

Measure A Program Update

Mountain View – Los Altos Union High School District

October 14, 2013

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TOPICS

- ▶ Measure A Financial Update
- ▶ Recap of Completed Projects
- ▶ Currently Active Projects
- ▶ LEED Certification Status
- ▶ Energy & Infrastructure Projects
- ▶ PG&E Savings by Design Update



Measure A – Financial Update

- ▶ Measure A Program Budget \$39,646K
- ▶ Expended to 9/30/13 \$31,500K (79.5%)
- ▶ Estimated expenditures to 12/31/13 \$34,700K (87.5%)

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“For this part, I credit hard work, ingenuity and perseverance. The other part, I blame on gravity.”

Measure A – Financial Update

Measure A Project

- ▶ Photovoltaics 1
- ▶ Fire Alarm Project
- ▶ MVHS Swimming Pool & Weight room
- ▶ Photovoltaics 2 (On new classroom roofs)
- ▶ Public Address System Project
- ▶ MVHS Classroom Projects
 - (New Buildings – 12 Classrooms)
 - (2 Physical Science to Bio/Chem Conversions)
- ▶ LAHS Classroom Projects
 - (New Building – 12 Classrooms)
 - (3 Art to Science Conversions & 1 Music Room Addition)
- ▶ Infrastructure & Energy Projects
- ▶ Program Contingency
- ▶ Program Expenses
- ▶ Total

Budget

\$ 6,815K	(Completed & DSA certified)
2,643K	(Completed & DSA certified)
4,438K	(Completed & DSA certified)
1,170K	(Completed)
85K	(Completed)
8,364K	
	Incl. (Completed)
	Incl. (Completed)
11,049K	
	Incl. (Punchlist remains)
	Incl. (In progress)
2,220K	(In planning)
1,774K	(Unused. Allocate to energy projects)
<u>1,088K</u>	(Within budget)
\$39,646K	Total

Completed Projects

Photovoltaics Phase I



Completed Projects

Photovoltaics Phase I – MVHS



Completed Projects

Photovoltaics Phase I – LAHS



Completed Projects

Photovoltaics Phase I – Production

- ▶ In production since Spring 2011
- ▶ To date has produced 5.1 MW of power
- ▶ Outperforming forecast by 18%
- ▶ District has so far received approximately half of the \$1.6M rebate for the California Solar Initiative (CSI)
- ▶ Value of power produced is approx: \$764,000

Completed Projects

Fire Alarm Replacement Project



Completed Projects

Fire Alarm Replacement Project



Completed Projects

MVHS Swimming Pool & Weight Room Project



Completed Projects

MVHS Swimming Pool & Weight Room Project



Completed Projects

MVHS Swimming Pool & Weight Room Project



Completed Projects

MVHS Swimming Pool & Weight Room Project



Completed Projects

MVHS New Classroom Buildings



Completed Projects

MVHS New Classroom Buildings



Completed Projects

MVHS New Classroom Buildings



Completed Projects

MVHS New Classroom Buildings



Completed Projects

MVHS New Classroom Buildings



Completed Projects

MVHS New Classroom Buildings



Completed Projects

MVHS Physical Sciences to Bio/Chem Conversions



Completed Projects

LAHS New Classroom Building



Completed Projects

LAHS New Classroom Building



Completed Projects

LAHS New Classroom Building



Completed Projects

LAHS New Classroom Building



Completed Projects

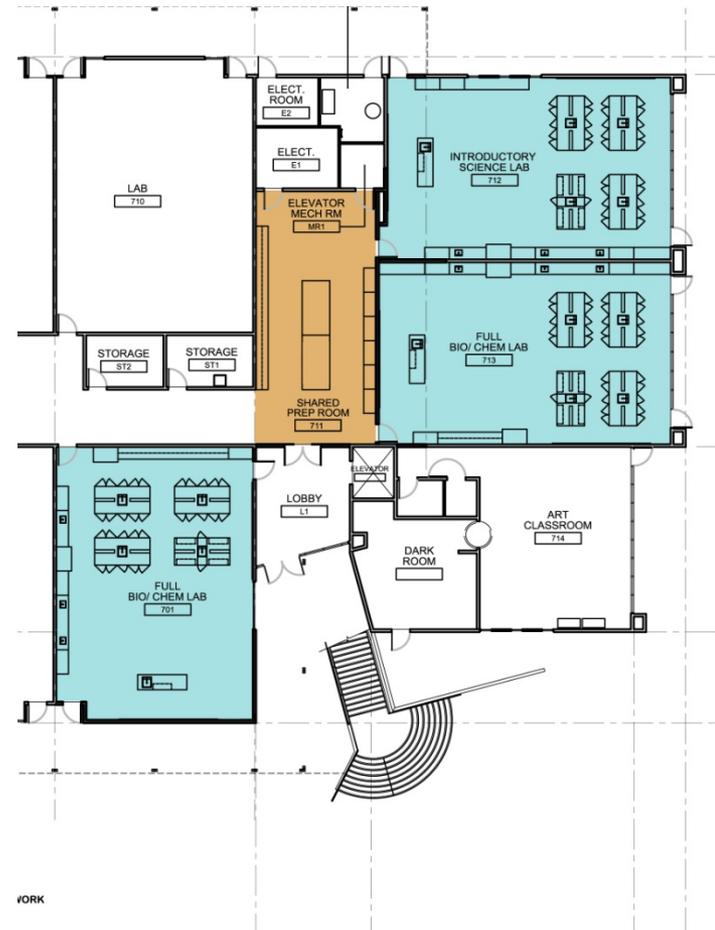
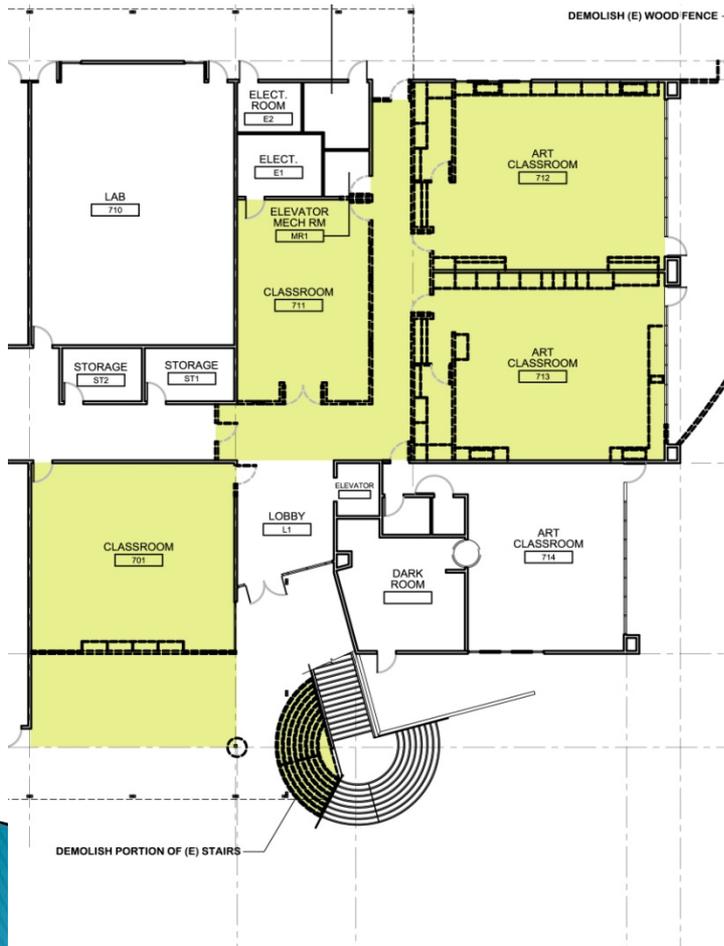
LAHS Music Expansion



Currently Active Project

LAHS Science Lab Conversions (Bldg 700)

- ▶ Planned Completion is December 2013



Currently Active Project

LAHS Science Lab Conversions



Currently Active Project

LAHS Science Lab Conversions



Currently Active Project

LAHS Science Lab Conversions



LEED Certification Status

New Classroom Building Projects

- ▶ LEED Silver certification (50 – 60 credits reqd)
 - LAHS... 52 credits with 17 “maybes”
 - MVHS... 54 credits with 19 “maybes”
- ▶ Documentation submittal at end of October
- ▶ LEED Highlights
 - Energy-efficient HVAC, lighting, windows, insulation
 - Renewable Energy (roof-mounted solar panels)
 - Superior acoustics
 - Natural Daylight (large North-facing windows)
 - Sustainable building products
 - Bioswales and drought resistant landscaping

LEED Certification Status

LAHS New Classroom LEED Scorecard



LEED 2009 for Schools New Construction and Major Renovations

10041 - LOS ALTOS HIGH SCHOOL NEW CLASSROOMS

Project Checklist

9.9.2013

11 1 Sustainable Sites Possible Points: 24		Materials and Resources, Continued	
Y	7	N	
Y			Prereq 1 Construction Activity Pollution Prevention
Y			Prereq 2 Environmental Site Assessment
1			Credit 1 Site Selection 1
	X		Credit 2 Development Density and Community Connectivity 4
	X		Credit 3 Brownfield Redevelopment 1
	X		Credit 4.1 Alternative Transportation—Public Transportation Access 4
1			Credit 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms 1
2			Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles 2
2			Credit 4.4 Alternative Transportation—Parking Capacity 2
	X		Credit 5.1 Site Development—Protect or Restore Habitat 1
	X		Credit 5.2 Site Development—Maximize Open Space 1
1			Credit 6.1 Stormwater Design—Quantity Control 1
1			Credit 6.2 Stormwater Design—Quality Control 1
1			Credit 7.1 Heat Island Effect—Non-roof 1
1			Credit 7.2 Heat Island Effect—Roof 1
1			Credit 8 Light Pollution Reduction 1
	1		Credit 9 Site Master Plan 1
	X		Credit 10 Joint Use of Facilities 1
5 1 Water Efficiency Possible Points: 11			
Y			Prereq 1 Water Use Reduction—20% Reduction
2			Credit 1 Water Efficient Landscaping 2 to 4
	X		Credit 2 Innovative Wastewater Technologies 2
3	1		Credit 3 Water Use Reduction 2 to 4
	X		Credit 3 Process Water Use Reduction 1
15 4 Energy and Atmosphere Possible Points: 33			
Y			Prereq 1 Fundamental Commissioning of Building Energy Systems
Y			Prereq 2 Minimum Energy Performance
Y			Prereq 3 Fundamental Refrigerant Management
8	2		Credit 1 Optimize Energy Performance 1 to 19
3			Credit 2 On-Site Renewable Energy 1 to 7
2			Credit 3 Enhanced Commissioning 2
	X		Credit 4 Enhanced Refrigerant Management 1
2			Credit 5 Measurement and Verification 2
2			Credit 6 Green Power 2
4 3 Materials and Resources Possible Points: 13			
Y			Prereq 1 Storage and Collection of Recyclables
	X		Credit 1.1 Building Reuse—Maintain Existing Walls, Floors, and Roof 1 to 2
	X		Credit 1.2 Building Reuse—Maintain 50% of Interior Non-Structural Elements 1
2			Credit 2 Construction Waste Management 1 to 2
13 3 Indoor Environmental Quality Possible Points: 19			
Y			Prereq 1 Minimum Indoor Air Quality Performance
Y			Prereq 2 Environmental Tobacco Smoke (ETS) Control
Y			Prereq 3 Minimum Acoustical Performance
	1		Credit 1 Outdoor Air Delivery Monitoring 1
	X		Credit 2 Increased Ventilation 1
	1		Credit 3.1 Construction IAQ Management Plan—During Construction 1
	1		Credit 3.2 Construction IAQ Management Plan—Before Occupancy 1
	4		Credit 4 Low-Emitting Materials 1 to 4
	X		Credit 5 Indoor Chemical and Pollutant Source Control 1
	1		Credit 6.1 Controllability of Systems—Lighting 1
	1		Credit 6.2 Controllability of Systems—Thermal Comfort 1
	1		Credit 7.1 Thermal Comfort—Design 1
	1		Credit 7.2 Thermal Comfort—Verification 1
	2		Credit 8.1 Daylight and Views—Daylight 1 to 3
	1		Credit 8.2 Daylight and Views—Views 1
	1		Credit 9 Enhanced Acoustical Performance 1
	1		Credit 10 Mold Prevention 1
1 4 Innovation and Design Process Possible Points: 6			
	1		Credit 1.1 Innovation in Design: Green Signage/Exhibit/Tours 1
	1		Credit 1.2 Innovation in Design: Green Cleaning 1
	1		Credit 1.3 Innovation in Design: Low Mercury Lamps 1
	X		Credit 1.4 Innovation in Design: Specific Title 1
	1		Credit 2 LEED Accredited Professional 1
	1		Credit 3 The School as a Teaching Tool 1
3 1 Regional Priority Credits Possible Points: 4			
	1		Credit 1.1 Regional Priority: SS Credit 7.1 1
	1		Credit 1.2 Regional Priority: WE Credit 3 1
	1		Credit 1.3 Regional Priority: EA Credit 2 1
	1		Credit 1.4 Regional Priority: IEQ Credit 8.1 1
52 17 Total Possible Points: 110			

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

LEED Certification Status

MVHS New Classroom LEED Scorecard

 LEED 2009 for Schools New Construction and Major Renovations		10040 - MOUNTAIN VIEW HIGH SCHOOL NEW CLASSROOMS	
Project Checklist		9.9.2013	
14	2	Sustainable Sites	Possible Points: 24
Y	Z	N	
Y			Prereq 1 Construction Activity Pollution Prevention
Y			Prereq 2 Environmental Site Assessment
1			Credit 1 Site Selection 1
		X	Credit 2 Development Density and Community Connectivity 4
		X	Credit 3 Brownfield Redevelopment 1
4			Credit 4.1 Alternative Transportation—Public Transportation Access 4
1			Credit 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms 1
2			Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles 2
2			Credit 4.4 Alternative Transportation—Parking Capacity 2
		X	Credit 5.1 Site Development—Protect or Restore Habitat 1
		X	Credit 5.2 Site Development—Maximize Open Space 1
1			Credit 6.1 Stormwater Design—Quantity Control 1
1			Credit 6.2 Stormwater Design—Quality Control 1
1			Credit 7.1 Heat Island Effect—Non-roof 1
1			Credit 7.2 Heat Island Effect—Roof 1
1			Credit 8 Light Pollution Reduction 1
1			Credit 9 Site Master Plan 1
		X	Credit 10 Joint Use of Facilities 1
			Materials and Resources, Continued
		X	Credit 3 Materials Reuse 1 to 2
1			Credit 4 Recycled Content 1 to 2
2			Credit 5 Regional Materials 1 to 2
1			Credit 6 Rapidly Renewable Materials 1
1			Credit 7 Certified Wood 1
13	4	Indoor Environmental Quality	Possible Points: 19
Y	Z	N	
Y			Prereq 1 Minimum Indoor Air Quality Performance
Y			Prereq 2 Environmental Tobacco Smoke (ETS) Control
Y			Prereq 3 Minimum Acoustical Performance
		1	Credit 1 Outdoor Air Delivery Monitoring 1
		X	Credit 2 Increased Ventilation 1
1			Credit 3.1 Construction IAQ Management Plan—During Construction 1
1			Credit 3.2 Construction IAQ Management Plan—Before Occupancy 1
4			Credit 4 Low-Emitting Materials 1 to 4
		X	Credit 5 Indoor Chemical and Pollutant Source Control 1
1			Credit 6.1 Controllability of Systems—Lighting 1
1			Credit 6.2 Controllability of Systems—Thermal Comfort 1
1			Credit 7.1 Thermal Comfort—Design 1
1			Credit 7.2 Thermal Comfort—Verification 1
2	1		Credit 8.1 Daylight and Views—Daylight 1 to 3
1			Credit 8.2 Daylight and Views—Views 1
1			Credit 9 Enhanced Acoustical Performance 1
1			Credit 10 Mold Prevention 1
5	1	Water Efficiency	Possible Points: 11
Y	Z	N	
Y			Prereq 1 Water Use Reduction—20% Reduction
2			Credit 1 Water Efficient Landscaping 2 to 4
		X	Credit 2 Innovative Wastewater Technologies 2
3	1		Credit 3 Water Use Reduction 2 to 4
		X	Credit 3 Process Water Use Reduction 1
15	4	Energy and Atmosphere	Possible Points: 33
Y	Z	N	
Y			Prereq 1 Fundamental Commissioning of Building Energy Systems
Y			Prereq 2 Minimum Energy Performance
Y			Prereq 3 Fundamental Refrigerant Management
8	2		Credit 1 Optimize Energy Performance 1 to 19
3			Credit 2 On-Site Renewable Energy 1 to 7
2			Credit 3 Enhanced Commissioning 2
		X	Credit 4 Enhanced Refrigerant Management 1
2			Credit 5 Measurement and Verification 2
2			Credit 6 Green Power 2
4	3	Materials and Resources	Possible Points: 13
Y	Z	N	
		X	Prereq 1 Storage and Collection of Recyclables
		X	Credit 1.1 Building Reuse—Maintain Existing Walls, Floors, and Roof 1 to 2
		X	Credit 1.2 Building Reuse—Maintain 50% of Interior Non-Structural Elements 1
2			Credit 2 Construction Waste Management 1 to 2
1	4	Innovation and Design Process	Possible Points: 6
1			Credit 1.1 Innovation in Design: Green Signage/Exhibit/Tours 1
1			Credit 1.2 Innovation in Design: Green Cleaning 1
1			Credit 1.3 Innovation in Design: Low Mercury Lamps 1
		X	Credit 1.4 Innovation in Design: Specific Title 1
1			Credit 2 LEED Accredited Professional 1
1	1		Credit 3 The School as a Teaching Tool 1
2	1	Regional Priority Credits	Possible Points: 4
1			Credit 1.1 Regional Priority: WE Credit 3 1
1			Credit 1.2 Regional Priority: EA Credit 2 1
1			Credit 1.3 Regional Priority: IEQ Credit 8.1 1
			Credit 1.4 Regional Priority: 1
54	19	Total	Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

Energy & Infrastructure Projects

- ▶ Approximately \$2.2M budgeted plus \$1.8M in unused contingency = \$4M available.
- ▶ Possible Projects:
 - LAHS pool thermal solar & equipment upgrades
 - LAHS window blinds
 - LAHS and MVHS mechanical equipment upgrades
 - LAHS and MVHS lighting upgrades
 - LAHS and MVHS window replacements
 - MVHS Skylights in admin and gym
- ▶ Planned to start Spring 2014

PG&E Savings by Design (SBD)

Raising the Bar for Energy Efficiency

High Performance Classrooms Featuring:

- ▶ Advanced Day Lighting and Occupancy Controls
- ▶ Motorized Window Blinds
- ▶ Upgraded Wall and Ceiling Insulation
- ▶ Integrated Energy Management Systems
- ▶ Solar

Exceeding California Building Code

MVHS – 16.5%

LAHS – 25%

Avoided Energy Costs: \$10,900 /Year

Measure A Program Update

Questions / Comments?

