

Milpitas Unified School District

Measure E Bond Facilities Construction Program

# Quarterly Progress Report

**July 2015 through September 2015**



**New Elementary School Rendering**



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# INTRODUCTION

This report details Bond related activities during the months of

July, August, September 2015

Later reports will discuss activities for the months of

January, February, March 2016

April, May, June 2016

July, August, September 2016

October, November, December 2015-2016

This report will include a summary of the program-wide activities for this period and progress information specific to each school site. The intent of information presented is to reflect the level of design or construction occurring at each site. Sites without design or construction activities during this period will be covered by future reports.

Each Quarterly Progress Report (QPR) will include a report of a past three month period, with commentary about current activity and progress on the bond program. You will receive a blend of data from the past three months and information about the current status of projects.

As a reminder, a glossary is included at the end of this document, which may be helpful if you come across unfamiliar terms or acronyms in the report text.

# OVERVIEW

Activities during the months of July, August and September 2015 are outlined below.

## **Zanker Modernization**

Construction at Zanker continued on the site through the summer. All areas were ready to receive students for opening day of school.

## **Milpitas High School Modernization in Progress**

Modernization at Milpitas High School was substantially completed August 2015.

## **New Elementary School Site**

The new elementary school is in the development design phase, nearing the half-way point of the overall design.

## **Joint Use Facility**

The joint use facilities design build team has completed the design. Preparations are being made for the start of construction, which is scheduled to be completed in August 2016.



**Zanker Elementary – Learning Center**

# FINANCIALS

Bond Program Budget Summary				
Updated 1/15/2016				
Total bond proceeds		\$	95,000,000	
Total interest revenue		\$	693,455	
	<b>Total Available</b>	<b>\$</b>	<b>95,693,455</b>	
<b>Completed Projects Cost:</b>				
District-Wide Wireless		\$	910,475	
Classroom Lock Replacement		\$	148,958	
Painting		\$	429,927	
Paving		\$	1,416,705	
Phase I, II, III Modernization Projects		\$	44,586,714	
Pomeroy Multi-Purpose		\$	3,510,241	
New Portables		\$	1,638,614	
District-Wide Playground		\$	527,260	
MHS Pool Project & Pool infill		\$	7,004,860	
District Wide EMS		\$	2,723,656	
Airpoint		\$	30,338	
	<b>Subtotal</b>	<b>\$</b>	<b>62,927,746</b>	
<b>Projects in Progress:</b>		<b>Total Budget</b>	<b>Expended &amp; Encumbered</b>	<b>Balance</b>
Portables @ Rose		\$ 400,000	\$ 190,160	\$ 209,840
Computer Equipment		\$ 5,000,000	\$ 2,908,110	\$ 2,091,890
Classroom Furniture		\$ 6,816,195	\$ 3,281,244	\$ 3,534,951
New Elementary		\$ 18,008,577	\$ 2,565,298	\$ 15,443,279
Bond Administration		\$ 2,198,342	\$ 1,793,963	\$ 404,379
	<b>Subtotal</b>	<b>\$ 32,423,115</b>	<b>\$ 10,738,774</b>	<b>\$ 21,684,340</b>
	<b>Total Estimated Program Savings</b>	<b>\$</b>	<b>342,595</b>	

PHASE I			
Project	Budget	Expenditures	Savings
Wireless	\$ 910,475	\$ 910,475	\$ -
Classroom Lock Replacement	\$ 213,000	\$ 148,958	\$ 64,042
Russell Portable	\$ 297,410	\$ 233,782	\$ 63,628
Playground	\$ 352,373	\$ 352,373	\$ -
Airpoint AE services	\$ 120,000	\$ 30,338	\$ 89,662
Modernization @ Spangler, Weller, Burnett, Randall & Rancho	\$ 13,105,935	\$ 12,075,624	\$ 1,030,311
Painting Projects	\$ 1,217,311	\$ 429,927	\$ 787,384
Paving Projects	\$ 2,007,765	\$ 1,416,705	\$ 591,060
Multi Purpose Room	\$ 4,003,602	\$ 3,510,241	\$ 493,361
MHS Pool & Infill	\$ 6,010,155	\$ 6,010,155	\$ -
<b>TOTAL SAVINGS</b>	<b>\$ 28,238,026</b>	<b>\$ 25,118,578</b>	<b>\$ 3,119,448</b>

**Total Interest Revenue Earned** \$ 370,046

**Additional Scope/New Projects**

Playground	\$ (174,887)
Relocation of MHS Pool and Infill	\$ (994,705)
4 New Portables	\$ (924,596)
<b>Net Savings</b>	<b>\$ 1,395,306</b>

PHASE II			
Project	Budget	Expenditures	Savings
Modernization @ Curtner, Pomeroy, Rose, Sinnott, Russell	\$ 13,801,036	\$ 13,554,058	\$ 246,978
Modernization at MHS	\$ 11,905,307	\$ 11,905,307	\$ -
EMS	\$ 2,506,558	\$ 2,723,656	\$ (217,098)
<b>TOTAL SAVINGS</b>	<b>\$ 16,307,594</b>	<b>\$ 16,277,714</b>	<b>\$ 29,880</b>

**Total Savings Carry Over** \$ 1,395,306

**Total Interest Revenue Earned** \$ 193,409

**Additional Scope/New Projects**

add. scope for MHS modernization	\$ (588,998)
3 New Portables	\$ (480,236)
<b>Net Savings</b>	<b>\$ 549,361</b>

PHASE III			
Project	Budget	Expenditures	Savings
Modernization @ Zanker, Cal Hills & MOT	\$ 6,525,961	\$ 6,462,727	\$ 63,234

**Total Savings Carry Over** \$ 549,361

**Estimated Interest Revenue Projection** \$ 130,000

**Additional Scope/New Projects**

2 new portables	\$ (400,000)
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**Estimated Net Savings** \$ 342,595

# PROJECT STATUS

The following provides a brief status of major projects. See also Project Highlights and detailed Project Reports on following pages.

## PHASE I MAJOR PROJECT SUMMARY AND JUMPSTART PROJECTS

### **Burnett Elementary Modernization**

- The project is complete. (November 2013)

### **Pomeroy Elementary New Multipurpose Building**

- The project is complete. (April 2014)

### **Randall Elementary Modernization**

- The project is complete. (December 2013)

### **Spangler Elementary Modernization**

- The project is complete. (September 2013)

### **Weller Elementary Modernization**

- The project is complete. (January 2014)

### **Rancho Middle Modernization**

- The project is complete. (December 2013)

### **Milpitas High Pool Replacement Project**

- The project is complete. (December 2014)

### **Playground Replacements**

- The project is complete. (August 2013)

### **Paving Projects**

- The project is complete. (September 2013)

### **Painting Projects**

- The project is complete. (August 2013)



## PHASE II MAJOR PROJECT SUMMARY

### **Curtner Elementary Modernization**

- The project is complete. (August 2014)

### **Pomeroy Elementary Modernization**

- The project is complete. (August 2014)

### **Rose Elementary Modernization**

- The project is complete. (November 2014)

### **Sinnott Elementary Modernization**

- The project is complete. (August 2014)

### **Russell Elementary Modernization**

- The project is complete. (January 2015)

### **Milpitas High School Modernization**

- Work continues at the site. The project was substantially complete in August 2015. Work this summer was focused mainly in buildings A, B, C and D, the large gym, small gym, locker buildings and the music building.



**Milpitas High School- Band Room**

## PHASE III MAJOR PROJECT SUMMARY

### **Zanker Elementary Modernization**

- Work at this site was completed August 2015. This modernization project included the remodel of a former multi-purpose room into a new learning center.

### **Calaveras Hills High School/ District Office/ Adult Education Modernization**

- Work at this site was substantially completed in August 2015. Work included HVAC system scope, roofing, flooring, technology infrastructure, concrete replacement and new paving.



**Calaveras High School/ District Office/ Adult Education**

# PROJECT HIGHLIGHTS

Below are detailed updates of major projects.

## **Energy Management System (EMS) Project**

This project was substantially complete in August 2015.

## **Learning Centers**

The following paragraph has not changed from the previous report but has been left in because this program feature is so instrumental to the Bond Program and provides for some of the most exciting spaces that can be used by students and staff.

*The blended learning model for MUSD continues to evolve and each site is developing a unique solution both architecturally and with their educational program approach as to how to provide 21<sup>st</sup> Century Learning environments. The Weller specific approach focused primarily but not exclusively on a 1 to 1 student to Chromebook model to access online learning resources. Other LC's may favor project based learning and will feature a higher percentage of moveable chairs, furniture, tables, etc. Different types of spaces are being converted to learning centers including libraries, classrooms, teacher work rooms, (older) multi-use spaces. Each type of space provides unique opportunities at each school site.*

## **Phase I & II Elementary & Middle School Modernization Projects:**

Modernization scope included:

- New Learning Centers at each site
- Heating and air conditioning replacement
- Roofing repair and replacement
- New flooring
- Energy management system upgrades

Work has been completed for these Phases. It included: Burnett, Randall, Spangler, Weller, Curtner, Pomeroy, Rose and Sinnott Elementary schools and Rancho, Russell Middle schools.



## **Milpitas High School Modernization**

Construction work continues at Milpitas High. This work was substantially completed in August 2015. Work at this site included:

- The conversion of the Building J library to a learning commons (a space similar to a Learning Center)
- Locker Room renovations
- Infill of the existing pool (Completed)
- Repairs and painting of building L
- New energy management system
- New flooring in most spaces
- Various utilities and grounds improvements



**Milpitas High School- Clogged Drains**

# CONSTRUCTION

The following projects were under construction or completed construction during this reporting period. This list includes projects of significant size; other projects of a minor scope are not included in this list.

## **Calaveras Hills High School/District Office/ Adult Education Modernization**

Construction Start:	June 2015
Completion Date:	August 2015
Change Orders:	\$239,377 (9%)
Added Scope:	Paving, abatement, interior improvements

## **Milpitas High School Modernization**

Construction Start:	June 2014
Completion Date:	August 2015
Change Orders:	\$732,998 (9.7%)
Added Scope:	Two new classrooms with casework and marker boards, one new science classroom with related cabinetry, storm drains, new gas valves, replaced classroom skylights, reconfigured drafting lab, new classroom water heaters, fencing, gates, ceramic lab air conditioning

## **Zanker Elementary School Modernization**

Construction Start:	May 2015
Completion Date:	August 2015
Change Orders:	\$0
Added Scope:	Flooring, exterior wall improvement, painting, and flashing



**Zanker Elementary School- Multi Purpose Room**

## CONCLUSIONS

With the exception of the new elementary school, all Measure E Bond projects have been completed. The new elementary school is on schedule for completion by August 2018. The original Bond schedule showed all projects were to be completed by 2017. We are pleased to report that the Measure E Bond projects finished a year early. At this time, we can report a projected \$342,595 in savings, which is planned to be used towards future projects. Thank you to the Citizens Bond Oversight Committee for their continuing dedication and time monitoring this Bond program. Thank you also to the Community members of Milpitas for their support of the Bond Measure.

## Acknowledgement

Technology Services

Maintenance Operations  
and Transportation

Principals and  
staff

Business Services

Trade Unions

Architect & Construction  
Management Firms

Community Support



## SITE PROGRESS REPORTS

The following pages contain detailed and specific information on all projects currently underway. It provides information on recent progress, issues, budget, and scheduling.



# Burnett Elementary School

<b>General Information</b>	School Principal	Richard Julian
	Architect	Gould Evans
	Construction Manager	Kitchell
	Board of Education Trustee	Danny Lau

**Recent Progress**

**Modernization (Phase 1):** Construction is complete.

**Playgrounds (Phase 1):** Construction is complete.

**Paving (Phase1):** Project is complete.

**Non-Bond Construction** None.

**Budget**

**Modernization (Phase 1):** The project was completed with approximately \$400,000 in savings.

**Playgrounds (Phase 1):** An additional play structure was added at a cost of \$47,000.

**Paving (Phase 1):** The project was completed and additional funds were returned to the program contingency.

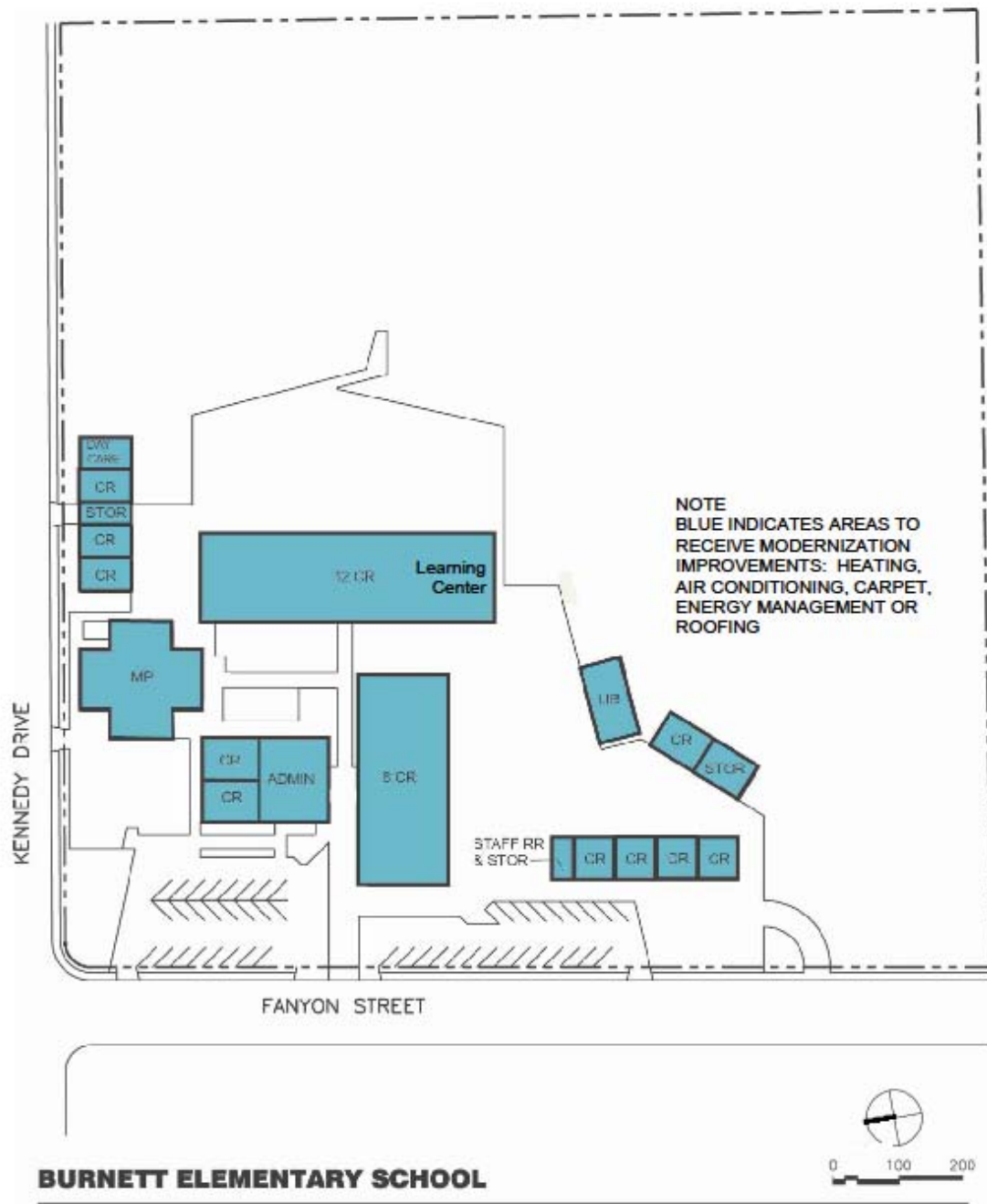
**Schedule**

**Modernization (Phase 1):** Construction is complete.

**Playgrounds (Phase 1):** Construction is complete.

**Paving (Phase 1):** Project is complete.





# Curtner Elementary School

<b>General Information</b>	School Principal	Jackie Vo Felbinger
	Architect	IBI Group Architecture
	Construction Manager	Cambridge CM
	Board of Education Trustee	Bob Nunez

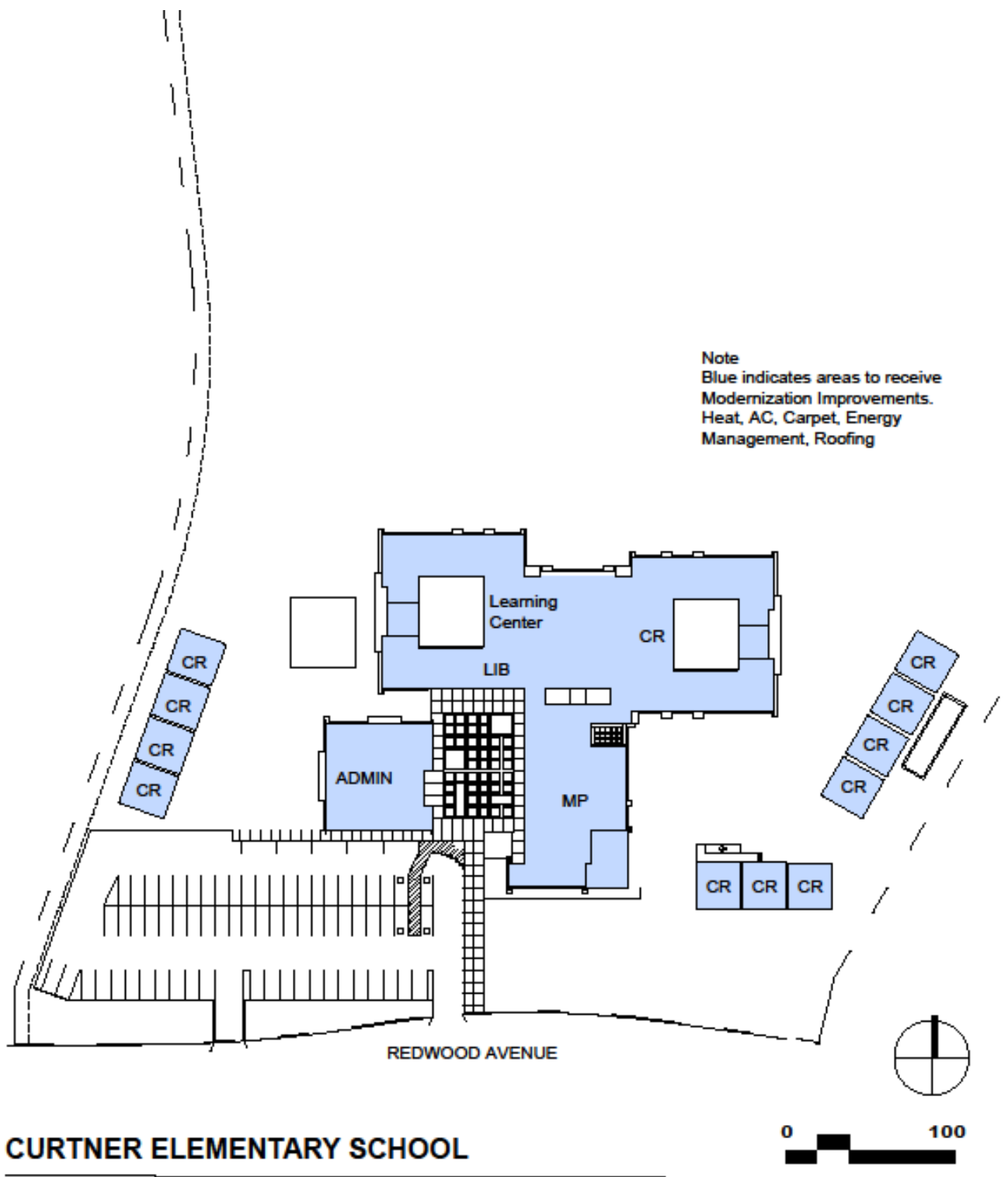
**Recent Progress**      **Modernization (Phase II):** Construction is complete.  
**Playgrounds (Phase I):** Construction is complete.

**Non-Bond Construction**   None.

**Budget**      **Modernization (Phase II):** The project had \$117,520 in change orders, a 9% increase. The added scope to the project was library casework and shelving, floor power and data connections, dry rot repairs, flooring, walk off mats and new portable ramps.  
**Playgrounds (Phase I):** Construction is complete.

**Schedule**      **Modernization (Phase II):** Construction is complete.  
**Playgrounds (Phase I):** Construction is complete.

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# Pomeroy Elementary School

<b>General Information</b>	School Principal	Sheila Murphy-Brewer
	Architect	IBI Group
	Construction Manager	Blach Construction
	Board of Education Trustee	Dan Bobay

<b>Recent Progress</b>	<b>Modernization (Phase II):</b> Construction is complete
	<b>New Multi-Purpose Building (Phase I):</b> Construction is complete.
	<b>Playgrounds (Phase I):</b> Construction is complete.
	<b>Paving (Phase I):</b> Project is complete.

**Non-Bond Construction** None.

<b>Budget</b>	<b>Modernization (Phase II):</b> The project had \$41,848 in change orders, a 3% increase. The added scope to the project was ceiling acoustic tiles, relocated cabinetry, parking and drop off improvements, paving repairs and new portable ramps.
	<b>Multi-Purpose Building (Phase I):</b> Change orders total 1% of construction cost.
	<b>Playgrounds (Phase I):</b> Project completed on budget.
	<b>Paving (Phase I):</b> Project completed on budget.

<b>Schedule</b>	<b>Modernization (Phase II):</b> Construction is complete.
	<b>Multi-Purpose Building (Phase I):</b> Construction is complete.
	<b>Playgrounds (Phase I):</b> Construction is complete.
	<b>Paving (Phase I):</b> Project is complete.



# Randall Elementary School

<b>General Information</b>	School Principal	Carlos Salcido
	Architect	Gould Evans
	Construction Manager	Kitchell
	Board of Education Trustee	Dan Bobay

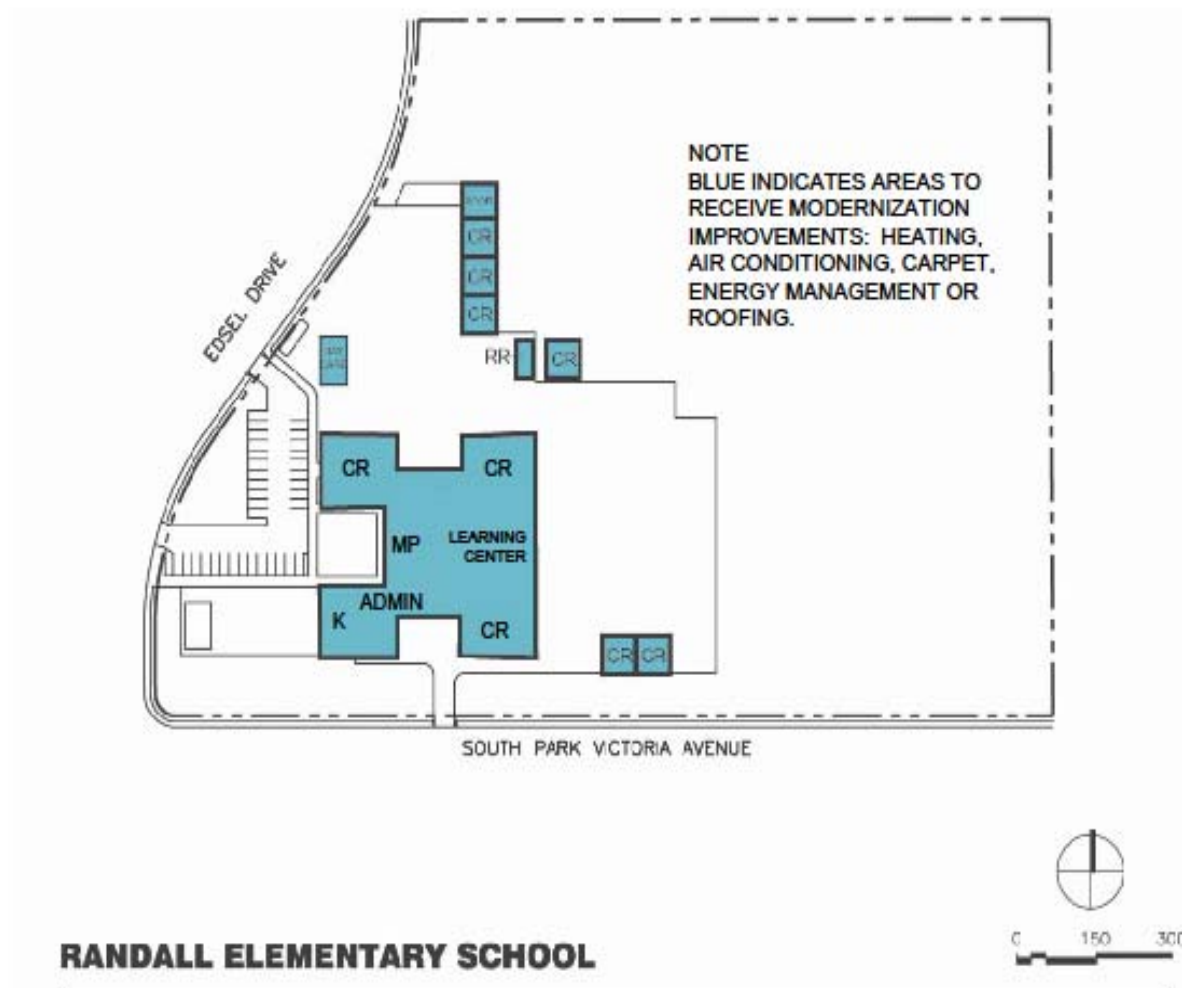
**Recent Progress**      **Modernization (Phase I):** Construction is complete.  
**Playgrounds (Phase 1I):** Construction is complete.  
**Paving (Jumpstart):** Project is complete.

**Outstanding Issues**      None.

**Non-Bond Construction**      Additional playground scope was added with funding raised by the site.

**Budget**      **Modernization (Phase I):** The project was completed on budget.  
**Playgrounds (Phase I):** The project was completed on budget.  
**Paving (Jumpstart):** The project was completed on budget.

**Schedule**      **Modernization (Phase I):** Construction is complete.  
**Playgrounds (Phase I):** Construction is complete.  
**Paving (Jumpstart):** Project is complete.



# Rose Elementary School

<b>General Information</b>	School Principal	Nanci Pass
	Architect	Gould Evans
	Construction Manager	Kitchell
	Board of Education Trustee	Gunawan Alisantosa

**Recent Progress**

**Modernization (Phase II):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

**Painting Project (Phase I):** Project is complete.

**Non-Bond Construction** None.

**Budget**

**Modernization (Phase II):** The project had \$47,744 in change orders, a 3% increase. The added scope to the project was relocation of computer lab power and data, paving and miscellaneous repairs and finishes.

**Playgrounds (Phase I):** An additional play structure was added at a cost of \$47,000

**Painting (Phase I):** The project was completed and additional funds were returned to the program contingency.

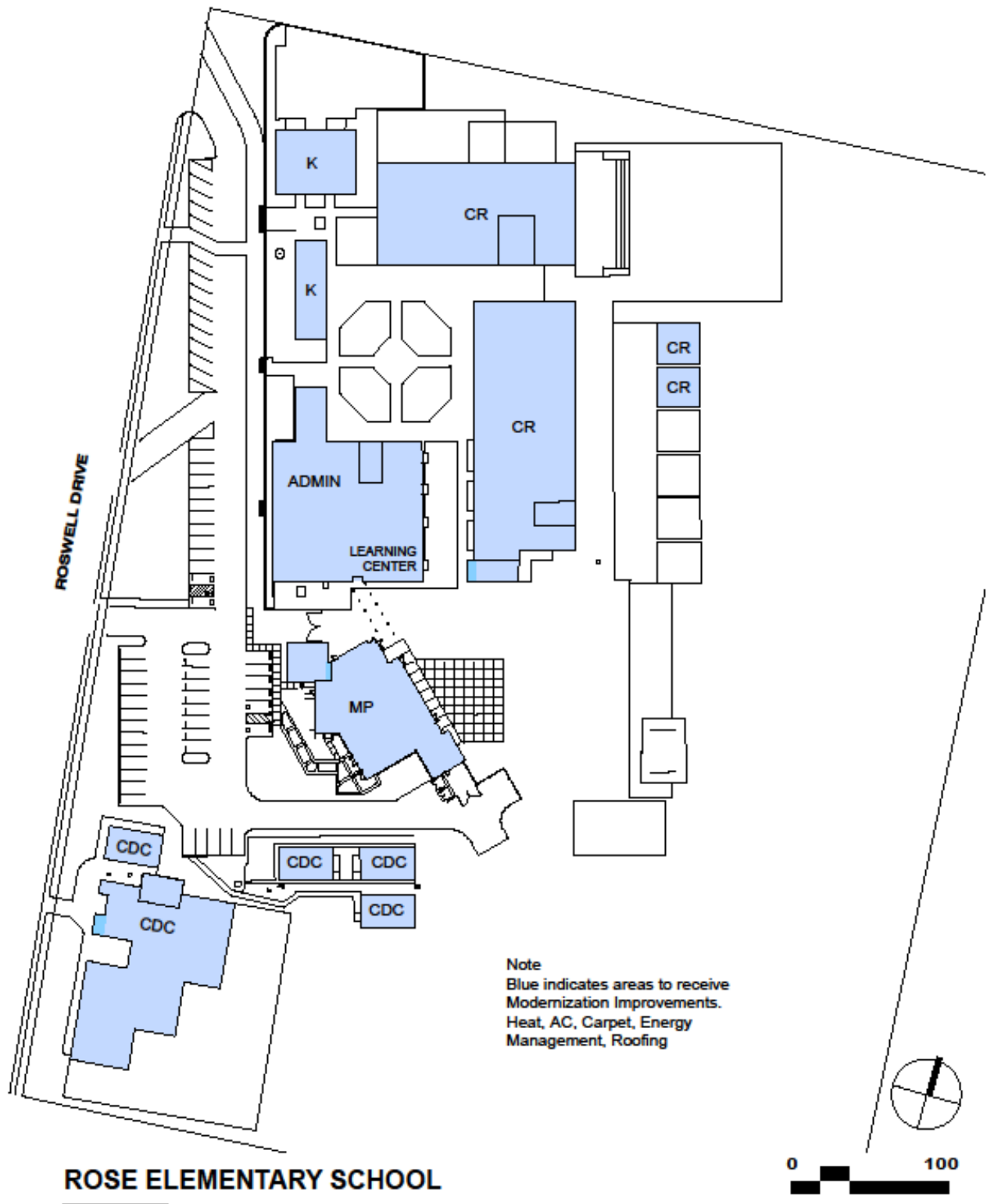
**Schedule**

**Modernization (Phase II):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

**Painting (Phase I):** Project is complete.





# Sinnott Elementary School

## General Information

School Principal	Laurie Armino
Architect	HMC Architects
Construction Manager	Blach Construction
Board of Education Trustee	Chris Norwood

## Recent Progress

**Modernization (Phase II):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

**Painting Project (Phase II):** Project is complete.

**Paving Project (Phase I):** This project is complete. Scope was added to address ADA (accessibility) issues, parking lot congestion and safety issues and City requirements.

## Non-Bond Construction

The site shade structure purchase and installation at the kinder play area was complete.

## Budget

**Modernization (Phase II):** Construction is complete.

**Painting (Phase I):** The project was completed and additional funds were returned to the program contingency.

**Playgrounds (Phase I):** Construction is complete.

**Paving (Phase I):** The project was completed and additional funds were returned to the program contingency.

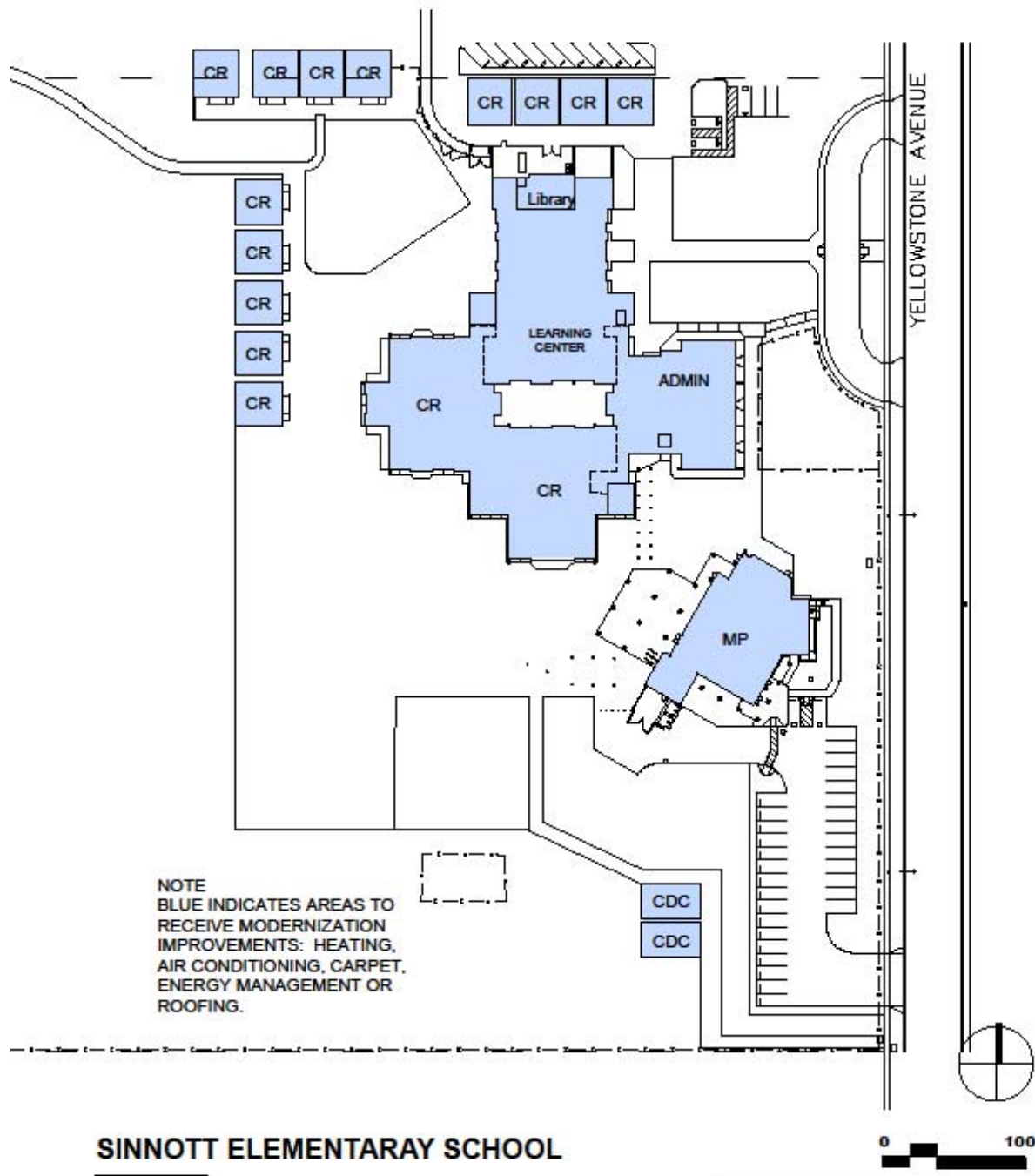
## Schedule

**Modernization (Phase II):** Construction is complete.

**Painting (Phase I):** Project is complete.

**Playgrounds (Phase I):** Construction is complete.

**Paving (Phase I):** The project and added scope was completed on schedule.



# Spangler Elementary School

## General Information

School Principal	Catherine Waslif
Architect	HMC Architects
Construction Manager	Kitchell
Board of Education Trustee	Bob Nunez

## Recent Progress

**Modernization (Phase I):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

**Paving (Jumpstart):** Project is complete.

## Outstanding Issues

None.

## Budget

**Modernization (Phase I):** The project was completed with approximately \$125,000 in savings.

**Playgrounds (Phase I):** The project was completed on budget.

**Paving (Jumpstart):** The project was completed and additional funds were returned to the program contingency.

## Schedule

**Modernization (Phase I):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

**Paving (Jumpstart):** Project is complete.



# Weller Elementary School

## General Information

School Principal	Raquel Kusunoki
Architect	HMC Architects
Construction Manager	Kitchell
Board of Education Trustee	Chris Norwood

## Recent Progress

**Modernization (Phase I):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

**Paving (Jumpstart):** Project is complete.

## Outstanding Issues

None.

## Budget

**Modernization (Phase I):** The project had change orders totaling 4.56% of the bid amount.

**Playgrounds (Phase I):** This project is completed on budget.

**Paving (Jumpstart):** The project was completed on budget.

## Schedule

**Modernization (Phase I):** Construction is complete.

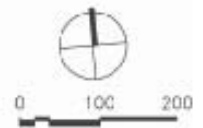
**Playgrounds (Phase I):** Construction is complete.

**Paving (Jumpstart):** Project is complete.

DIXON ROAD



**WELLER ELEMENTARY SCHOOL**



# Zanker Elementary School

## General Information

School Principal	Trisha Lee
Architect	IBI Group Architecture
Construction Manager	Blach Construction
Board of Education Trustee	Danny Lau

## Recent Progress

**Modernization (Phase III):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.

## Outstanding Issues

None.

## Budget

**Modernization (Phase III):** This project completed on budget.

**Playgrounds (Phase I):** This project is complete.

## Schedule

**Modernization (Phase I):** Construction is complete.

**Playgrounds (Phase I):** Construction is complete.





## PEARL ZANKER ELEMENTARY SCHOOL

0' 200'

# Rancho Middle School

<b>General Information</b>	School Principal	Casey McMurray
	Architect	Artik Art & Architecture
	Construction Manager	Blach Construction
	Board of Education Trustee	Gunawan Alisantosa

**Recent Progress**

**Modernization (Phase I):** Construction is complete.

**Painting Project (Phase I):** Construction is complete.

**Paving Project (Phase I):** Project is complete.

**Non-Bond Construction** None.

**Budget**

**Modernization (Phase I):** The project was completed with approximately \$150,000 in savings.

**Painting Project (Phase I):** The project was completed and additional funds were returned to the program contingency.

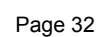
**Paving (Phase 1):** The project was completed and additional funds were returned to the program contingency.

**Schedule**

**Modernization (Phase I):** Construction is complete.

**Painting Project (Phase I):** Project is complete.

**Paving (Phase I):** Project is complete.



# Russell Middle School

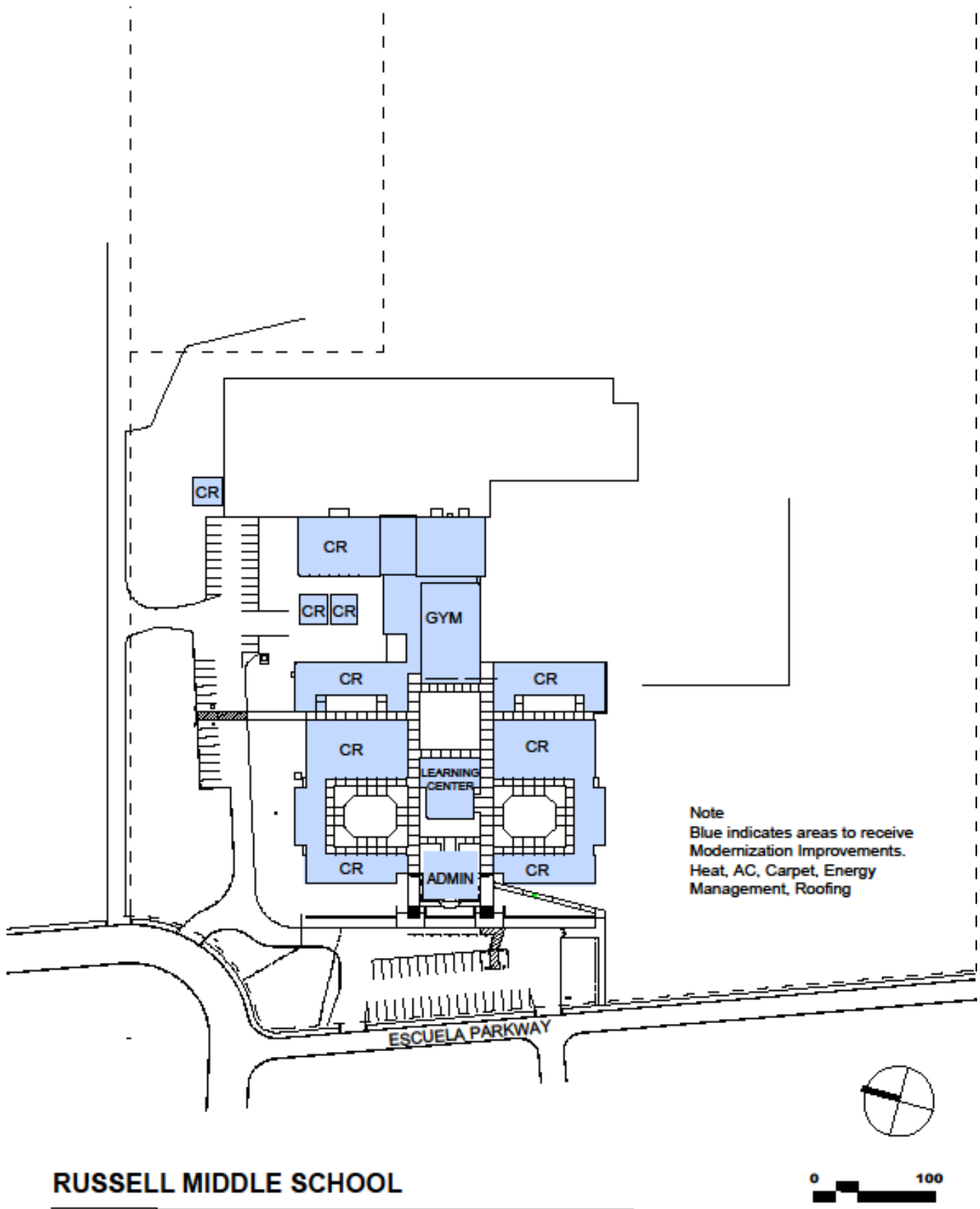
<b>General Information</b>	School Principal	Damon James
	Architect	Gould Evans
	Construction Manager	Blach Construction
	Board of Education Trustee	Chris Norwood

**Recent Progress**      **Modernization (Phase II):** Construction is complete.  
**Portable Classroom Additions (Jumpstart):** Construction is complete.

**Non-Bond Construction**   None.

**Budget**      **Modernization (Phase II):** Construction is complete.  
**Portable Classroom Additions (Jumpstart):** Construction is complete.

**Schedule**      **Modernization (Phase II):** Construction is complete.  
**Portable Classroom Additions (Jumpstart):** Construction is complete.



# Milpitas High School

## General Information

School Principal	Cheryl Lawton
Architect	HMC Architects
Construction Manager	Kitchell
Board of Education Trustee	Gunawan Alisantosa/ Bob Nunez

## Recent Progress

**Modernization (Phase II):** Work continues at the site. The project was substantially completed in August 2015. Work this summer was focused mainly in buildings A, B, C and D, large gym, small gym, locker buildings and the music department building.

**New Pool Facility (Phase I):** Construction is complete.

**Exterior Painting (Phase II):** The project is complete.

**Paving Project (Phase I):** This project is complete.

**Non-Bond Construction** None.

## Budget

**Modernization (Phase II):** The project had \$732,998 in change orders, a 9.7% increase. The added scope to the project were (2) new classrooms with casework and marker boards, (1) new science classroom with related cabinetry, storm drains, new gas valves, replaced classroom skylights, reconfigured drafting lab, new classroom water heaters, fencing, gates and ceramic lab air conditioning and roofing at building C.

**New Pool Facility (Phase I):** Construction is complete.

**Exterior Painting (Phase I):** The project is complete.

**Paving Project (Phase I):** The project is complete.

## **Schedule**

**Modernization (Phase II):** The project was substantially complete in August 2015.

**New Pool Facility (Phase I):** The project was completed in December 2014.

**Exterior Painting (Phase I):** The project is complete.

**Paving Project (Phase I):** The project is complete.





# Cal Hills High School/ District Office/ Adult Education

## General Information

### Calaveras Hills High School

School Principal	Carl Stice
Architect	Gould Evans
Construction Manager	Blach Construction
Board of Education Trustee	Dan Bobay

### Adult Education

School Principal	Usha Narayanan
Architect	Gould Evans
Construction Manager	Blach Construction
Board of Education Trustee	Gunawan Alisantosa/ Bob Nunez

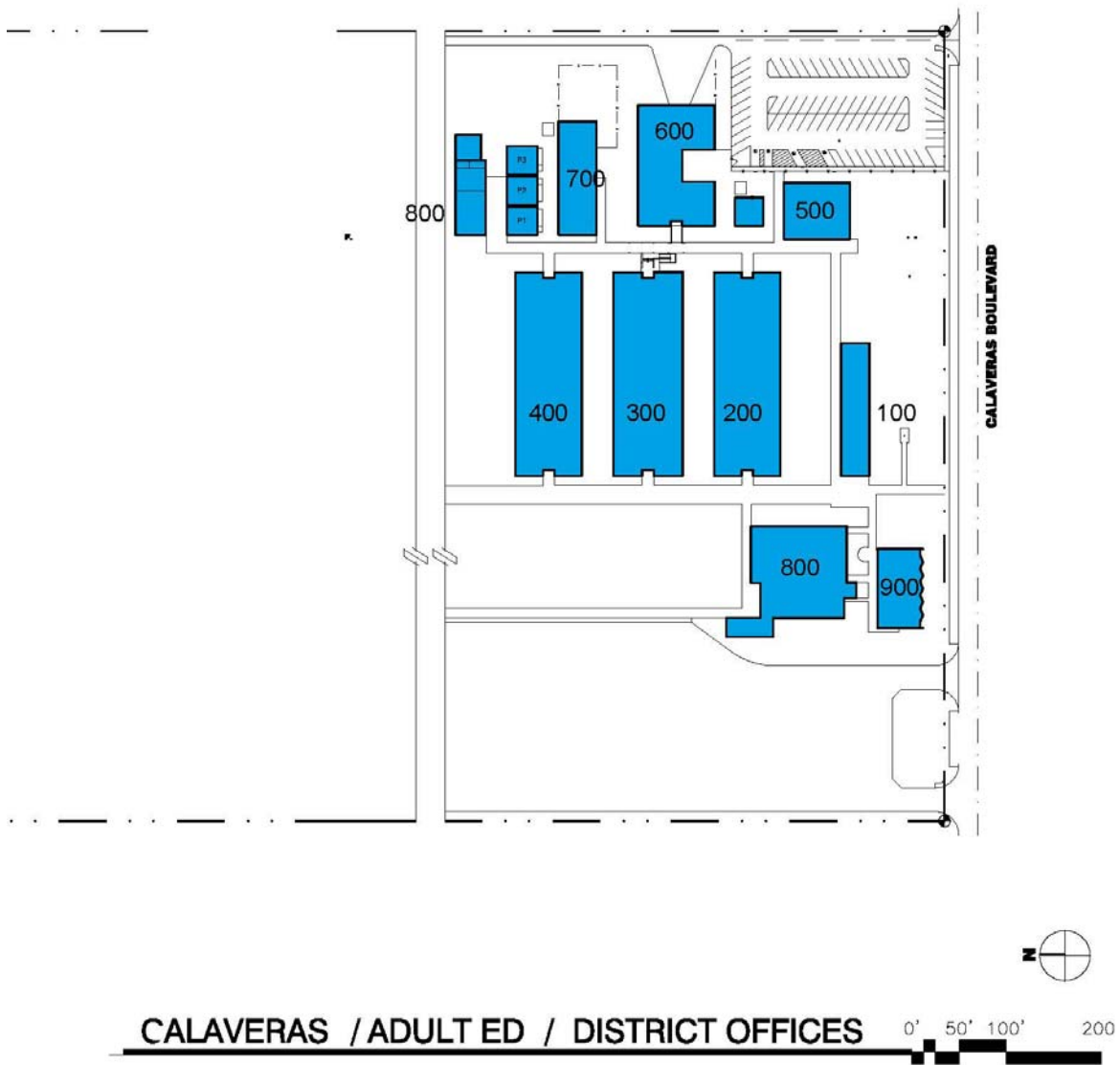
## Recent Progress

**Modernization (Phase III):** Work at this site was substantially completed in August 2015. Work included HVAC system scope, roofing, flooring, technology infrastructure, concrete replacement and new paving.

**Non-Bond Construction** None.

**Budget** **Modernization (Phase III):** The project was completed on budget.

**Schedule** **Modernization (Phase III):** Construction was substantially complete August 2015.



## **Districtwide Projects**

### **Playground and Border Replacement**

**General Information**      The Districtwide playground improvements at the elementary sites have been completed.

### **Paving Projects**

**General Information**      The paving projects are complete.

### **Exterior Painting Projects**

**General Information**      The painting projects are complete.

### **Energy Management System Project**

**General Information**      The energy management system upgrade is close to completion. Phase II sites were completed during the summer of 2014. Phase I and Phase III are substantially complete as of August 2015. District staff has been trained to use, maintain, and expand the system.

# Glossary

A/C	Abbreviation for “Air Conditioning”.
A/E	Abbreviation for “Architect/Engineering consultants”.
ADA	Abbreviation for “American Disabilities Act”; handicapped accessibility.
ADA	Abbreviation for “Average Daily Attendance”.
Addendum	A document used to alter, add or delete part of the content in the plans and specifications prior to the bid opening date.
Advertisement for Bids	The published public notice soliciting bids for construction projects.
AIA	Abbreviation for “American Institute of Architects”.
AIEE	Abbreviation for “American Institute of Electrical Engineers”.
Alternate	Amount stated in the bid to be added or deducted from the amount of the base bid if the change in scope is accepted by the owner.
ANSI	Abbreviation for “American National Standards Institute”.
ASCE	Abbreviation for “American Society of Civil Engineers”.
ASME	Abbreviation for “American Society of Mechanical Engineers”.
ASTM	Abbreviation for “American Society for Testing Materials”.
BC	Abbreviation for “Building Code”.
Bid	An offer to perform the work described in a contract at a specified cost. The public bid process is governed by Public Contract Code.
Bid Bond	A form of bid security submitted by the bidder as principal.
Bid Date	The date established by the owner for receipt of bids.
Bidder	A contractor or vendor who submits a bid to perform work or supply materials directly for/to the owner, as distinct from a submitter who submits a bid to a prime bidder. A bidder is not a contractor until a contract exists between the bidder and the owner.
Bidding Document	The advertisement or invitation to bid, instructions to bidders, the bid form, and the proposed contract documents including any addenda issued prior to receipt of bids.
Bidding Period	The calendar period beginning at the time of issuance of bidding requirements and contract documents and ending at the prescribed bid time.
Bidding	Those documents providing information and establishing procedures Requirements and conditions for the submission of bids. They consist of the notice to bidders or advertisement for bids, instructions to bidders, invitation to bid, and sample forms.

CD	Abbreviation for “Construction Documents”. The Architect prepares for approval by the owner and DSA, the working drawings and specifications for the project. The CDs set forth in detail the requirements for the project and establish in detail the quality levels of materials and systems. This is the third phase of design and these documents are part of the Bid Documents/Contract Documents.
CEQA	CEQA stands for the California Environmental Quality Act of 1970.
Change Order	Document used to alter, add, or delete part of the content in plans and specifications, or schedule requirements, after the bid opening date.
Clerestory	An upper zone of wall pierced with windows to admit light to the center of a lofty room.
Compression Test	On a specimen of concrete or mortar, a test used to determine its compressive strength.
CMU	Abbreviation for “concrete masonry unit”. A block or brick cast of Portland cement and suitable aggregate, for laying up with other units as in normal stone masonry construction.
Condenser	A heat-exchange device in a refrigeration system; consists of a vessel or arrangement of pipes or tubing in which refrigerant vapor is liquefied (condensed) by removal of heat.
Construction Contract	The agreement between the successful bidder and the owner.
Construction Cost	The cost of all the construction portions of a project, generally based upon the sum of the construction contract(s) and all change orders; same as “Hard Costs”.
Contingencies	Funds provided for in the budget which allow a means for financing eligible unforeseen project costs.
Contract Documents	Those documents that comprise a contract. Typically include: drawings, specifications, and modifications, together with any other items stipulated as being specifically included.
Contractor’s Liability Insurance	Insurance purchased and maintained by the contractor to protect from claims which may arise out of or result from operations under the contract.
Cost Estimate	A document portraying estimate of cost of the project, typically developed based on Architect’s design documents.
CPM	Abbreviation for “Critical Path Method”. A method of scheduling.
CSI	Abbreviation for “Construction Specifications Institute”. The project specifications (portion of the bid documents/contract documents) which describe building materials and methods, are organized in CSI recognized categories.

DD	Abbreviation for “Design Development”. This is the second phase of the Architect’s basic services. These drawings refine the design and fix scope, relationships, forms, size and appearance of the project. The specifications identify major materials and systems and establish their quality levels.
Design	To compose a plan for a building. The architectural concept of a building or other physical improvement represented by plans, elevations, sections, perspectives, renderings, details and other drawings.
Direct Lighting	Lighting that distributes 90% to 100% of the emitted light in the direction of the surface to be illuminated.
DSA	Abbreviation for “Division of the State Architect”. The state office that reviews construction documents for code compliance, structural safety and access compliance.
DOE	Abbreviation for “Department of Education”. The State office that reviews construction plans for education program and planning standards.
DTSC	The Department of Toxic Substances Control
Elevation	A drawing depicting the vertical elements of a building, either interior or exterior.
EMS	Energy Management System
ENGR	Abbreviation for “Engineer”.
EIR	Environmental Impact Report. A study of all the factors which a land development or construction project would have on the environment in the area, including population, traffic, schools, fire protection, endangered species, archeological artifacts, and community beauty.
Feeder	In power distribution, a group of electric conductors which originate at a main distribution center and supply one or more secondary distribution centers.
Fenestration	Windows. The arrangement and design of windows in a building.
Fire Damper	A damper which closes off an air duct automatically in the event of fire to restrict the passage of fire and smoke.
Fire Wall	An interior or exterior wall having sufficiently high fire resistance to impede passage of smoke, heat and fire for periods of time as designated by code.
Flexible Metal Conduit	A flexible raceway through which cables or wires can be pulled (installed or removed)
General Contractor	The prime contractor who is responsible for and coordinates most of the work at the construction site, including that performed by subcontractors.
Gunite	A concrete mixture that is sprayed under pressure over steel reinforcement.

Hydraulic Elevator	An elevator powered by the energy of a liquid under pressure in a cylinder which acts on a piston or plunger to move the elevator car.
Hard Costs	The cost of the construction portions of a project; same as "Construction Cost".
IEE	Abbreviation for "Institution of Electrical Engineers".
IOR	Abbreviation for "Inspector of Record". State certified inspector who inspects the quality of the work during site and building construction.
Joist	One of a series of parallel framing members of timber, reinforced concrete, or steel used to support floor and ceiling loads, and supported in turn by larger beams, girders, or bearing walls.
Labeled Door	A fire-rated door carrying a certified rating by Underwriters' Laboratories, Inc.
LLB	Lease Lease Back design/build delivery method.
Lease-Purchase	An agreement to purchase a structure where the ownership is exchanged at the maturity of the lease term.
Liquidated Damages	A penalty dollar amount per day to be deducted from the contract sum for construction delays beyond the contractual date of completion.
Lowest Responsible Bidder	The bidder who submits the lowest bona-fide bid and is considered to be fully responsible and qualified to perform the work for which the bid is submitted
MUSD	Milpitas Unified School District
Mechanics Lien	A lien on a real property created by State statute in favor of persons supplying labor or materials for a building or structure or improvements thereof, generally for the value of the labor or materials supplied by them. A lien is generally not placed on property unless payment due is withheld.
OPSC	Abbreviation for "Office of Public School Construction". An office of the California State Department of General Services (DGS), which serves as the staff of the State Allocation Board (SAB). OPSC process applications for State funding.
OSHA	Abbreviation for "Occupational Safety and Health Administration", Department of Labor.
PCB	Polychlorinated biphenyls is a group of organic compounds used in the manufacture of plastics, as lubricants, and dielectric fluids in transformers, in protective coating for wood, metal and concrete, and in adhesives, wire coating and so forth.
PEA	Preliminary Environmental Assessment
PPA	Power Purchase Agreement
Portable Classroom	A teaching station designed and constructed to be relocatable and transportable over public streets.

Prequalification of Prospective Bidders	The process of investigating and evaluating the qualifications of prospective bidders on the basis of their competence, integrity, and responsibility relative to the contemplated project.
Prime Contractors	Generally, the contractors that perform the majority of the work on a construction project (General, Electrical, and Mechanical).
QPR	Quarterly Progress Report
RAW	Remedial Action Workplan
Reinforcement	Material added to provide additional strength.
Riser	The vertical face of a stair step.
RFP	A request for proposal.
SAB	Abbreviation for the California “State Allocation Board”. The State entity that awards State funding (if available) for school construction.
SD	Abbreviation for “Schematic Design”. The first phase of the Architect’s basic services. These drawings establish the conceptual design of the project and illustrate the scale and relationship of the project components. They typically include a site plan, building plans, sections and elevations. They may also include study models, perspective sketches. Preliminary selections of major building systems and construction materials are noted on the drawings or described in written outline specifications.
Scope of Work	All the work in the project as summarized in a written description.
Section	A representation of an object as it would appear if cut by an imaginary plane, usually vertically.
Soft Costs	Costs other than the construction bid and change orders. Soft costs typically include architectural, engineering and construction management fees, approval agency review fees, testing, inspection, surveys, bidding costs, and other fees associated with construction projects.
Structural Analysis	In structural engineering, analytical determination of the stresses in the elements of a structure resulting from an applied load.
Substitution	A material or process offered by the contractor in lieu of, and as being equivalent to, a specified material or process.
Suspended Ceiling	A non-structural ceiling suspended below the overhead structural slab or framing.
Transformer	A device used to convert a supply of electrical power at one voltage to another voltage.
Tread	The horizontal part of a stair step.
VAT	Abbreviation for “Vinyl-Asbestos Tile”. A resilient, semi-flexible floor tile; composed of asbestos fibers, ground limestone, plasticizers, pigments, and a polyvinyl-chloride-resin binder.
Vinyl Tile	A floor tile composed principally of polyvinyl-chloride, but also containing mineral fillers, pigments, plasticizers, and stabilizers.