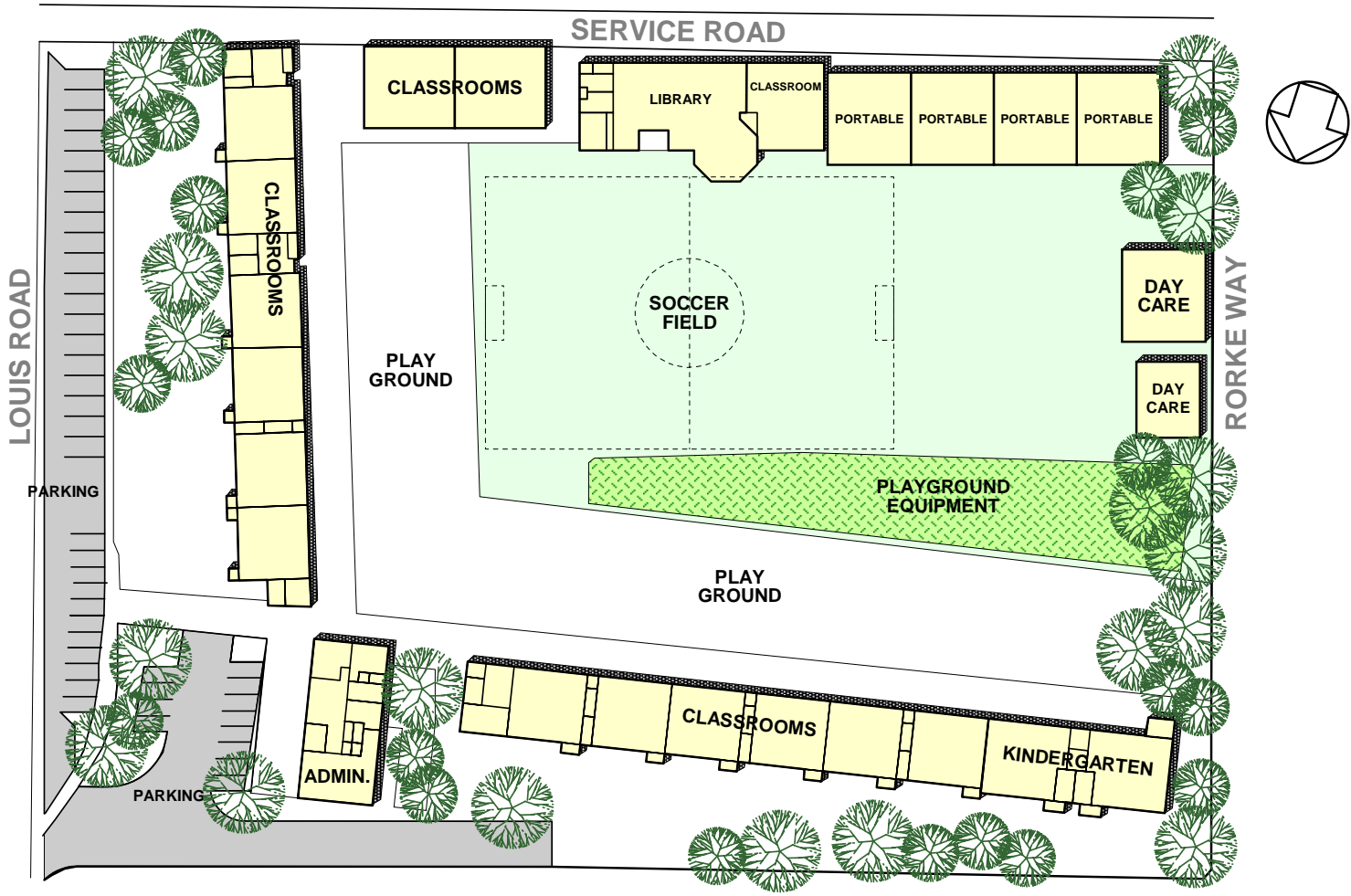
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$168,300
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$168,300
SUBTOTAL - FURNITURE AND EQUIPMENT		\$336,600

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace portables with permanent classroom buildings by 2025

PALO VERDE ELEMENTARY SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT

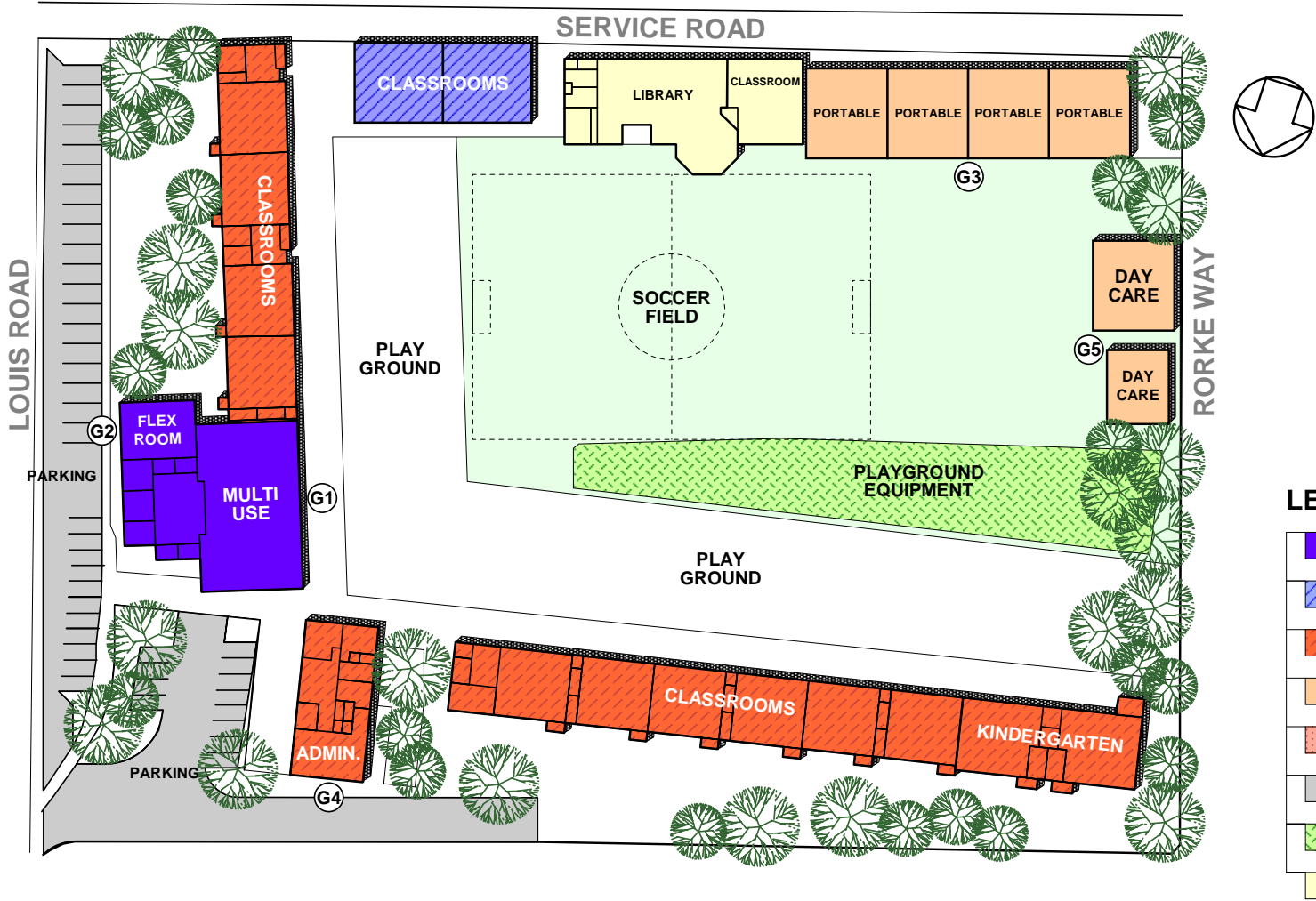


EXISTING PLAN

A E D I S *Architecture & Planning*

PALO VERDE ELEMENTARY SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

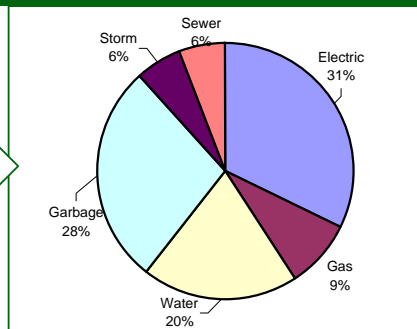
Palo Verde Elementary School enrollment 363

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Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

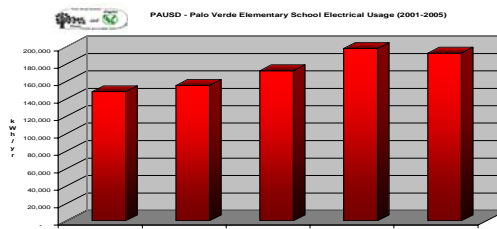
	use units	cost
Electric	156,880 kWh	\$15,811
Gas	3,577 therms	\$4,174
Water	2,382 ccf	\$9,630
Garbage	N.F.S. bins	\$13,584
Storm		\$2,922
Sewer		\$2,798
<i>per student \$135</i>	TOTAL	\$48,919



Electric

Peak Demand (KW)	69
Annual kWh	156,880
Annual Electric Cost	\$15,811
Main Service Size	-
Service Voltage	-
Meter # 1	36514
Meter # 2	32949

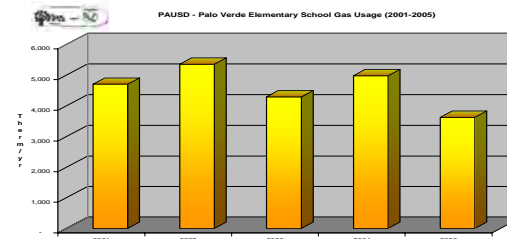
5 Year Electric Use Trend



Gas

Annual therms	3,577
Annual Gas Cost	\$4,174
Meter # 1	52463
Meter # 2	N/A

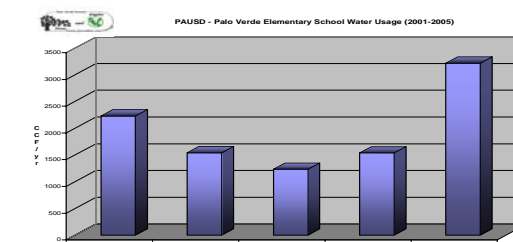
5 Year Gas Use Trend



Water

Irrigation Water Meter #	34135
Potable Water Meter #	22958
Annual CCF (irrigation)	1,587
Annual CCF (potable)	795
Annual CCF (total)	2,382
Annual Cost of Irrigation	\$6,409
Annual Cost of potable	\$3,221
Annual Cost (total)	\$9,630
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

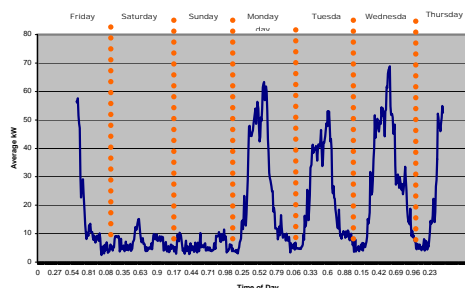
5 Year Water Use Trend



Sewer

Annual cost	\$2,798
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$2,922 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$13,584
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: Energy Efficiency Report, Palo Verde Elementary, Salas O'Brien Engineers, Inc.

A photograph of Jordan Middle School. The building is a modern, single-story structure with large windows and a flat roof. In the foreground, there is a paved area with a yellow curb, a bench, and a parking sign. The sign has a 'P' symbol and some text. Large evergreen trees are visible on the left and right sides of the building. The sky is clear and blue.

JORDAN MIDDLE SCHOOL

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN**

JORDAN MIDDLE SCHOOL

Profile

Jordan Middle School

750 N. California Ave.

Built in: 1937, 1950, 1960, 1964, 1973, 1991, 2004

Total Site Area:	19.0 Acres
Building Area/Misc. Circulation	9.7
Parking Area	1.6
Hard-Court Play Area	1.0
Turf Play Area	6.7

Building Area:	114,046 SF
Existing Classroom Size	820 to 1600 SF
2006/2007 Enrollment:	916

Jordan Middle School is made up of 11 single story buildings on a 19 acre site near the Garland Surplus site.

The original construction in 1937 included the Administration/Library wing, the Cafetorium, Gymnasium, Shop building, and 4 classroom wings. An expansion in 1950 added 3 classrooms and a shop classroom to existing buildings. The music building was built in 1960, and further additions and remodeling took place in 1964. The Cafetorium was rebuilt in 1973 after a fire in 1971. After closing in 1985, an extensive renovation of all classrooms was undertaken in 1991 prior to re-opening the school as a grade 6-8 middle school.

During Building for Excellence, the school classroom spaces were again modernized with new finishes, lighting and heating systems. The Cafetorium and Gym were seismically upgraded and the lockers and showers were renovated.

Facilities Conditions

Architectural Review

Jordan Middle School site is housed at a busy location in the City of Palo Alto along one of its main circulation arteries. The main site parking area is off Middlefield Road, which has caused some congestion at the beginning and end of day traffic. Most of the traffic issues have been resolved with the bus and auto drop-off and pick-up area at the parking loop in the front of the school off N. California Ave. The main issue with the parking is that during events

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

on campus the parking is on the opposite side of the campus from the main activity areas of the Gym and Cafetorium. During each event the public has to cross through the campus to reach the activity.

The buildings on the campus present various styles relative to the era that they were built. The major structures were constructed in the mid -1930's and present a modified art-deco style of that era. The subsequent additions have reflected the boxy style and covered walkways of the original but have little style of their own. The buildings are single story rectangular buildings with relatively flat roofs and perimeter parapet walls. The exterior walls have a cement plaster finish. The typical interior hallways/ rooms feature concrete slab floors with carpet or vinyl tile, gypsum board or plaster painted walls with some old tackboard wall surfaces, suspended acoustical ceilings or painted direct glue-on acoustical tiles.

The conditions of the facilities are generally good in the newly remodeled buildings of the Building for Excellence (B4E) Program, the exceptions being the windows, wall coverings and interior cabinetry. During the B4E program all of the buildings sitewide have been modernized to various standards with the interior of the gymnasium and cafetorium being the exceptions. These two interiors were left for future construction programs.

Most of the issues relating to handicap accessibility have been addressed in the recent Building for Excellence program. Toilet rooms, hardware and path of travel have all been addressed.

Civil Review

Storm Drainage

The storm drainage system at the school overall is inadequate. During the Building for Excellence program the Civil engineer's review of the system indicated that the campus has severe drainage problems and needs a full evaluation and mitigation plan. Plans were developed for the replacement of the existing system but unfunded and not constructed. The problem with the existing system extends to the subsurface piping capacity and its tie into the existing city system. The on-site piping is clogged and the city system that the site drains to can not take the flow from the campus. The city at this time does not have plans to upgrade the capacity of their system. The revisions needed for a new system are estimated to cost in the range of \$ 500,000. This system as of 2000 includes

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retention of the storm water on site and pumped gradually into the city system.

Pavement

The paved areas around the site contain numerous cracks and most areas need to be replaced. Some areas have subgrade problems as evidenced in the surface alligating. Standing water over the years has and will continue to degrade the surfaces and structure of the paving. The standing water in part, is caused by the back up of the existing dry well system that is overloaded during downpours. In many areas tree roots have lifted the surface and these areas require removal and resurfacing. Repaving of the paved area should be done when the drainage problems are being addressed.

Accessibility

There were a number of handicap parking spaces added and access ramps built during the first phases of the modernization projects under the Building for Excellence program. The past construction has provided sufficient parking to meet state guidelines. Each building when modernized was required to meet current accessible standards. Access has been developed to all areas of the campus and all of the site toilet facilities are accessible.

Water Lines

A new main water line across the site was installed prior to the Building for Excellence Program. During the B4E program all of the interior water piping in the remodeled areas was replaced. There are still some areas of underground branch water lines that were not been replaced that are old enough to need replacement in the near future.

Sanitary Sewer System

During the first phase of the B4E program the main site sewer line was relined. This work included some cleaning of some of the lateral lines. Historically there were a number of problems with the system that were corrected during the Building for Excellence program. The majority of the lateral system that ties into the main line is old and could need replacement in the next ten years. It is recommended that the piping be videotaped to verify its condition to determine the need of replacement. Do to its age, some replacement of the existing piping should be anticipated.

Gas Piping

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The gas service and meters were replaced under the Building for Excellence Program. The gas lines internal to the site and building were partially replaced with the remainder being in good condition. No further replacement is anticipated.

Structural Review

In general and based on the limited review of the buildings conducted in the Building for Excellence program, it appears that the buildings do not pose life safety problems. During each phase of the recent modernization program, the structural system of each building in that phase was evaluated and voluntarily upgraded. This upgrading did not bring the buildings up to full current code compliance with the state building standards but improved the life safety of its occupants. Building damage will occur during seismic events.

During the Building for Excellence program each of the buildings remodeled included some upgrading the structural system. In most cases the roofing was changed, roof diaphragms re-nailed and the roof drains enlarged to provide better drainage off the roof system. In some buildings there was extensive dry rot or termite damaged wood that was replaced.

The major structural upgrade occurred in the gymnasium building the tallest on the campus. Wall stiffening of the north and south window walls was completed to increase the seismic capability of the building.

Mechanical Review

The majority of the heating systems on campus are feed from the boilers located at the back of the campus in Building 'H'. The boilers were replaced and controls updated under the Building for Excellence program. There is another boiler located in the Building 'C' that serves this building and Building 'G'. This boiler and controls were also replaced under B4E.

The hot water piping for the heating system served from the boilers in Building 'H' was replaced in 1976. This replacement did not include the replacement of the insulation. The insulation needs to be replaced to reduce the heat loss from the boilers to the unit ventilators and air handlers. All of the individual room systems were replaced and the main air-handling units were replaced or re-

PALO ALTO UNIFIED SCHOOL DISTRICT

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refurbished throughout the campus. The campus under the Building for Excellence program has been equipped with an Energy Management System and each building has been added to the system when modernized.

Plumbing Review

Under the Building for Excellence program all of the plumbing fixtures and interior piping in the toilet rooms of the modernized buildings was replaced. There are various sinks and drinking fountains around the site that are serviced by old piping. These may need to be changed in future interior remodels. See the site assessment for review of the site piping.

Electrical Review

The site wide electrical system has been fully upgraded under the Building for Excellence program. A new service was installed behind Building 'H' at the back of the campus. The service point at the front of the school was replaced and upgraded. These installations included an increase in the site's capacity. The fire alarm, clock/ bell and communication systems have been upgraded for each building as it was modernized. Each building's power capacity was upgraded as new data and power outlets were added to each classroom. All the lighting within the modernized buildings has been retrofitted or replaced with T-8 florescent lamps and electronic solid state ballast. Each building modernized under the B4E program has been tied into the campus wide EMS system. Site lighting needs to be evaluated and upgraded. Some areas lack coverage and the fixtures are old.

Technology Review

The sitewide system has been upgraded under the B4E program. A new MDF room was constructed in the mezzanine level of Building 'H' and all of the buildings modernized under the B4E program have been tied to the campus wide system. All classrooms modernized have the district standard of nine data drops and one printer station in each classroom. This network also incorporates the telephone system.

Building Envelope

The existing building envelope represents the original design when energy was cheap. Windows are not dual pane and insulation in

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

walls and roof are old to none in most areas. An energy analysis should be completed on each building and plan developed to maximize energy efficiency. The City of Palo Alto has a number of programs and incentives available that should be looked into.

There was a recent energy audit completed by Salas O'Brien Engineers, Inc. This audit addressed the energy usage related to equipment and provided measures to reduce energy usage in HVAC systems and lighting but did not address the building envelope. An envelop analysis is suggested with the anticipation that insulation and window issues being addressed.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Jordan is one of the schools that may not be as good a candidate for passive cooling because of the flat roofs typical of most of the classrooms. Likewise, the myriad of heating and (limited) air conditioning equipment (air handling units with furnaces in Wings C, J, G; unit ventilators in Buildings A, B, E, F, H, Fan coil units in Building M, and rooftop packaged air conditioning units in the cafeteria) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$183 per student, per year. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be

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managed through the existing, 415 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Jordan Middle School include the following improvements:

New windows and shade control

- Replace windows with new energy efficient units

ADA Compliance Improvements

- Site ADA ramps and access upgrades
- Handicap parking and signage

Seismic Upgrades and Roofing

- New roofing at walkways and canopies
- New roofing for Buildings D and H
- Voluntary seismic upgrades to all buildings, to current code

Improve security systems

Classroom Casework Upgrade

- New casework in classrooms
- New marker boards and tack boards

Thermal Comfort Upgrades

- Improve cooling to Classrooms
- HVAC equipment replacement, Bldg J,K & C

LAN/WAN infrastructure to support Technology Upgrades

Gymnasium Modernization

- Replace gymnasium floors
- Replace athletic equipment in gyms
- Add power and water distribution
- Replace windows in gymnasium

Swimming Pool Upgrades

- New pool equipment and storage & restrooms
- New filter banks, piping and tanks
- Remove and replace pool deck

Play Fields and Landscaping Replacement

- Fields improvement, drainage and irrigation

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- Landscape replaced, including water meter installation

Hardscape Replacement

- Replace concrete walkways and asphalt parking lot and driveways
- Hardcourt re-surface, striping and equipment

Utility and Site Infrastructure Replacement

- Replace sewer, water, storm and gas service mains to site
- Reroute roof top utilities underground, no re-roof
- Site exterior lighting and FA connections

Seismic, Energy and Sustainability Reserve

Growth & Expansion of Facilities:

New construction or additions proposed for Jordan Middle School include:

- New Classroom Building to raise capacity to 1100 (4 Classrooms + teaming)
- Provide extra school-wide storage

Planned Maintenance:

Planned maintenance funds are being proposed for Jordan to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Jordan to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Jordan for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Some other potential long term needs that may warrant further consideration by staff include the following:

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- Replacement of C, D, E, F, G, H, J, Buildings over next 20 years
- Replacement or removal of pool

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

David Starr Jordan Middle School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units	\$1,765,432	\$2,206,790
M2	ADA Compliance Improvements Site ADA ramps and access upgrades Handicap parking and signage	\$129,000	\$161,250
M3	Seismic Upgrades and Roofing New roofing at walkways and canopies New roofing for Buildings D and H Voluntary seismic upgrades to all buildings, to current code	\$915,900	\$1,144,875
M2	Improve security systems	\$108,360	\$135,450
M3	Classroom Casework Upgrade New casework in classrooms New marker boards and tack boards	\$433,440	\$541,800
M4	Thermal Comfort Upgrades Improve cooling to Classrooms HVAC equipment replacement, Bldg J,K & C	\$801,090	\$1,001,363
M5	LAN/WAN infrastructure to support Technology Upgrades	\$242,520	\$303,150
M6	Gymnasium Modernization Replace gymnasium floors Replace athletic equipment in gyms Add power and water distribution Replace windows in gymnasium	\$1,062,650	\$1,328,313
M7	Swimming Pool Upgrades New pool equipment and storage & restrooms New filter banks, piping and tanks Remove and replace pool deck	\$826,890	\$1,033,613
M8	Play Fields and Landscaping Replacement Fields improvement, drainage and irrigation Landscape replaced, including water meter installation	\$2,146,244	\$2,682,805
M9	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways Hardcourt re-surface, striping and equipment	\$3,640,224	\$4,550,280
M10	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,164,225	\$1,455,281
M12	Seismic, Energy and Sustainability Reserve	\$451,500	\$564,375
SUBTOTAL - MODERNIZATION		\$13,687,475	\$17,109,344

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

David Starr Jordan Middle School



GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	New Classroom Building to raise capacity to 1100 (4 Classrooms + teaming)	\$2,599,350	\$3,249,188
G2	Provide extra school-wide storage	\$51,600	\$64,500
SUBTOTAL - GROWTH		\$2,650,950	\$3,313,688

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$3,756,017	\$4,695,021
P2	10 - 20 Year Maintenance Schedule	\$7,015,495	\$8,769,369
SUBTOTAL - PLANNED MAINTENANCE		\$10,771,512	\$13,464,390

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$1,155,458
T2	Campus Technology Refresh Budget - years 7 thru 12	\$1,462,022
T3	Campus Technology Refresh Budget - years 13 thru 18	\$1,849,925
SUBTOTAL - TECHNOLOGY		\$4,467,405

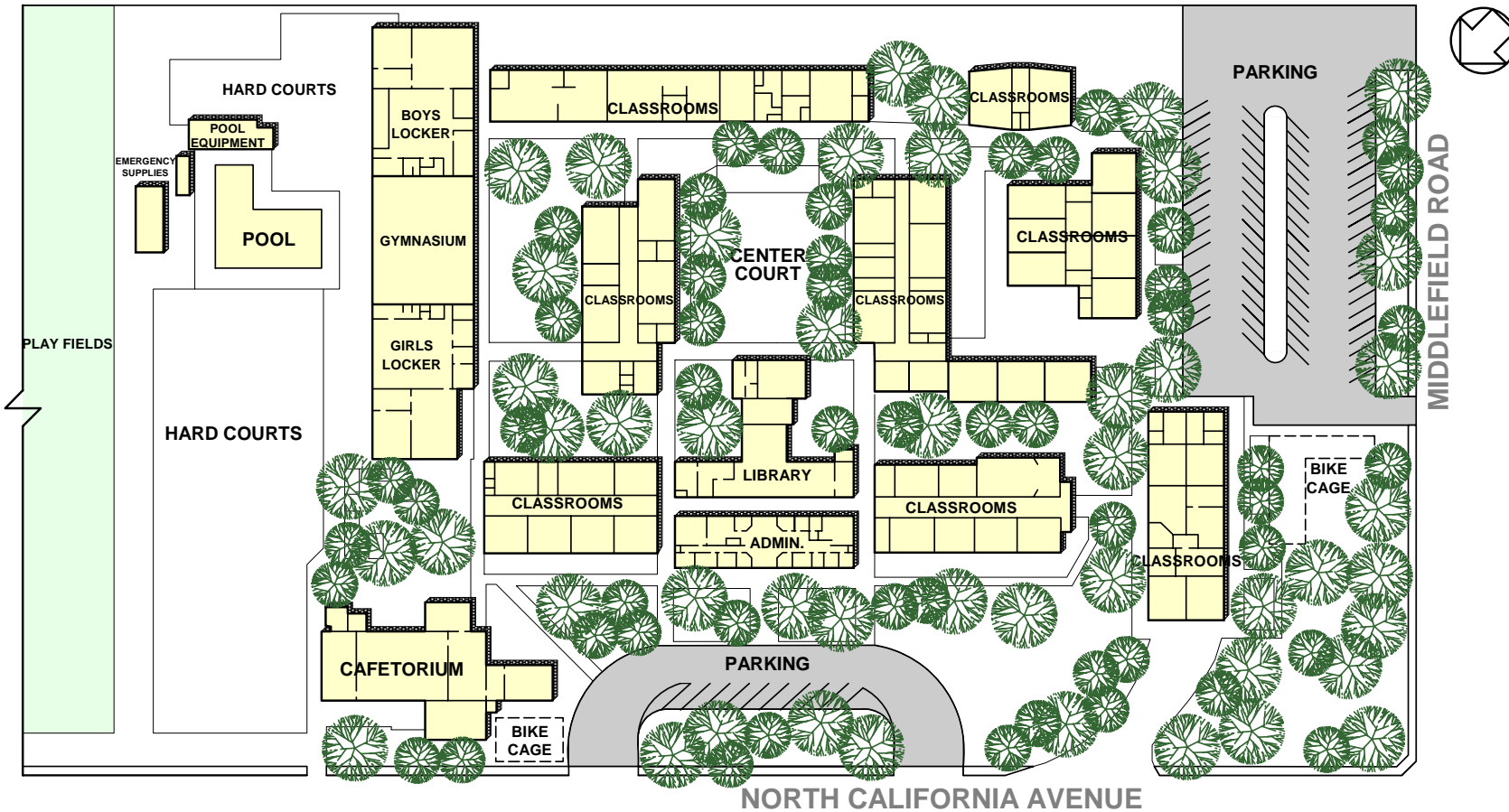
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$403,750
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$403,750
SUBTOTAL - FURNITURE AND EQUIPMENT		\$807,500

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replacement of C, D, E, F, G, H, J, Buildings over next 20 years
L2	Replacement or removal of pool

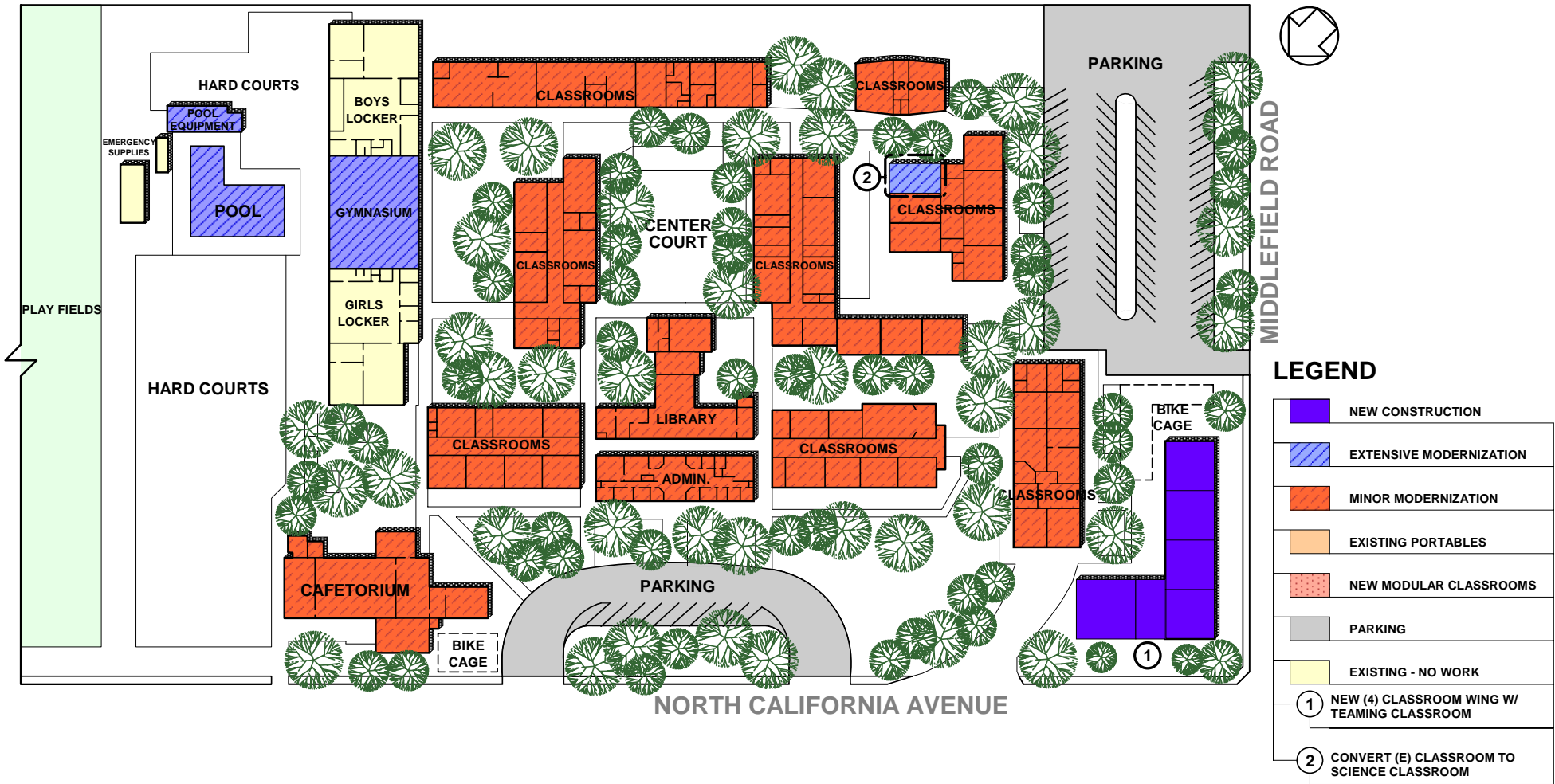
JORDAN MIDDLE SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

JORDAN MIDDLE SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT



PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

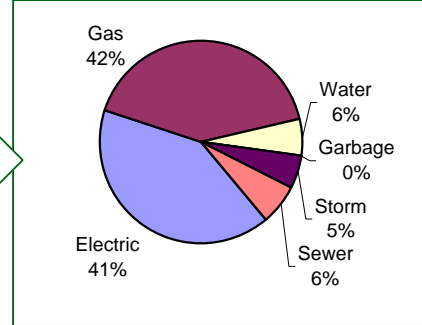
DS Jordan Middle School *enrollment 916*

summaries and trends

Utilities Data Sheet

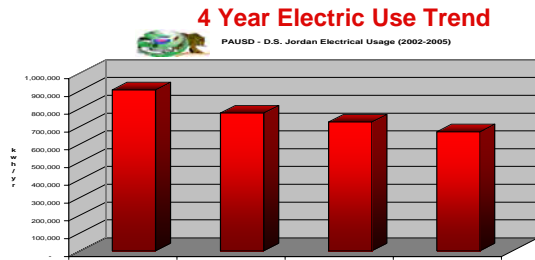
Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	674,167 kWh	\$68,856
Gas	59,668 therms	\$69,658
Water	2,294 ccf	\$9,526
Garbage	N.F.S. bins	-
Storm		\$9,015
Sewer		\$10,674
<i>per student \$183</i>		TOTAL \$167,729



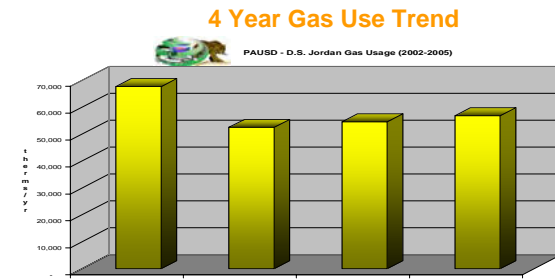
Electric

Peak Demand (KW)	175
Annual kWh	674,167
Annual Electric Cost	\$68,856
Main Service Size	-
Service Voltage	-
Meter # 1	38943
Meter # 2	38778



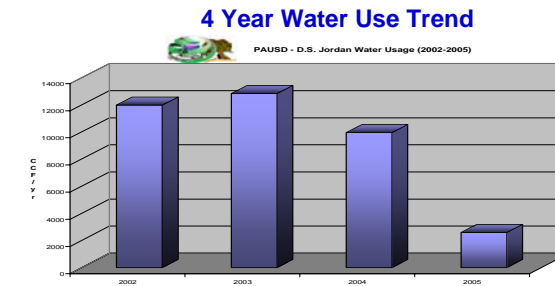
Gas

Annual therms	59,668
Annual Gas Cost	\$69,658
Meter # 1	51794
Meter # 2	N/A



Water

Irrigation Water Meter #	Included
Potable Water Meter #	38150
Annual CCF (irrigation)	-
Annual CCF (potable)	2294
Annual CCF (total)	2,294
Annual Cost of Irrigation	-
Annual Cost of potable	\$9,526
Annual Cost (total)	\$9,526
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-



Sewer

Annual cost	\$10,674
Service Pipe Size	-

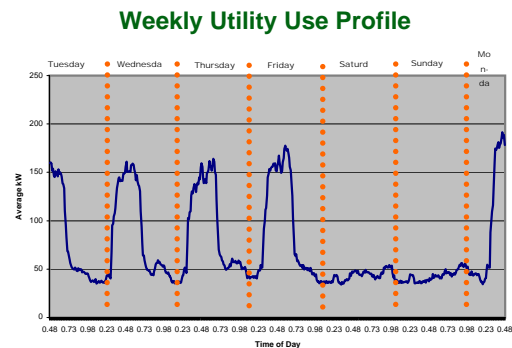
Storm

Annual cost	\$9,015 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	Not Available
Number of Bins	N.F.S.



Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, DS Jordan Middle School, Salas O'Brien Engineers, Inc.*

A photograph of the exterior of Stanford Middle School. The building is a single-story structure with a light-colored facade and a prominent green metal frame around the windows and doors. In the foreground, there is a paved area with a brick-lined planter box containing green shrubs. A dark-colored car is partially visible on the right side. The background features several trees with green foliage under a clear blue sky. The text "STANFORD MIDDLE SCHOOL" is overlaid in white, bold, sans-serif font in the center of the image.

STANFORD MIDDLE SCHOOL

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN**

STANFORD MIDDLE SCHOOL

Profile

J.L. Stanford Middle School

480 E. Meadow Ave.

Built in: 1953, 1955, 1965, 1972, 2003

Total Site Area:	26.2 Acres
Building Area/Misc. Circulation	9.6
Parking Area	3.0
Hard-Court Play Area	3.1
Turf Play Area	10.5

Building Area: **109,452 SF**

Existing Classroom Size **768 to 1,400 SF**

2006/2007 Enrollment: **874**

J.L. Stanford Middle School is composed of ten single story buildings on the 26 acre campus. The campus is adjacent to both Hoover and Fairmeadow Elementary Schools, as well as Mitchell Park.

The original buildings in 1953 included 3 classroom wings, the Admin, Library, Cafetorium, Gymnasium buildings and a shop building. An expansion of the campus included construction of a new classroom wing and an addition on the Library wing. A new math and science wing were constructed in 1972, along with expansions to the Admin, Library and Gym. Two further classrooms were added in 1972.

During the Building for Excellence Program in 2001-2003, all buildings were modernized with new finishes, roofing, mechanical, electrical, and plumbing systems. The total renovation was done in lieu of replacement of the facility as planned in 1996.

Facilities Conditions

Architectural Review

JLS Middle School site is at a central and busy location in the City of Palo Alto. The site is accessed off of E. Meadows Dr. at two entry points. There is considerable traffic congestion at the beginning and

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FACILITY MASTER PLAN

end of the school day. The traffic issues have been resolved to an acceptable level with the bus and auto drop-off and pick-up areas at the parking loop in the front of the school which is off the main street. There is sufficient parking on site to fulfill the needs of the campus.

The major structures were constructed in the 1950's. The subsequent additions have reflected the original style with covered walkways and rectangular layout. The buildings are single story buildings with low sloping roofs offset in height for clerestory windows and covered walkways. The exterior walls have a cement plaster finish. The typical interior feature concrete slab floors with carpet or vinyl tile, gypsum board or plaster painted walls with some tackboard wall surfaces and ceilings being suspended acoustical tiles or direct glue on A.C. Tiles. The interior of most classrooms are well daylite with clerestory windows and a large amount of north facing glass.

The conditions of the facilities are generally good and newly remodeled under the Building for Excellence (B4E) Program, the exceptions being the windows, wall coverings and insulation. During the B4E program all of the buildings sites wide have been modernized to common standard with interior finish upgrades, new cabinetry, new heating systems, new lighting with electrical and technology upgrades. The roofing was replaced on all of the buildings.

Most of the issues relating to handicap accessibility have been addressed in the recent Building for Excellence program. Toilet rooms, hardware and path of travel have all been addressed.

Civil Review

Storm Drainage

The storm drainage system at the school overall is adequate. Past blockages do to ramp extensions have been removed to decrease site ponding. The existing down spouts at the building gutters have been modified with cut outs at there base as clean outs for the system. It is recommended that proper clean out be installed at these locations. The roof system maintenance needs to be reviewed. On site inspection found several of the downspouts had obstructions in the cut outs. Also the subsurface system needs to be reviewed and cleaned. Standing water at the downspout cutouts indicates that the subsurface system may be clogged.

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Pavement

The paved areas around the site contain some cracks but are generally in acceptable condition. During the B4E program some overlaying of the existing asphalt was completed at the basketball courts outside of the boy's locker room. This paving did not solve all of the ponding issues -- an additional overlay is required at one of the courts to eliminate the standing water in the middle of the court. The caged bicycle parking area is extensively cracked and will require replacement. It is recommended that the cracks be sealed and all areas slurry sealed within the next 5 years.

Accessibility

There were a number of handicap parking spaces added and access ramps built during the modernization project under the Building for Excellence program. The past construction has provided sufficient parking to meet state guidelines. Each building when modernized was required to meet current accessible standards. Access has been developed to all areas of the campus and all of the site toilet facilities are accessible. Some of the remodeled door way thresholds need to be re-evaluated under current requirements to meet the new access standards at each building. Correction of these entry threshold should be addressed in the next building program.

Water Lines

The main water lines across the site are the original underground cast iron, transite and galvanized lines. Due to its age and potential disruption it is recommended that these lines be changed. A video taping of the existing system is recommended and a 50% replacement should be anticipated. During the B4E program all of the interior water piping in the remodeled areas was replaced.

Sanitary Sewer System

The main sewer lines across the site are the original underground piping installed when the school was constructed. Due to its age and potential disruption it is recommended that these lines be video-taped and a 50% replacement of the system be anticipated.

Gas Piping

The gas service and meters were replaced under the Building for Excellence Program. The gas lines internal to the site and building were partially replaced with the remainder being in good condition. No further replacement is anticipated. New seismic valves at the meter were added doing the Building for Excellence Program.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

Athletic Facilities

The site has extensive fields and hard courts. The fields are city maintained and are generally in good condition. The hard court areas have various needs. The basketball courts need an overlay to correct some drainage issue, the bicycle storage area is extensively cracked and needs full replacement. The surface of the tennis courts is cracked and peeling throughout. The top asphalt layer should be fully removed and replaced and a new tennis surface topping slab added. This process should include the replacement of the net standards and netting.

Structural Review

During the Building for Excellence program each of the buildings remodeled included some upgrading to the structural system. Dasse Structural Engineers, the Engineer of Record for the B4E project provided this statement for JLS. "A full seismic upgrade of the buildings in neither intended nor required. This project consist of partial upgrades as indicated on the following plan sheets, to improve the resistance of seismic forces in the buildings. It represents the Engineer of Record's judgment of life safety hazards only and the mitigation of such hazards. The work does not bring the buildings into full compliance with the current code." This upgrading was voluntary did not bring the buildings up to full current code compliance but did improved the life safety for its occupants. Building damage will occur during seismic events.

In most cases the roofing was changed, roof diaphragms re-nailed and the roof drains enlarged to provide better drainage off the roof system. Additional rigid frames or shear paneling were added in selected buildings to improve there performance. There was extensive dry rot or termite damaged wood in some of the buildings that was replaced during the program.

Mechanical Review

The campus under the Building for Excellence program has been equipped with an Energy Management System and each building has been added to the system when modernized. Each classroom received a new heating system as well as updated systems for all other buildings on campus.

Plumbing Review

Under the Building for Excellence program all of the plumbing fixtures and interior piping in the toilet rooms were replaced.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

Classroom sinks and drinking fountains with associated piping were also replaced. The main lines serving the systems were reused and not replaced. See the site assessment for review of the site piping.

Electrical Review

The site wide electrical system has been fully upgraded under the Building for Excellence program. A new service was installed at the back of the Cafeteria. These installations included an increase in the site's capacity. The fire alarm, clock/ bell and communication systems have been upgraded at each building as it was modernized. Each building's power capacity was upgraded as new data and power outlets were added to each classroom. All the lighting within the modernized buildings has been retrofitted or replaced with energy saving T-8 florescent lamps and solid state ballast. Each building modernized under the B4E program has been tied into a campus wide EMS system. Site lighting needs to be evaluated and upgraded. Some areas lack coverage and the fixtures are old.

Technology Review

The site-wide system has been upgraded under the B4E program. A new MDF room was constructed for computer and telephone systems. All of the buildings were equipped an IDF under the B4E program and tied to the campus wide system. All classrooms modernized have the district standard of nine data drops and one printer station in each classroom. This network also incorporates the campus telephone system.

Building Envelope

The existing building envelope is the original design constructed in the 1950's when energy was cheap. Windows are not dual pane and insulation in walls and roof is old to non existent in most areas. An energy analysis should be completed on each building and a plan developed and implemented to maximize energy efficiency in the envelope. The City of Palo Alto has a number of programs and incentives available that should be looked into.

There was a recent energy audit completed by Salas O'Brien Engineers, Inc. This audit addressed the energy usage related to equipment and provided measures to reduce energy usage in HVAC systems and lighting but did not address the building envelope. A envelop analysis is suggested with the anticipation that insulation and window issues being addressed.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. JLS is one of the schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. Likewise, the consistency of the heating equipment (furnaces in all classrooms, furnace with D/X cooling in library, unit heaters in gym) will ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$228 per student, per year. JL Stanford Middle School also has a swimming pool that significantly adds to the cost of utilities. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 458 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Stanford Middle School include the following improvements:

New windows and shade control

- Replace windows with new energy efficient units

Remove anti-graffiti coating and repaint, south and west exposures

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Improve security systems

Classroom Casework Upgrade

- New casework in classrooms
- New marker boards and tack boards

Thermal Comfort Upgrades

- Improve cooling to Classrooms

LAN/WAN infrastructure to support Technology Upgrades

Gymnasium Modernization

- Replace gymnasium floors
- Replace athletic equipment in gyms
- Add power and water distribution
- Replace windows in gymnasium

Swimming Pool Upgrades

- New pool equipment and storage & restrooms
- New filter banks, piping and tanks
- Remove and replace pool deck

Play Fields and Landscaping Replacement

- Fields improvement, drainage and irrigation
- Landscape replaced, including water meter installation

Hardscape Replacement

- Replace concrete walkways and asphalt parking lot and driveways
- Hardcourt re-surface, striping and equipment

Utility and Site Infrastructure Replacement

- Replace sewer, water, storm and gas service mains to site
- Reroute roof top utilities underground, no re-roof
- Site exterior lighting and FA connections

Seismic, Energy and Sustainability Reserve

Growth & Expansion of Facilities:

New construction or additions proposed for Stanford Middle School include:

- New Classroom Buildings to bring capacity to 1100 (8 Add'l Classrooms)
- Provide extra school-wide storage

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Planned Maintenance:

Planned maintenance funds are being proposed for Stanford to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Stanford to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Stanford for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Some other potential long term needs that may warrant further consideration by staff include the following:

- Replacement or removal of pool

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

J.L. Stanford Middle School



MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	New windows and shade control Replace windows with new energy efficient units	\$1,694,317	\$2,117,896
M2	Remove anti-graffiti coating and repaint, south and west exposures	\$154,800	\$193,500
M3	Improve security systems	\$67,403	\$84,253
M4	LAN/WAN infrastructure to support Technology Upgrades	\$254,646	\$318,308
M5	Gymnasium Modernization Replace gymnasium floors Replace athletic equipment in gyms Add power and water distribution Replace windows in gymnasium	\$708,468	\$885,585
M6	Swimming Pool Upgrades New pool equipment and storage & restrooms New filter banks, piping and tanks Remove and replace pool deck	\$826,890	\$1,033,613
M7	Play Fields and Landscaping Replacement Fields improvement, drainage and irrigation Landscape replaced, including water meter installation	\$3,063,412	\$3,829,265
M8	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways Hardcourt re-surface, striping and equipment	\$4,947,559	\$6,184,449
M9	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,164,225	\$1,455,281
M10	Seismic, Energy and Sustainability Reserve	\$451,500	\$564,375
SUBTOTAL - MODERNIZATION		\$13,333,219	\$16,666,524

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	New Classroom Buildings to bring capacity to 1100 (8 Add'l Classrooms)	\$4,427,280	\$5,534,100
G2	Provide extra school-wide storage	\$51,600	\$64,500
SUBTOTAL - GROWTH		\$4,478,880	\$5,598,600

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

J.L. Stanford Middle School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$4,748,461	\$5,935,576
P2	10 - 20 Year Maintenance Schedule	\$7,956,859	\$9,946,074
SUBTOTAL - PLANNED MAINTENANCE		\$12,705,320	\$15,881,650

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$1,121,458
T2	Campus Technology Refresh Budget - years 7 thru12	\$1,419,002
T3	Campus Technology Refresh Budget - years 13 thru18	\$1,795,490
SUBTOTAL - TECHNOLOGY		\$4,335,949

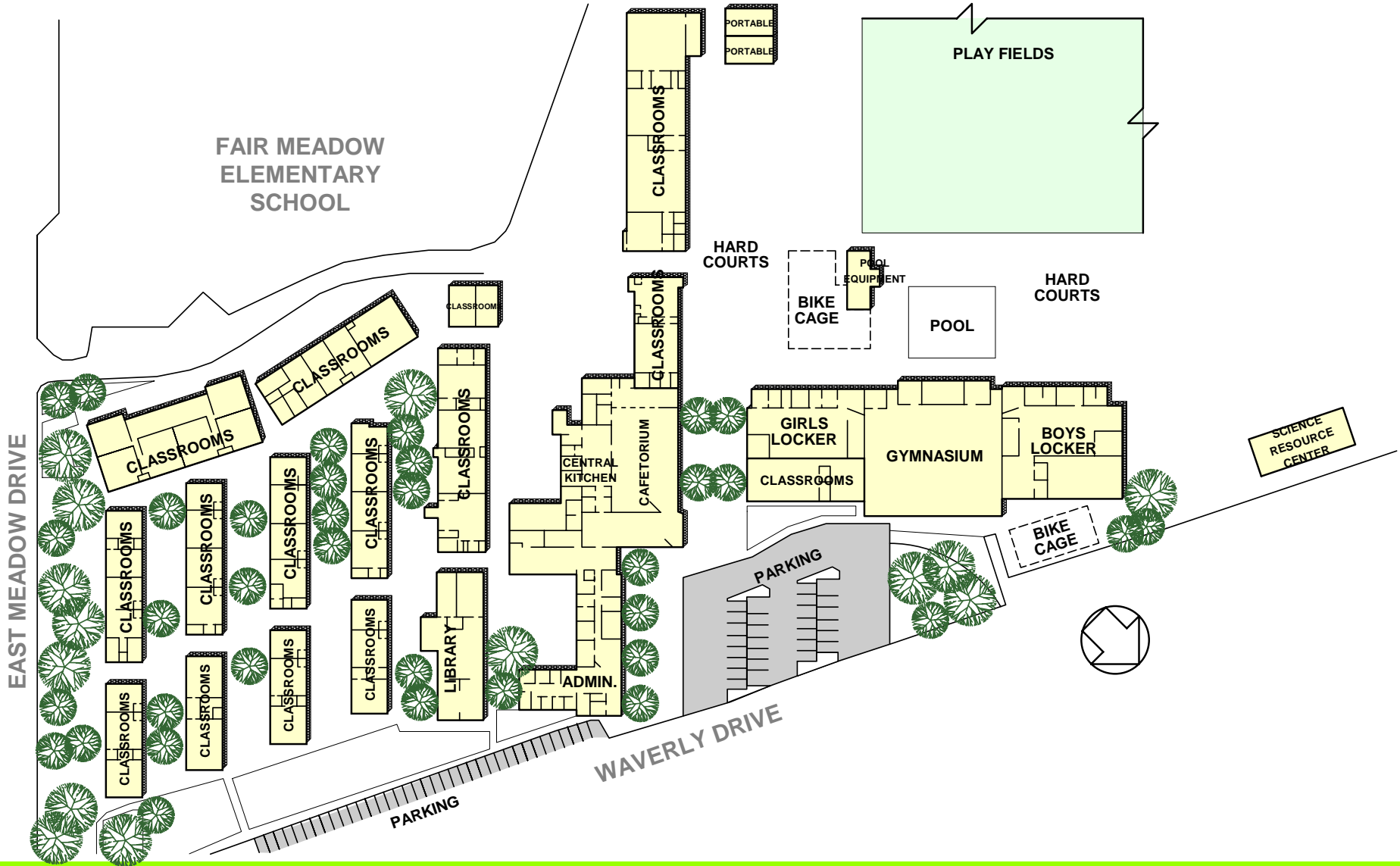
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$403,750
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$403,750
SUBTOTAL - FURNITURE AND EQUIPMENT		\$807,500

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replacement or removal of pool

STANFORD MIDDLE SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT

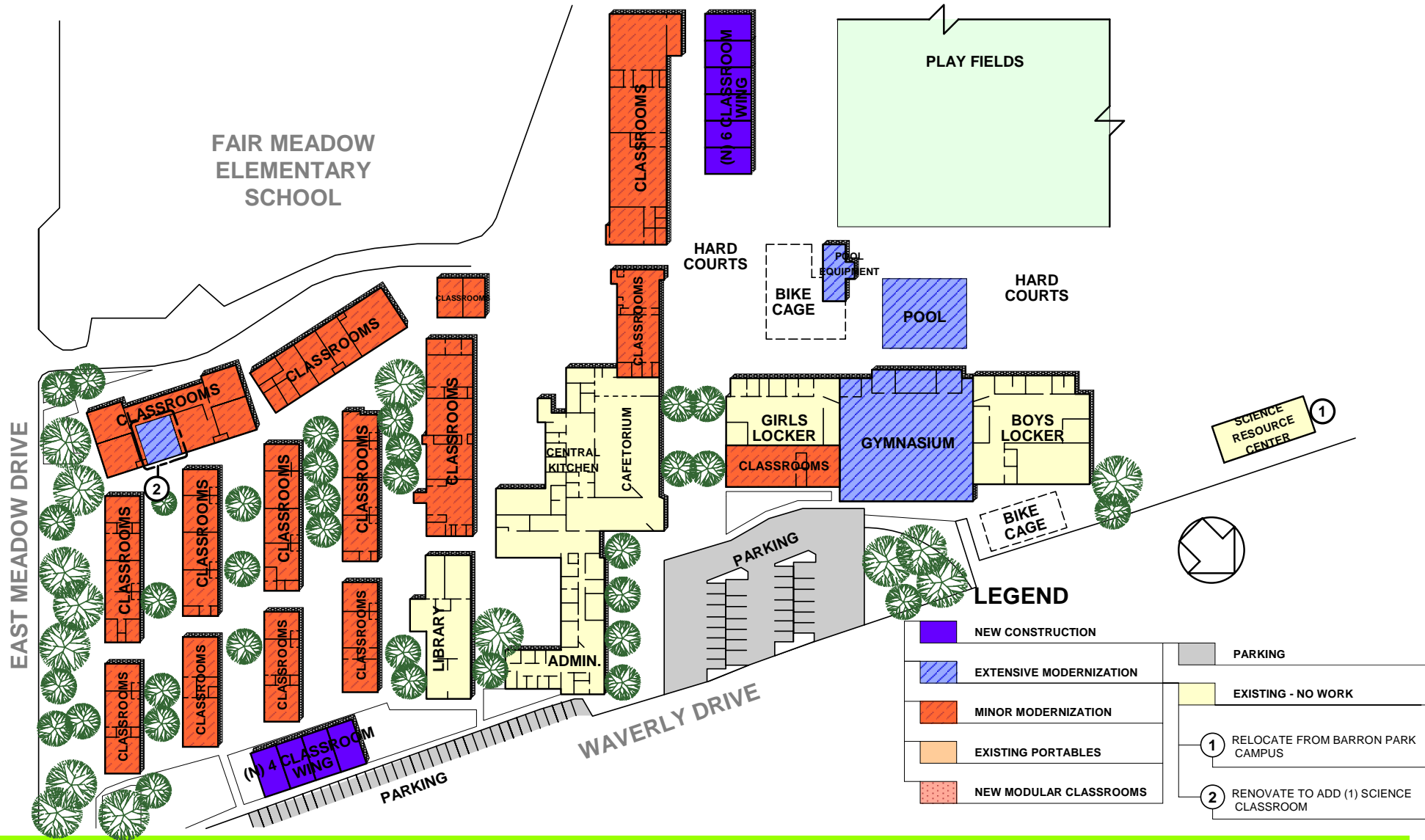


EXISTING PLAN

A E D I S *Architecture & Planning*

STANFORD MIDDLE SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

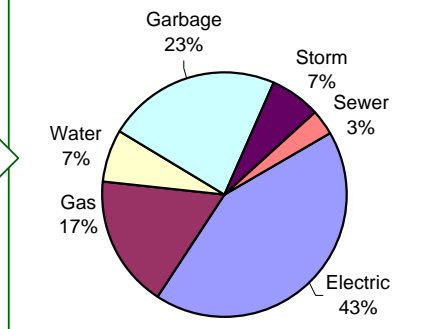
JL Stanford Middle School *enrollment 874*

summaries and trends

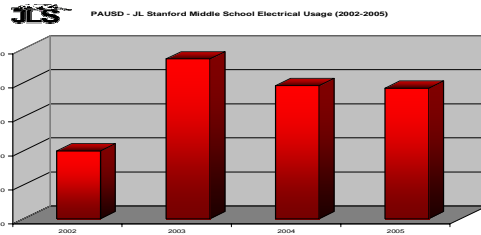
Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

	use units	cost
Electric	870,659 kWh	\$84,906
Gas	29,649 therms	\$34,672
Water	3,410 ccf	\$13,788
Garbage	N.F.S. bins	\$46,107
Storm		\$13,008
Sewer		\$6,885
<i>per student \$228</i>		TOTAL \$199,366



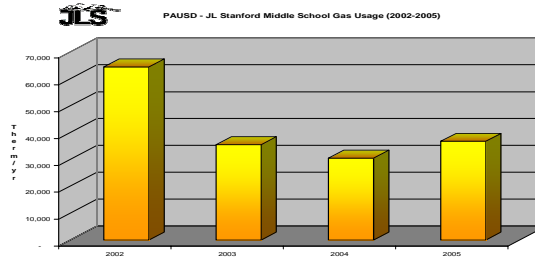
4 Year Electric Use Trend



Electric

Peak Demand (KW)	248
Annual kWh	870,659
Annual Electric Cost	\$84,906
Main Service Size	-
Service Voltage	-
Meter # 1	38514
Meter # 2	N/A

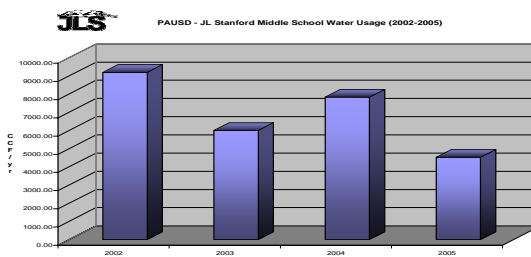
4 Year Gas Use Trend



Gas

Annual therms	29,649
Annual Gas Cost	\$34,672
Meter # 1	46563
Meter # 2	N/A

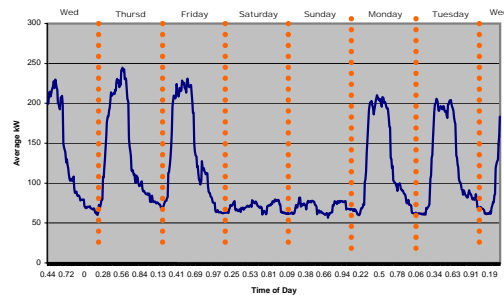
4 Year Water Use Trend



Water

Irrigation Water Meter #	included
Potable Water Meter #	40191
Annual CCF (irrigation)	-
Annual CCF (potable)	3410
Annual CCF (total)	3,410
Annual Cost of Irrigation	-
Annual Cost of potable	\$13,788
Annual Cost (total)	\$13,788
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

Weekly Utility Use Profile



Sewer

Annual cost	\$6,885
Service Pipe Size	-

Storm

Annual cost	\$13,008 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$46,107
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, JL Stanford Middle School, Salas O'Brien Engineers, Inc.*



TERMAN MIDDLE SCHOOL

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN**

TERMAN MIDDLE SCHOOL

Profile

Terman Middle School
655 Arastradero
Built in: 1957, 2004

Total Site Area:	6.6 Acres
Building Area/Misc. Circulation	1.9
Parking Area	1.3
Hard-Court Play Area	0
Turf Play Area	0

Building Area: **79,143 SF**
Existing Classroom Size **820 to 1400 SF**
2006/2007 Enrollment: **661**

Terman Middle School is comprised of 11 single story buildings on a 6.6 acre site adjacent to Terman park, which serves as field space for the school under an agreement with the City of Palo Alto.

The school was originally built in 1957, and closed during the 1980's as a result of declining enrollment. The facility was leased to the JCC for much of this period.

In 2003, the school was modernized from its use by the JCC and reopened as a small middle school site for grades 6-8. In 2004, the K wing was also renovated into 5 more classrooms.

Facility Conditions

Architectural Review

Terman Middle School site is housed at a busy location in the City of Palo Alto along one of its main circulation arteries. The parking area and main school entry are off Arastadero Road, causing some traffic congestion at the beginning and end of the school day. The traffic too and from this site is regulated by a traffic light at the entry to the site. A Traffic Study by Wilson Engineering & Transportation Consultant's Inc. was completed before the school was reopened in

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

2003. Modification to parking and traffic direction were recommended and implemented in the 2002/2003 remodel.

The buildings on the campus present a uniform style relative to the era that they were built. The buildings were constructed in 1957. The buildings are single story rectangular buildings with low sloping roofs of wood frame construction with stucco exteriors. The typical building has an exterior covered walkway; concrete slab floors with carpet or vinyl tile, gypsum board or plaster painted walls with some tackboard wall surfaces, suspended acoustical or painted direct glue-on acoustical tiles are the general ceiling components.

The condition of the facilities since the recent remodel is good to excellent, the exceptions being the windows and insulation. During the remodel all of the buildings sitewide have been modernized to meet state standards with the exception of the staff of restrooms in the cafetorium building.

Most of the issues relating to handicap accessibility have been addressed. The toilet rooms, hardware and path of travel have all been addressed.

Civil Review

Storm Drainage

The storm drainage system at the school overall is adequate. During rainy periods the site drains well and is relatively dry.

Pavement

The paved areas around the site contain some cracks but are generally in acceptable condition. It is recommended that the cracks be sealed and all areas slurry sealed within the next 5 years.

Accessibility

There were a number of handicap parking spaces added and access ramps built during the reopening project. The site has sufficient parking to meet state guidelines. Each building when modernized was required to meet current accessible standards. Access has been developed to all areas of the campus and most of the site toilet facilities are accessible.

Water Lines

The main water line around the site has not been changed. Some of the piping, internal to the building has been changed during the remodel. The existing piping system should be filmed and

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

evaluated relative to condition. A 50% replacement of the exiting piping should be anticipated over the next 20 years.

Sanitary Sewer System

The main sewer lines around the site have not been changed. It is recommended that the piping be videotaped to verify its condition to determine the need of replacement. Do to its age, some replacement of the existing piping should be anticipated.

Gas Piping

The gas service and meters were not replaced under the reopening project. The service is adequate for the schools current need. The gas lines internal to the site and building were partially replaced with the remainder being in good condition. No further replacement is anticipated.

Structural Review

In general and based on the limited review of the buildings conducted at the reopening remodel, it appears that the buildings do not pose life safety problems. During the recent modernization project to reopen the school, the structural system of each building was reviewed and brought back to its original built condition. No upgrading to the building structural systems were developed or implemented. The current building conditions are not fully current code compliant but do not show to be life treating. Building damage will occur during seismic events.

Mechanical Review

The major heating system on campus is a floor radiant system feed from boilers. The boilers were replaced and controls updated under the reopening modernization project. The office, Building 'A' HVAC systems was completely replaced with new controls. Only new controls were added to the heating systems in the Gymnasium and the classroom buildings.

The existing system that serves most of the school is an old radiant floor system that has not proved durable for most schools in the District and in surrounding districts. A full replacement of the system in the classrooms and gymnasium/ locker rooms should be anticipated over the next 5 to 10 years. The present system is not energy efficient and considerable energy savings could be generated with its replacement.

PALO ALTO UNIFIED SCHOOL DISTRICT FACILITY MASTER PLAN

Plumbing Review

Under the reopening project all of the plumbing fixtures and interior piping in the toilet rooms of the modernized buildings was replaced. There are various sinks and drinking fountains around the site that are serviced by old piping. These will need to be changed in future interior remodels. See the site assessment for review of the site piping.

Electrical Review

The site wide electrical system has been fully upgraded under the reopening modernization project. A new service was installed and all of the existing building sub panels were replaced. These installations included an increase in the site's capacity. The fire alarm system has been upgraded for each building as it was modernized. Each building's power capacity was upgraded as new data and power outlets were added to each classroom. All the lighting within the modernized buildings has been retrofitted or replaced with T-8 florescent lamps and electronic solid state ballast. Each building modernized has been tied into the campus wide EMS system. Site lighting needs to be evaluated and upgraded. Some areas lack coverage and the fixtures are old.

Technology Review

The sitewide system has been upgraded under the reopening modernization project. A new MDF room was constructed and all of the buildings modernized under the project have been tied to the campus wide system. All classrooms modernized have the district standard of nine data drops and one printer station in each classroom. This network also incorporates the telephone system.

Building Envelope

The existing building envelope represents the original design when energy was cheap. Windows are not dual pane and insulation in walls and roof are old to none in most areas. An energy analysis should be completed on each building and plan developed to maximize energy efficiency. The City of Palo Alto has a number of programs and incentives available that should be looked into.

There was a recent energy audit completed by Salas O'Brien Engineers, Inc. This audit addressed the energy usage related to equipment and provided measures to reduce energy usage in HVAC systems and lighting but did not address the building envelope. A envelop analysis is suggested with the anticipation that insulation and window issues being addressed.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Terman is one of the schools that may be a good candidate for passive cooling because of the clerestory roof slopes typical of most of the classrooms. However, the complicated mix of heating and (limited) air conditioning equipment (furnace with D/X cooling in the Library and Computer room; furnaces on Building F, air handling unit with heating hot water coil in office and in cafeteria, fan coil units in the music building, unit heaters in the gym, and radiant heat (with boiler) in the remaining wings) will require significant attention in order to ensure that the budget provided affords a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$174 per student, per year. Terman Middle School also has a swimming pool that significantly adds to the cost of utilities. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 259 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Terman Middle School include the following improvements:

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Modernization of H wing classrooms, bring undersized rooms to >960 SF

New windows and shade control

- Replace windows with new energy efficient units

Improve security systems

Classroom Casework Upgrade

- New casework in classrooms
- New marker boards and tack boards

Thermal Comfort Upgrades

- Improve cooling to Classrooms

LAN/WAN infrastructure to support Technology Upgrades

Gymnasium Modernization

- Replace athletic equipment in gyms
- Add power and water distribution
- Replace windows in gymnasium

Swimming Pool Upgrades

- New pool equipment and storage & restrooms
- New filter banks, piping and tanks
- Remove and replace pool deck

Play Fields and Landscaping Replacement

- Fields improvement, drainage and irrigation
- Landscape replaced, including water meter installation

Hardscape Replacement

- Replace concrete walkways and asphalt parking lot and driveways
- Hardcourt re-surface, striping and equipment

Utility and Site Infrastructure Replacement

- Replace sewer, water, storm and gas service mains to site
- Reroute roof top utilities underground, no re-roof
- Site exterior lighting and FA connections

Seismic, Energy and Sustainability Reserve

Growth & Expansion of Facilities:

New construction or additions proposed for Terman Middle School include:

- Build 2 new classrooms to replace undersized classrooms in J & K wings

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

- Addition to Admin wing to add 2 classrooms, increase Admin & Library
- Provide extra school-wide storage
- Build new 2 story classroom building, to increase capacity to 900

Planned Maintenance:

Planned maintenance funds are being proposed for Terman to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Terman to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Terman for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Some other potential long term needs that may warrant further consideration by staff include the following:

- Replacement or removal of pool

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Terman Middle School



MODERNIZATION			
Contract	Scope of Work	Construction Cost	Project Cost
M1	Modernization of H wing classrooms, bring undersized rooms to >960 SF	\$522,450	\$653,063
M1	New windows and shade control Replace windows with new energy efficient units	\$1,225,134	\$1,531,417
M2	Thermal Comfort Upgrades Replacement of radiant heating systems	\$1,290,000	\$1,612,500
M3	LAN/WAN infrastructure to support Technology Upgrades	\$242,520	\$303,150
M4	Gymnasium Modernization Replace athletic equipment in gyms Add power and water distribution	\$412,800	\$516,000
M5	Swimming Pool Upgrades New pool equipment and storage & restrooms New filter banks, piping and tanks Remove and replace pool deck	\$703,050	\$878,813
M6	Play Fields and Landscaping Replacement Fields improvement, drainage and irrigation Landscape replaced, including water meter installation	\$112,535	\$140,669
M7	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways Hardcourt re-surface, striping and equipment	\$2,180,335	\$2,725,418
M8	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$593,400	\$741,750
M9	Seismic, Energy and Sustainability Reserve	\$451,500	\$564,375
SUBTOTAL - MODERNIZATION		\$7,733,724	\$9,667,154
GROWTH / EXPANSION			
Contract	Scope of Work	Construction Cost	Project Cost
G1	Build 2 new classrooms to replace undersized classrooms in J & K wings	\$975,240	\$1,219,050
G2	Addition to Admin wing to add 2 classrooms, increase Admin & Library	\$2,043,360	\$2,554,200
G3	Provide extra school-wide storage	\$51,600	\$64,500
G4	Build new 2 story classroom building, to increase capacity to 900	\$13,003,200	\$16,254,000
SUBTOTAL - GROWTH		\$16,073,400	\$20,091,750

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Terman Middle School



PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$2,342,426	\$2,928,033
P2	10 - 20 Year Maintenance Schedule	\$4,517,658	\$5,647,073
SUBTOTAL - PLANNED MAINTENANCE		\$6,860,084	\$8,575,105

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$663,458
T2	Campus Technology Refresh Budget - years 7 thru12	\$839,486
T3	Campus Technology Refresh Budget - years 13 thru18	\$1,062,217
SUBTOTAL - TECHNOLOGY		\$2,565,160

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$286,875
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$286,875
SUBTOTAL - FURNITURE AND EQUIPMENT		\$573,750

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replacement or major renovation of classroom buildings to increase classroom size

TERMAN MIDDLE SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT

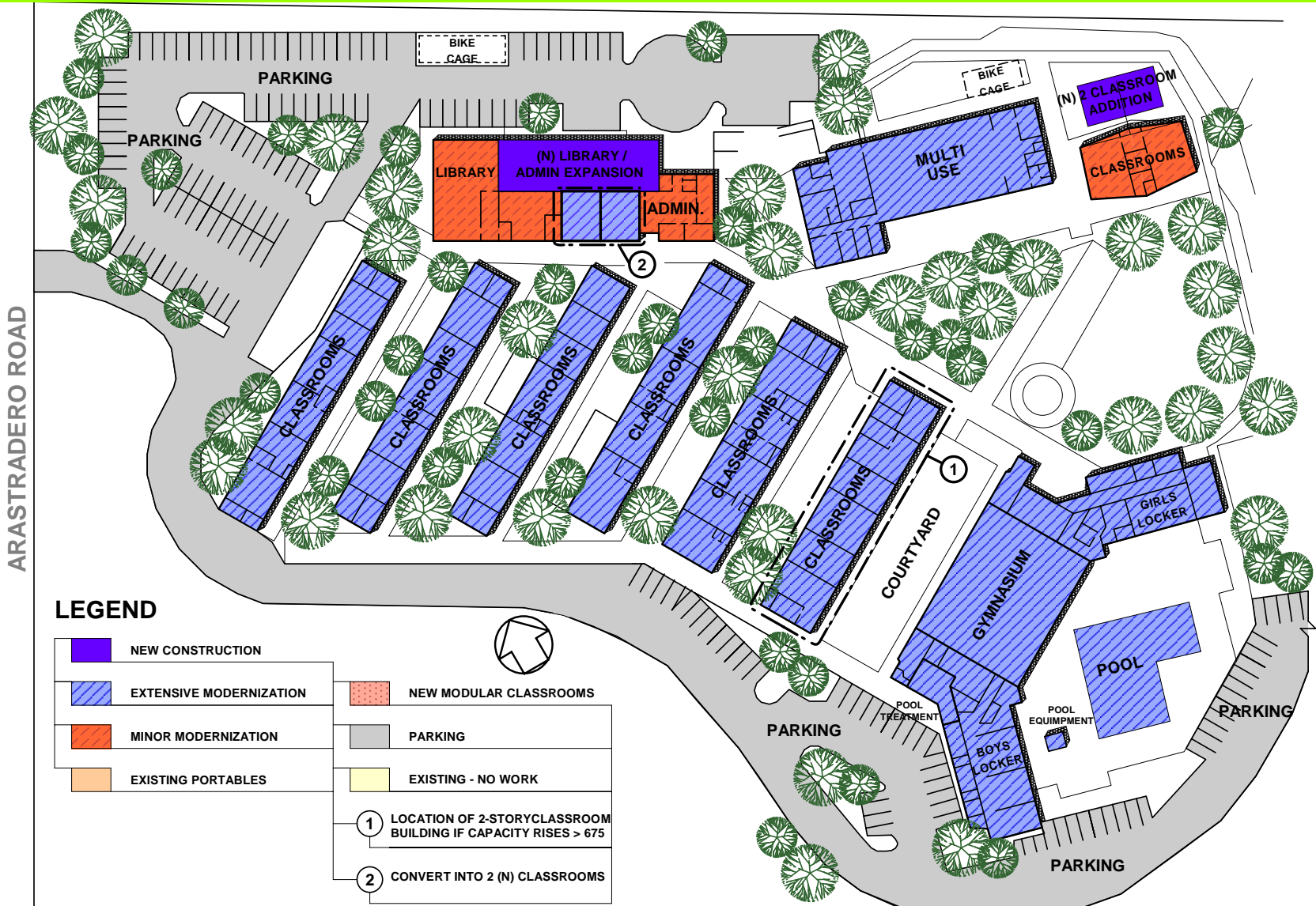


EXISTING PLAN

A E D I S *Architecture & Planning*

TERMAN MIDDLE SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



PROPOSED PLAN

A E D I S *Architecture & Planning*

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**

Utilities Use and Cost

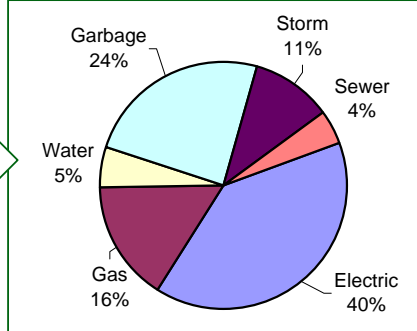
Terman Middle School enrollment 661

summaries and trends

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

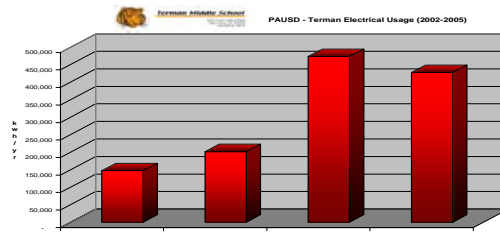
	use units	cost
Electric	464,908 kWh	\$45,085
Gas	15,779 therms	\$18,306
Water	1,518 ccf	\$6,111
Garbage	N.F.S. bins	\$28,003
Storm		\$12,224
Sewer		\$4,964
<i>per student \$174</i>		TOTAL \$114,693



Electric

Peak Demand (KW)	50
Annual kWh	464,908
Annual Electric Cost	\$45,085
Main Service Size	-
Service Voltage	-
Meter # 1	39886
Meter # 2	15721

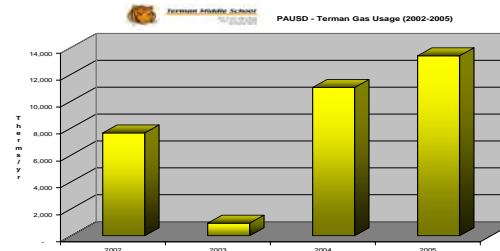
4 Year Electric Use Trend



Gas

Annual therms	15,779
Annual Gas Cost	\$18,306
Meter # 1	49078
Meter # 2	51814

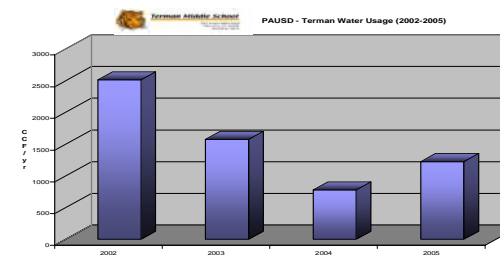
4 Year Gas Use Trend



Water

Irrigation Water Meter #	Included
Potable Water Meter #	40186
Annual CCF (irrigation)	-
Annual CCF (potable)	1518
Annual CCF (total)	1,518
Annual Cost of Irrigation	-
Annual Cost of potable	\$6,111
Annual Cost (total)	\$6,111
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

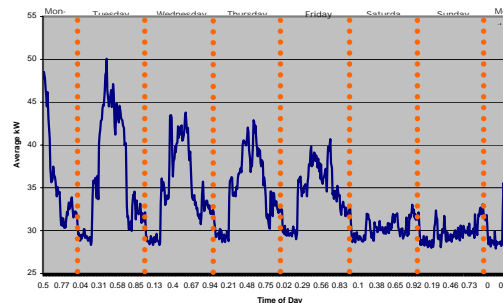
4 Year Water Use Trend



Sewer

Annual cost	\$4,964
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$12,224 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$28,003
Number of Bins	N.F.S.

Reference Documents

CPAU CARE Audit: *Energy Efficiency Report, Terman Middle School, Salas O'Brien Engineers, Inc.*

The image shows the exterior of Gunn High School. In the foreground, there is a paved courtyard with several rectangular concrete platforms. Four tall, slender light poles with white lampshades are spaced across the courtyard. In the background, a single-story school building with a grey roof and dark walls is visible. The sky is a clear, bright blue with a few wispy clouds. The text "GUNN HIGH SCHOOL" is overlaid in the center of the image in a large, white, sans-serif font.

GUNN HIGH SCHOOL

GUNN HIGH SCHOOL

Profile

Gunn High School
780 Arastradero Road
Built in: 1964, 2003

Total Site Area:	47.9 Acres
Building Area/Misc. Circulation	15.5
Parking Area	7.2
Hard-Court Play Area	1.9
Lawn Area	8.1
Turf Play Area	16.3

Building Area:	213,986 SF
Existing Classroom Size	784 to 1600 SF
2006/2007 Enrollment:	1,762

Henry Gunn High School occupies an approximate a 48-acre site fronted by Arastradero Road. This site is owned and occupied by the dostruct, but has a reversionary clause to Stanford University.

The school is composed of 17 permanent buildings constructed in 1964. These structures include; an Administrative Building, a student Activities Building, a cluster of four buildings for language and social studies instruction, a cluster of four buildings for math and science instruction, a Resource Materials Building, a Music Building, an Art Building, the Spangenberg Auditorium, a Business Education and Home Economics Building, an Industrial Arts Building and a Physical Education Facility.

The original buildings were constructed in 1964, with a new Library Building and additional space being added to the Home Economics Building, creating a new Science facility in 2003. All buildings with the exception of the interiors to the Gym, Spangenberg Auditorium, Administration and the old Library Building interiors were fully renovated under the Building for Excellence program from 2001 to present.

Facilities Conditions

Architectural Review

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Henry Gunn High School was constructed in 1964; the campus is located on 48 acres. The campus is composed of 17 buildings that were under the original construction and 1 new building built that is currently under construction. All of the buildings express the same mid-sixties style with mansard shingle roofs extending to covered flat roof perimeter walks. The exterior walls are redwood vertical siding and concrete columns in a uniform 14 foot grid pattern that ring the perimeter walls and form the outer edge of the covered walkway. The buildings are typically low one-story structures with the exception of the taller structures needed to house the Gymnasium and the Theater buildings. The new library building currently under construction also keeps the original style of shingled mansard with wood siding and concrete columns.

The prevailing interior style is painted plywood or gypsum wallboard wall surfaces, painted gypsum wallboard ceilings and carpet or vinyl tile flooring. The majority of the buildings have been remodeled to an acceptable level under the Building for Excellence program that has been on going since the mid-1990's.

The buildings fully completed under the Building for Excellence (B4E) program were the 4 building L-Wing cluster, the 4 building MS-S Wing cluster (Construction 2004) and the Music (M) Building. The expansion and full remodel of the BH Building, the expansion and rebuilding of the Art (A) Building and the construction of the new Library Building. The buildings partially completed under the B4E program are the Industrial Arts (IA) Building, the Spangenberg Theater Building and the Gymnasium. The buildings untouched during the B4E program are the Resource Center (RC) Building –old library, Administration Buildings (AD-1 & AD-2) with outside eating area and the field house building at the north end of the track.

Overall the school is well maintained and in good condition. The renovation work under the B4E program has enhanced and upgraded the buildings. All code deficiencies have been corrected as each building has been remodeled. Those with partial remodeling and those that have not been remodeled under B4E will need further upgrading. All of the standard non-specialized classrooms on this site are below the size standards recommended by the California Department of Education for high school classrooms. To obtain the state standards within the configuration of the existing buildings would be a major undertaking. Some of the existing classrooms would have to be eliminated to increase the classroom sizes within the existing structure. This would require additional buildings to replace the reduction in classrooms caused from the reconfiguration.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

The changing curriculum and teaching methodologies of this site should be evaluated to determine the best approach for maintaining this facility.

Civil Review

Storm Drainage

The storm drainage system at the high school overall is in good working order. Its capacity is sufficient to meet the needs of the site. The major lines on the school property were installed when the school was built in 1964 and the system has experienced little difficulty. The only problem over the years has been from the roof drain system that in a number of locations was not tied into the existing subsurface system. The roof drain problem has been partially solved by the maintenance staff of the district through adding drains at the downspouts and tying those into the existing subsurface system but not all of the drains have been corrected. Some around the Gym, the auditorium and various locations around the classroom wings are still a problem.

These drains dump excess water into areas that cause ponding around the site. At these locations the downspouts should be tied into the existing subsurface system or gravel dry wells constructed. Dry wells can be added in those areas where the trees around the site are in the way of a subsurface connection to the existing system. Re-grading around the downspouts will be necessary in some areas do to the root systems of the tree lifting the soil.

The area east of the auditorium extending to the parking lot is one area that needs to be re-graded and drains added. During rainy period the area is muddy and slippery and corrective re-grading will be necessary.

Pavement

The pavement areas around the site has been repaired and resealed within the past few years. The parking area south of the tennis courts currently needs considerable repair and sealing. There are numerous areas around the site where the asphalt curbing at the edge of the pavement is cracked, displaced and damaged beyond repair. These curbs need to be replaced. They serve as drainage diverters in some areas as well as defining the edge of the pavement areas. There are also some areas that need to be re-graded and overlaid to provide proper drainage eliminating the ongoing degradation of the pavement. The main area of ponding is the fire lane that borders the west side of the site.

All of the pavement on the site should be considered for replacement or re-grading and overlaying within the next five years.

Accessibility

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

There are a number of access ramps on the site that were rebuilt during the first phases of the modernization projects under the Building for Excellence program. The remaining ramps or access points will need to be addressed in the modernization of the buildings that were not modernized under the program and some of the ramps will be eliminated when some of the old portable structures are removed from the site after the Building for Excellence is completed. As the remaining buildings are modernized, the site will be in compliance with state guidelines. The past modernization construction has provided sufficient accessible parking to meet state guidelines.

Water Lines

New water lines have been brought to all of the new buildings constructed on campus plus most of the water lines internal to the buildings modernized under the Building for Excellence program have been updated. The system while being old is not failing in any areas. Further testing and video taping should be done to establish the overall condition of the system across the site and in areas not yet remodeled. Replacement in some areas should be anticipated.

Sanitary Sewer System

Records indicate that there has not been a replacement of the sewer system. The main lines across the site are the same ones that were installed 40 years ago. There has been no history of problems with the system. All of the new buildings added during the Building for Excellence program have new systems that are tied into the old system. It is recommended that a videotape of the system be made to verify its condition to determine the need of replacement.

Site Electrical System

During the Building for Excellence program the existing service to the campus was split. A new service was added at the front of the campus served off of Arastradero Road that provides power for the front half of the campus. The addition of the new service decreased the load on the existing service with the move of some buildings off the old service. This move has added capacity in the existing old system. As each building has been modernized, each buildings capacity has been increased to meet current needs plus expansion capabilities.

Structural Review

In general and based on the limited review of the buildings conducted in the Building for Excellence program, it appears that the buildings do not pose life safety problems. During each phase of the current modernization program, the structural system of each building in that

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

phase was evaluated and voluntarily upgraded. This upgrading did not bring the buildings up to full current compliance with the state building standards but improved the life safety of its occupants. As each of the other buildings is modernized, they should be fully analyzed and upgraded to the level that was established in the first phases of modernization.

During the Building for Excellence program each of the buildings remodeled included some upgrading the structural system. In most cases the roofing was changed and the roofs drains enlarged to provide better drainage off the roof system and dry rotted structural framing was replaced.

There are still several buildings that need structural upgrading and roof replacement. These include the Industrial Arts, AD-1 & AD-2, and the old library building.

Mechanical Review

Each building on campus is equipped with its own heating and ventilation system. The buildings modernized during the Building for Excellence program have had full system replacement. Each classroom was equipped with a new independent system. The systems installed were high efficient gas systems with full outside ventilation capability. All of the ductwork was replaced with fully insulated ductwork. During the Building for Excellence program all of the new systems were equipped with an Energy Management System and each building has been added to the system when modernized. The buildings that need full replacement that were not under the B4E program are, Industrial Arts, AD-1 & AD-2, the old library building, the gym/ locker rooms, and the auditorium.

Plumbing Review

Under the Building for Excellence program all of the plumbing fixtures in the modernized building were replaced. In the buildings that were not modernized there are that need replacement and the toilet rooms remodeled for full access compliance. The buildings needing fixture replacement are Industrial Arts, AD-1 & AD-2, the old library, Gym/ Locker Rooms, and the Auditorium.

Electrical Review

The site wide electrical system has been fully upgraded under the Building for Excellence program. A new service for the front half of the campus was installed which increased the capacity of the existing service on the back half and increased the site wide capacity. The fire alarm, clock/ bell and communication systems have been upgraded and each building as it was modernized or new to the campus was added to the system. Each building's power capacity was upgrades as new data

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

and power outlets were added to each classroom. All the lighting within the modernized buildings has been retrofitted with T-8 florescent lamps and solid state ballast or all new fixtures have T-8 florescent lamps and solid state ballast. Each building modernized under the B4E program has been tied into a campus wide EMS system. Site lighting has been addressed on the buildings under modernization but other on site systems need further upgrading.

Technology Review

The site-wide system has been upgraded under the B4E program. A MDF room has been established in the Old Library Building (RC) and all of the buildings modernized under the B4E program have been tied to the campus wide system. All classrooms modernized have the district standard of nine data drops and one printer station in each classroom. This network also incorporates the telephone system.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Gunn High has an extensive amount of buildings, primarily with flat roofs. So, generally speaking, the campus may not be a good candidate for passive cooling. Unlike Palo Alto High, Gunn has only limited air conditioning but still has a complicated mix of heating and (limited) air conditioning equipment including rooftop package air conditioning on the Library, fan coil units on Buildings L and M, air handling units on the Theater and Gym, unit heaters in the shops, and air handling unit with gas furnaces on the rest of the buildings. Therefore the budget provided must be appropriately managed in or to afford a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

The current utilities cost is approximately \$195 per student, per year. Gunn High School also has a swimming pool that significantly adds to the cost of utilities. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible,

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 721 point, Alerton energy management system.

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Gunn High School include the following improvements:

Swimming Pool Replacement

- New 35M pool, including equipment, storage & restrooms
- Remove and replace pool deck

AD-2 Modernization - Administration Wing

- Voluntary Seismic upgrades to AD-2
- AD-2 accessibility modifications, restrooms
- Interior renovation of AD-2
- Rework electrical panels in AD-2

IA Modernization - Industrial Arts

- Voluntary seismic upgrades to IA
- Interior renovation of IA building

Spangenberg Theater Modernization

Classroom Modernization

- New casework in classrooms
- New markerboards and tackboards
- Replace windows with low E glazing and larger units

Site ADA ramps and access upgrade to Theater

Thermal Comfort Upgrades

- Air conditioning to classrooms
- Air conditioning to Admin & Student Services

LAN/WAN infrastructure to support Technology Upgrades

Gymnasium Modernization

- Replace gymnasium floors
- Replace athletic equipment in gym
- Replace bleachers in gymnasium
- New weight training facility

Football Stadium Modernization

- New turf field and striping
- Replace home and visitor side bleachers
- Relocate and develop bathroom and snack bar

Play Fields and Landscaping Replacement

- Fields improvement, drainage and irrigation
- Landscape replaced, including water meter installation

PALO ALTO UNIFIED SCHOOL DISTRICT *FACILITY MASTER PLAN*

Baseball Fields

- Replace turf on Baseball field and softball field
- New fence, dugouts and backstops
- New scoreboard

Hardcourts Replacement

- Hardcourt re-surface, striping and equipment

Utility and Site Infrastructure Replacement

- Replace sewer, water, storm and gas service mains to site
- Reroute roof top utilities underground, no re-roof
- Update site drainage and storm drain system

Hardscape Replacement

- Repair and replace walkways
- Repair and replace parking lot and driveways

Seismic, Energy and Sustainability Reserve

Growth & Expansion of Facilities:

New construction or additions proposed for Gunn High School include:

- Construct 2nd Gymnasium
- Build new 2 story classroom building, to replace portable 'Titan Village'
- Additional restrooms to campus core
- New soccer field in north parcel
- Develop sports plaza & circulation
- Provide extra school-wide storage

Planned Maintenance:

Planned maintenance funds are being proposed for Gunn High to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Gunn High to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

The funding proposed for Gunn High for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms, bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Some other potential long term needs that may warrant further consideration by staff include the following:

- Replace IA building w/ new Career Tech building
- Add windows or daylighting into classrooms
- Addition for Food Service facility

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



Gunn High School

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	Swimming Pool Replacement New 35M pool, including equipment, storage & restrooms Remove and replace pool deck	\$3,870,000	\$4,837,500
M2	AD-2 Modernization - Administration Wing Voluntary Seismic upgrades to AD-2 AD-2 accessibility modifications, restrooms Interior renovation of AD-2 Rework electrical panels in AD-2	\$1,972,307	\$2,465,384
M3	IA Modernization - Industrial Arts Voluntary seismic upgrades to IA Interior renovation of IA building	\$3,398,170	\$4,247,712
M4	Spangenberg Theater Modernization	\$5,575,122	\$6,968,903
M5	Classroom Modernization New casework in classrooms New markerboards and tackboards Replace windows with low E glazing and larger units	\$4,346,145	\$5,432,682
M6	Site ADA ramps and access upgrade to Theater	\$161,250	\$201,563
M7	Thermal Comfort Upgrades Air conditioning to classrooms Air conditioning to Admin & Student Services	\$4,937,088	\$6,171,360
M8	LAN/WAN infrastructure to support Technology Upgrades	\$328,950	\$411,188
M9	Gymnasium Modernization Replace gymnasium floors Replace athletic equipment in gym Replace bleachers in gymnasium New weight training facility	\$1,473,232	\$1,841,540
M10	Football Stadium Modernization New turf field and striping Replace home and visitor side bleachers Relocate and develop bathroom and snack bar	\$1,109,400	\$1,386,750
M11	Play Fields and Landscaping Replacement Fields improvement, drainage and irrigation Landscape replaced, including water meter installation	\$4,009,139	\$5,011,424
M12	Baseball Fields Replace turf on Baseball field and softball field New fence, dugouts and backstops New scoreboard	\$451,500	\$564,375
M13	Hardcourts Replacement Hardcourt re-surface, striping and equipment	\$92,880	\$116,100
M14	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Update site drainage and storm drain system	\$1,096,500	\$1,370,625
M15	Hardscape Replacement Repair and replace walkways Repair and replace parking lot and driveways	\$3,784,603	\$4,730,754
M16	Seismic, Energy and Sustainability Reserve	\$903,000	\$1,128,750
SUBTOTAL - MODERNIZATION		\$37,509,286	\$46,886,608

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



Gunn High School

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
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GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Construct 2nd Gymnasium	\$4,192,500	\$5,240,625
G2	Build new 2 story classroom building, to replace portable 'Titan Village'	\$16,718,400	\$20,898,000
G3	Additional restrooms to campus core	\$387,000	\$483,750
G4	New soccer field in north parcel	\$580,500	\$725,625
G5	Develop sports plaza & circulation	\$322,500	\$403,125
G6	Provide extra school-wide storage	\$51,600	\$64,500
SUBTOTAL - GROWTH		\$22,252,500	\$27,815,625

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$13,089,300	\$16,361,625
P2	10 - 20 Year Maintenance Schedule	\$9,758,946	\$12,198,683
SUBTOTAL - PLANNED MAINTENANCE		\$22,848,246	\$28,560,308

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$1,544,882
T2	Campus Technology Refresh Budget - years 7 thru 12	\$1,954,768
T3	Campus Technology Refresh Budget - years 13 thru 18	\$2,473,405
SUBTOTAL - TECHNOLOGY		\$5,973,055

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$828,750
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$828,750
SUBTOTAL - FURNITURE AND EQUIPMENT		\$1,657,500

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Replace IA building w/ new Career Tech building
L2	Add windows or daylighting into classrooms
L3	Addition for Food Service facility

SUBTOTAL - POTENTIAL LONG TERM NEEDS

HENRY GUNN HIGH SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT

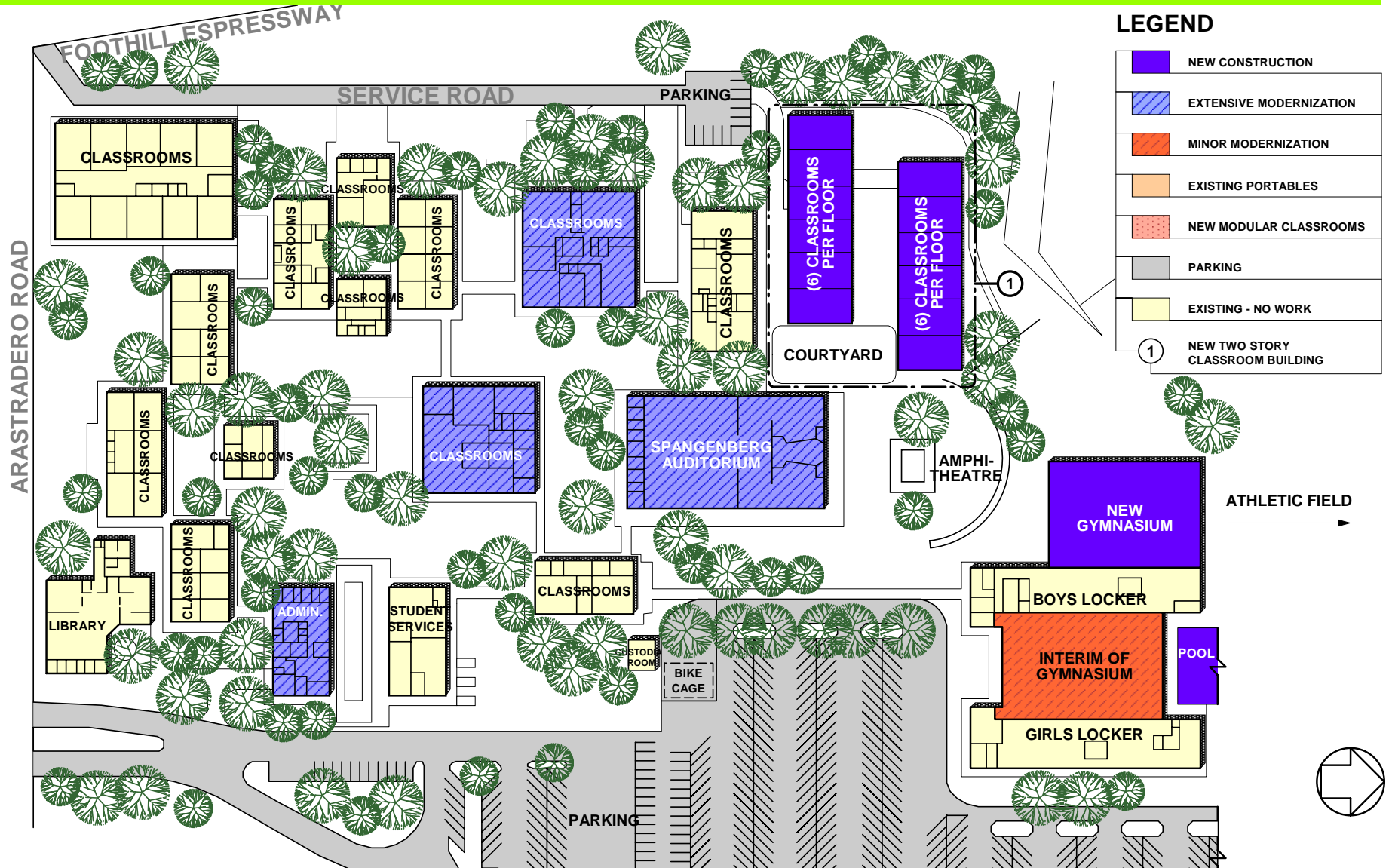


EXISTING PLAN

A E D I S *Architecture & Planning*

HENRY GUNN HIGH SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT



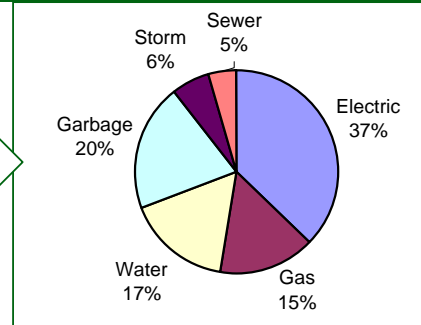
PROPOSED PLAN

A E D I S Architecture & Planning

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

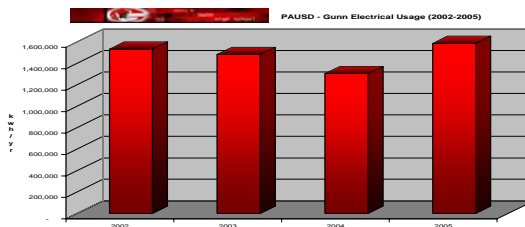
	use units	cost
Electric	1,303 kWh	\$127,902
Gas	44,745 therms	\$52,316
Water	14,228 ccf	\$57,582
Garbage	N.F.S. bins	\$70,239
Storm		\$20,483
Sewer		\$15,619
<i>per student \$195</i>		TOTAL \$344,141



Electric

Peak Demand (KW)	760
Annual kWh	1,303
Annual Electric Cost	\$127,902
Main Service Size	-
Service Voltage	-
Meter # 1	38944
Meter # 2	N/A

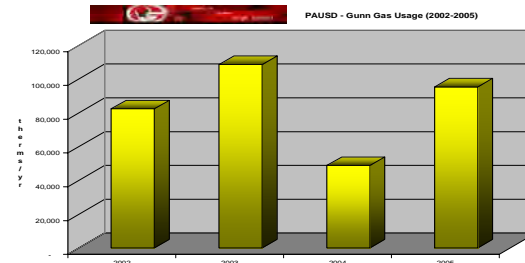
4 Year Electric Use Trend



Gas

Annual therms	44,745
Annual Gas Cost	\$52,316
Meter # 1	21920
Meter # 2	21813

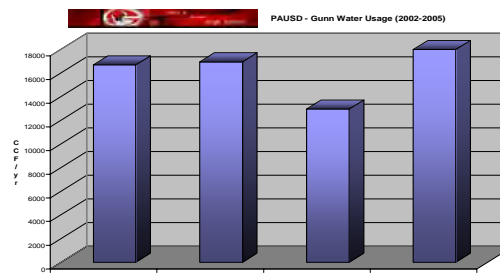
4 Year Gas Use Trend



Water

Irrigation Water Meter #	43984
Potable Water Meter #	18998
Potable Water Meter #	18999
Annual CCF (irrigation)	7,613
Annual CCF (potable)	6,499
Annual CCF (potable)	116
Annual CCF (total)	14,228
Annual Cost of Irrigation	\$30,869
Annual Cost of potable	\$26,245
Annual Cost of potable	\$468
Annual Cost (total)	\$57,582
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

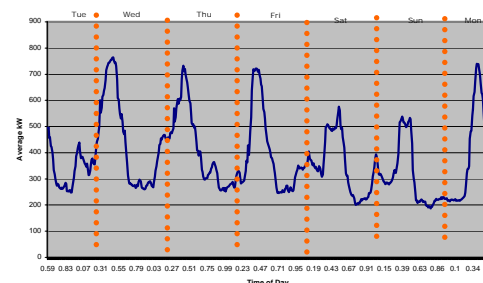
4 Year Water Use Trend



Sewer

Annual cost	\$15,619
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$20,483 *
Service Pipe Size	-
*Storm Drain Costs calculated from Hardscape S.F.	

Garbage

Annual cost	\$70,239
Number of Bins	N.F.S.

A photograph of Palo Alto High School, featuring a prominent bell tower and a large arched window. The building is light-colored with a red-tiled roof. The text "PALO ALTO HIGH SCHOOL" is overlaid in white, bold, sans-serif font. The background shows a clear blue sky and some greenery.

PALO ALTO HIGH SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

PALO ALTO HIGH SCHOOL

Profile

Palo Alto High School

50 Embarcadero Road

Built in 1918, 1928, 1945, 1955, 1960, 1969, 1972, 1975, 2004

Total Site Area:	44.2 Acres
Building Area/Misc. Circulation	25.0
Parking Area	8.3
Hard-Court Play Area	3.0
Lawn Area	0.8
Turf Play Area	7.1
Palo Alto Unified District Offices	2.6
Palo Alto Unified District Corporation Yard	2.1

Building Area:	269,314 SF
Existing Classroom Size	736 to 1600 SF
2006/2007 Enrollment:	1,729

Palo Alto High School occupies an approximate 49-acres site across El Camino Real from Stanford University. This site is owned and occupied by P.A.U.S.D., but has a reversionary clause to Stanford University on 26 of the acres. The school is composed of 17 permanent buildings constructed between 1918 and 1975.

The original construction, in 1918, included the Administration & Classroom Building and the Auditorium Building. Much of the original administration/classroom structure was demolished in 1972, leaving the two-story portion referred to as the "Tower Building". In 1928, the original Boys' Gymnasium was constructed. The construction of the Industrial Arts Building was completed in 1945 and expanded to include an electronics classroom in 1955. The Boys' Gymnasium was expanded in 1946 to provide locker and shower facilities and staff offices. In 1960, the Science Classroom Building was constructed. The addition of the Girls' Gymnasium and the swimming pool was completed in 1969.

A major expansion of the school was undertaken in 1972 with the addition of seven new buildings including; the Fine and Performing Arts Building, the English Building, the Lecture Center, the Social Studies Building, the Foreign Language Building, the Mathematics and Science Technology Building, and Resource Materials Center. In 1975, a Student Activities Center and Woodshop were constructed. Occupying almost three acres of this site are the Administrative Office for the Palo Alto Unified School District. This facility is composed of a single-story structure, built in 1955 and expanded in 1960, and its own separate parking area.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

In 1968, an extensive renovation of the Administration Building, Auditorium, and the Boys' Gymnasium were undertaken. The purpose of this project was the seismic retrofitting of these structures for increased earthquake safety. In 1998, following the Loma Prieta Earthquake, the Campanile of the Tower Building was separated from the building and strengthened. In 2004 a new Science Building was completed and the Science Building constructed in 1960 was removed from the campus interior. Renovations to Fine and Performing Arts Building, the English Building, the Lecture Center, the Social Studies Building, the Foreign Language Building, the Mathematics Building, Student Center and locker rooms in both gymnasiums were fully renovated under the Building for Excellence program from 2001 to the present.

Facilities Conditions

Architectural Review

Palo Alto High site is in a prime location in the community and has access from two sides of the campus. The main public access point is off of Embarcadero Road with a secondary access off Churchill Ave. The parking, parent and bus drop-off do not pose significant problems to the current congested area and there does not appear to be any significant safety concerns other than what would be normal around a busy site.

The buildings on the campus present various styles relative to the era that they were built. The major landmark of the campus is the Administration Building coupled with the Auditorium Building. These structures were constructed in 1918 as a part of the original school. Both of these buildings are landmarks of historical significance to the community. These buildings have been seismically upgraded and remodeled over the years but both are in need of extensive remodeling and repair. Each of the buildings has specific needs relative to their function but in general all elements need to be replaced or upgraded. An extensive feasibility study of the Auditorium Building was conducted in 1999. The study identified numerous problems throughout the building but to date no work has been completed. A similar study should be conducted for the Administration Building. These buildings need immediate attention in some areas to preserve the historical nature of the original components. Some examples are the windows and decorative plasterwork around both buildings. In some areas the components are getting beyond repair.

The majority of the other buildings on campus were constructed in 1970. These are single story rectangular or square buildings with hipped tiled roofs and wood siding. The roof structure of these buildings extends over a walkway, which surrounds the buildings allowing covered exterior access to most of the classrooms, or exterior covered

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

access to the interior classrooms. The typical interior feature concrete slab floors with carpet or vinyl tile, gypsum board walls with tackable vinyl wall surfaces and suspended acoustical ceilings. During the Building for Excellence program the majority of these buildings have been modernized with the exception of the Library Building 500 and the Fine Arts Building 100. The new science currently under construction reflects the roof and overhand style of the 1970 buildings with exterior finishes similar to the Administration Building. These 1970 buildings are Buildings 100, 200, 300, 300A, 400, 500, 600, and 700.

Building 800 the old science building was constructed in 1959. This building was taken out of the Building for Excellence program and will need extensive remodeling once the new science building is completed. The current rooms are equipped for a science program and would need extensive reconfiguration as well as full replacement of the mechanical and electrical systems. There has also been the thought of raising the building and eliminating the need.

Building 900 is one of the Industrial Arts buildings, which was built in 1945 and expanded in 1955. In 1985, the building was seismically upgraded. Various remodeling have taken place over the years but this was not a part of the Building for Excellence program. This building houses the Auto Shop, Aeronautics Program and a Computer Design and Technology Lab. This building has concrete floors, the walls are painted plywood or plaster and the ceilings are exposed framing with insulation. The Tech Lab has carpet flooring and a suspended T-bar ceiling.

Building 1000 the Wood Shop Building was constructed in 1975 and houses the wood shop and the adult education Upholstery classes. This is a concrete building with a concrete floor and painted concrete or plaster walls and exposed framing at the ceiling.

The Large Gymnasium was originally constructed in 1928 and added onto in 1946. The building houses the boy's locker rooms as well as the gymnasium and athletic support facilities. The gymnasium was remodeled in 1995 do to fire damage. The main Gymnasium is in relatively good shape. The locker rooms and toilet rooms are scheduled for remodeling during the Building for Excellence program.

The Small Gymnasium was constructed in 1969. As well as a full gymnasium floor this building includes the girl's locker room, a dance studio and athletic support facilities. This entire facility was to be remodeled under the Building for Excellence. Currently only the locker rooms will be remodeled under the program.

The condition of the facilities on this campus range from good in the newly remodeled buildings of the Building for Excellence program to poor in the old Administration and Auditorium Buildings where a great

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deal of work needs to be done. If the remainder of the buildings that were not a part of the Building for Excellence program were remodeled to the same level of the program, the campus would service the district needs for a number of years.

During the Building for Excellence program the district did add a number of portable classrooms to the site. Most of these buildings will remain after the program is completed and would be a candidate for replacement under future programs.

Civil Review

Storm Drainage

The storm drainage system at the high school overall is inadequate. During the Building for Excellence program the Civil engineer's review of the system indicated that the campus has severe drainage problems and needs a full evaluation and mitigation plan. The problem with the system extends to the subsurface piping capacity and its tie into the existing city system. The on-site piping is too small and the city system that it drains into can not take the flow from the campus. The city at this time does not have a plan to upgrade the capacity of their system. The city system would be very costly to upgrade and it has been suggested that on-site detention ponds should be considered as part of the drainage study. The revisions needed for a new system have been estimated in the range of \$1.5 to \$1.8 MM.

Pavement

The paved areas around the site contain numerous cracks that have been repaired and most of the paved areas were sealed over the past few years. Other areas have sub-grade problems as evidenced in the surface alligatoring. Standing water over the years has and will continue to degrade the surfaces and structure of the paving. The standing water in part, is caused by the back up of the existing city system that becomes overloaded during downpours. Repaving in most of the area should be done when the drainage problems are being addressed. In many areas tree roots have lifted the surface and these areas require removal and resurfacing with the proper cross slopes for drainage. In other areas there is uplifting of the concrete surfaces which require removal and replacement and in some cases there are trip hazards that need to be addressed. The parking area paving over the next five years should be overlaid or replaced depending on subsurface conditions.

Accessibility

There were a number of parking spaces added and access ramps rebuilt during the first phases of the modernization projects under the Building for Excellence program. The past construction has provided sufficient parking to meet state guidelines. Each building when modernized was required to meet all of the current accessible standards. The buildings not modernized under the current program in

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most cases do not meet all of the access standards and need to be addressed as each building is upgraded. These buildings include the industrial arts buildings, the old science building, the theater and the administration building. The theater building has the most severe non-compliance issues. These issues were identified in the Haymarket Theater feasibility study completed in 2000.

Water Lines

New water lines have been brought into all of the recent constructed buildings on campus plus most of the water lines internal in the buildings modernized under the Building for Excellence program have been updated. The system while being old is not failing in any areas. During the recent construction of the science building the taping of the existing water line brought further concerns about the water piping. The existing piping has been reduced in capacity from many years of mineral build up inside the piping. In this location the carrying capacity of the pipe was reduced by one third. Further testing should be done to establish the overall condition campuswide. Video taping should be completed on the entire system and extensive replacement anticipated.

Sanitary Sewer System

Records indicate that there has been no replacement of the sewer system. There have been no history of problems with the system and all of the new buildings during the Building for Excellence program have new internal systems that are tied into the old system. It is recommended that the piping be videotaped to verify its condition to determine the need of replacement. Due to its age, replacement or relining of the existing piping should be anticipated.

Structural Review

In general and based on the limited review of the buildings conducted in the Building for Excellence program, it appears that the buildings do not pose life safety problems. During each phase of the current modernization program, the structural system of each building in that phase was evaluated and voluntarily upgraded. This upgrading did not bring the buildings up to full current compliance with the state building standards. This upgrading improved the life safety capability of the building in the protection of its occupants. As each of the other buildings is modernized, they should be fully analyzed and upgraded to the same safety standard. The structural carrying capacity has not been upgraded to the level where the building would not sustain major damage during a major event.

Most of the buildings that have not been modernized under the current program are the older buildings on campus. Most of these older buildings have had some upgrading of the structural system. Those upgrades have been in the past and further upgrades are needed. It is

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recommended that further study of the Tower / Admin. Building's existing structural system is made prior to its full occupancy to determine its actual carrying capacity. Various upgrades have occurred over the years and more are anticipated in the Tower Building, Haymarket Theater, Buildings 100, 500, 800, 900, 1000, and both gymnasiums.

Mechanical Review

The majority of the HVAC systems on campus are feed from the central plant located at the back of the campus. The central plant has been evaluated and updated under the current Building for Excellence program. The heating side of this system is from two boilers that can be run individually and serve the needs of the campus. Future buildings could be added to this system. On the cooling side, a new air-cooled chiller was added under Building for Excellence with the capability to include ice making at a future date to enhance capacity. The remainder of the buildings has various rooftop or suspended gas fired systems with the exception of the Tower Building and Auditorium, which are served by a boiler in the Auditorium. In most cases, the remainder of the buildings that were not modernized have systems that are beyond their useful life. Full replacement or substantial upgrades are needed in each building. The buildings that need upgrading are Tower Building, Haymarket Theater, Buildings 100, 500, 800, 900, 1000, and both gymnasiums. Each building should be evaluated as to current needs and the systems modified accordingly.

The hot water piping for the system served from the central plant was replaced in 1991. The chill water piping is the original piping installed when the building were added to the campus in 1972. Further investigation of this chill water piping system may be needed if failures start to occur. The campus under the Building for Excellence program has been equipped with an Energy Management System and each building has been added to the system when modernized.

Plumbing Review

Under the Building for Excellence program all of the plumbing fixtures in the modernized building were replaced. In the buildings that were not modernized there are fixtures that need replacement. The site water and sewer piping have been reviewed under the site category of this assessment. The building that need fixture replacement and remodeling for access compliance are: Tower Building, Haymarket Theater, Buildings 100, 500, 800, 900, 1000, and both gymnasiums

Electrical Review

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The site wide electrical system has been fully upgraded under the Building for Excellence program. The three site sub stations have been rebuilt with new transformers and distribution boards increasing the capacity to the site. The fire alarm, clock/ bell and communication systems have been upgraded. Each modernized building or new buildings added to the campus have power upgrades plus tie-ins to the new fire alarm, clock/ bell and communication systems. All the lighting within the modernized buildings has been retrofitted with T-8 florescent lamps and solid-state ballast or new fixtures having T-8 florescent lamps and solid-state ballast have been installed. All future projects will be required to have super T-8 lamps and ballast. Additional power to each classroom has been brought in under the buildings modernized under the B4E program. Each building modernized under the B4E program has been tied into a campus wide EMS system. Site lighting has been addressed on the buildings under modernization but other on site systems need further upgrading.

Technology Review

The campus-wide system has been upgraded under the B4E program. A MDF room has been established in the Library Building (500) and all of the buildings modernized under the B4E program have been tied to the campus wide system. All classrooms modernized have the district standard of nine data drops and one printer station in each classroom. This network also incorporates the telephone system.

Improved Cooling

As stated in the Executive Summary, improved cooling is an important consideration and a part of the master plan because it can and will affect energy consumption, comfort and the teaching/learning environment. Paly has an extensive amount of buildings with both flat and pitched roofs. So portions of the campus may be good candidates for passive cooling. It should be noted, however, that Paly is one of the few schools that is almost fully air-conditioned; and that cooling is planned for in the Master Plan budget. Likewise, because of its size and history, there is a myriad of heating and air conditioning systems on campuses including air handling units with heating coils on B-1700, heat pumps on the portables, air handling units and unit heaters in the shops, and multizone units (providing heating and air conditioning) in all of the other buildings. There is also a boiler and air cooled chiller (new in 2004) in the central plant; as well as two boilers in the theater. Therefore the budget provided will require significant consideration in order to afford a reasonable expectation that comfort can be improved at the least possible cost and at the highest possible efficiency.

Utilities and Utility Metrics

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The current utilities cost is approximately \$347 per student, per year. Palo Alto High School also has a swimming pool that significantly adds to the cost of utilities. The utility data sheet which follows, provides specific cost and use data associated with major, current site utilities. This data is a necessary part of the Master Plan because the utilities budgets are both unrelenting AND critical to the teaching and learning environment. The utility costs can be managed, but the sophistication of the teaching and learning environment demands flexible and ample utilities in the form of gas, electric, water, garbage, sewer and storm drainage.

The ability to manage, maintain and rely on these utilities and utility cost centers can be greatly increased by a sound knowledge of the existing infrastructure. For this reason the meters are identified, where possible, on the data sheet. Likewise, it is important to note that a significant amount of the building infrastructure can be managed through the existing, 616 point, Alerton energy management system (not including a fully instrumented central plant monitoring and control system).

Site Needs

Modernization:

The scope of work proposed for the existing buildings at Palo Alto High School include the following improvements:

Building 500 - Library Modernization

- Voluntary seismic upgrades to Bldg 500
- Bldg 500 accessibility modifications
- Interior renovation of Bldg 500
- Replace HVAC units in Bldg 500

Haymarket Theater Renovation

- Voluntary seismic upgrades to Haymarket Theater
- ADA compliance requirements for Haymarket Theater, restrooms
- New roofing for Theater
- Exterior painting for Theater
- Exterior doors & windows for Theater
- Interior renovation of Theater

Building 900 Replacement

Tower Administration Renovation

- Voluntary seismic upgrades to Administration
- ADA compliance requirements for Admin, restrooms
- New roofing for Admin
- Exterior painting for Admin
- Exterior doors & windows for Admin
- Interior renovation of Admin

Site ADA ramps and access upgrade to Theater

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New roofing at walkways and canopies

Classroom Modernization

- New casework in classrooms
- New markerboards and tackboards

Thermal Comfort Upgrades

- Replace HVAC Units in Bldgs 100 through 700
- Expansion of Central Plant for Bldgs 1500/1600

LAN/WAN infrastructure to support Technology Upgrades

Main and 2nd Gymnasium Modernization

- Voluntary seismic upgrades
- ADA compliance requirements, restrooms
- New roofing
- Exterior doors & windows
- Interior renovation
- Replace gymnasium floors
- Replace athletic equipment in gym

Wood Shop Modernization

Weightlifting Modernization (Addition to 2nd Gym?)

Football Stadium Improvements

- Repair and replace stadium field surface
- Replace home side bleachers
- Relocate and develop bathroom and snack bar facility

Play Fields and Landscaping Replacement

- Fields improvement, drainage and irrigation
- Landscape replaced, including water meter installation

Baseball Fields

- Replace turf on Baseball field and softball field
- New fence, dugouts and backstops
- New scoreboard

Soccer Field Improvements

- Add retaining wall and bleachers at soccer field
- Add fencing and storage at soccer field

Hardcourts Replacement

- Hardcourt re-surface, striping and equipment

Utility and Site Infrastructure Replacement

- Replace sewer, water, storm and gas service mains to site

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- Reroute roof top utilities underground, no re-roof
- Update site drainage and storm drain system

Hardscape Replacement

- Repair and replace walkways
- Repair and replace parking lot and driveways

Replace formal amphitheater and stage in quad

Seismic, Energy and Sustainability Reserve

Growth & Expansion of Facilities:

New construction or additions proposed for Palo Alto High School include:

- Construct New Theater for 500 students
- Build new 2 story classroom building, to replace portables
- Additional restrooms to campus core
- Expansion of 2nd Gym
- Expansion of Bldg 1500 for administration
- New staff lounge
- Develop sports plaza & circulation
- Provide extra school-wide storage

Planned Maintenance:

Planned maintenance funds are being proposed for Palo Alto High to continue the current planned maintenance schedule beyond the 10 year funding provided under the Building for Excellence Program. This maintenance schedule includes replacement of flooring, doors, HVAC units, painting, roofing, lighting and asphalt paving.

Technology:

Technology funding is proposed for Palo Alto High to replace student, teacher and staff computers, printers, servers, software and other IT and audio visual equipment over a 6 year refresh cycle. Infrastructure costs associated with the building, such as cabling, racks and data rooms are included in the Modernization upgrades.

Furnishings and Equipment:

The funding proposed for Palo Alto High for furnishings and equipment will include new student, teacher and staff desks, chairs and tables. Also included in this fund are LCD displays for the classrooms,

PALO ALTO UNIFIED SCHOOL DISTRICT
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bookcases, carts and other equipment used in conjunction with providing instruction to the students.

Potential Long Term Needs

Some other potential long term needs that may warrant further consideration by staff include the following:

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

Palo Alto High School



MODERNIZATION			
Contract	Scope of Work	Construction Cost	Project Cost
M1	Building 500 - Library Modernization Voluntary seismic upgrades to Bldg 500 Bldg 500 accessibility modifications Interior renovation of Bldg 500 Replace HVAC units in Bldg 500	\$6,883,105	\$8,603,881
M2	Haymarket Theater Renovation Voluntary seismic upgrades to Haymarket Theater ADA compliance requirements for Haymarket Theater, restrooms New roofing for Theater Exterior painting for Theater Exterior doors & windows for Theater Interior renovation of Theater	\$4,294,668	\$5,368,335
M3	Building 900 Replacement	\$7,981,262	\$9,976,578
M4	Tower Administration Renovation Voluntary seismic upgrades to Administration ADA compliance requirements for Admin, restrooms New roofing for Admin Exterior painting for Admin Exterior doors & windows for Admin Interior renovation of Admin	\$10,588,605	\$13,235,756
M5	Site ADA ramps and access upgrade to Theater	\$109,650	\$137,063
M6	New roofing at walkways and canopies	\$161,250	\$201,563
M7	Classroom Modernization New casework in classrooms New markerboards and tackboards	\$566,568	\$708,210
M8	Thermal Comfort Upgrades Replace HVAC Units in Bldgs 100 through 700 Expansion of Central Plant for Bldgs 1500/1600	\$4,381,949	\$5,477,437
M9	LAN/WAN infrastructure to support Technology Upgrades	\$328,950	\$411,188
M10	Main and 2nd Gymnasium Modernization Voluntary seismic upgrades ADA compliance requirements, restrooms New roofing Exterior doors & windows Interior renovation Replace gymnasium floors Replace athletic equipment in gym	\$10,126,565	\$12,658,206
M11	Wood Shop Modernization	\$512,687	\$640,859
M12	Weightlifting Modernization (Addition to 2nd Gym?)	\$417,960	\$522,450
M13	Football Stadium Improvements Repair and replace stadium field surface Replace home side bleachers Relocate and develop bathroom and snack bar facility	\$1,115,850	\$1,394,813
M14	Play Fields and Landscaping Replacement Fields improvement, drainage and irrigation Landscape replaced, including water meter installation	\$2,818,028	\$3,522,535
M15	Baseball Fields Replace turf on Baseball field and softball field New fence, dugouts and backstops New scoreboard	\$219,300	\$274,125
M16	Soccer Field Improvements Add retaining wall and bleachers at soccer field Add fencing and storage at soccer field	\$554,700	\$693,375
M17	Hardcourts Replacement Hardcourt re-surface, striping and equipment	\$92,880	\$116,100
M18	Utility and Site Infrastructure Replacement	\$1,096,500	\$1,370,625

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FACILITIES MASTER PLAN

Palo Alto High School



	Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Update site drainage and storm drain system		
M19	Hardscape Replacement Repair and replace walkways Repair and replace parking lot and driveways	\$8,692,124	\$10,865,156
M20	Replace formal amphitheater and stage in quad	\$193,500	\$241,875
M21	Seismic, Energy and Sustainability Reserve	\$903,000	\$1,128,750
SUBTOTAL - MODERNIZATION		\$62,039,102	\$77,548,877

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Construct New Theater for 500 students	\$13,932,000	\$17,415,000
G2	Build new 2 story classroom building, to replace portables	\$14,489,280	\$18,111,600
G3	Additional restrooms to campus core	\$387,000	\$483,750
G4	Expansion of 2nd Gym	\$1,393,200	\$1,741,500
G5	Expansion of Bldg 1500 for administration	\$3,547,500	\$4,434,375
G6	New staff lounge	\$709,500	\$886,875
G7	Develop sports plaza & circulation	\$451,500	\$564,375
G8	Provide extra school-wide storage	\$103,200	\$129,000
SUBTOTAL - GROWTH		\$35,013,180	\$43,766,475

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$7,421,785	\$9,277,231
P2	10 - 20 Year Maintenance Schedule	\$14,171,720	\$17,714,650
SUBTOTAL - PLANNED MAINTENANCE		\$21,593,505	\$26,991,881

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$1,412,882
T2	Campus Technology Refresh Budget - years 7 thru 12	\$1,787,746
T3	Campus Technology Refresh Budget - years 13 thru 18	\$2,262,069
SUBTOTAL - TECHNOLOGY		\$5,462,697

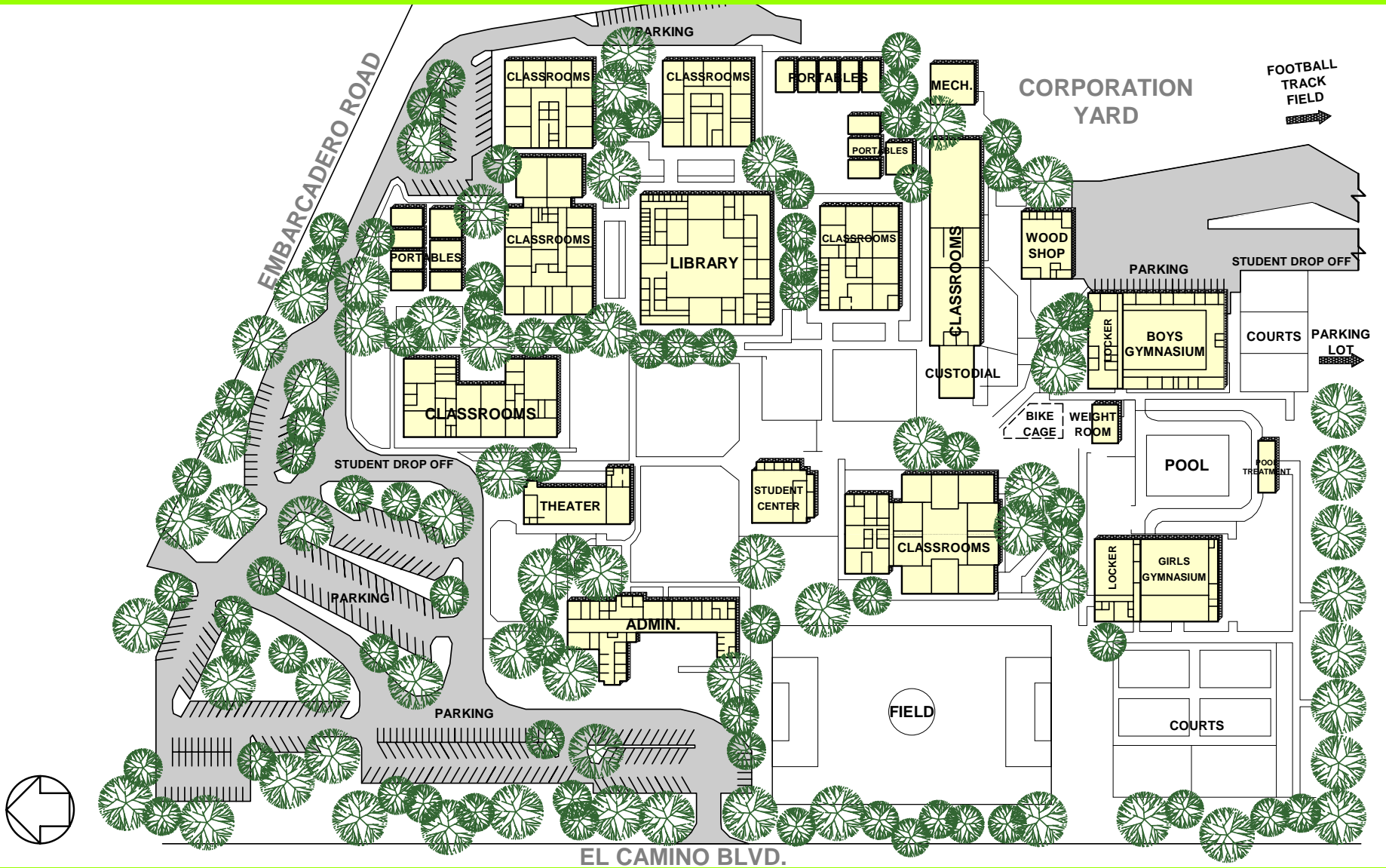
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$828,750
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$828,750
SUBTOTAL - FURNITURE AND EQUIPMENT		\$1,657,500

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	

PALO ALTO HIGH SCHOOL
PALO ALTO UNIFIED SCHOOL DISTRICT












EXISTING PLAN

A E D I S *Architecture & Planning*

PALO ALTO HIGH SCHOOL

PALO ALTO UNIFIED SCHOOL DISTRICT

LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	EXISTING - NO WORK
	FUTURE TWO STORY CLASSROOM LOCATION
	POTENTIAL FUTURE CLASSROOM BUILDING LOCATION



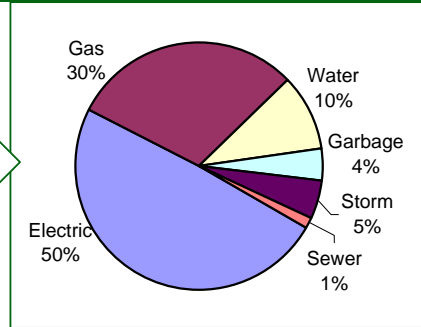
PROPOSED PLAN

A E D I S Architecture & Planning

Utilities Data Sheet

Utilities Use/Cost Totals (FY 06, 7/05 thru 6/06)

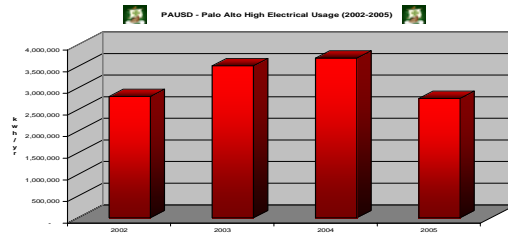
	use units	cost
Electric	2,967,513 kWh	\$295,144
Gas	154,971 therms	\$180,877
Water	15,254 ccf	\$61,557
Garbage	N.F.S. bins	\$24,897
Storm		\$29,423
Sewer		\$8,333
<i>per student \$347</i>		TOTAL \$600,231



Electric

Peak Demand (KW)	650
Annual kWh	2,967,513
Annual Electric Cost	\$295,144
Main Service Size	-
Service Voltage	-
Meter # 1	38304
Meter # 2	N/A

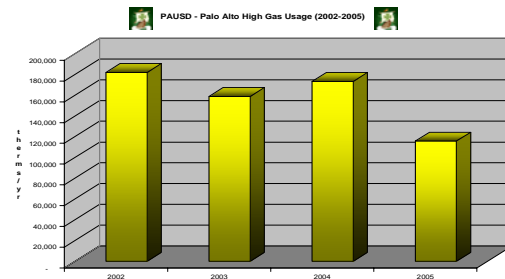
4 Year Electric Use Trend



Gas

Annual therms	154,971
Annual Gas Cost	\$180,877
Meter # 1	22188
Meter # 2	22187

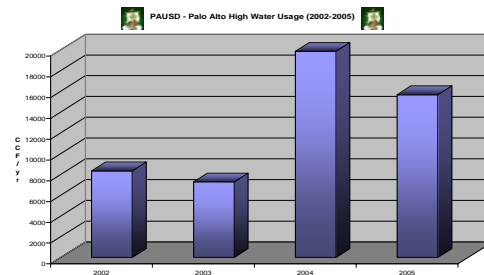
4 Year Gas Use Trend



Water

Irrigation Water Meter #	19432
Irrigation Water Meter #	31466
Potable Water Meter #	43821
Annual CCF (irrigation)	7,533
Annual CCF (irrigation)	7,557
Annual CCF (potable)	164
Annual CCF (total)	15,254
Annual Cost of Irrigation	\$30,405
Annual Cost of Irrigation	\$30,492
Annual Cost of potable	\$660
Annual Cost (total)	\$61,557
Service Pipe Size (irrigation)	-
Service Pipe Size (potable)	-

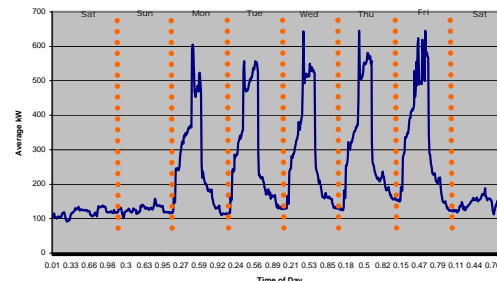
4 Year Water Use Trend



Sewer

Annual cost	\$8,333
Service Pipe Size	-

Weekly Utility Use Profile



Storm

Annual cost	\$29,423 *
Service Pipe Size	-

*Storm Drain Costs calculated from Hardscape S.F.

Garbage

Annual cost	\$24,897
Number of Bins	N.F.S.

A photograph of a building complex with a parking lot in the foreground. The image is dimmed and has the text 'GARLAND SITE' overlaid in white. The building has a low profile with a brown roof and light-colored walls. There are trees and bushes in front of the building, and a tall light pole stands in the middle ground. The parking lot is paved and has white and yellow markings.

GARLAND SITE

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN**

GARLAND SITE

Profile

Garland Site

870 N. California Ave

Built: 1956, 1957

Total Site Area:	5.0 Acres
Building Area/Miscellaneous Circulation	0.5
Circulation / Walkways	0.3
Hardcourts	1.1
Parking Area	1.3
Lawn & Planting	0.3
Turf / Play Area	1.5

Suggested Approximate Capacity: 386 Pupils

Classrooms: 14 Permanent, Relocatables (2) on concrete foundation, (7) rentals

Building Identification

Upper Wing = 8 classrooms

Lower Wing = 6 classrooms

Multipurpose Room

Administration

Library

Relocatable classrooms

The Garland site is currently being leased to an outside entity. The site was built originally in 1956, with a Multipurpose building added the following year in 1957.

Facilities Conditions

The Garland site is currently being leased to the Stratford School through 2015. The site is in good overall condition, but has not been evaluated by the facility assessment team.

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Garland Elementary School

MODERNIZATION			
Contract	Scope of Work	Construction Cost	Project Cost
M1	Classroom Modernization - B4E standards Seismic structural upgrades to all buildings Removal of asbestos wrapping on piping Remove and replace all exterior doors and frames Upgrade water supply, gas and waste/venting New T-8 lighting conversion Improve cooling to classrooms Provide tackable surfaces on walls Replace ceiling tiles in classrooms	\$2,177,546	\$2,721,932
M2	Administration / Support Space Modernization - B4E standards Provide teacher/staff workroom for meetings and visiting faculty office Provide new casework in Admin Replace ceiling tiles in Admin Replace flooring in Admin	\$90,300	\$112,875
M3	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$618,710	\$773,387
M4	Improve security systems	\$103,200	\$129,000
M5	Classroom Casework Upgrade Provide new teaching walls & casework in classrooms, to match B4E cabinets	\$438,858	\$548,573
M6	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$153,059	\$191,323
M7	LAN/WAN infrastructure to support Technology Upgrades	\$73,530	\$91,913
M8	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$343,441	\$429,301
M9	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$998,468	\$1,248,085
M10	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,213,245	\$1,516,556
M11	Site Furnishings Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Subtotal - Priority 6	\$123,453	\$154,316
M12	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625
SUBTOTAL - MODERNIZATION		\$6,501,508	\$8,126,886

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Garland Elementary School



GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg	\$2,886,710	\$3,608,388
G2	Provide new Library	\$1,451,250	\$1,814,063
G3	Provide permanent foundations and ramps for Relos	\$169,313	\$211,641
G4	Provide teacher/staff workroom for meetings and visiting faculty office	\$70,950	\$88,688
G5	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$4,713,673	\$5,892,091

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,329,145	\$1,661,431
P2	10 - 20 Year Maintenance Schedule	\$1,775,646	\$2,219,558
SUBTOTAL - PLANNED MAINTENANCE		\$3,104,791	\$3,880,989

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1		
T2		
T3		
SUBTOTAL - TECHNOLOGY		

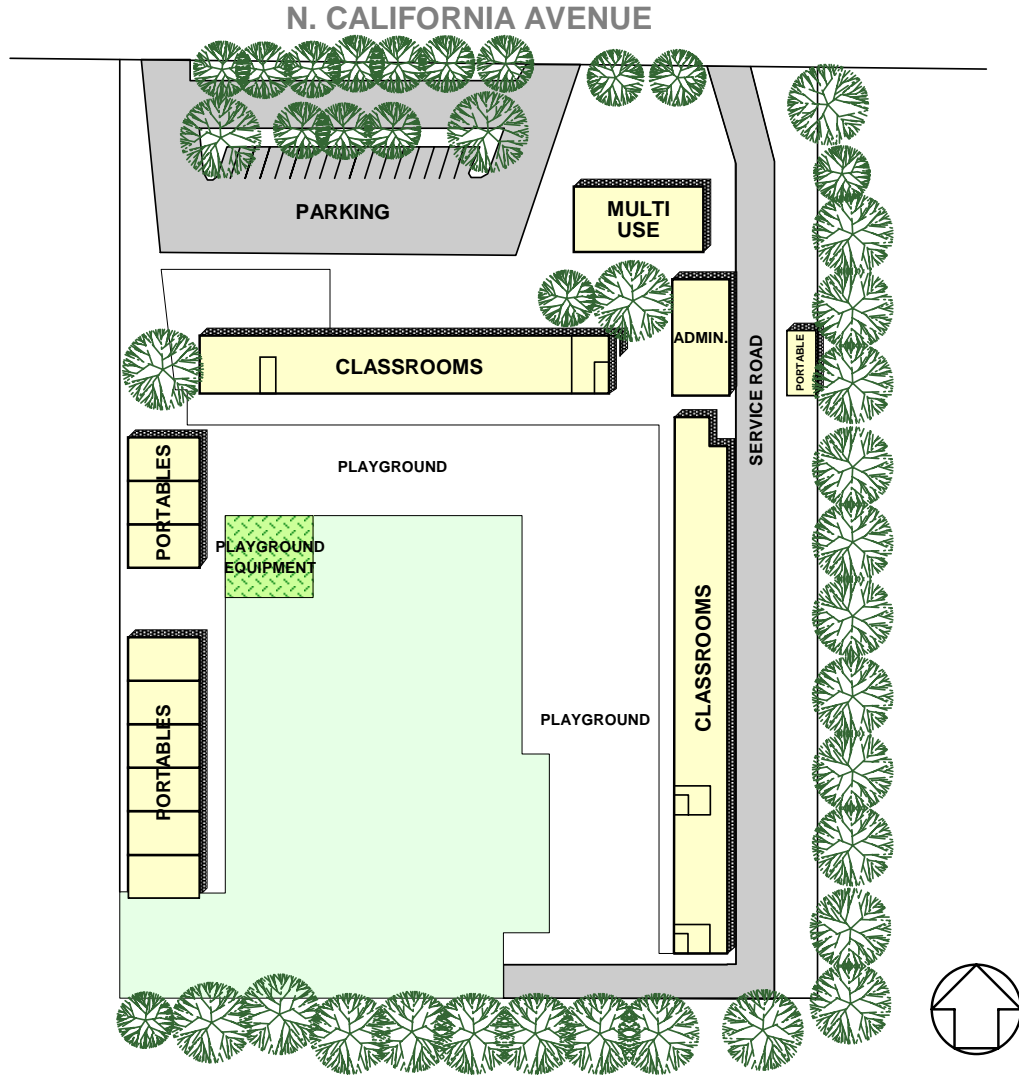
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1		
F1		
SUBTOTAL - FURNITURE AND EQUIPMENT		

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	

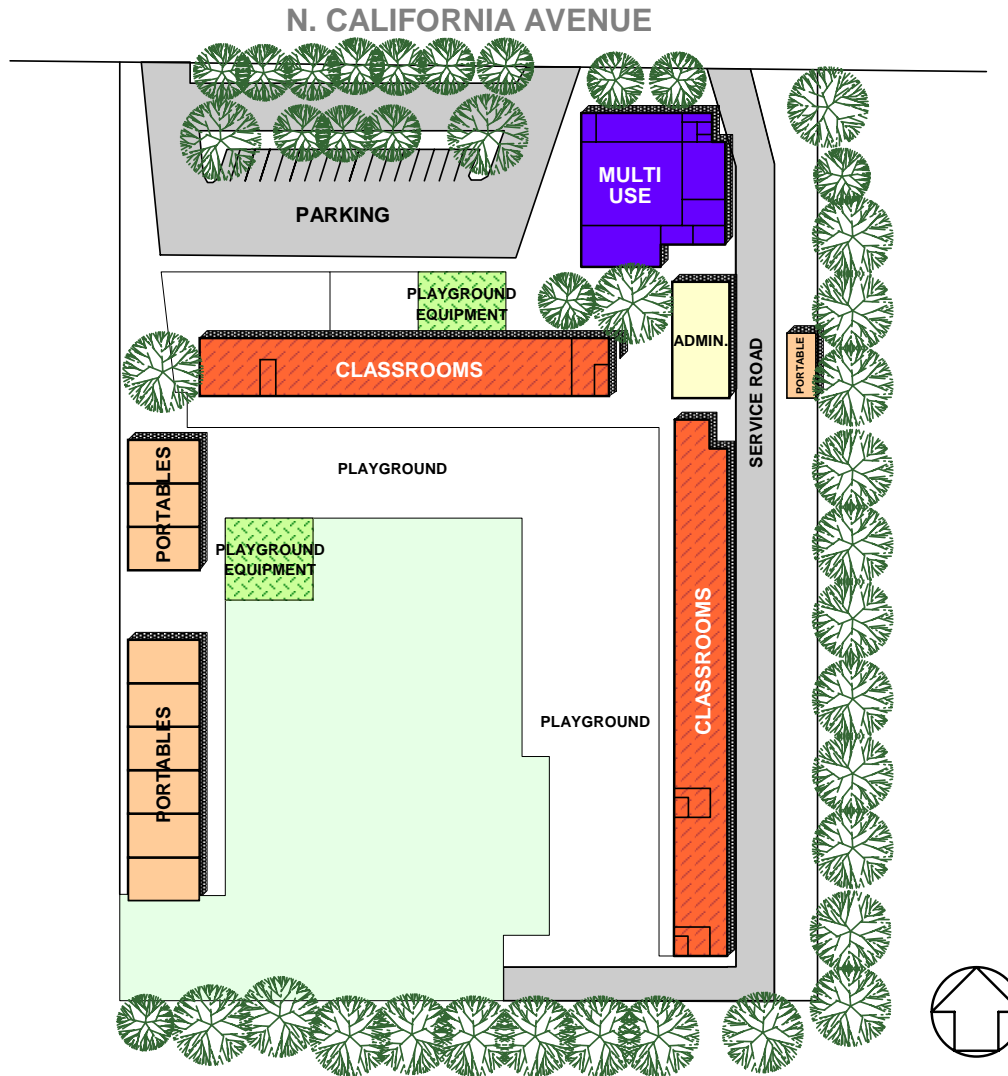
GARLAND - SURPLUS SCHOOL SITE
PALO ALTO UNIFIED SCHOOL DISTRICT











EXISTING PLAN

A E D I S *Architecture & Planning*

GARLAND - SURPLUS SCHOOL SITE
PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

A photograph of a school building with a paved area in the foreground and trees. The text 'GREENDELL PRE-SCHOOL SITE' is overlaid in white. The building is a single-story structure with large windows and a flat roof. There are several trees of varying sizes around the building. In the foreground, there is a paved area with yellow markings, possibly a parking lot or playground area, and a concrete curb. The overall scene is outdoors and appears to be a school campus.

GREENDELL PRE-SCHOOL SITE

GREENDELL PRE-SCHOOL

Profile

Greendell Site

4120 Middlefield Rd.

Built: 1957, 1960, 1978

Total Site Area:	5.0 Acres
Building Area/Miscellaneous Circulation	0.5
Circulation / Walkways	0.3
Hardcourts	0.7
Parking Area	1.3
Lawn & Planting	0.4
Turf / Play Area	1.8

Building Identification

Unit 1 - 2 Classrooms

Unit 2 - 4 Classrooms

Unit 3 - 8 Classrooms plus Administration

Multi-Use Unit

12 Relocatables

The Greendell site was originally built in 1957, with Units 1, 2 and half of Unit 3 making up the original buildings. In 1960, the Multi Use Unit was built and Unit 3 was expanded by 4 classrooms. In 1978, the Administration portion of Unit 3 was rebuilt due to a fire.

Facilities Conditions

The Greendell site is currently being used as the Young Fives. The site is in good overall condition, but has not been evaluated by the facility assessment team.

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Greendell Elementary School



MODERNIZATION				
Contract	Scope of Work	Construction Cost	Project Cost	
M1	ADA Upgrades	\$322,500	\$403,125	
M2	Roofing	\$373,223	\$466,529	
M3	Classroom Modernization - B4E standards Seismic structural upgrades to all buildings Removal of asbestos wrapping on piping Improve security systems New T-8 lighting conversion Provide window coverings and shade control in CR's Improve cooling to classrooms	\$3,814,685	\$4,768,356	
M4	Administration / Support Space Modernization - B4E standards Upgrade LAN/WAN infrastructure Provide new casework in Admin Replace ceiling tiles in Admin Replace flooring in Admin	\$403,770	\$504,713	
M5	New windows and shade control Replace windows with new energy efficient units Provide window coverings and shade control in CR's	\$618,710	\$773,387	
M6	Improve security systems	\$108,360	\$135,450	
M7	Classroom Casework Upgrade Provide new teaching walls & casework in classrooms, to match B4E cabinets	\$372,488	\$465,609	
M8	Thermal Comfort Upgrades Improve cooling to Classrooms, Library and Admin space	\$153,059	\$191,323	
M9	LAN/WAN infrastructure to support Technology Upgrades	\$55,470	\$69,338	
M10	Play Fields and Landscaping Replacement Strip and replace turf in play fields Improve landscape areas around buildings	\$403,322	\$504,153	
M11	Hardscape Replacement Replace concrete walkways and asphalt parking lot and driveways	\$335,699	\$419,624	
M12	Utility and Site Infrastructure Replacement Replace sewer, water, storm and gas service mains to site Reroute roof top utilities underground, no re-roof Site exterior lighting and FA connections	\$1,219,824	\$1,524,780	
M13	Site Furnishings and Playground Improvements Upgrade miscellaneous site elements such as trash enclosures, flagpoles, Replace playgrounds	\$360,607	\$450,758	
M14	Seismic, Energy and Sustainability Reserve	\$167,700	\$209,625	
SUBTOTAL - MODERNIZATION		\$8,013,693	\$10,017,116	

PALO ALTO UNIFIED SCHOOL DISTRICT
 FACILITIES MASTER PLAN

Greendell Elementary School



GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1	Replacement of Multipurpose Room Bldg	\$2,886,710	\$3,608,388
G2	Provide new Library	\$1,451,250	\$1,814,063
G3	Provide teacher/staff workroom for meetings and visiting faculty office	\$54,180	\$67,725
G4	Reconfigure Day Care facilities, including new play area and fencing	\$135,450	\$169,313
SUBTOTAL - GROWTH		\$4,527,590	\$5,659,488

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost	Project Cost
P1	10 Year Maintenance Schedule	\$1,329,145	\$1,661,431
P2	10 - 20 Year Maintenance Schedule	\$1,775,646	\$2,219,558
SUBTOTAL - PLANNED MAINTENANCE		\$3,104,791	\$3,880,989

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1		
T2		
T3		
SUBTOTAL - TECHNOLOGY		

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1		
F1		
SUBTOTAL - FURNITURE AND EQUIPMENT		

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	

GREENDELL - PRE-SCHOOL SITE
PALO ALTO UNIFIED SCHOOL DISTRICT



EXISTING PLAN

A E D I S *Architecture & Planning*

GRENDALL - PRE-SCHOOL SITE
PALO ALTO UNIFIED SCHOOL DISTRICT



LEGEND

	NEW CONSTRUCTION
	EXTENSIVE MODERNIZATION
	MINOR MODERNIZATION
	EXISTING PORTABLES
	NEW MODULAR CLASSROOMS
	PARKING
	TURF PLAYGROUND
	EXISTING - NO WORK

PROPOSED PLAN

A E D I S *Architecture & Planning*

A photograph of a modern building with large windows and a parking lot, overlaid with the text "DISTRICT OFFICE". The building has a light-colored facade and a dark roof. There are several trees and bushes in front of the building. A white car is parked in the parking lot on the right side. The sky is overcast and grey. The text "DISTRICT OFFICE" is written in a large, white, sans-serif font, centered over the image.

DISTRICT OFFICE

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN**

DISTRICT OFFICE

25 Churchill Ave.
Built in: 1955, 1960

Total Site Area:	4.3 Acres
Building Area/Miscellaneous Circulation	1.0
Parking Area	3.3

Building Area: 23,016 SF
Relocatables: 3 on site, at approx. 1,000 SF each 1 off site,
at approx. 2,400 SF

The District Administration Office Building is located on a portion of an approximately 23-acre parcel owned by the District. The remainder of the parcel houses portions of Palo Alto High School and the District's maintenance yard. The main building was constructed in 1955 and the boardroom addition was added in 1960.

The building had been approved through the Division of the State Architect when originally constructed. The building currently houses the District's administration offices and support services. The site also houses 3 portable classroom buildings, which are divided into offices for district support services.

Facilities Conditions

Civil Review

Storm Drainage

The storm drainage system at the district office overall is inadequate. A review of the system found that the entire hard surface parking area around the site drains to the front of the site to a single drain inlet. The drain inlet is equipped with a pumping system that pumps the site storm water into the street gutter system along Churchill Avenue. During heavy rains the system does not have sufficient capacity to handle the large run off area and consequently severe pounding occurs at the entrance to the parking area. A complete redesign of the system is necessary which would include regrading, resurfacing and a new subsurface system to allow the site to have more than one outlet for the site storm water.

Pavement

The pavement areas around the site contain numerous cracks that have been repaired and sealed over the past few years. Many areas have subgrade problems as evidenced in the surface alligating. Standing water over the years has and will continue to degrade the surfaces and structure of the paving. Repaving in most of the area should be done when the drainage problems are addressed. The parking area paving will require full replacement when the drainage problems are corrected.

PALO ALTO UNIFIED SCHOOL DISTRICT

FACILITY MASTER PLAN

Accessibility

There are accessible parking spaces that were added over the years. The current layout does not provide sufficient parking to meet state guidelines. Additional access compliant parking needs to be added. Access to the building from the site is within state guidelines for accessibility. The site is flat from the handicap parking stalls to the building.

Water Lines

The water lines have never been replaced. The system while being old is not failing. Full replacement should be anticipated. The age of the pipes plus the accumulation of mineral build up over the years are reasons for the need for replacement.

Sanitary Sewer System

Records indicate that there has been no replacement of the sewer system. There has been no history of problems with the system. It is recommended that the piping be videotaped to verify its condition to determine the need of replacement. Do to its age, replacement or relining of the existing piping should be anticipated.

Electrical System

The existing 800 amp service appears to be the original equipment that was installed when the building was constructed. The equipment is old and parts for it are difficult to obtain. While serviceable for its current needs, it cannot support any future expansion. Numerous cooling system and circuitry have been added over the years to support the current building needs and the system is at its limits. If new loads are added, it is recommended that a new 1000 amp system should be added and an infrared scan of the switchboard and all panelboards be done to check for overloading.

Technology System

The district wide system has been undated over the years and is not in need of replacement. Recently the District wide phone system was relocated within this building from the Palo Alto High campus. An emergency generator was recently added to keep the system operational during power outages.

Structural Review

In general, it appears that the building does not pose life safety problems. The major components of the lateral load resisting system exceed the maximum demand/ capacity ratio permitted by FEMA356 guidelines. Structural damages are expected in a major seismic event. Structural strengthening is recommended for both buildings if remodeling of the building is done.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Mechanical Review

The existing heating system in the 1955 building is the original system that was installed when the building was constructed. It is an in-slab radiant heating system that is served by two hot water boilers and circulation pumps. One of the boilers was recently replaced and the other is 15 years old. Fresh air is dependent upon an operable window system. Most systems of this vintage have been replaced do to failures in the in-slab piping system and this one is beyond its useful life. Supplementing the heating is the cooling system added with a "hodgepodge" of single zone air conditioning units of various types, sizes and manufacturers. This cooling system is noisy and provides poor air distribution, ventilation and temperature control. Much of the interior offices are without mechanical cooling and direct fresh air.

The 1960 Addition is served by two single zone constant volume package units with heating from hot water coils served from a third boiler. Some of the smaller areas are served by thru-the-wall unducted heat pump systems and residential AC units.

The entire system is beyond its useful life, is ineffective and inefficient. Considerable energy savings could be achieved with the replacement of the system with a new energy efficient system.

Plumbing Review

The plumber sub surface system has no history of failure and the system seems to be adequately sized for the current building usage. A video taping of the water and sewer system is recommended do to the age of the facility. It appears that the current restrooms are not adequate under the current code to serve the population housed in this facility nor are they fully handicap compliant. The fixtures should be changed with any remodeling.

There is no existing fire sprinkler system in the building.

Electrical Review

The system is old and has no room for future growth. It is suggested that the main panel be replaced and the existing sub-panels tested. The existing lighting system is a combination of new and old fixtures that are 2' x 2' or 2' x 4'. It is recommended that these fixtures be replace with the district standard fixture with super T-8 lamps and solid state ballast.

The existing fire alarm system does not conform to current state standards and should be considered for full replacement. There are no fire alarm strobes or pull stations in the building. A new addressable system is recommended.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

Technology Review

The sitewide system has been upgraded recently with the new server room addition. A new 250KW emergency generator was installed a year ago and the building has been wired for its current needs. The existing system has capacity for future additions. The district wide phone system also operates out of this facility and was recently move to this office.

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN



District Office

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	<p>ADA Compliance Improvements</p> <ul style="list-style-type: none"> Modify existing sink cabinet to meet ADA compliance Provide handicap signage Complete ADA remodel of restrooms Replace existing drinking fountains with new accessible vandal resistant fixtures Replace existing sinks with accessible sinks and trim. Connect to existing 	\$170,345	\$212,931
M3	<p>District Office Modernization</p> <ul style="list-style-type: none"> New exterior doors, Aluminum storefront and hollow metal doors and frames Paint exterior walls, metal and trim Storm drain infrastructure, replace pump system with multiple outlet system Re-grade and surface to drainage system New paving of asphalt parking lot areas Provide code required number of HC parking lot spaces and path of travel to Replace domestic water service to building and site fire protection system Replace or reline sanitary sewer system to building Reconfiguration of interior to new program Finish Hardware complete replacement throughout building Flooring, replace existing with new resilient base and carpet throughout Interior Walls, paint all walls throughout Ceilings, paint existing and new ceilings to match. New interior doors, SC wood in H/M frame New interior doors, aluminum, sliding glass Hand dryers, provide new hand dryers in restrooms Remove and replace roofing system, complete Provide new exterior shear panels Inspect and repair roof purlins Strengthen annex strut connections to original building Inspect and repair dry rot and termite damage framing and sheathing New gas service to building to serve new HVAC system, including meter, regulator New fire protection system Demo Old Boiler System Provide new gas piping unit connections, including valves, branch piping to Replace existing radiant heating system with new HVAC system, including new Provide new exhaust fans, duct, controls and grilles in restrooms Provide sealed sheet metal duct and hoods over copy machines. Provide new EMS system. Telephone system, provide new jacks in classrooms, including cabling, raceways, Fire alarm system, replace outdated equipment with complete new automatic and Master clock system, replace outdated equipment with complete new system Television (Video) Distribution System, provide new jacks in conference rooms and LAN Cable Network, Category 5 cabling and room jacks, patch panels, termination LAN/WAN Infrastructure New 1000 AMP service to building, including new feeders, transformer and Scan existing panelboards and upgrade to relieve overloading Replace all interior light fixtures with District standard fixtures with T-8 lamps and Reconnect and upgrade power circuitry within reconfigured spaces, new Replace site pedestrian paving to entries Restore landscaping 	\$5,807,002	\$7,258,753
SUBTOTAL - MODERNIZATION		\$5,977,347	\$7,471,683

PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN

District Office



GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1			

SUBTOTAL - GROWTH

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost
P1	10 Year Maintenance Schedule	
P2	10 - 20 Year Maintenance Schedule	

SUBTOTAL - PLANNED MAINTENANCE

TECHNOLOGY

Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$200,000
T2	Campus Technology Refresh Budget - years 7 thru12	\$250,000
T3	Campus Technology Refresh Budget - years 13 thru18	\$300,000
SUBTOTAL - TECHNOLOGY		\$750,000

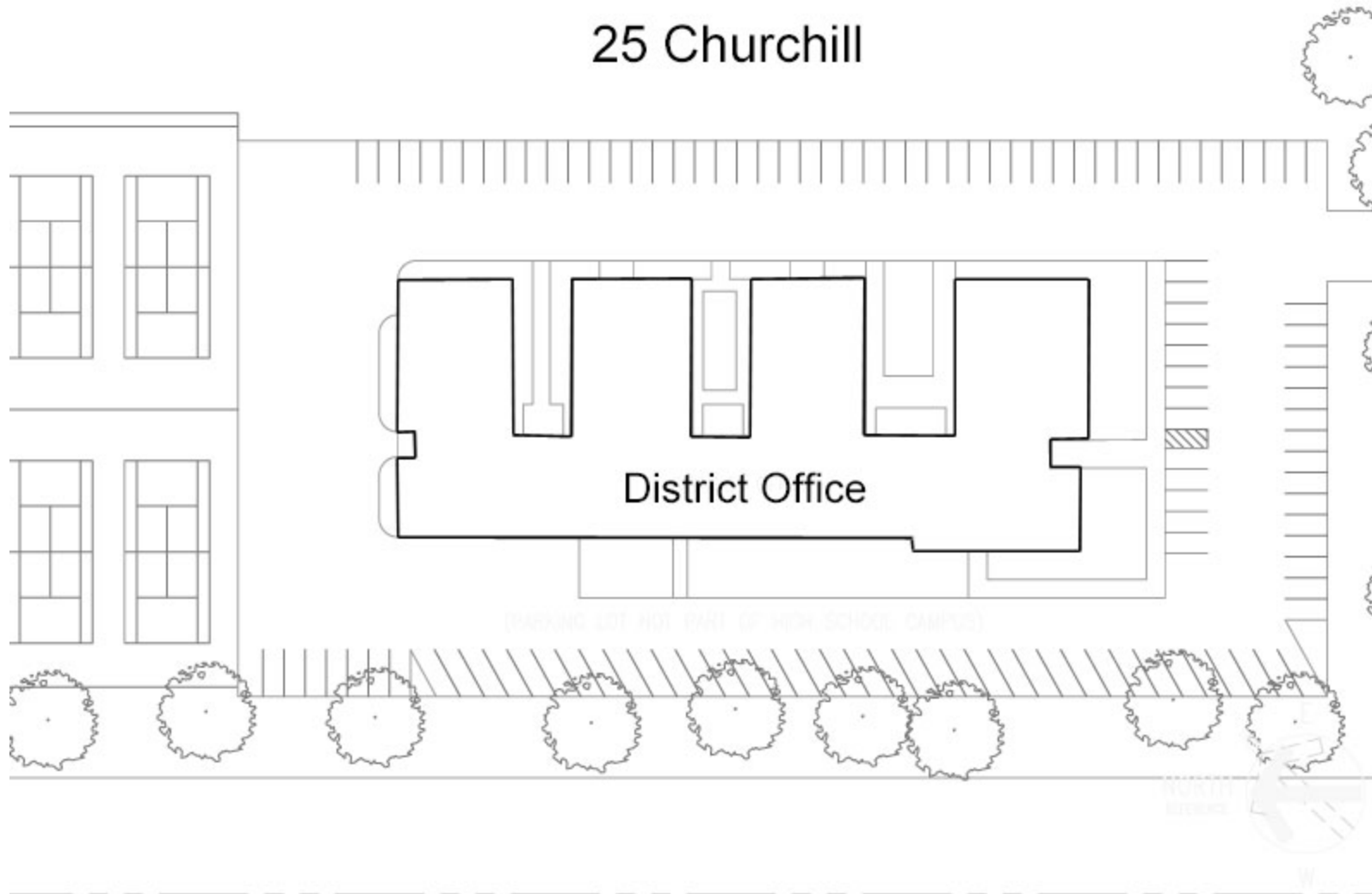
FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$160,000
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$200,000
SUBTOTAL - FURNITURE AND EQUIPMENT		\$360,000

POTENTIAL LONG TERM NEEDS

	Scope of Work		
L1	Building Replacement	\$6,500,000	\$8,125,000
		\$6,500,000	\$8,125,000

25 Churchill



CORPORATE YARD



PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITY MASTER PLAN

CORPORATION YARD

Address:

85 Churchill Ave.

Built: Various years

Site:	Approx. 3 Acres
Building Area/Misc. Circulation	1.
Parking Area	2.
TOTAL	3 Acres

Description

The District Maintenance Yard is located on a portion of the property owned by district and extends onto the property that is under the reversionary clause with Stanford University . This parcel houses various buildings of varying ages. The building currently houses the District's transportation & maintenance offices, wood shop, metal shop, carpenter shop, paint shop, transportation repair garage, warehouse and other support services. The site also houses a fueling station and parking areas for the district's buses.

This site has various paving and drainage issues. The pavement is old, cracked and repaired around the site. The drainage is disrupted by the highs and low spots around the site and drains into the overtaxed city system that drains the rest of the Palo Alto High School site. The departmental program should be developed to provide a background for assessment of these facilities. Plans of these facilities were not reviewed. The current buildings seem to adequately house the needs of this department but the spaces are old and disjointed around the site.

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**



Corporation Yard

MODERNIZATION

Contract	Scope of Work	Construction Cost	Project Cost
M1	<p>ADA Compliance Improvements</p> <ul style="list-style-type: none"> Modify existing sink cabinet to meet ADA compliance Provide handicap signage Provide ADA restrooms Replace existing drinking fountains with new accessible vandal resistant fixtures Replace existing sinks with accessible sinks and trim. 	\$70,499	\$88,123
M3	<p>Corporation Yard Building Replacement</p> <p>New exterior doors, Aluminum storefront and hollow metal doors and frames</p> <p>Paint exterior walls, metal and trim</p> <p>Storm drain infrastructure</p> <p>Re-grade and surface to drainage system</p> <p>New paving of asphalt parking lot areas</p> <p>Provide code required number of HC parking lot spaces and path of travel to</p> <p>Replace domestic water service to building and site fire protection system</p> <p>Replace or reline sanitary sewer system to building</p> <p>Reconfiguration of interior to new program</p> <p>Finish Hardware complete replacement throughout building</p> <p>Flooring, replace existing with new resilient base and carpet throughout</p> <p>Interior Walls, paint all walls throughout</p> <p>Ceilings, paint existing and new ceilings to match.</p> <p>New interior doors, SC wood in H/M frame</p> <p>Remove and replace roofing system, complete</p> <p>Inspect and repair dry rot and termite damage framing and sheathing</p> <p>Provide new exhaust fans, duct, controls and grilles in restrooms</p> <p>Provide miscellaneous sheet metal duct and hoods</p> <p>Provide new EMS system.</p> <p>Reconnect and upgrade power circuitry within reconfigured spaces, new</p> <p>New fence at perimeter</p>	\$1,824,066	\$2,280,083
SUBTOTAL - MODERNIZATION		\$1,894,565	\$2,368,206

GROWTH / EXPANSION

Contract	Scope of Work	Construction Cost	Project Cost
G1			
SUBTOTAL - GROWTH			

**PALO ALTO UNIFIED SCHOOL DISTRICT
FACILITIES MASTER PLAN**



Corporation Yard

PLANNED MAINTENANCE

Contract	Scope of Work	Construction Cost
P1	10 Year Maintenance Schedule	
P2	10 - 20 Year Maintenance Schedule	

SUBTOTAL - PLANNED MAINTENANCE

TECHNOLOGY

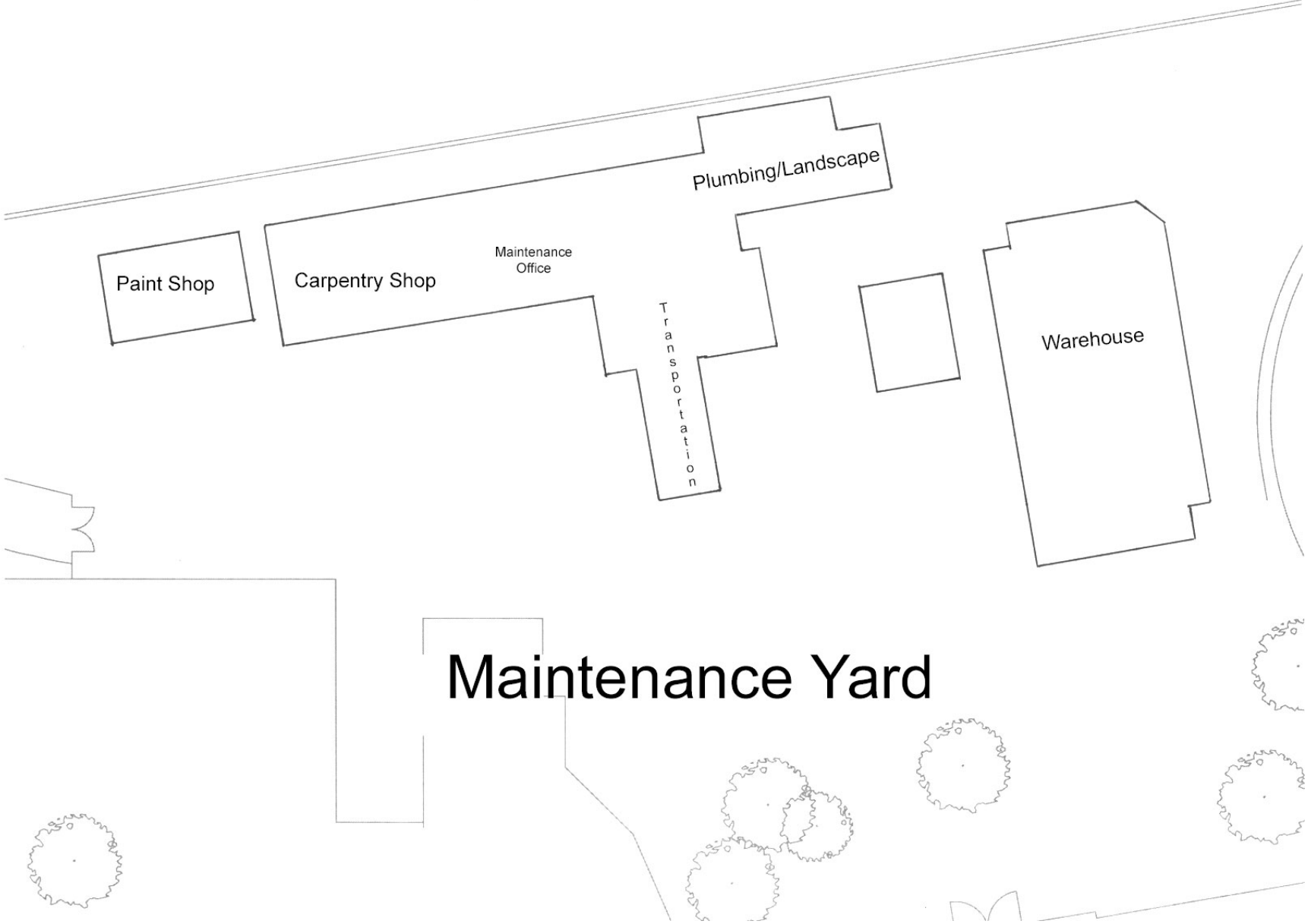
Contract	Scope of Work	Project Cost
T1	Campus Technology Refresh Budget - years 1 thru 6	\$20,000
T2	Campus Technology Refresh Budget - years 7 thru12	\$25,000
T3	Campus Technology Refresh Budget - years 13 thru18	\$30,000
SUBTOTAL - TECHNOLOGY		\$75,000

FURNITURE AND EQUIPMENT

Contract	Scope of Work	Project Cost
F1	Campus furnishings and Equipment Budget - years 1 thru 10	\$15,000
F1	Campus furnishings and Equipment Budget - years 11 thru 20	\$20,000
SUBTOTAL - FURNITURE AND EQUIPMENT		\$35,000

POTENTIAL LONG TERM NEEDS

	Scope of Work
L1	Building Replacement



Paint Shop

Carpentry Shop

Maintenance Office

Transportation

Plumbing/Landscape

Warehouse

Maintenance Yard

Palo Alto Unified School District:

The following is a synopsis of the District's G.O. bond issuance discussion and requested scenario under a "tax rate extension" program.

The three most important factors in determining the District's tax rate are: 1) the amount of bonds sold, selling \$200 million in bonds will have a higher tax rate than selling \$50 million; 2) timing in selling the series of bonds, selling \$200 million at once will have a different tax rate than selling four series of \$50 million over time; and finally 3) the assumptions used for future growth in assessed values (AV). Other factors like the reserve or delinquency policies of a particular county play a part as well, but the three factors I have listed above are the most important.

The 1995 Election promised a tax rate of approximately \$90/100,000 of AV. Since the final series of bonds were sold in 2000, followed by a refinancing of callable bonds in 2005, the tax rate has been steadily declining. This has occurred because you have the same debt service being repaid by a growing tax base, thus being spread over a larger amount. When we began this discussion about "tax rate extension" several years ago the tax rate approximated \$60/100,000 of AV. The District's tax rate now stands at approximately \$49/100,000.

A tax rate extension is when a district requests the voters to approve a subsequent election with no tax rate increase. The point of "no tax rate increase" can be from:

- The point of the previous election: \$90/100,000 of assessed valuation
- The statutory limitation of \$60/100,000 of assessed valuation
- The current tax rate level of \$49/100,000 of assessed valuation
- Some other point of reference that will resonate with the voters

Superintendent Callan has asked us to consider raising \$775 million via a Prop 39 Election(s), through a "tax rate extension program". We have looked at having multiple elections. These two or three elections would be held every eight years. The benefits are several:

- We get to revisit and adjust the amounts and or projects. Inflation and unforeseen events requires flexibility.
- We will have more information on growth in AV, providing more flexibility on the tax rate.
- Going back to the voters multiple times will provide greater voter accountability and involvement in the process.

We have provided you with Summary Analysis showing the current Bonds outstanding as well as the potential new election. We are eager to provide you with the tools to assist in this dialogue.

Thank You.

Rod Carter
Managing Director
RBC Capital Markets

Palo Alto Unified School District General Obligation Bonds Potential Election in 2008

Bond Issuance Schedule and Projected Tax Rate Analysis

\$347.0 million 2008 Authorization issued over 8 years.

\$428.0 million will be Authorized in a Future Election(s)

\$347.0 Million Authorized with a Combined Tax Rate Max of \$49.77 per \$100,000

Tax Rate Per \$100,000 Assessed Value*

2009	\$49.56	<u>Series</u>	<u>Dated</u>	<u>1995 Election</u>	<u>2008 Election</u>	<u>Future Elections</u>
Maximum	\$49.77	1995 Elec. Bonds	Closed	\$4,855,000		
Average	\$46.51	2005 Ref. Bonds	Closed	105,750,000		
		Series A (2008)	08/01/08		140,000,000	
		Series B (2012)	08/01/12		105,000,000	
		Series C (2016)	08/01/16		102,000,000	
		Total		110,605,000	347,000,000	428,000,000

***Notes:**

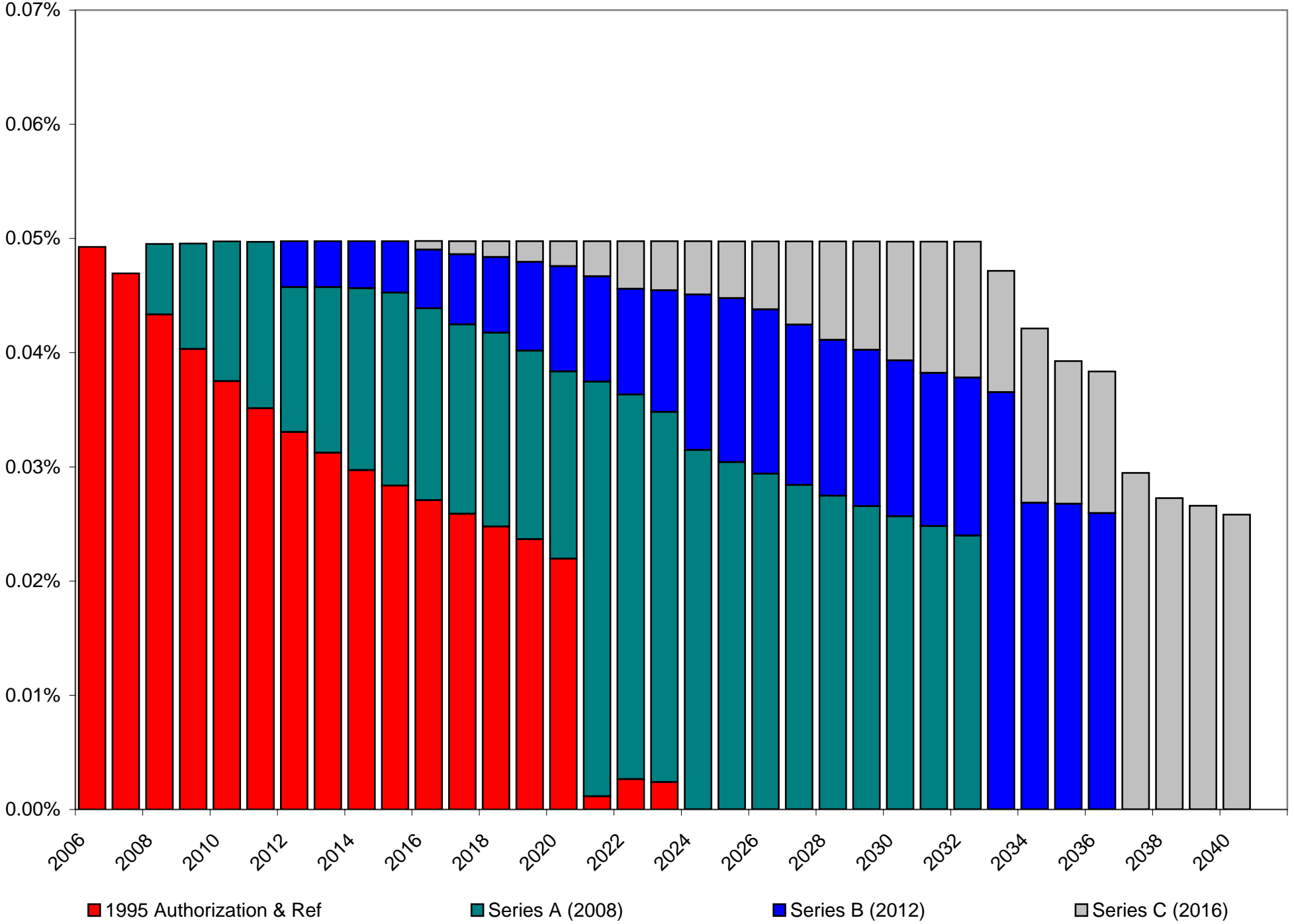
The maximum tax rate must not exceed \$60.00 on Prop. 39 Election.

The 2006-07 A.V. is \$19,618,969,817.

Assumed A.V. growth rate is as follows:

2006-07	8.77%	Actual
2007-08 through 2009-10	8.00%	Projected
2010-11 through 2011-12	7.50%	Projected
2012-13	7.00%	Projected
2013-14	6.00%	Projected
2014-15 and thereafter	5.00%	Projected

Palo Alto Unified School District
 Potential Election in 2008 Tax Rate Extension
\$347.0 million Authorized with a Combined Tax Rate of \$49.77 per \$100,000



The Palo Alto Unified School District Agreement Matrix

Contract Title	Lease & Covenant Not to Develop	Amendment No. 1 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District	Amendment No. 2 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District
Contract Topic	Cubberley Lease, Covenant Not to Develop, and Extended Day Care Services	Cubberley Lease, Covenant Not to Develop, and Extended Day Care Services	
Sites	Cubberley, Garland, Fairmeadow, Greendell, Jordan, J.L. Stanford, Ohlone ("Facilities")	<ul style="list-style-type: none"> Cubberley, Garland, Fairmeadow, Greendell, Jordan, J.L. Stanford, Ohlone - renamed as Hoover, Walter Hays, Juana Briones ("Facilities") Ohlone/Hoover is replaced with Walter Hays and Juana Briones in all aspects of the agreement (including exhibits) 	<ul style="list-style-type: none"> Addison, Cubberley, El Carmelo, Fairmeadow, Garland, Greendell, Hoover, Jordan, J.L. Stanford, Walter Hays, Juana Briones Garland is replaced with Addison & El Carmelo in all aspects of the agreement (including exhibits) Cubberley area and lease payments are reduced
Parties to Agreements	City & PAUSD	City & PAUSD	City & PAUSD
Term & Option to Renew or Extend	<ul style="list-style-type: none"> January 1, 1990 - December 31, 2004 City has option to extend time for an additional 10 years by giving written notice to PAUSD by December 31, 2003 Both parties have option to extend time beyond December 31, 2013 for 2 additional period of 5 years with prior consent of each other 	Dated: July 21, 1998	Effective: September 1, 2002
Joint Non-Payment Duties & Terms	<ul style="list-style-type: none"> Comply with all applicable law Naylor Bill Allocations apply to sites in Exhibit M (not included in copy of agreement) 	Comply with all applicable law	Comply with all applicable law

The Palo Alto Unified School District Agreement Matrix

Contract Title	Lease & Covenant Not to Develop	Amendment No. 1 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District	Amendment No. 2 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District
<p>PAUSD's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Leases Cubberley to City (approximately 35 acres of which 11.8 acres is outdoor recreation area and remaining 24.2 acres are public areas & 180,000 square feet of buildings) • Annually invoice City for monthly payments (failure to invoice does not relieve City's responsibility) • Prior to City's entry, disclose in writing all known defects in Cubberley structures (no inspections or review of applicable law necessary) • Upon 30 days prior written notice of addition or alteration, must execute documents required necessary for final inspection report • If PAUSD closes either Jordan &/or J.L. Stanford, PAUSD can not subdivide, sell or develop these sites for 7 years after closure, but can lease sites (at closure, City's obligation to pay PAUSD ceases) • Provide 11 spaces meeting state standards for 25 students with shelving and closets to City for extended day child care services including access to restrooms and playground equipment (more spaces may be added if PAUSD opens an additional elementary school) • Repair or rebuild damage or destruction of day care sites to their pre-existing condition • Responsible for major maintenance to child care sites 		<ul style="list-style-type: none"> • Lease Cubberley to City (approximately 27.48 acres of which 15.94 acres is outdoor recreation area and remaining 11.54 acres are public areas & 80,150 square feet of buildings) • Convey fee title of 7.97 acres of Cubberley to City • Grant conditional use of Greendell to JCC for interim childhood development program • Install 9 portable classrooms & 1 portable restroom & grant City a condition use permit of these on Greendell site

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<p>Other Party's Non-Payment Duties</p>	<p>Repair or rebuild damage or destruction to Cubberley or choose to terminate lease & pay PAUSD insurance proceeds (unless PAUSD intended to rebuild buildings within two years of casualty, in which case parties divide equally insurance proceeds)</p> <ul style="list-style-type: none"> • If City chooses to exercise its option to purchase, it must adhere to the restriction on sale (details provided in agreement) • Solely responsible for operating an extended day child care program • At end of agreement, must surrender premises in same condition other than from ordinary wear & tear or permitted changes (except for removal costs of City's personal property) 		<p>Convey a portion of Terman Park to PAUSD</p>
<p>PAUSD's Rights</p>	<ul style="list-style-type: none"> • May consolidate up to two child care spaces at one site with City's approval (PAUSD bears costs of transporting students) • All improvements or alterations belong to PAUSD (except for City's personal property) • May reopen, as an operating school any of the facilities (need to amend agreement & City's payment obligations remain) 		<p>Has right to open a compact high school at Cubberley after JCC relocates its operations from Cubberley</p>

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<p>Contract Title</p>	<p><i>Lease & Covenant Not to Develop</i></p>	<p><i>Amendment No. 1 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District</i></p>	<p><i>Amendment No. 2 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District</i></p>
<p>Other Party's Rights</p>	<ul style="list-style-type: none"> In an emergency, may act to cure or eliminate danger without PAUSD's approval May make & pay for alterations, additions, improvements, or structural changes necessary for its effective use without PAUSD's approval (30 day prior notice required for changes costing more than \$100,000) Has an option to purchase if PAUSD intends to sell its fee interest in Cubberley during the 1st 25 years of the lease At closure of Jordon and/or J.L. Stanford, City's obligation to pay PAUSD ceases 	<p>All other provisions remain in full force & effect</p>	
<p>PAUSD's Payment Schedule or \$ Duties</p>			
<p>PAUSD's to be Received by PAUSD</p>	<ul style="list-style-type: none"> Pay PAUSD each year a base pay of \$2,700,000 in twelve monthly installments for lease of Cubberley Pay PAUSD \$182,804 to not develop Garland Pay PAUSD \$182,804 to not develop Greendell Pay PAUSD \$236,000 to not develop J.L. Stanford Pay PAUSD \$164,000 to not develop Jordan Starting January 31, 1990, pay PAUSD \$300,000 or \$27,273 per extended day care space in 12 equal installments for use of 11 spaces in order for PAUSD to not develop Ohlone Any partial month payment will be prorated on a 30 day month basis If payment is 15 days late, a late charge of 1/2% of amount due will be added 	<ul style="list-style-type: none"> Pay \$204,742 to not develop Walter Hays & Juana Briones instead of Ohlone Annually pay \$300,000 or \$27,273 per space to PAUSD in 12 equal installments starting January 31, 1990 As of September 1, 1988, City's annual payment shall be increased by \$34,792 (operation of Ohlone/Hover) 	<ul style="list-style-type: none"> Pay \$182,804 to not develop Addison & El Carmelo instead of Garland City's obligation to pay rent for Cubberley will be reduced by \$23,490 a month

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Contract Title	Lease & Covenant Not to Develop	Amendment No. 1 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District	Amendment No. 2 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District
<p>Payments to be Received by PAUSD</p> <ul style="list-style-type: none"> • City responsible for any costs associated with encapsulation/removal of asbestos not described in PAUSD's asbestos report • City has sole responsibility to prove & pay for all maintenance & repair, utility costs, and scavenger services of Cubberley • Pay for all operating expenses, real & personal property taxes, and possessory interest tax • Provide and pay for all utility costs (prorated by square foot), minor maintenance, custodial services, and security measures • Repair or rebuild damage or destruction to Cubberley or choose to terminate lease & pay PAUSD insurance proceeds (unless PAUSD intended to rebuild buildings within two years of casualty, in which case parties divide equally insurance proceeds) • If PAUSD partially terminates lease, payment is reduced proportional to the reduced land area • Reimburse PAUSD for all costs of cleanup/alterations or diminution in fair market value of Cubberley caused by toxic materials (guided by agreement and applicable laws) 			
<p>Payment Adjustments</p>			<ul style="list-style-type: none"> • Any adjustments to Cubberley's reduced payments will be done by the same method
<p>Lease Rate</p>			

The Palo Alto Unified School District Agreement Matrix

Contract Title	Lease & Covenant Not to Develop	Amendment No. 1 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District	Amendment No. 2 to Lease and Covenant Not to Develop Between the City of Palo Alto and the Palo Alto Unified School District
Insurance	<ul style="list-style-type: none"> • City must acquire applicable insurance for City & PAUSD • City's certificates of insurance will be filed with PAUSD • City may endorse existing policies, self-insure, enter into a pooling program, or acquire coverage in excess of \$1 million self-insured retention thru the ACCEL Joint Powers Agreement • City must give a 30 day notice to PAUSD of any termination, nonrenewal, or changes to insurance • City must maintain property insurance & adequate boiler & pressure vessel insurance • PAUSD must maintain fire & extended coverage insurance on sites housing child care programs 		
Additional Incomes			

The Palo Alto United School District Agreement Matrix

Contract Title	<i>Lease Amendment & Land Exchange Agreement</i>	<i>Settlement and Relocation Agreement</i>	<i>License Agreement</i>
Contract Topic	Lease Amendment & Land Exchange Agreement	Settlement & Relocation	Use of Greendell Site & Obligations
Sites	Cubberley & Terman	Terman & Greendell	Greendell
Parties to Agreements	City & PAUSD	PAUSD & Albert L. Schultz Jewish Community Center ("JCC")	PAUSD & Albert L. Schultz Jewish Community Center ("JCC")
Term & Option to Renew or Extend		October 5, 2001 - August 15, 2006	August 15, 2002 - August 15, 2010 or the date the JCC begins providing community services at an alternative facility with at least 60,000 square feet of space available for JCC
Joint Non-Payment Duties & Terms	At time of Cubberley conveyance, parties will execute the Amendment No. 2 to Lease and Covenant Not to Develop	<ul style="list-style-type: none"> • Comply with all applicable law • Both parties will execute, as consideration for JCC vacating Terman, a Greendell License for temporary use of Greendell site (Greendell License - makes 4 classrooms available for JCC; PAUSD will be responsible for placing & all aspects of 9 new portable classrooms by August 15, 2002; JCC's occupancy will be rent free & not to exceed 8 years; JCC is responsible only for janitorial & maintenance costs, utility costs for portable structures; PAUSD is responsible for capital replacements, except if caused by JCC's negligent or willful misconduct, warranties, fire & casualty insurance, acquiring governmental approvals; & both parties will agree to the location of the portables) 	<ul style="list-style-type: none"> • Comply with all applicable law • JCC's occupancy will be rent free & not to exceed 8 years • Both parties will agree to the location of the portables

The Palo Alto United School District Agreement Matrix

Contract Title	<i>Lease Amendment & Land Exchange Agreement</i>	<i>Settlement and Relocation Agreement</i>	<i>License Agreement</i>
<p>PAUSD's Non-Payment Duties</p>	<p>• If PAUSD wishes to sell fee interest in Terman prior to September 1, 2022, must give written notice of intent to City</p> <p>• Since PAUSD has a right of first refusal on Cubberley portion owned by the City, if exercises this right PAUSD must provide City with a written notice to acquire Cubberley within 90 days of receiving City's notice of intent to sell</p>		<ul style="list-style-type: none"> • Delivery 4 classrooms ready to use • Place 9 new portable classrooms & one portable bathroom building (installed on pad with utilities, telecommunication & power connections) • Must maintain and repair the roof, the foundation, and structural shell of the building; the portable structures (excluding windows); heating, ventilating & air-conditioning systems, electrical, plumbing; and sewer & utility lines and systems (except for damaged caused by JCC's willful misconduct, negligence or misuse of systems) • All improvements or alterations belong to PAUSD (except for JCC's trade fixtures) • Responsible for maintenance, repair and replacements of all elements of portable structures covered under warranties • After delivery of the estimate to JCC, promptly undertake repairs of damage if estimate of time to repair is 180 days or less • Must not affect or disturb JCC's or its successors possessory interest
<p>Other Party's Non-Payment Duties</p>	<p>• Choose escrow & title company• If City wishes to sell fee interest in Cubberley prior to September 1, 2022, must give written notice of intent to PAUSD• Must provide PAUSD with a written notice to acquire Terman within 90 days of receiving PAUSD's notice of intent to sell</p>	<p>• Entitled to use swimming pool and locker room at Terman during summer, non-school session, months</p>	<ul style="list-style-type: none"> • Must use the premises only for the operation of childcare and early childhood education, unless PAUSD gives written consent• Must use the place between 7 am-11 pm, unless PAUSD approves in advance• At end of agreement, must surrender premises in same condition other than from ordinary wear & tear or damage by fire, earthquake, act of God or natural elements• Must not allow Hazardous Materials in the premises• Must promptly notify PAUSD of any damage

The Palo Alto United School District Agreement Matrix

Contract Title	Lease Amendment & Land Exchange Agreement	Settlement and Relocation Agreement	License Agreement
PAUSD's Rights			<ul style="list-style-type: none"> • Has right to enter premises with 24 hour prior notice for inspections, testing, servicing, repairing maintenance, and posting notices (expect in case of emergency where no notice needed) • After giving a 30 day notice, if estimate to repair damages is more than 180 days, PAUSD has insufficient funds or damages are not covered by insurance, PAUSD may elect to restore/repair damage or terminate agreement
Other Party's Rights			<ul style="list-style-type: none"> • Has non-exclusive right to common areas of premise • May construct hang signs with prior written consent of PAUSD • If PAUSD's default is not cured in 15 days, JCC may make payment or perform obligations at PAUSD's expense (including reasonable attorneys' fees and costs, JCC's invoices, & interest)
PAUSD's Payment Schedule or \$ Duties		<ul style="list-style-type: none"> • Pay \$411,000 in 2 installments, the 1st of \$300,000 when JCC vacates Terman and the 2nd of \$111,000 when JCC vacates Greendell • Pay \$3,000,000 to compensate JCC for Terman capital improvements and costs & damages related to relocation from Terman (Paid in 3 installments, 1st of \$1,500,000 within 60 days of agreement, 2nd of \$1,000,000 when JCC vacates Terman, and 3rd of \$500,000 when JCC vacates Greendell) 	Install any playground equipment or necessary structures for operation

The Palo Alto United School District Agreement Matrix

Contract Title	<i>Lease Amendment & Land Exchange Agreement</i>	<i>Settlement and Relocation Agreement</i>	<i>License Agreement</i>
Payments to be Received by PAUSD	<ul style="list-style-type: none"> • Does not have to make further Terman rental payments • Shall pay all costs of escrow & title insurance 		<ul style="list-style-type: none"> • Responsible for installing and costs of any security system (Must acquire PAUSD's approval) • Pay for all costs of utilities • Pay monthly to PAUSD the allocable portion of water, sewer & trash removal costs (failure to make payment or repayable in full plus law provided interest) • Pay property taxes or assessments & must filing applications for entitled exemptions
Insurance		<ul style="list-style-type: none"> • PAUSD required to carry fire and casualty insurance 	<ul style="list-style-type: none"> • JCC must acquire applicable insurance for JCC & PAUSD • PAUSD must acquire applicable insurance (including property insurance, boiler & pressure vessel insurance) for PAUSD
Additional Incomes			

The Palo Alto Unified School District Agreement Matrix

Contract Title	<i>Agreement for Joint Use of Terman Site</i>	<i>First Amendment to Agreement for Joint Use of Terman Site</i>	<i>Agreement Between the City of Palo Alto and the Palo Alto Unified School District of Santa Clara County Concerning the Maintenance and Capital Improvements of Certain District-owned Athletic Fields and Tennis and Basketball Courts Jointly Used by School Students and the General Public</i>
Contract Topic	Use of Terman Site	Use of Terman Site	Maintenance & Capital Improvements of Athletic Fields & Tennis/Basketball Courts
Sites	Cubberley & Terman	Cubberley & Terman	Addison, Barron Park, Briones, Duveneck, El Carmelo, Escondido, Fairmeadow, Greendell, Gunn High School, Hoover, J.L. Stanford, Jordan, Nixon, Ohlone, Palo Alto High School, Palo Verde, Walter Hays, & Terman Park ("Facilities")
Parties to Agreements	City & PAUSD	City & PAUSD	City & PAUSD
Term & Option to Renew or Extend	Date entered in agreement till termination of the Cubberley Lease between the City and School District (unless by consent by both parties)	Does not change existing term	<ul style="list-style-type: none"> • 6 a.m. on July 1, 2004 till 12:00 pm on June 30, 2009 • No automatic extension or option to renew

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<p>Joint Non-Payment Duties & Terms</p>	<ul style="list-style-type: none"> • Comply with all applicable law • City Director of Community Services & School District Business Manager are responsible for establishing schedules for facilities and equipment of use • Joint Use Committee will approve a master calendar within 30 days of submittal of request for advance scheduling • Annual requests for advance scheduling will be submitted on July 1st for school year and February 1st for the summer months • City Manager & PAUSD Superintendent will designate 2 staff members to the Terman Joint Use Committee, which will meet at least 3 times a year & be responsible for administering agreement • At Terman Middle School, JCC will have priority of use of pool and gymnasium until it relocates permanently or until August 31, 2009 (except for YMCA Basketball or if JCC does not continue its sponsorship of summer camps) 		<ul style="list-style-type: none"> • Comply with all applicable law • The authorized representatives of each party will meet with each other regularly to review the maintenance schedule and no less than 1 time a year to discuss the use and maintenance of facilities • PAUSD's Business Manager and City's Director of Community Service will coordinate maintenance schedule • Maintenance work will be scheduled 1 day at a time • PAUSD's Business Manager and City's Director of Community Service may jointly adopt, promulgate, & amend rules/regulations governing use of facilities

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<p>PAUSD's Non-Payment Duties</p> <ul style="list-style-type: none"> • Make Terman Middle School facilities & equipment available to the City (so long it does not interfere with PAUSD's use) • Shall furnish qualified personnel for the proper conduct & supervision of use • Shall repair, or cause to be repaired, or reimburse owner for the actual costs of repairing damage during period of use (excluding ordinary wear and tear) • Must not schedule activities before 7:30 am or after 3:30 pm on school days • Shall have a responsible volunteer or paid adult representative at any City event on Terman Middle School • Must have a PAUSD employee on call at all times when an event is occurring at Terman Middle School • Must submit other written use requests in advance • Must maintain Terman Middle School, perform custodian maintenance on restroom (make arrangements in advance when not present so City can restock restrooms), and keep open restrooms for public use 	<p>Pick up all litter and leave basketball/netball courts in good condition</p>		<ul style="list-style-type: none"> • Ensure school activities will not interfere with maintenance schedule • Communicate general maintenance or use concerns to City's Director of Community Service • Maintain any area not described in the agreements • Provide or cause to provide special preparation & maintenance services used for a PAUSD special event or similar function (including graduation ceremonies, athletic events, tennis tournaments & other inter-scholastic activities) • Provide services for removal of garbage, refuse, debris, rubbish, litter & other solid waste • Must inform City of any condition that might present a danger or threat to person or property (applies if PAUSD has actual or constructive knowledge)

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<p>Other Party's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Make Terman Park's facilities & equipment available to the PAUSD (so long it does not interfere with the City's use) • Shall furnish qualified personnel for the proper conduct & supervision of use • Shall repair, or cause to be repaired, or reimburse owner for the actual costs of repairing damage during period of use (excluding ordinary wear and tear) • Must not schedule activities between 7:30 am and 3:30 pm on school days without permission of school principal • Shall have a responsible volunteer or paid adult representative at any PAUSD event on Terman Park • Must have a City employee on call at all times when an event is occurring at Terman Middle School • Must submit other written use requests in advance • Must maintain Terman Park (including turf areas, drainage & irrigation systems, tennis court) & consult PAUSD, who must approve scope of work 	<p>Continue existing maintenance program for tennis courts & hardscape facilities in Terman Park (wash & air blow surfaces, repair and/or replace tennis nets, screens, basketball nets and general maintenance, and resurface & restripe courts that will be scheduled to match the City's court resurfacing program at an approximate 5 year interval & with PAUSD's consultation)</p>	<ul style="list-style-type: none"> • Maintain athletic field areas (conditions upon their function condition & operation, including underground water irrigation) • Perform general maintenance on tennis/basketball courts (including lighting system at Palo Alto High School tennis court); Wash & air-blow their surfaces; repair & replace (as reasonably necessary) the tennis nets & screens; and resurface & restrip the courts (scheduled to match existing City program at an approximate 5 year interval) • Use its best effort to prevent interfering with PAUSD's use during regular school hours (publish a maintenance schedule 6 months in advance, inform PAUSD's Business Manager for dissemination) • Perform maintenance activities only from 6 am to 4 pm • Can not install or construct any improvement without the express written approval of PAUSD's Superintendent (unless reasonably necessary to perform maintenance obligation and received a written request from PAUSD to install or construct)
<p>Other Party's Non-Payment Duties</p>			<ul style="list-style-type: none"> • Administer its public use reservation of the facilities according to its own policy • Solely responsible for setting parameters of use priority system • Solely responsible for setting rental or user fees when exercising its use priority (share half of proceeds with PAUSD)

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<p>PAUSD's Rights</p>	<ul style="list-style-type: none"> • Obtains fee title to approximately 8 acres at Terman • Owns and controls Terman Middle school, including gymnasium, a parking lot, & a swimming pool • At Terman Middle School, Terman Middle School events & programs have first priority and City co-sponsored programs have second priority (applies in case of emergencies or errors in scheduling) 	<p>Terman Middle School shall have first call on basketball/netball courts between the hours of 7:30 am-3:30 pm when in regular session</p>	<ul style="list-style-type: none"> • Has priority of using facilities between 8 am-4 pm on scheduled school dates (extended to interscholastic activities even if after 4 pm & on Saturdays) • Receive half of the proceeds from rental or user fees when City is exercising its use priority • Any person who leases from PAUSD (upon submission of a written request to the City) is entitled to use facilities, as long as does not unreasonably interfere with scheduled public activities
<p>Other Party's Rights</p>	<ul style="list-style-type: none"> • Obtains fee title to approximately 8 acres at Cubberley • Owns and controls Terman Park • At Terman Park, City recreational and co-sponsored events & programs have first priority and Terman Middle School events and programs have second priority (applies in case of emergencies or errors in scheduling) • May continue its existing library at Terman Middle School until PAUSD gives notice (upon 6 months of written notice City shall vacate identified portions) 		<ul style="list-style-type: none"> • Has priority of Facilities after 4 pm on scheduled school days & all other times (including weekends, holidays & summer vacation periods) (exceptions can be agreed upon in writing) • In an emergency, City can perform non-scheduled maintenance without prior notification to PAUSD (must give notice within reasonable time & provide access to PAUSD) • If scheduled 6 months in advance, City can curtail or preempt PAUSD's use (not to exceed 1/2 of any field, 4 times during the academic year, and not to exceed 8 consecutive weeks) to conduct necessary turf & grounds maintenance renovations

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<p>PAUSD's Payment Schedule or \$ Duties</p> <ul style="list-style-type: none"> • Pay 1/2 of City's actual costs for approved repair or replacement park on turf areas, drainage & irrigation system, tennis courts • \$ owed to City will 1st be credited against any monthly lease payments & payable to the City under the "Lease & Covenant Not to Develop" (if funds exceed those payments, the City shall bill PAUSD who must pay the City within 45 days after receipt of invoice) • Pay for custodial services (unless City uses facility when staff is not regularly on duty or when staff required to open a facility) 	<p>Pay 1/2 of City's actual costs of maintaining and resurfacing tennis courts</p>		
<p>Payments to be Received by PAUSD</p>	<p>Pay for custodial services at Terman Middle School when staff is not on regular duty or if staff is required to open the facility (unless made arrangements with PAUSD to open/close facility)</p>		<ul style="list-style-type: none"> • Credit 1/2 of actual costs incurred in performing maintenance obligations against any monthly lease payments due & payable to the City in the "Lease & Covenant Not to Develop" • City estimates the following maintenance costs (one time payment per respective year): <ol style="list-style-type: none"> 1. Jordan - \$680,000 (maintenance) & \$125,000 (field renovations) (2004-05); 2. Duveneck & Briones - \$701,000 (maintenance) & \$138,000 (field renovations) (2005-06); 3. El Carmelo & Palo Verde - \$722,000 (maintenance) & \$75,000 (field renovations) (2006-07); 4. Nixon - \$743,000 (maintenance) & \$50,000 (field renovations) (2007-08); and 5. Ohlone & Addison - \$766,000 (maintenance) & \$80,000 (field renovations) (2008-09)

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Payment Adjustments			
Lease Rate			
Insurance			Both parties must acquire applicable insurance for each other

The Palo Alto Unified School District Agreement Matrix

Contract Title	Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District	Amendment No. One to Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District	General Services Agreement
Contract Topic	Public Use of Athletic Courts & Tennis Courts	Public Use of Athletic Courts & Tennis Courts	Facility Rental & After-School Classes
Sites	Addison, Barron Park, Briones, Duveneck, El Carmelo, Escondido, Fairmeadow, Greendell, Gunn High School, Hoover, J.L. Stanford, Jordan, Nixon, Ohlone, Palo Alto High School, Palo Verde, Walter Hays, & Terman Middle School ("Facilities")	Addison, Barron Park, Briones, Duveneck, El Carmelo, Escondido, Fairmeadow, Greendell, Gunn High School, Hoover, J.L. Stanford, Jordan, Nixon, Ohlone, Palo Alto High School, Palo Verde, Walter Hays, & Terman Middle School ("Facilities")	Duveneck, Escondido, Nixon, and Walter Hays
Parties to Agreements	City & PAUSD	City & PAUSD	City & PAUSD
Term & Option to Renew or Extend	<ul style="list-style-type: none"> January 1, 2006 - December 31, 2006 Both parties have option to extend time with prior consent of each other 	January 1, 2006 - December 31, 2007	<ul style="list-style-type: none"> June 1, 2006 - June 30, 2007 Requires 30 day written notice prior to end of the current term
Joint Non-Payment Duties & Terms	<ul style="list-style-type: none"> Comply with all applicable law Maintain agreement records for at least 3 years after termination/expiration of agreement Parties shall cooperate in procuring all permits & licenses, paying all charges & fees, and giving all notices 	<ul style="list-style-type: none"> Comply with all applicable law 	Comply with all applicable law

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Contract Title	Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District	Amendment No. One to Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District	General Services Agreement
<p>PAUSD's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Make facilities available to City for the purpose of scheduling, reservations, & usage to private individuals or groups • Improve, repair, and maintain the athletic fields located on or at Gunn & Palo Alto High Schools (City is not responsible or liable) • Deposit all acquired fees in a separate and designated PAUSD account (funds to be used on to: <ol style="list-style-type: none"> 1. facilities maintenance, repair & improvement; 2. purchase of field equipment, and 3. facilities repair & renovation projects • On or before June 1, 2006, provide an annual report describing all of PAUSD's intended facilities maintenance for Gunn & Palo Alto High schools, renovations & improvements projects, and equipment purchases (must include time period for completion of each project) 	<p>Solely responsible for coordinating, scheduling, & reserving football fields & tracks at Gunn & Palo Alto High Schools</p>	<ul style="list-style-type: none"> • Rent out 75 classes in the fall and 92 classes in the spring • Each school site must provide invoice to Junior Museum and Zoo, room will be billed at \$18.70/hour, once in the fall and once in the spring (not to exceed \$3,125) • May not use subcontractors • Responsible for repairing or paying for any public/private property damages
<p>PAUSD's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Receive input from City & facilities' permit holders in the following manner: City (with any input of permit holders) will create a prioritized list of maintenance, renovation, repair & improvement projects & equipments purchases; City shall present list to PAUSD; and PAUSD will consider list before determining/pursuing projects or purchasing equipment. On or before June 1, 2006, provide City a financial report describing the manner PAUSD actually expended fees received under agreement (obligation survives expiration of agreement) 		

The Palo Alto Unified School District Agreement Matrix

<p>Contract Title</p>	<p><i>Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District</i></p>	<p><i>Amendment No. One to Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District</i></p>	<p><i>General Services Agreement</i></p>
<p>Other Party's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Schedule, reserve, and license PAUSD's facilities to individuals or groups for use by adult & youth groups when school is not in session or school activities are taking place• Solely responsible for coordinating and scheduling public use requests (subject to PAUSD's approval)• Provide PAUSD with a financial report accounting fees the City has collected during agreement• Bill & collect all user fees• Issue a completed facility permit to each user prior to use 	<p>On or before October 1, provide a financial report accounting for fees City has collected from the Facilities in use</p>	
	<ul style="list-style-type: none"> • Monitor & enforce facility use & ensure use complies with permit (if does not comply with permit, then terminate use) • Upon PAUSD's request, provide 1 copy of every use permit issued • On or before October 1, provide a financial report accounting for fees City has collected from the athletic field • Provide PAUSD a prioritized list of facilities maintenance and improvement project & equipment purchases • Notify facilities permit holders of PAUSD's intended facilities maintenance & improvement projects & any facilities closures during projects 		
<p>PAUSD's Rights</p>			

The Palo Alto Unified School District Agreement Matrix

Contract Title	<i>Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District</i>	<i>Amendment No. One to Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District</i>	<i>General Services Agreement</i>
Other Party's Rights	Parties agree youth user groups will be assessed a \$5 per player per season administrative surcharge, or such other fee established by City (City shall retain 100% of fees to defray costs of coordinating youth group use)		May monitor PAUSD's services
PAUSD's Payment Schedule or \$ Duties	Shall employ or engage persons necessary to perform PAUSD's agreement services		<ul style="list-style-type: none"> Responsible for payment of all taxes, fees, contributions or charges applicable to its business Responsible for repairing or paying for any public/private property damages
Payments to be Received by PAUSD	<ul style="list-style-type: none"> Pay PAUSD 50% of all fees City collects from permit holders Pay PAUSD 80% of all fees City collects from use of turf areas at Gunn & Palo Alto High Schools Make payments related to facilities usage on October 1 of each year (obligation survives expiration of agreement) Shall employ or engage persons necessary to perform City's agreement services 		Pay rent for class rooms depending on its status as a group and the particular room rented (See Exhibit C-1) (Not to exceed \$24,400 - NOTE: There seems to be a typo on page 2, section 5)
Payment Adjustments			Adjusted by rent schedule
Lease Rate			
Insurance	PAUSD must acquire applicable insurance for City & PAUSD. PAUSD's certificates of insurance will be filed with City at the same time of execution of agreement. City must maintain self-insurance for general liability for PAUSD & City. Certificates of insurance are subject to each parties' Risk Manager's approval		<ul style="list-style-type: none"> PAUSD must purchase and maintain insurance. Obtain endorsement of primary coverage. Can not cancel/materially reduce coverage without 30 days written notice. Subcontractors are included. The City's Risk Manager must approve deductibles & self-insured retentions

The Palo Alto Unified School District Agreement Matrix

Contract Title	<p><i>Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District</i></p>	<p><i>Amendment No. One to Agreement for District Athletic Fields and Tennis Courts Usage by the General Public Between the City of Palo Alto and the Palo Alto Unified School District</i></p>	<p><i>General Services Agreement</i></p>
Additional Incomes			

The Palo Alto Unified School District Agreement Matrix

Contract Title	<i>Administration of Community Sports Program At J.L. Stanford, Jordon and Terman Middle Schools Between the City of Palo Alto & the Palo Alto Unified School District (Agreement Currently Being Modified)</i>	<i>Agreement between the Palo Alto Unified School District & Palo Alto Community Child Care, Inc. for Child Care Services & Leases of Premises</i>	<i>Child Care Service and Lease Contract with Children's Creative Learning Center, Inc.</i>
Contract Topic	Administration of Community Sports Program	Child Care Services & Lease of Premises	Extended Day Care and Preschool services
Sites	J.L. Stanford, Jordon, & Terman Middle Schools	Hoover	Nixon
Parties to Agreements	City & PAUSD	PAUSD & Palo Alto Community Child Care, Inc. ("PACCC")	PAUSD & Children's Creative Learning Center ("CCLC")
Term & Option to Renew or Extend	<ul style="list-style-type: none"> July 1, 2006 - June 30, 2007 If services are not completed within term 	June 1, 2006 - June 30, 2008	December 1, 2006 - June 30, 2008
Joint Non-Payment Duties & Terms	<ul style="list-style-type: none"> Comply with all applicable law Procure all permits and licenses, pay all charges & fees, and give all notices 	<ul style="list-style-type: none"> Comply with all applicable law Both parties can request to meet to discuss a request for corrections 	<ul style="list-style-type: none"> Comply with all applicable law Both parties can request to meet to discuss a request for corrections
PAUSD's Non-Payment Duties	<ul style="list-style-type: none"> Provide equipment, uniforms, facilities and playing fields Maintain Facilities and equipment Select & employ an Athletic Director Provide first aid kits Communicate with parents/guardian re transportation Assist City w/ distribution of info and printed materials 	<ul style="list-style-type: none"> Sharon Keplinger is the Program Manger and will supervise the performance, progress, and execution of the Agreement Provide a semi-annual bill for costs of maintenance of interior premises 	<ul style="list-style-type: none"> Sharon Keplinger is Program Manger and will supervise the performance, progress & execution of agreement Responsible for maintenance & repair of structure and main support system of premises

The Palo Alto Unified School District Agreement Matrix

<p>Contract Title</p>	<p><i>Administration of Community Sports Program At J.L. Stanford, Jordon and Terman Middle Schools Between the City of Palo Alto & the Palo Alto Unified School District (Agreement Currently Being Modified)</i></p>	<p>• Develop & distribute written information regarding program• Collect program participation fees• Administer registration paperwork• Select, employ, and supervise staff/volunteers• Administer training for coaches• Submit fingerprints of its employees• Organize & schedule periodic Executive Committee meetings• Coordinate any private school organization participation</p>	<p><i>Agreement between the Palo Alto Unified School District & Palo Alto Community Child Care, Inc. for Child Care Services & Leases of Premises</i></p>	<p><i>Child Care Service and Lease Contract with Children's Creative Learning Center, Inc.</i></p>
<p>Other Party's Non-Payment Duties</p>	<p>• Assign a Program Coordinator for the School Age Program and Preschool Program (if change occurs must notify PAUSD)• Procure all permits & licenses, pay all charges and fees, and give all notices• Inform itself of applicable law• Observe & comply with applicable laws (including its employees)• Employ and engage all person necessary to execute services• Ensure services are secular in nature• Maintain a written schedule of operating procedures and prices• Conform to laws regulating child care services sites & facilities• Within 30 days of PAUSD's request for correction, PACCC shall submit a response• Grant Sharon Keplinger access to records, data, statements, and reports regarding agreement• Appoint fiscal agent responsible for financial and accounting service• Provide report and review financial statements• Provide report and pay for independent audit of its fiscal year transactions, records, and financial reports annually</p>	<p>• Within 30 days of PAUSD's request for correction, CCLC shall submit a response• Grant Sharon Keplinger access to records, data, statements, and reports regarding agreement• Appoint fiscal agent responsible for financial and accounting service• Prepare, maintain, and retain direct personal expenses and other expenses• Maintain premises safe, clean, wholesome, sanitary condition, and to complete satisfaction of PAUSD and applicable laws• Provide approved trash and garbage containers• Must acquire PAUSD's approval in advance for replacement improvements• At termination of agreement, CCLC agrees to return premises in good condition, order and repair, subject to normal wear and tear• Must acquire written consent of PAUSD for structures, improvements, or alterations of premises, and acquire legally required permits and approvals (becomes PAUSD's property, including equipment, furniture, furnishings and trade fixtures)• Provide report and independent audit of its fiscal year transactions, records, and financial reports annually• Provide custodial services</p>	<p><i>Child Care Service and Lease Contract with Children's Creative Learning Center, Inc.</i></p>	<p>• Within 30 days of PAUSD's request for correction, CCLC shall submit a response• Grant Sharon Keplinger access to records, data, statements, and reports regarding agreement• Appoint fiscal agent responsible for financial and accounting service• Prepare, maintain, and retain direct personal expenses and other expenses• Maintain premises safe, clean, wholesome, sanitary condition, and to complete satisfaction of PAUSD and applicable laws• Provide approved trash and garbage containers• Must acquire PAUSD's approval in advance for replacement improvements• At termination of agreement, CCLC agrees to return premises in good condition, order and repair, subject to normal wear and tear• Must acquire written consent of PAUSD for structures, improvements, or alterations of premises, and acquire legally required permits and approvals (becomes PAUSD's property, including equipment, furniture, furnishings and trade fixtures)• Provide report and independent audit of its fiscal year transactions, records, and financial reports annually• Provide custodial services</p>

The Palo Alto Unified School District Agreement Matrix

<p>Contract Title</p>	<p><i>Administration of Community Sports Program At J.L. Stanford, Jordon and Terman Middle Schools Between the City of Palo Alto & the Palo Alto Unified School District (Agreement Currently Being Modified)</i></p>	<p><i>Agreement between the Palo Alto Unified School District & Palo Alto Community Child Care, Inc. for Child Care Services & Leases of Premises</i></p>	<p><i>Child Care Service and Lease Contract with Children's Creative Learning Center, Inc.</i></p>
<p>Other Party's Non-Payment Duties</p>		<ul style="list-style-type: none"> • Must acquire PAUSD's approval in advance for replacement improvements• At termination of agreement, CCLC agrees to return premises in good condition, order and repair, subject to normal wear and tear• Must acquire written consent of PAUSD for structures, improvements, or alterations of premises, and acquire required permits and approvals required by law (Become PAUSD's property, including equipment, furniture, furnishings and trade fixtures)• Must secure premises or subject to \$25 fine, as additional rent 	<ul style="list-style-type: none"> • May place or permit signs to be placed on premises with prior written consent of PAUSD
<p>PAUSD's Rights</p>		<ul style="list-style-type: none"> • May forward corrective requests to PACCC • Has right to enter and inspect premises • PAUSD may cancel, suspend or subject a \$25 fine per day for each person if PACCC violates nondiscrimination laws • PAUSD may cancel, suspend or subject a \$250 fine per day if PACCC violates nondiscrimination provisions in agreement 	<ul style="list-style-type: none"> • PAUSD may request corrections from CCLC • Has right to enter and inspect premises • PAUSD may cancel, suspend or subject a \$25 fine per day for each person if PACCC violates nondiscrimination laws • PAUSD may cancel, suspend or subject a \$250 fine per day if PACCC violates nondiscrimination provisions in agreement
<p>Other Party's Rights</p>		<p>May place or permit to place signage on premises (requires PAUSD's prior written consent)</p>	<p>May place or permit to place signage on premises (requires PAUSD's prior written consent)</p>
<p>PAUSD's Payment Schedule or \$ Duties</p>	<ul style="list-style-type: none"> • Procure all permits & licenses, pay all charges & fees, and give all notices 	<ul style="list-style-type: none"> • If agreement terminated and with no new agreement, will reimburse CCLC for actual construction/replacement costs of electrical, plumbing fixtures and pipes, and floor coverings, less depreciation at the rate of 10% per year from completion of replaced improvements 	<ul style="list-style-type: none"> • If agreement terminated and with no new agreement, will reimburse CCLC for actual construction/replacement costs of electrical, plumbing fixtures and pipes, and floor coverings, less depreciation at the rate of 10% per year from completion of replaced improvements

The Palo Alto Unified School District Agreement Matrix

Contract Title	Administration of Community Sports Program At J.L. Stanford, Jordon and Terman Middle Schools Between the City of Palo Alto & the Palo Alto Unified School District (Agreement Currently Being Modified)	Agreement between the Palo Alto Unified School District & Palo Alto Community Child Care, Inc. for Child Care Services & Leases of Premises	Child Care Service and Lease Contract with Children's Creative Learning Center, Inc.
<p>Payments to be Received by PAUSD</p>	<ul style="list-style-type: none"> • Pay 24K to PAUSD, divided into 8K to each school • Pay 15K to fund Athletic Director, divided 5K to each school and paid within 30 days after winter session • Pay \$10 registration fee per participant after each season • Provide financial assistance through Fee Reduction Program 	<ul style="list-style-type: none"> • Every 1st of the month PACCC will pay lease rate • On July 1st of every year lease rate will be increased 3% • Responsible for payment of costs of maintenance of interior premises • Provide report and pay for independent audit of its fiscal year transactions, records, and financial reports annually • Pay PAUSD gas, electricity, sewer and refuse collection services at \$.18 per square foot of premises per month • Provide and pay for any telephone equipment or services • Pay costs relating to re-keying (PAUSD maintains a copy of master key) • Pay all possible possessory interest tax • Responsible for all sign permits and license fees 	<ul style="list-style-type: none"> • Every 15th of the month CCLC will pay lease rate • On July 1st of every year lease rate will be increased 3% • Responsible for payment of costs of maintenance of interior premises • Pay PAUSD gas, electricity, sewer and refuse collection services at \$.21 per square foot of premises per month • Provide and pay for any telephone equipment or services • Pay costs relating to re-keying (PAUSD maintains a copy of master key) • Must secure premises or subject to \$25 fine, as additional rent • Pay all possible possessory interest tax • Responsible for all sign permits and license fees
<p>Payment Adjustments</p>	<ul style="list-style-type: none"> • Athletic Director funds can be adjusted up to 5K • Registration fees increased \$10 per season. 	<ul style="list-style-type: none"> • On July 1st of every year lease rate will be increased 3% • Utility rate (see other party's payment schedule) will be adjusted by multiplying square footage times the rate per square foot used by City for child care spaces under Lease and Covenant Agreement 	

The Palo Alto Unified School District Agreement Matrix

<p>Contract Title</p>	<p>Administration of Community Sports Program At J.L. Stanford, Jordon and Terman Middle Schools Between the City of Palo Alto & the Palo Alto Unified School District (Agreement Currently Being Modified)</p>	<p>Agreement between the Palo Alto Unified School District & Palo Alto Community Child Care, Inc. for Child Care Services & Leases of Premises</p>	<p>Child Care Service and Lease Contract with Children's Creative Learning Center, Inc.</p>
<p>Lease Rate</p>	<ul style="list-style-type: none"> • \$.98 per square foot • On July 1st of every year lease rate will be increased 3% • Late charge of 1% of payment due and unpaid plus of \$25 added to sum not received or postmarked within 10 days of due date • 1.5% of late payment, excluding late charges will be added to additional late month payments 	<ul style="list-style-type: none"> • \$.98 per square foot • On July 1st of every year lease rate will be increased 3% • Late charge of 1% of payment due and unpaid plus of \$25 added to sum not received or postmarked within 10 days of due date • 1.5% of late payment, excluding late charges will be added to additional late month payments 	<ul style="list-style-type: none"> • \$.98 per square foot • On July 1st of every year lease rate will be increased 3% • Late charge of 1% of payment due and unpaid plus of \$25 added to sum not received or postmarked within 10 days of due date • 1.5% of late payment, excluding late charges will be added to additional late month payments
<p>Insurance</p>	<ul style="list-style-type: none"> • PAUSD must maintain and file insurance/certificate. City shall maintain and have proof of self-insurance program 	<ul style="list-style-type: none"> • PACCC must acquire applicable insurance for PACCC & PAUSD (PAUSD not additional insured on worker's compensation, employer's liability and professional liability insurance) • Insurance coverage will be provided by Best's Key Rating Guide rate of A:X or higher when admitted to transact insurance business • Certificates of insurance will be filed with PAUSD at the same time of execution of agreement • Current certificates will be keep on file with PAUSD Business Service office • Acquiring insurance will not limit PACCC's liability and does not fulfill indemnification 	<ul style="list-style-type: none"> • CCLC must acquire applicable insurance for CCLC & PAUSD (PAUSD not additional insured on worker's compensation, employer's liability and professional liability insurance) • Insurance coverage will be provided by Best's Key Rating Guide rate of A:X or higher when admitted to transact insurance business • Acquiring insurance will not limit CCLC's liability or fulfill indemnification
<p>Additional Incomes</p>	<p>Extra \$ distributed to PAUSD, an amount determined by total # of annual participants minus City's direct expenses</p>		

The Palo Alto United School District Agreement Matrix

Contract Title	<i>Agreement to Provide Services and Facilities for Handicapped Minors</i>	<i>Fremont Hills Lease Agreement</i>	<i>Garland School Lease Agreement</i>
Contract Topic	Health Services and Facilities for Handicapped Minors	Lease of Fremont Hills site	Lease of Garland School Site
Sites	Briones & Loma Vista Elementary School	Fremont Hills	Garland School
Parties to Agreements	County of Santa Clara & PAUSD	Creative Center of Los Altos dba Pinewood School and PAUSD	Stratford School Inc and PAUSD
Term & Option to Renew or Extend	<ul style="list-style-type: none"> • August 14, 1967 - August 14, 2007• Option to renew for an additional term not to exceed forty-nine years (within 90 days of receipt of written request) 	<ul style="list-style-type: none"> • September 1, 2003 - June 30, 2023, District can terminate any time after 12th year if property needed for public school purposes with 24 months notice • If Parties cannot agree on new rent for second 10 year term of lease by end of 10th year, lease terminates 	<ul style="list-style-type: none"> July 1, 2005 to June 30, 2015. Either party may terminate at any time with 36 months notice to other party.
Joint Non-Payment Duties & Terms	<ul style="list-style-type: none"> • Premises will be delivered and accepted in its present condition • Operation of both Briones and Loma Vista Elementary School will be coordinated for the benefit of participating handicapped minors • Both parties will comply with all applicable laws • At default, the other party may take reasonably necessary steps to preserve the function of the facility for the benefit of the handicapped minors and maintains right of reimbursement 	<ul style="list-style-type: none"> If property destroyed or damaged to more than 70% of replacement cost either PAUSD or Tenant may terminate lease 	<ul style="list-style-type: none"> If property destroyed or damaged to more than 70% of replacement cost either PAUSD or Tenant may terminate lease

The Palo Alto United School District Agreement Matrix

Contract Title	Agreement to Provide Services and Facilities for Handicapped Minors	Fremont Hills Lease Agreement	Garland School Lease Agreement
<p>PAUSD's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Use facilities for the education of handicapped minors • Provide staff and materials for the operation of the educational programs & will bear all costs, subject to available reimbursements for the State of California or other school districts using the facilities • Administer educational programs • Lease facility to County • Provide and care for the operation & maintenance of the improvements and surrounding grounds (such as minor maintenance; day to day maintenance; fixing of plumbing; replacement of broken windows; repairs to the heating plant; mowing of lawns; caring for gardens; garden work; upkeep of grounds and equipments, etc.) • Responsible for providing water, fuel, gas, heat, electric power, and materials and services 	<ul style="list-style-type: none"> • To rebuild in the event of damage or destruction unless PAUSD or tenant terminate lease • To promptly review and approve or disapprove requests for alterations and improvements • To cooperate in all zoning and permit applications • To indemnify the tenant for PAUSD gross negligence 	<ul style="list-style-type: none"> • To rebuild in the event of damage or destruction unless PAUSD or tenant terminate lease • To promptly review and approve or disapprove requests for alterations and improvements • To cooperate in all zoning and permit applications • To indemnify the tenant for PAUSD gross negligence • To repair structural elements but if repair costs exceed \$150,000 per occurrence or \$300,000 in any 12 month period, PAUSD can terminate lease.
<p>Other Party's Non-Payment Duties</p>	<ul style="list-style-type: none"> • Not use premises or improvements on premises for any other purpose than for the operation & maintenance of center • Not commit waste on premises or its improvements • Responsible for all costs and expenses of improvements, furnishing and equipping facility, landscaping, and erecting four classrooms and a physical and occupational therapy room (must be completed by 8/14/1970) • Conform to PAUSD's general architectural style • At its discretion, provide a copy of its final plans & specifications for construction and site approval to PAUSD • Shall be responsible for insurance and expenses during construction • Appoint an Admission Committee (admission to programs will be made by PAUSD upon recommendation of the Admission Committee) • Operate and bear all costs for therapy program (such as employment & supervision of therapy staff; prescription & scheduling of therapy; out-patient therapy for physical handicapped minors, etc.) 	<ul style="list-style-type: none"> • To use property for private school use and no other use. • To pay all taxes and assessments on Property. • To indemnify the PAUSD for all claims related to tenants use of property. • To pay all utilities on property • To maintain and repair property. • To keep property free of mechanics liens and indemnify the PAUSD from any mechanics liens on the property. • To comply with all hazardous materials laws. • To comply with all codes • Not to sublease without PAUSD consent 	<ul style="list-style-type: none"> • To use property for private school use and not other use. • To pay all taxes and assessments on Property. • To indemnify the PAUSD for all claims related to tenants use of property. • To pay all utilities on property • To maintain and repair property. • To keep property free of mechanics liens and indemnify the PAUSD from any mechanics liens on the property. • To comply with all hazardous materials laws. • To comply with all codes • Not to sublease without PAUSD consent

The Palo Alto Unified School District Agreement Matrix

Contract Title	<i>Agreement to Provide Services and Facilities for Handicapped Minors</i>	<i>Fremont Hills Lease Agreement</i>	<i>Garland School Lease Agreement</i>
PAUSD's Rights	Right to reasonable inspection	Right to inspect premises upon reasonable notice Right to inspect any construction work during construction.	Right to inspect premises upon reasonable notice Right to inspect any construction work during construction.
Other Party's Rights	May construct additional improvements with written consent	May construct additional improvements with consent of PAUSD. May be reimbursed for such improvements if lease terminated early and improvements approved by State architect. May sublease property with consent of PAUSD	May construct additional improvements with consent of PAUSD. May be reimbursed for such improvements if lease terminated early and improvements approved by State architect. May sublease property with consent of PAUSD
PAUSD's Payment Schedule or \$ Duties	Regularly reimburse County for 1/2 the premiums paid by County for separate liability insurance (if deductible is paid, PAUSD will pay 1/2)		
Payments to be Received by PAUSD	\$1 per year as a yearly rental	\$965,000 per year payable in 12 installments to be increased by CPI increase each year. Minimum annual increase is 3% and maximum is 6%. In 10th year parties have to agree to new rent for remaining 10 years or lease is terminated.	\$650,000 per year payable in 12 installments to be increased on July 1 of each year by the CPI increase. Minimum annual increase is 3% and maximum is 6%
Payment Adjustments			
Lease Rate	County will pay \$1 per year as a yearly rental	\$965,000 per year payable in 12 installments to be increased by CPI increase each year. Minimum annual increase is 3% and maximum is 6%. In 10th year parties have to agree to new rent for remaining 10 years or lease is terminated.	\$650,000 per year payable in 12 installments to be increased on July 1 of each year by the CPI increase. Minimum annual increase is 3% and maximum is 6%
Insurance	<ul style="list-style-type: none"> • County shall be responsible for insurance and expenses during construction • County will take out a separate policy of liability insurance during the term 	Tenant to provide following insurance: General liability with \$4,000,000 per occurrence and aggregate Fire insurance for replacement costs Boiler and machinery insurance with \$100,000 per occurrence limit Worker comp as required by state law Property insurance for 90% of tenant's property value All insurance to name PAUSD as additional insured	Tenant to provide the following insurance: General liability with \$5,000,000 per occurrence and aggregate plus products completed operations with \$2,000,000 per occurrence and personal injury with \$1,000,000 limit Machinery insurance with \$1,000,000 limit Workers comp as required by state law. PAUSD to maintain fire insurance for replacement cost of improvements

The Palo Alto Unified School District Agreement Matrix

Contract Title	Agreement to Provide Services and Facilities for Handicapped Minors	Fremont Hills Lease Agreement	Garland School Lease Agreement
Additional Incomes		<p>Tenant to maintain security deposit with PAUSD of \$100,000 which amount shall increase in year 10 to equal one months rent. Can be paid as letter of credit.</p>	<p>Tenant to maintain security deposit with PAUSD of \$100,000.</p>

The Palo Alto United School District Agreement Matrix

Contract Title	<i>Ventura Purchase Agreement</i>	<i>Final Order of Condemnation</i>	<i>Stipulation for Judgment</i>
Contract Topic	City Purchase of Ventura	Acquisition of GUNN	Acquisition of Nixon Site
Sites			Nixon
Parties to Agreements	City and PAUSD	Stanford, GUNN and PAUSD	Stanford and PAUSD
Term & Option to Renew or Extend	Dated December 3, 1980	Dated August 16, 1956	Dated 1966 (Unsigned copy)
Joint Non-Payment Duties & Terms			
PAUSD's Non-Payment Duties			
Other Party's Non-Payment Duties	City must give PAUSD 60 days Notice of any improvement valued at more than \$100,000		
PAUSD's Rights	<ul style="list-style-type: none"> • Right to repurchase for education purposes. • 2.4 acres at current market value • 2.2 acres at 1/2 of current market value • Must pay amortized value of improvements 	<ul style="list-style-type: none"> • Stanford has a right of reverter if property ceases to be used for public education and general welfare purposes upon payment to PAUSD of \$358,681 	<ul style="list-style-type: none"> • Stanford has a right of reverter if property ceases to be used for public education and general welfare upon payment of \$197,106 to PAUSD
Other Party's Rights			
PAUSD's Payment Schedule or \$ Duties			
Payments to be Received by PAUSD			
Payment Adjustments			
Lease Rate			

The Palo Alto United School District Agreement Matrix

Contract Title	Ventura Purchase Agreement	Final Order of Condemnation	Stipulation for Judgment
Insurance			
Additional Incomes			

The Palo Alto United School District Agreement Matrix

Contract Title	Stipulation for Judgment	
Contract Topic	Acquisition of Escondido	
Sites	Escondido	
Parties to Agreements	Stanford and PAUSD	
Term & Option to Renew or Extend	Dated 1959 (Unsigned copy)	
Joint Non-Payment Duties & Terms		
PAUSD's Non-Payment Duties		
Other Party's Non-Payment Duties		
PAUSD's Rights		
Other Party's Rights	<ul style="list-style-type: none"> Stanford has a right of reverter if property ceases to be used for public education and general welfare upon payment of \$61,720 to PAUSD 	
PAUSD's Payment Schedule or \$ Duties		
Payments to be Received by PAUSD		
Payment Adjustments		
Lease Rate		

The Palo Alto Unified School District Agreement Matrix

Contract Title	<i>Stipulation for Judgment</i>		
Insurance			
Additional Incomes			

Enrollment Forecasts

The forecasts start with the current student body by grade, separated into six groups: VTP students, SDC In-District, SDC Out-of-District, Interdistrict Transfers, students from new housing, and the remainder, students from existing PAUSD housing. Each of these groups is forecasted separately and then the numbers are combined to get the complete forecast.

Table 4 and Chart 15 summarize the enrollment forecast results. Under the Medium forecast (middle dotted line), elementary enrollments grow by 334 students during the next five years, to 5,119. About one-third of the increase results from new housing construction. The remainder of the increase results from the assumption that the high grade progressions experienced in the last five years will continue. The Medium forecast shows about a 200-student increase in the middle schools during the next five years; enrollments are projected to grow to 2,671 in 2011. The Medium forecast shows high school enrollments growing by about 400 students during the next five years. By 2011, high school enrollments are projected to be 3,901.

Table 5 summarizes the non-SDC enrollment forecasts.

Table 6 summarizes the assumptions used in the three forecast series. The assumptions for the Medium forecast seemed obvious and logical: the District should be prepared for the high grade progressions of the last five years to continue. It was less obvious what assumptions to use for the Low and High forecasts. In fact, it was hard to use consistent assumptions to produce high or low forecasts at each school level. For example, one set of assumptions produced a high elementary forecast but not a high middle and high school forecast. We had to mix grade progressions from various years to create High (and Low) forecasts. We do not recommend this approach, but it was not possible to construct a Low or High forecast otherwise. That said, of course many unseen factors can affect enrollments, and we know there is some range around the Medium or Most Likely forecast. We suggest that the District rely more on the Medium forecast than in previous years, but know that enrollments will probably differ somewhat from forecast numbers.

Appendix A provides detailed tables of the enrollment forecasts, by student category, and includes forecasts that go beyond five years.

Table 4

Summary of Enrollment Forecasts - All Categories of Students													
Elementary Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	4,865	4,829	4,903	4,837	4,862	4,844							
Medium	4,865	4,925	5,085	5,085	5,164	5,199							
High	4,865	4,957	5,162	5,183	5,290	5,357							
Middle School Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	2,451	2,489	2,465	2,514	2,499	2,503	2,510	2,497	2,520	2,424	2,445		
Medium	2,451	2,503	2,504	2,592	2,627	2,671	2,727	2,768	2,850	2,770	2,791		
High	2,451	2,547	2,575	2,691	2,737	2,796	2,849	2,922	3,040	2,980	3,005		
High School Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	3,498	3,530	3,615	3,681	3,690	3,701	3,710	3,682	3,672	3,746	3,661	3,693	3,652
Medium	3,498	3,597	3,718	3,808	3,852	3,901	3,968	4,000	4,051	4,214	4,200	4,309	4,324
High	3,498	3,638	3,846	4,013	4,146	4,251	4,369	4,427	4,502	4,701	4,712	4,875	4,923
Total Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	10,814	10,849	10,983	11,033	11,052	11,048							
Medium	10,814	11,026	11,307	11,485	11,644	11,771							
High	10,814	11,143	11,583	11,888	12,174	12,404							

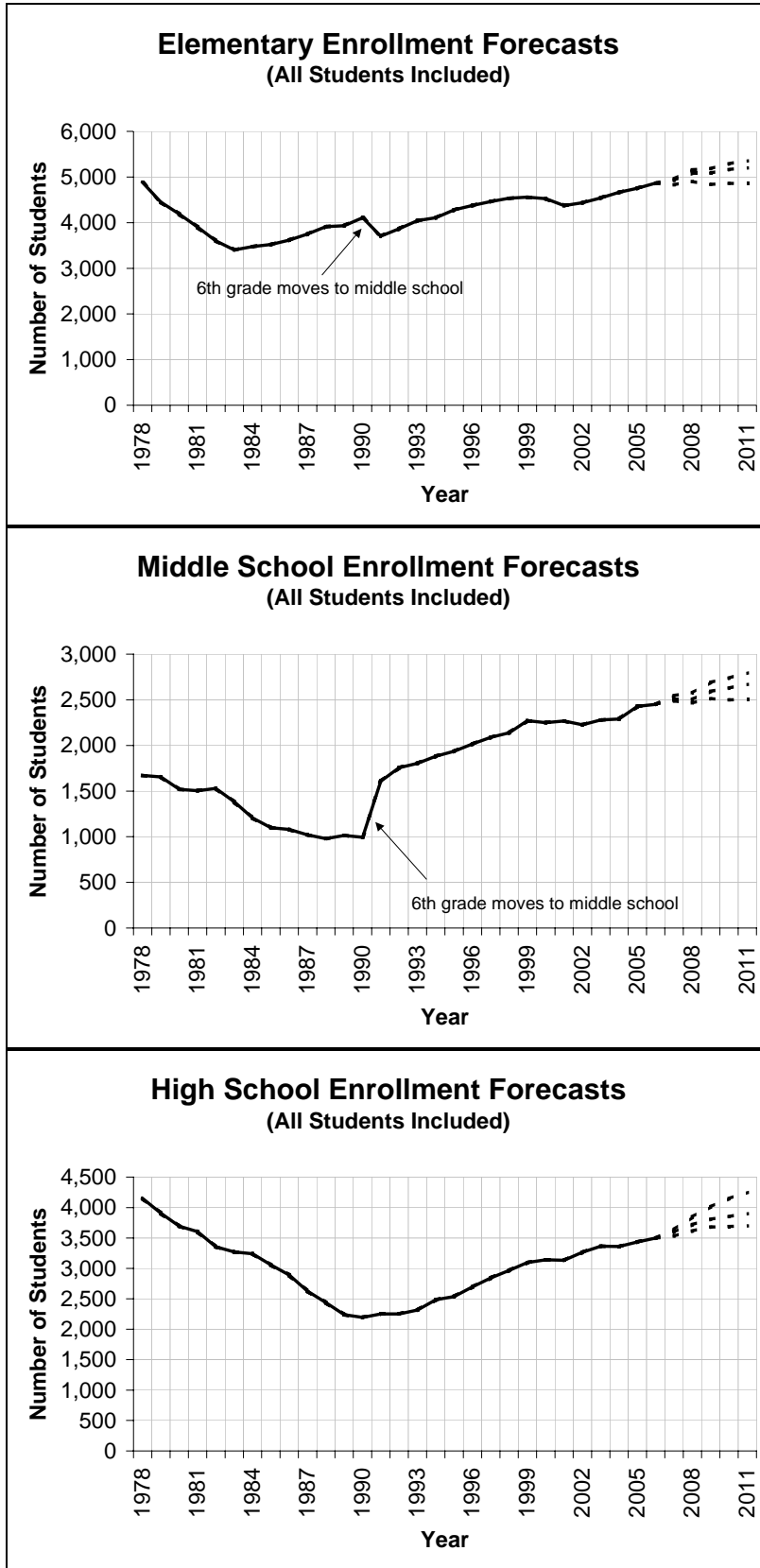
Table 5

Summary of Enrollment Forecasts - Excluding SDC Students													
Elementary Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	4,799	4,763	4,837	4,771	4,796	4,777							
Medium	4,799	4,859	5,019	5,018	5,098	5,133							
High	4,799	4,891	5,096	5,117	5,224	5,290							
Middle School Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	2,399	2,438	2,414	2,463	2,448	2,452	2,459	2,446	2,469	2,373	2,394		
Medium	2,399	2,452	2,453	2,541	2,576	2,620	2,676	2,717	2,799	2,719	2,740		
High	2,399	2,496	2,524	2,640	2,686	2,745	2,798	2,871	2,989	2,929	2,954		
High School Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	3,443	3,452	3,536	3,603	3,612	3,623	3,631	3,604	3,593	3,667	3,582	3,614	3,574
Medium	3,443	3,519	3,639	3,730	3,774	3,823	3,889	3,922	3,972	4,135	4,121	4,230	4,246
High	3,443	3,560	3,767	3,935	4,068	4,173	4,290	4,349	4,423	4,622	4,633	4,796	4,845
Total Enrollments													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Low	10,641	10,653	10,787	10,837	10,856	10,852							
Medium	10,641	10,830	11,111	11,289	11,448	11,576							
High	10,641	10,947	11,387	11,692	11,978	12,208							

Table 6: Assumptions

	Low Forecast	Medium Forecast	High Forecast
1. Enrollment base	Same as Medium forecast	Historical CBEDS enrollments, excluding Middle College students	Same as Medium forecast
2. Grade progressions (impact from housing turnover)	1990s grade progression rates for elementary grades; 2003>04 grade progressions for the middle and high school grades	Average of last 5 years' grade progression rates	2005>06 grade progression rates for elementary and high school grades; maximum grade progression during last 5 years for each middle school grade
3. Kindergarten to birth ratio	1990s average	Average of last 5 years' K/B ratio	2005>06 K/B ratio
4. Housing forecast	Same as Medium forecast	See Table 2, page 14	Same as Medium forecast
5. Student yields	Same as Medium forecast	.90 for medium or large SFUs; .25 for small SFUs or townhouses; .15 for apts; .15 for condominiums; .70 for subsidized units	.90 for medium or large SFUs; .40 for small SFUs or townhouses; .15 for apts; .25 for condominiums; .84 for subsidized units
6. Voluntary Transfer Program students	Same as Medium forecast	Five-year average grade progressions	Same as Medium forecast
7. Interdistrict transfer students	Same as Medium forecast	Five-year average	Same as Medium forecast
8. Special Day Class enrollments	Same as Medium forecast	Five-year average	Same as Medium forecast

Chart 15



Appendix A: Low, Medium, and High Forecasts

Low Forecast of All Students

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Young 5	40	40	40	40	40	40							
K	829	759	811	762	788	784							
1	765	824	754	801	753	774	770						
2	775	784	848	770	819	766	788	784					
3	839	773	795	856	775	822	769	791	788				
4	796	846	788	806	867	779	829	775	797	795			
5	821	803	866	802	820	879	789	841	786	807	806		
6	800	798	794	851	789	802	861	774	824	771	791	790	
7	846	810	818	808	866	800	815	875	784	837	783	802	802
8	805	882	853	855	844	900	834	848	912	816	871	816	834
9	930	892	981	942	944	928	990	918	933	1,004	896	958	896
10	885	953	915	1,001	961	958	943	1,006	934	948	1,021	910	973
11	892	851	920	880	963	921	918	903	964	896	909	978	872
12	791	834	799	859	823	894	858	855	841	898	835	846	911
Elem	4,865	4,829	4,903	4,837	4,862	4,844							
Middle	2,451	2,489	2,465	2,514	2,499	2,503	2,510	2,497	2,520	2,424	2,445		
High	3,498	3,530	3,615	3,681	3,690	3,701	3,710	3,682	3,672	3,746	3,661	3,693	3,652
Total	10,814	10,849	10,983	11,033	11,052	11,048							

Medium Forecast of All Students

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Young 5	40	40	40	40	40	40							
K	829	782	835	784	811	806							
1	765	847	798	848	796	818	815						
2	775	787	876	819	871	814	837	834					
3	839	787	812	900	840	891	833	855	853				
4	796	868	823	844	936	867	923	862	884	883			
5	821	815	900	850	871	963	891	950	887	908	908		
6	800	803	810	889	840	856	947	877	935	873	894	894	
7	846	819	832	834	916	862	881	974	900	961	897	917	919
8	805	882	862	869	871	952	899	917	1015	936	1000	935	954
9	930	912	1004	974	982	980	1073	1013	1033	1145	1054	1127	1053
10	885	944	925	1014	984	987	986	1079	1020	1039	1152	1060	1133
11	892	874	936	913	1001	968	971	969	1061	1004	1022	1133	1042
12	791	867	853	908	886	966	937	939	937	1026	972	988	1096
Elem	4,865	4,925	5,085	5,085	5,164	5,199							
Middle	2,451	2,503	2,504	2,592	2,627	2,671	2,727	2,768	2,850	2,770	2,791		
High	3,498	3,597	3,718	3,808	3,852	3,901	3,968	4,000	4,051	4,214	4,200	4,309	4,324
Total	10,814	11,026	11,307	11,485	11,644	11,771							

High Forecast of All Students

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Young 5	40	40	40	40	40	40							
K	829	801	859	807	834	839							
1	765	848	821	874	821	843							
2	775	789	881	845	900	841	866						
3	839	780	809	898	859	913	854	878					
4	796	883	832	857	950	902	963	900	924				
5	821	816	919	862	886	979	929	994	928	951			
6	800	809	820	915	858	877	972	923	986	920	943		
7	846	832	854	859	958	895	918	1,017	964	1,030	961	984	
8	805	907	901	917	921	1,023	959	982	1,090	1,030	1,101	1,028	1,051
9	930	946	1,073	1,057	1,074	1,075	1,196	1,122	1,147	1,276	1,203	1,288	1,201
10	885	938	956	1,077	1,060	1,072	1,074	1,195	1,122	1,146	1,276	1,202	1,287
11	892	890	949	961	1,083	1,062	1,074	1,075	1,197	1,125	1,148	1,278	1,203
12	791	864	868	919	930	1,042	1,024	1,035	1,036	1,154	1,085	1,106	1,232
Elem	4,865	4,957	5,162	5,183	5,290	5,357							
Middle	2,451	2,547	2,575	2,691	2,737	2,796	2,849	2,922	3,040	2,980	3,005		
High	3,498	3,638	3,846	4,013	4,146	4,251	4,369	4,427	4,502	4,701	4,712	4,875	4,923
Total	10,814	11,143	11,583	11,888	12,174	12,404							

Low Forecast of All Students

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Students													
K to 5	4,865	4,829	4,903	4,837	4,862	4,844							
6 to 8	2,451	2,489	2,465	2,514	2,499	2,503	2,510	2,497	2,520	2,424	2,445		
9 to 12	3,498	3,530	3,615	3,681	3,690	3,701	3,710	3,682	3,672	3,746	3,661	3,693	3,652
Total	10,814	10,849	10,983	11,033	11,052	11,048							
Total Residents (non-SDC)													
K to 5	4,324	4,278	4,298	4,216	4,200	4,182							
6 to 8	2,223	2,261	2,208	2,244	2,227	2,229	2,239	2,209	2,229	2,129	2,147		
9 to 12	3,244	3,241	3,302	3,345	3,334	3,352	3,351	3,334	3,319	3,387	3,295	3,318	3,274
Total	9,791	9,780	9,808	9,805	9,761	9,763							
VTP Students													
K to 5	321	326	319	313	328	327	328	329	328	327	329	328	327
6 to 8	102	104	115	124	113	108	104	116	116	117	117	117	116
9 to 12	112	116	105	101	109	112	118	115	113	108	113	116	115
Total	535	546	539	538	550	547	550	560	557	552	559	561	558
Students from New Housing Developments													
K to 5	100	109	170	192	218	219	225	231	237	243	249	255	261
6 to 8	47	44	62	66	79	86	87	92	95	98	101	104	107
9 to 12	38	52	86	114	126	116	119	112	118	129	131	137	142
Total	185	205	318	372	423	420	430	434	450	470	481	496	509
SDC-in-district													
K to 5	53	52	52	52	52	52	52	52	52	52	52	52	52
6 to 8	44	40	40	40	40	40	40	40	40	40	40	40	40
9 to 12	45	66	66	66	66	66	66	66	66	66	66	66	66
Total	142	158	158	158	158	158	158	158	158	158	158	158	158
SDC-out-of-district													
K to 5	13	15	15	15	15	15	15	15	15	15	15	15	15
6 to 8	8	11	11	11	11	11	11	11	11	11	11	11	11
9 to 12	10	12	12	12	12	12	12	12	12	12	12	12	12
Total	31	38	38	38	38	38	38	38	38	38	38	38	38
Interdistrict Transfers													
K to 5	54	50	50	50	50	50	50	50	50	50	50	50	50
6 to 8	27	29	29	29	29	29	29	29	29	29	29	29	29
9 to 12	49	43	43	43	43	43	43	43	43	43	43	43	43
Total	130	122	122	122	122	122	122	122	122	122	122	122	122

Medium Forecast of All Students

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Students													
K to 5	4,865	4,925	5,085	5,085	5,164	5,199							
6 to 8	2,451	2,503	2,504	2,592	2,627	2,671	2,727	2,768	2,850	2,770	2,791		
9 to 12	3,498	3,597	3,718	3,808	3,852	3,901	3,968	4,000	4,051	4,214	4,200	4,309	4,324
Total	10,814	11,026	11,307	11,485	11,644	11,771							
Residents (non-SDC)													
K to 5	4,324	4,374	4,480	4,464	4,502	4,538							
6 to 8	2,223	2,275	2,247	2,322	2,355	2,397	2,456	2,480	2,559	2,475	2,493		
9 to 12	3,244	3,308	3,405	3,472	3,496	3,552	3,609	3,652	3,698	3,855	3,834	3,934	3,946
Total	9,791	9,957	10,132	10,258	10,353	10,487							
214 VTP Students													
K to 5	321	326	319	313	328	327	328	329	328	327	329	328	327
6 to 8	102	104	115	124	113	108	104	116	116	117	117	117	116
9 to 12	112	116	105	101	109	112	118	115	113	108	113	116	115
Total	535	546	539	538	550	547	550	560	557	552	559	561	558
Students from New Housing Developments													
K to 5	100	109	170	192	218	219	225	231	237	243	249	255	261
6 to 8	47	44	62	66	79	86	87	92	95	98	101	104	107
9 to 12	38	52	86	114	126	116	119	112	118	129	131	137	142
Total	185	205	318	372	423	420	430	434	450	470	481	496	509
SDC-in-district													
K to 5	53	52	52	52	52	52	52	52	52	52	52	52	52
6 to 8	44	40	40	40	40	40	40	40	40	40	40	40	40
9 to 12	45	66	66	66	66	66	66	66	66	66	66	66	66
Total	142	158	158	158	158	158	158	158	158	158	158	158	158
SDC-out-of-district													
K to 5	13	15	15	15	15	15	15	15	15	15	15	15	15
6 to 8	8	11	11	11	11	11	11	11	11	11	11	11	11
9 to 12	10	12	12	12	12	12	12	12	12	12	12	12	12
Total	31	38	38	38	38	38	38	38	38	38	38	38	38
Interdistrict Transfers													
K to 5	54	50	50	50	50	50	50	50	50	50	50	50	50
6 to 8	27	29	29	29	29	29	29	29	29	29	29	29	29
9 to 12	49	43	43	43	43	43	43	43	43	43	43	43	43
Total	130	122	122	122	122	122	122	122	122	122	122	122	122

High Forecast of All Students

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Students													
K to 5	4,865	4,957	5,162	5,183	5,290	5,357							
6 to 8	2,451	2,547	2,575	2,691	2,737	2,796	2,849	2,922	3,040	2,980	3,005		
9 to 12	3,498	3,638	3,846	4,013	4,146	4,251	4,369	4,427	4,502	4,701	4,712	4,875	4,923
Total	10,814	11,143	11,583	11,888	12,174	12,404							
Total Residents (non-SDC)													
K to 5	4,324	4,406	4,545	4,544	4,610	4,677							
6 to 8	2,223	2,319	2,312	2,412	2,456	2,513	2,566	2,619	2,731	2,667	2,689		
9 to 12	3,244	3,349	3,525	3,665	3,778	3,890	3,998	4,066	4,134	4,324	4,325	4,477	4,521
Total	9,791	10,074	10,382	10,621	10,844	11,080							
VTP Students													
K to 5	321	326	319	313	328	327	328	329	328	327	329	328	327
6 to 8	102	104	115	124	113	108	104	116	116	117	117	117	116
9 to 12	112	116	105	101	109	112	118	115	113	108	113	116	115
Total	535	546	539	538	550	547	550	560	557	552	559	561	558
Students from New Housing Developments													
K to 5	100	109	182	210	236	237	249	261	273	279	285	291	297
6 to 8	47	44	68	75	88	95	99	107	113	116	119	122	125
9 to 12	38	52	94	126	138	128	131	125	133	147	152	160	166
Total	185	205	344	411	462	459	478	492	519	542	556	573	587
SDC-in-district													
K to 5	53	52	52	52	52	52	52	52	52	52	52	52	52
6 to 8	44	40	40	40	40	40	40	40	40	40	40	40	40
9 to 12	45	66	66	66	66	66	66	66	66	66	66	66	66
Total	142	158	158	158	158	158	158	158	158	158	158	158	158
SDC-out-of-district													
K to 5	13	15	15	15	15	15	15	15	15	15	15	15	15
6 to 8	8	11	11	11	11	11	11	11	11	11	11	11	11
9 to 12	10	12	12	12	12	12	12	12	12	12	12	12	12
Total	31	38	38	38	38	38	38	38	38	38	38	38	38
Interdistrict Transfers													
K to 5	54	50	50	50	50	50	50	50	50	50	50	50	50
6 to 8	27	29	29	29	29	29	29	29	29	29	29	29	29
9 to 12	49	43	43	43	43	43	43	43	43	43	43	43	43
Total	130	122	122	122	122	122	122	122	122	122	122	122	122

Low Forecast Scenarios

Number of Births remains at average of 2002-2005 level

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,829	4,903	4,837	4,862	4,844	4,769	4,795	4,762	4,784	4,795	4,800	4,805
Middle	2,451	2,489	2,465	2,514	2,499	2,503	2,510	2,497	2,520	2,424	2,445	2,408	2,426
High	3,498	3,530	3,615	3,681	3,690	3,701	3,710	3,682	3,672	3,746	3,661	3,693	3,652
Total	10,814	10,849	10,983	11,033	11,052	11,048	10,988	10,974	10,954	10,954	10,901	10,901	10,883

Number of Births increases 10 percent over 2002-2005 average by 2018

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,829	4,903	4,837	4,862	4,852	4,793	4,845	4,846	4,912	4,975	5,033	5,091
Middle	2,451	2,489	2,465	2,514	2,499	2,503	2,510	2,497	2,520	2,424	2,445	2,416	2,452
High	3,498	3,530	3,615	3,681	3,690	3,701	3,710	3,682	3,672	3,746	3,661	3,693	3,652
Total	10,814	10,849	10,983	11,033	11,052	11,056	11,013	11,024	11,038	11,082	11,081	11,142	11,195

Number of Births declines 10 percent below 2002-2005 average by 2018

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,829	4,903	4,837	4,862	4,834	4,739	4,737	4,664	4,637	4,589	4,537	4,486
Middle	2,451	2,489	2,465	2,514	2,499	2,503	2,510	2,497	2,520	2,424	2,445	2,396	2,393
High	3,498	3,530	3,615	3,681	3,690	3,701	3,710	3,682	3,672	3,746	3,661	3,693	3,652
Total	10,814	10,849	10,983	11,033	11,052	11,038	10,959	10,916	10,856	10,807	10,695	10,626	10,531

The latest birth data available allows us to forecast elementary enrollments through 2010, middle schools through 2016, and high schools through 2018. Shaded areas indicate forecasts made without birth data.

Medium Forecast Scenarios

Number of Births remains at average of 2002-2005 level

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,925	5,085	5,085	5,164	5,199	5,145	5,172	5,132	5,155	5,167	5,172	5,177
Middle	2,451	2,503	2,504	2,592	2,627	2,671	2,727	2,768	2,850	2,770	2,791	2,746	2,767
High	3,498	3,597	3,718	3,808	3,852	3,901	3,968	4,000	4,051	4,214	4,200	4,309	4,324
Total	10,814	11,026	11,307	11,485	11,644	11,771	11,840	11,940	12,033	12,139	12,158	12,227	12,269

Number of Births increases 10 percent above 2002-2005 average by 2018

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,925	5,085	5,085	5,164	5,208	5,170	5,224	5,221	5,290	5,359	5,422	5,485
Middle	2,451	2,503	2,504	2,592	2,627	2,671	2,727	2,768	2,850	2,770	2,791	2,757	2,798
High	3,498	3,597	3,718	3,808	3,852	3,901	3,968	4,000	4,051	4,214	4,200	4,309	4,324
Total	10,814	11,026	11,307	11,485	11,644	11,780	11,865	11,992	12,122	12,274	12,350	12,488	12,608

488.9

Number of Births declines 10 percent below 2002-2005 average by 2018

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,925	5,085	5,085	5,164	5,189	5,114	5,110	5,029	5,000	4,948	4,890	4,833
Middle	2,451	2,503	2,504	2,592	2,627	2,671	2,727	2,768	2,850	2,770	2,791	2,734	2,731
High	3,498	3,597	3,718	3,808	3,852	3,901	3,968	4,000	4,051	4,214	4,200	4,309	4,324
Total	10,814	11,026	11,307	11,485	11,644	11,761	11,809	11,878	11,930	11,984	11,939	11,933	11,888

Shaded areas indicate forecasts made without birth data.

High Forecast Scenarios

Number of Births remains at average of 2002-2005 level

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,957	5,162	5,183	5,290	5,348	5,324	5,360	5,323	5,348	5,360	5,365	5,370
Middle	2,451	2,547	2,575	2,691	2,737	2,796	2,849	2,922	3,040	2,980	3,005	2,955	2,979
High	3,498	3,638	3,846	4,013	4,146	4,251	4,369	4,427	4,502	4,701	4,712	4,875	4,923
Total	10,814	11,143	11,583	11,888	12,174	12,395	12,542	12,709	12,865	13,029	13,077	13,195	13,273

Number of Births increases 10 percent over 2002-2005 average by 2018

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,957	5,162	5,183	5,290	5,357	5,351	5,414	5,414	5,488	5,560	5,625	5,691
Middle	2,451	2,547	2,575	2,691	2,737	2,796	2,849	2,922	3,040	2,980	3,005	2,967	3,014
High	3,498	3,638	3,846	4,013	4,146	4,251	4,369	4,427	4,502	4,701	4,712	4,875	4,923
Total	10,814	11,143	11,583	11,888	12,174	12,404	12,568	12,763	12,956	13,169	13,277	13,467	13,629

Number of Births declines 10 percent below 2002-2005 average by 2018

	Total Enrollments												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Elem	4,865	4,957	5,162	5,183	5,290	5,337	5,292	5,296	5,216	5,188	5,135	5,073	5,014
Middle	2,451	2,547	2,575	2,691	2,737	2,796	2,849	2,922	3,040	2,980	3,005	2,944	2,943
High	3,498	3,638	3,846	4,013	4,146	4,251	4,369	4,427	4,502	4,701	4,712	4,875	4,923
Total	10,814	11,143	11,583	11,888	12,174	12,384	12,510	12,645	12,758	12,869	12,852	12,892	12,881

The latest birth data available allows us to forecast elementary enrollments through 2010, middle schools through 2016, and high schools through 2018. Shaded areas indicate forecasts made without birth data.

Appendix B: Evaluation of the 2005-06 Enrollment Forecast

In Fall of 2005, we forecasted enrollments for Fall 2006. This section compares our forecast with this year's actual enrollments. Fall 2006 enrollments were 91 students higher than the 2005 Medium forecast (Table B-1). The elementary forecast was low by 88 students; the high school forecast was low by 31 students. Middle school enrollments were actually lower than forecasted; the forecast suggested 28 more students than actually enrolled.

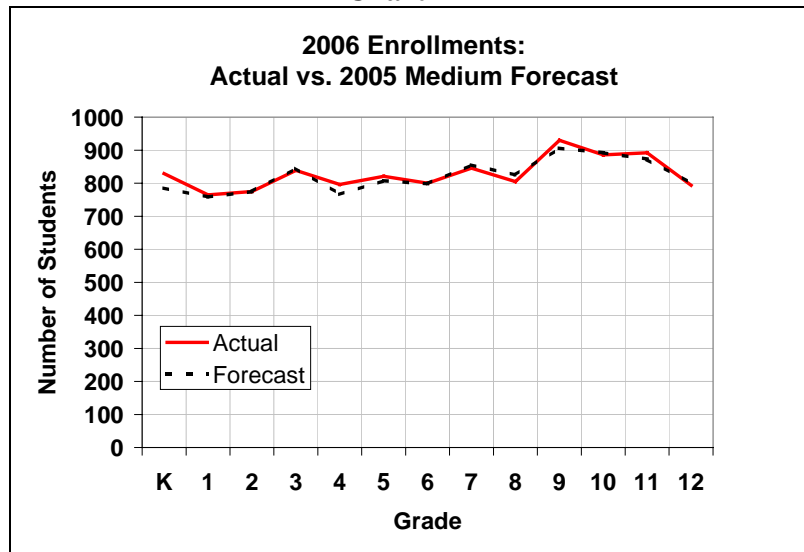
The High K-12 forecast was 118 students greater than actual enrollments.

Table B-1

Actual and Forecasted 2006-07 Enrollments (Excludes Middle College Students)				
	Actual	2005 Forecast for 2006-07		
		Low	Medium	High
K-5	4,865	4,696	4,777	4,899
6-8	2,451	2,447	2,479	2,537
9-12	3,502	3,404	3,471	3,500
Total	10,818	10,547	10,727	10,936
Difference from Projection				
		Low	Medium	High
K-5		169	88	-34
6-8		4	-28	-86
9-12		98	31	2
Total		271	91	-118

Chart B-1 compares actual to forecasted enrollments by grade. The dotted line represents the forecast produced in the 2005-06 school year, and the solid line is actual enrollments.

Chart B-1



Enrollment Components

We distinguish among several enrollment groups when we forecast PAUSD enrollments: VTP students, SDC-in-district, SDC-out-of-district, interdistrict transfers, students from large new housing developments, and the residual, which we call (non-SDC) Residents. See Table B-2 for a comparison between actual 2006 and forecasted enrollments in each category.

Table B-2

	K to 5	6 to 8	9 to 12	Total
VTP Students				
Actual	321	102	112	535
Forecasted	339	109	115	563
Difference	-18	-7	-3	-28
Interdistricts (non-SDC)				
Actual	54	27	49	130
Forecasted	51	29	45	125
Difference	3	-2	4	5
SDC Out-of-District				
Actual	13	8	10	31
Forecasted	15	12	11	38
Difference	-2	-4	-1	-7
SDC In-District				
Actual	53	44	45	142
Forecasted	57	39	71	168
Difference	-4	5	-26	-26
Students from Large New Housing Developments				
Actual	102	35	28	165
Forecasted	115	52	40	207
Difference	-13	-17	-12	-42
Residents (non-SDC)				
Actual	4,322	2,235	3,258	9,815
Forecasted	4,200	2,237	3,189	9,626
Difference	122	-2	69	189
Total Enrollments				
Actual	4,865	2,451	3,502	10,818
Forecasted	4,777	2,479	3,471	10,727
Difference	88	-28	31	91