

# QUARTERLY FACILITIES AND ENERGY MANAGEMENT UPDATE

September 13, 2016



# AGENDA

- Funding Overview
- General Fund One-Time Money Projects Update
- Bond Projects Update
- School Site Funded Project Update
- Deferred Maintenance Project Update
- Maintenance and Operations Projects
- Prop 39/Energy Management Update
- Facilities Master Plan

#### **FUNDING OVERVIEW**





## **FUNDING SOURCES**

General Fund One-Time Money Includes One-Time Discretionary and Previously allocated General Fund EFB	\$4,422,198 (2016/2017) \$4,422,198 (allocated as of 08/31/2016) <u>\$0 (remaining as of 08/31/2016)</u>
Bond Fund 23	\$94,747 (2016/2017) Expenditures (as of 08/31/2016): \$0; Encumbrances (as of 08/31/2016): \$45,000 \$49,747 (remaining as of 08/31/2016)
Fund 35 – State Match	\$143,003 (2016/2017) Expenditures (as of 08/31/2016): \$0; Encumbrances (as of 08/31/2016): \$0 <u>\$143,003 (remaining as of 08/31/2016)</u>
Routine Restricted Maintenance (Resource 8150)	\$3,377,915 (2016/2017) Expenditures (as of 08/31/2016): \$309,885; Encumbrances (as of 08/31/2016): \$1,442,186 \$1,625,844 (remaining as of 08/31/2016)



## **FUNDING SOURCES**

Emergency Repair (Resource 6225)	\$46,240 (2016/2017) Expenditures (as of 08/31/2016): \$0; Encumbrances (as of 08/31/2016): \$42,670 \$3,570 (remaining as of 08/31/2016)
Deferred Maintenance – Fund 14	\$1,180,610 (2016/2017) (incl. \$820,000 annually through LCAP) \$43,100 (allocated as of 08/31/2016) \$1,137,510_(remaining as of 08/31/2016)
Prop 39 MJUSD – Clean Energy	<u>\$2.2 Million (estimated)</u>
(Fund 1 - Restricted MJUSD)	(Over 5 Years)
Prop 39 MCAA – Clean Energy	<u>\$250,000 (estimated)</u>
(Fund 9 - Restricted MJUSD)	(Over 5 Years)

## GENERAL FUND ONE-TIME MONEY PROJECTS





Expenditure Summary:	
Architect Fees	\$190,001
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$1,518,624
Construction Testing	\$14,054
Construction Utility Costs	\$0
DSA Fees	\$40,586
Engineering Fees	\$0
Environment Services	\$0
Furniture and Equipment	\$0
Inspection Fees	\$36,952
Security	\$0
Other Costs - Bldg Improvement	\$850
Other Costs - Planning, Advertising, etc.	\$18,752

#### TOTAL \$1,819,819

Note: Figures are as of 08/31/2016. Split funded with Deferred Maintenance. Placed on OPSC's approved SAB 08/24/2016 for \$889,929 - (60% match based on RGA's estimate).



#### **Building B – Main Gym and Locker Rooms (Rooms B1 and B2):**

Four Carrier ground mounted units with compatible controls. Removal of all old air handlers, chilled waterlines, electrical upgrades, duct cleaning and/or replacement and controls.

#### Metal Shop/Classroom – H Building:

Replace cooling/heating for Classroom and Staff Office and add controls. Electrical upgrades (400 AMP Panel) and ducting cleaning and/or replacement. Add controls.

Note: Commissioning for Buildings A, E, and G may not be needed. Testing M&O HVAC Technician measures now.

#### **Bid Opened : Thursday, August 25th**

Bid Award: Tonight – Low Bidder BRCO \$1,908,000.

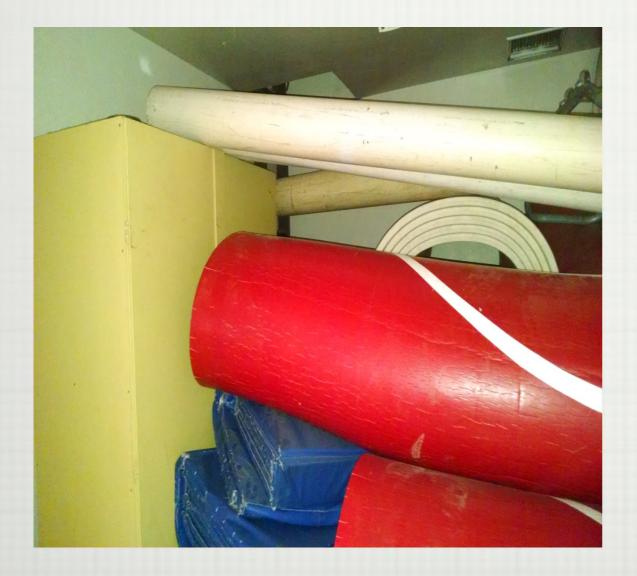


Expenditure Summary:	
Architect Fees	\$113,532
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$0
Construction Testing	\$0
Construction Utility Costs	\$0
DSA Fees	\$0
Engineering Fees	\$0
Environment Services	\$0
Furniture and Equipment	\$0
Inspection Fees	\$0
Security	\$0
Other Costs - Bldg Improvement	\$1,240
Other Costs - Planning, Advertising, etc.	\$3,218

TOTAL \$117,990

Note: Figures are as of 08/31/2016. Funded from one-time discretionary monies in the General Fund.

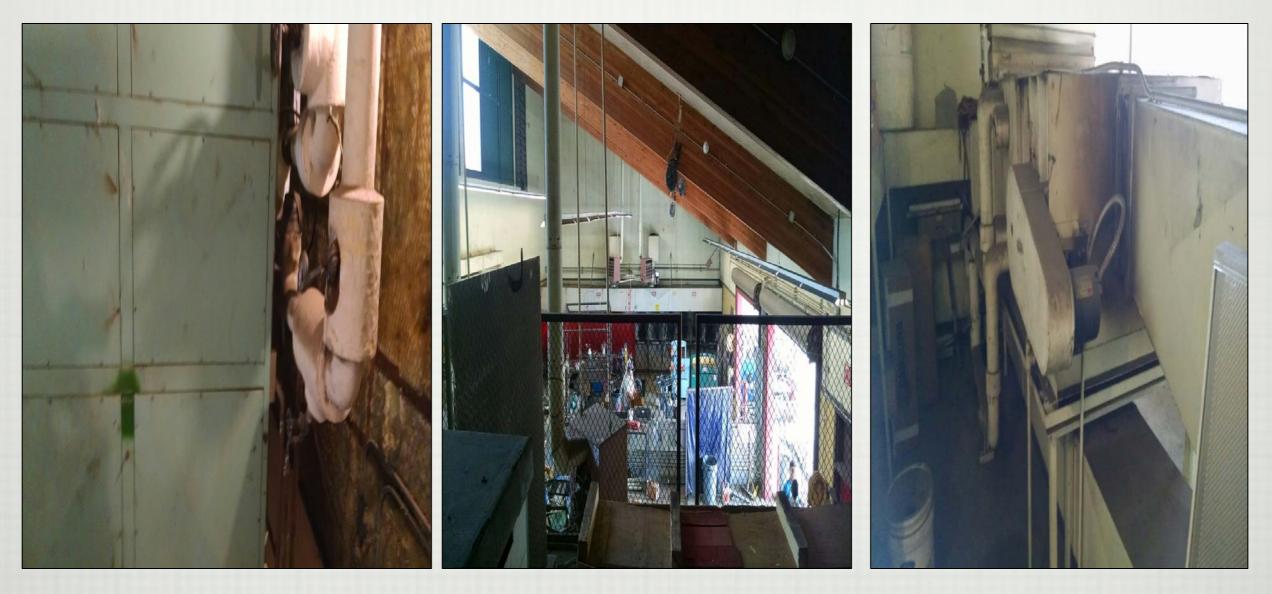






**Before – Gym Building Access Area** 





**Existing Conditions – Metal Shop Building** 



#### **Anticipated Scope:**

#### **Building E – Classrooms:**

Ground mounted systems plus the installation of controls. Added louvers, vents, new duct and or cleaning, insulation and sealing, electrical upgrades. Removal of all air handlers, chilled water lines and other related equipment. Fenced enclosures with gates. Design based on the exploration of as-builts and field verification of crawl spaces. As of 08/31/2016, M&O HVAC Technicians have balanced the air flow.

#### **Building A – Main Administrative Offices:**

Ground mounted systems plus the installation of controls. Fenced enclosures with gates and landscaping.

#### **Science Building Controls:**

Replacement of Siemens Controls (closed proprietary system). Replace with "open" controls (non-proprietary) – for existing Carrier Units.

#### **Miscellaneous Related Scope:**

Final decommissioning of the central plant. Removal and capping of all chilled waterlines and other components not previously completed.

Note: Subject to future available funding. Retro commissioning will take place at completion of this project.



## LINDHURST HVAC QUAD SIDEWALK/GAS LINE

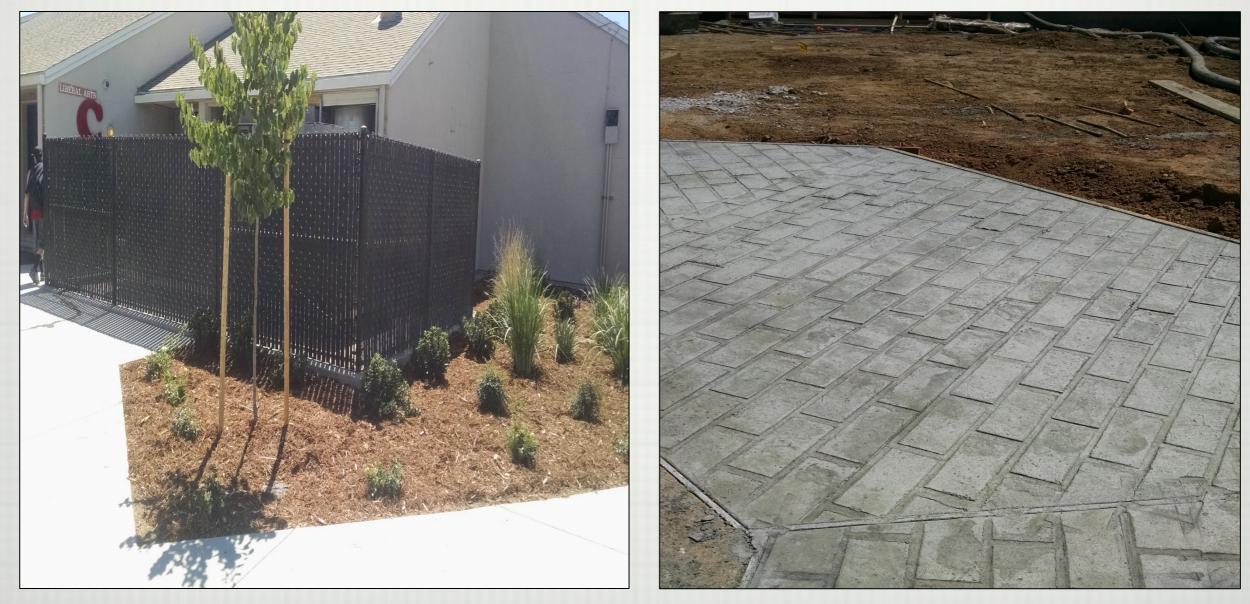
Expenditure Summary:	
Architect Fees	\$235,000
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$1,271,967
Construction Testing	\$22,866
Construction Utility Costs	\$0
DSA Fees	\$3,000
Engineering Fees	\$0
Environment Services	\$0
Furniture and Equipment	\$0
Inspection Fees	\$7,865
Security	\$1,004
Other Costs - Bldg Improvement	\$0
Other Costs - Planning, Advertising, etc.	\$7,553

TOTAL

\$1,549,255

Note: Figures are as of August 31, 2016.





New landscaping and Senior walk. DG in Senior Walkway has now been placed Adding more benches with site funds.







Storm drain tie in and gas line pressure testing





Before and After - Stage Areas. Light Poles are on site as of 09/01/2016. LED Light heads will be in place once the poles are craned into place and secured.

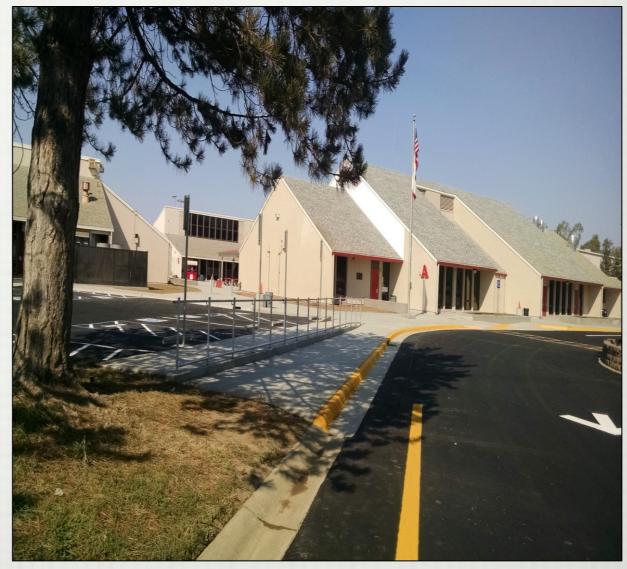




Before and After Trip Hazards and Thresholds



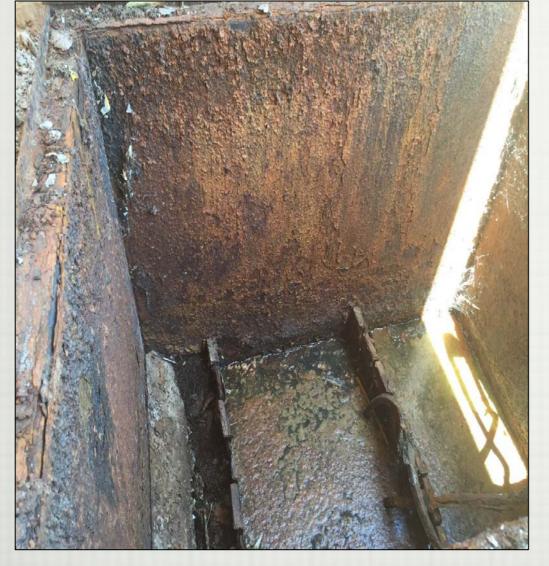




**During and After** 

Frontage 12" over excavation – heavy equipment traffic area at 15' x 60' lineal feet x 12" to hard pan. Curb, gutter and drains. Mesh and AB added at 6" x 60 lineal feet. Estimate: \$32K.







Grease Interceptor. Original was never replaced with Kitchen Modernization Project completed 2008-09.



### LINDHURST QUAD SHADE CANOPY

Expenditure Summary:	
Architect Fees	\$0
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$0
Construction Testing	\$2,267
Construction Utility Costs	\$0
DSA Fees	\$1,150
Engineering Fees	\$0
Environment Services	\$0
Furniture and Equipment	\$0
Inspection Fees	\$140
Security	\$0
Other Costs - Bldg Improvement	\$0
Other Costs - Planning, Advertising, etc.	\$1,986

TOTAL \$5,543 Note: Figures are as of August 31, 2016. Note: Fund 1. Low Bidder: United Bldg. @ \$64,880. RGA PA PO split between Quad/Sidewalk/Gas Line and Shade Canopy projects.



### LINDHURST QUAD SHADE CANOPY



**During and After** 



### ARBOGA LEGACY CLOSEOUT

Expenditure Summary:	
Architect Fees	\$19,331
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$196,855
Construction Testing	\$5,548
Construction Utility Costs	\$0
DSA Fees	\$0
Engineering Fees	\$2,500
Environment Services	\$0
Furniture and Equipment	\$13,000
Inspection Fees	\$4,480
Security	\$0
Other Costs - Bldg Improvement	\$0
Other Costs - Planning, Advertising, etc.	\$8,371

TOTAL

\$250,085

Note: Figures are as of August 31, 2016. Funded from one-time discretionary monies in the General Fund.



#### ARBOGA LEGACY CLOSEOUT WITH DSA CERTIFICATION (6) PORTABLES/SITE WORK



Original project pre-2006 - DSA is requiring this past work to be closed with certification.

In addition, site work includes new van accessible parking stall and sign, new walkway from lot through campus interior around portable 15. New fencing and gate near the parking lot into campus.



#### **ARBOGA LEGACY CLOSEOUT**



Contractor installed new site purchased apparatus. Added new wood chips and curbing with drainage holes in curb to playground . A complete storm drain system will be needed.





Before and After: Concrete Panels for benches and Installation of PTO Purchased Benches.



#### ARBOGA LEGACY CLOSEOUT CLOSEOUT



Mod Lines where inspected and secured properly. Floor leveling completed, and new carpet and cove base was added.



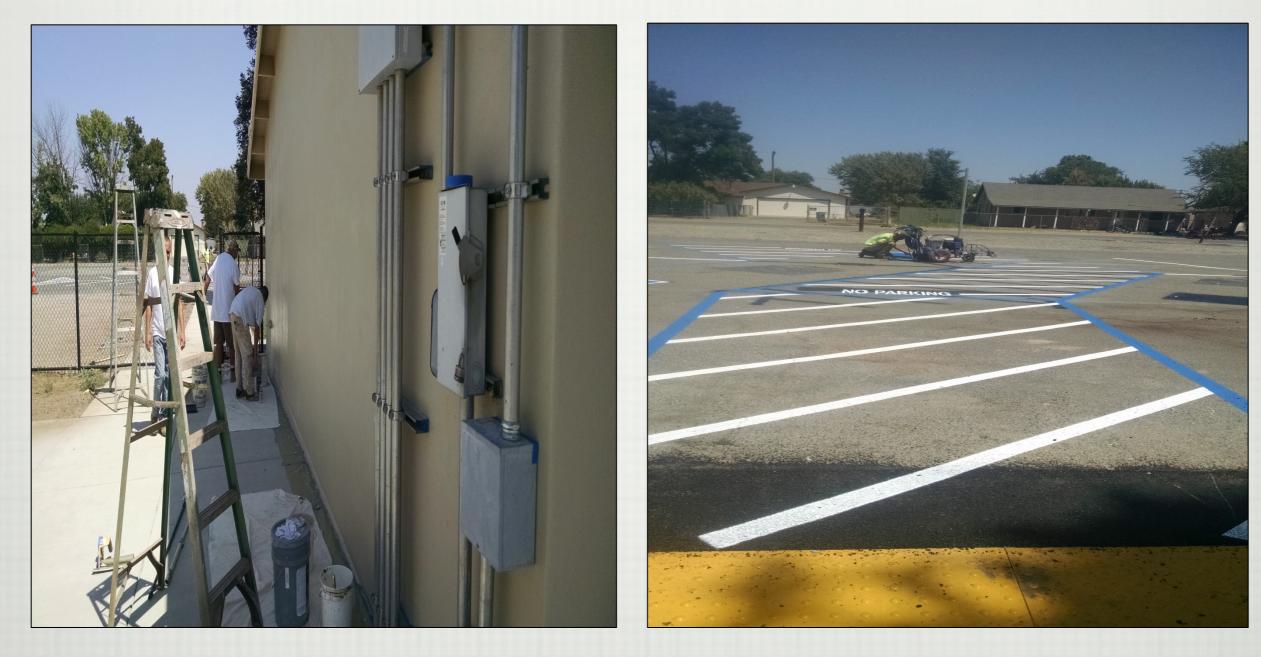
#### ARBOGA LEGACY CLOSEOUT CONTINUED



**Before and After** 

**Frontage Area** 

#### ARBOGA LEGACY CLOSEOUT CONTINUED



Before and After: Compliant Path of Travel. Signage and Added Parking Bumpers. Fresh Paint.

#### **BOND PROJECTS**





#### OLIVEHURST LANDSCAPING PROJECT



Before and After. Landscaping installed by contractor; Managed by M&O.



#### JOHNSON PARK LANDSCAPING PROJECT



Before and After. Landscaping installed by contractor; Managed by M&O.

#### SCHOOL SITE FUNDED PROJECT





### MCAA PORTABLE PROJECT

Expenditure Summary:	
Architect Fees	\$23,389
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$220,921
Construction Testing	\$5,123
Construction Utility Costs	\$0
DSA Fees	\$4,725
Engineering Fees	\$6,000
Environment Services	\$0
Furniture and Equipment	\$13,123
Inspection Fees	\$4,270
Security	\$0
Other Costs - Bldg Improvement	\$2,450
Other Costs - Planning, Advertising, etc.	\$6,061

TOTAL

\$285,062

Note: Figures are as of August 31, 2016. Low Bidder United Building @ \$358,500.



### MCAA PORTABLE PROJECT



Before, during, and after. Hydro seeding is scheduled for September 2016.



#### **MCAA PORTABLE PROJECT**



Before, During, and After

## DEFERRED MAINTENANCE PROJECT





# **MHS KITCHEN**

Expenditure Summary:	
Architect Fees	\$23,490
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$44,955
Construction Testing	\$475
Construction Utility Costs	\$0
DSA Fees	\$400
Engineering Fees	\$0
Environment Services	\$0
Furniture and Equipment	\$0
Inspection Fees	\$1,255
Security	\$0
Other Costs - Bldg Improvement	\$0
Other Costs - Planning, Advertising, etc.	\$2,894

#### TOTAL

\$73,469

Note: Figures are as of August 31, 2016. Low Bidder is United Building @ \$66,255.



### **MHS KITCHEN**





During

# MAINTENANCE AND OPERATIONS PROJECTS





### FOOTHILL LANDSCAPING AND IRRIGATION IMPROVEMENTS



Contractor Price: \$60,000; M&O Price: \$15,000; Cost Avoided: \$45,000.



## LHS METAL SHOP



Before and After. Contractor Price: \$23,000; M&O Cost: \$1,300; Cost Avoided: \$21,700.

# LHS MEDIA CLASSROOM

Unified



Before and After. Contractor estimate: \$70,000; M&O Cost: \$6,000; Cost Avoided: \$64,000



# LHS CULINARY **CLASSROOM REMODEL**





Before and After.

New stainless steel countertop and shelving. White subway tile added as well.

**CTE Grant Funded.** 



# LHS DRINKING FOUNTAINS





Scope: Installation of 5 new drinking fountains. Contractor Price: \$35,000; M&O Cost: \$8,000; Cost Avoided: \$27,000

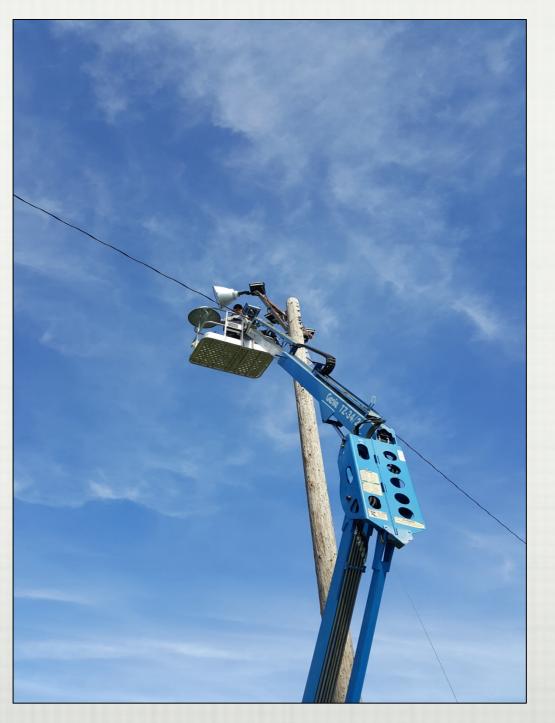




Before and After.



### MARYSVILLE HS STADIUM LIGHTS



During



### **KYNOCH REPLACE OLD FAUCETS**



M&O Price: \$1,200; Contractor Price: \$3,200: Cost Avoided: \$2,000.



Unified



M&O Price: \$2,300. Contractor Price: \$13,000. Cost Avoided: \$10,700.



### COVILLAUD MP ROOM BLDG. PAINTING





After Repair and Painting

# Joint Unified School District

### COVILLAUD MAIN MP ROOM/BLDG. REPLACE/REPAIR SHEETROCK



Replaced damaged sheet rock and paint caused by six-year old roof leak



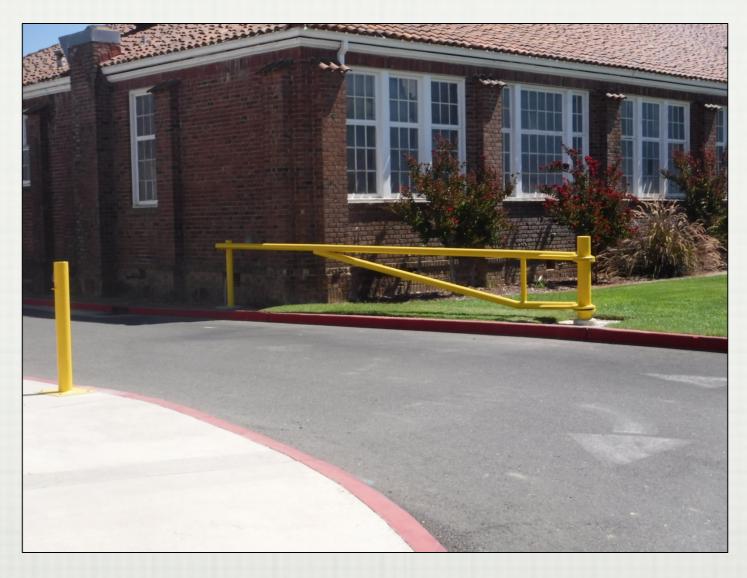
### OLIVEHURST - INSTALL DOOR -ROOM 4/FRONT OFFICE



M&O Price: \$ 5,000; Contractor Price: \$14,000. Cost Avoided: \$11,000.



### DISTRICT OFFICE TRAFFIC GATES



Maintenance Cost: \$ 1,900; Est. Contractor Price: \$60,000; Cost Avoided: \$58,100.



### DISTRICT OFFICE REPLACE WINDOWS



Above Staff Break Room. Scheduled completion: October.



### DISTRICT WIDE 9 HVAC UNITS REPLACED



Contractor Estimate: \$112,000; M&O Cost: \$36,000; Cost Avoided: \$76,000.



### DISTRICT WIDE PAINTING PROJECTS



Over 60 interior and exterior areas were painted this Summer



### DISTRICT WIDE PLUMBING



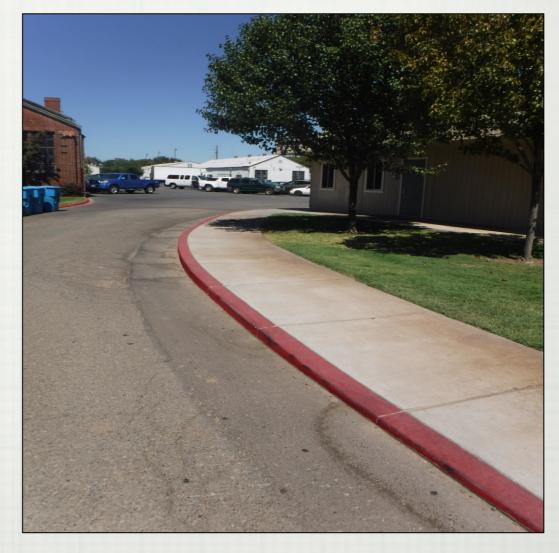


Repaired waterlines and sewer lines as well valve replacements



### DISTRICT WIDE FIRE LANE PAINTING

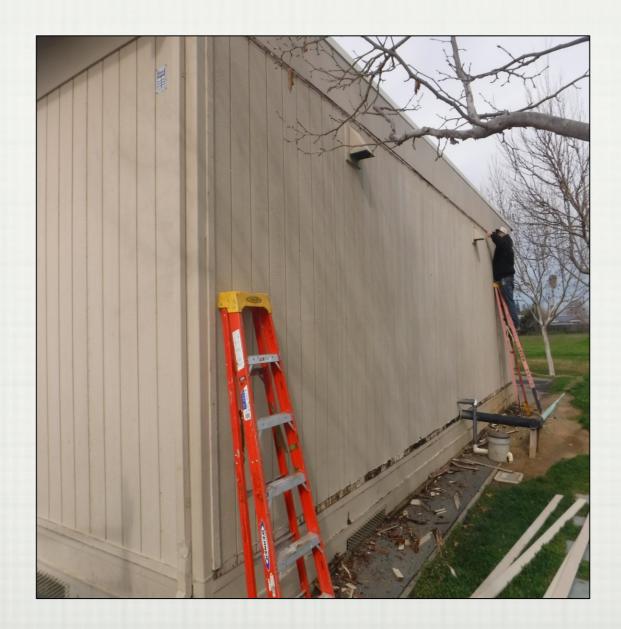




**District Office** 



### DISTRICT WIDE SIDING REPLACEMENT



**Replacing Rotted Siding on portables throughout the District** 



### MAINTENANCE YARD CLEAN UP



**Before and After** 



### OTHER M&O IMPROVEMENTS & COST SAVING MEASURES

#### Schools:

- Covillaud Underground Tank Storage
- LHS Install Marquee
- Fix huge sink hole in playground at Johnson Park
- Asphalt center of the playground Foothill
- Patch and repair road by transportation
- Build a ball wall at Cedar Lane
- Install shoreline power at Olivehurst

#### **DISTRICT WIDE:**

- Clean and repair gutters.
- Repair all District outside bleachers
- Plumbing Preventative Maintenance
- HVAC Preventative Maintenance
- EPA compliance.
- Water Studies for foothill schools.
- Spill Prevention Plan (underway as required per Yuba County Environmental).

# PROP 39 AND ENERGY MANAGEMENT PROGRESS



# PROP 39 AND ENERGY MANAGEMENT PROGRESS

Annual Progress Reporting completed as due to CEC by September 15. Ongoing reporting required for 5-year period.



### PROP 39 - MCAA

**Completed Interior and Exterior Lighting Replacements:** 

Interior – Going from 252 (three 32 watts lamps per fixture) to one 14 watt lamp each

Estimated annual savings: \$3,227; estimated monthly savings: \$269 Note: Star Energy Management completed the work Summer 2016; approved May 10 at \$12,202.

Exterior – Going from 30 metal halide (150 watt)/CFL's (15/26watt) to 30 LED Fixtures (16 or 41 watt)

Estimated annual savings: \$771; estimated monthly savings: \$64.



### PROP 39 MCAA - 2 BARD UNITS REPLACED



5 Replaced in total to date, for these two: M&O price: \$100; Contractor Price: \$7,500; Cost Avoided: \$7,400.



# **PROP 39 MCAA – LED LIGHTS**





### PROP 39 MCAA – INTERNET BASED PROGRAMMABLE THERMOSTATS



As of Summer 2016, all conditioned space now has these programmed and installed



### DISTRICT WIDE INTERNET BASED HVAC CONTROLS - PORTABLES

Arboga - 21 Cedar Lane - 21 Covillaud - 16 Ella – 9 Lindhurst - 14 Marysville – 3 McKenney – 4 SLHS – 8 Oliverhust – 8

Installed 08/24/2016 Installed 08/25/2016 Installed 08/29/2016 To be installed early September Installed 08/23/2016 To be installed early September To be installed early September Installed 08/23/2016 installed 08/29/2016

Foothill Schools: Strong internet connection needed. Under evaluation.

Capital Energy Product/Software. Installation via B+A At Your Service HVAC approved May 24, 2016. Installation started August 23<sup>rd</sup> through Mid September (estimated).

#### **Control Panel Features**



- Each thermostat is labeled by location
- Onboard sensor reading (temperature)
- Occupied/Unoccupied Status
- Set Point Parameters
- Cool, Heat and Fan Modes
- Identify lost connectivity
- Recent Activity archives command changes
- Compare thermostat usage
- View schedules & programs

#### **Marysville Charter Academy For The Arts**





#### Sample of Capital Energy Product Features, Customizable Programming and Tracking



# LINDA HVAC PROP 39

Expenditure Summary:	
Architect Fees	\$55,460
Builders Risk Insurance	\$0
CDE Fees	\$0
Construction	\$210,400
Construction Testing	\$625
Construction Utility Costs	\$0
DSA Fees	\$400
Engineering Fees	\$0
Environment Services	\$0
Furniture and Equipment	\$0
Inspection Fees	\$4,010
Security	\$0
Other Costs - Bldg Improvement	\$0
Other Costs - Planning, Advertising, etc.	\$3,661

TOTAL \$274,556

Note: Figures are as of August 31, 2016. Note: Low Bidder United Building @ \$336,698.



### PROP 39 LINDA ELEMENTARY



19 HVAC units, internet based programmable thermostats, plus 9 LED parking lot light heads.



# LINDHURST HIGH EEP COMPONENTS

- Installation of Occupancy Sensors in Rooms and Offices
- De-lamp 192 34 watt fluorescent fixtures and re-lamp with LED 17 watt
- Replace all exterior lighting fixtures: 29 pole-mounted parking lot lights plus wall packs. Exterior wall packs installed the week of August 29<sup>th</sup>.
- Add 3 exterior lighting controllers
- Install 2 economizers on air handlers and 3 VFD's on Cooling Towers
  - Note: Not likely now as the central plant is being replaced
- Replace 18 HVAC controls in portables. Completed the week of August 22<sup>nd</sup>.

Note: Items above are per KW Engineering Report dated January 22, 2015 and as commissioned by CEC on behalf of MJUSD. Completion of Improvements contingent on availability of Prop 39 funds and based on actual costs.



# MARYSVILLE HIGH EEP COMPONENTS

- Install 35 Occupancy Sensors in classrooms and offices
- Replace 50 Incandescent Lights with CFL's
- Convert 35 CFL Exit Signs to LED
- Replace 75 HPS/MV Lights to Induction
- De-lamp 245 34 watt fluorescent fixtures and Re Lamp with LED 17 watt
- Replace all exterior lighting fixtures: 23 Pole mounted parking lot/wall packs
- Replace 15 5-ton roof top package units with SEER of 14 or greater plus 3 3-ton Bards.
- Replace 47 manual thermostats and replace with SMART programmable controls
- Replace old refurbished pool pump and add a 15 H.P. VFD (to regulate the rate of water turn over and minimize speed). Specialist needed to verify minimum speed. Quote received but must be bid to move forward due to cost over \$15K.
- Install 15 vending machine misers.

Note: Items above are per KW Engineering Report dated January 22, 2015 and as commissioned by CEC on behalf of MJUSD. Completion of Improvements contingent on availability of Prop 39 funds and based on actual costs.





### PROP 39 MHS HVAC

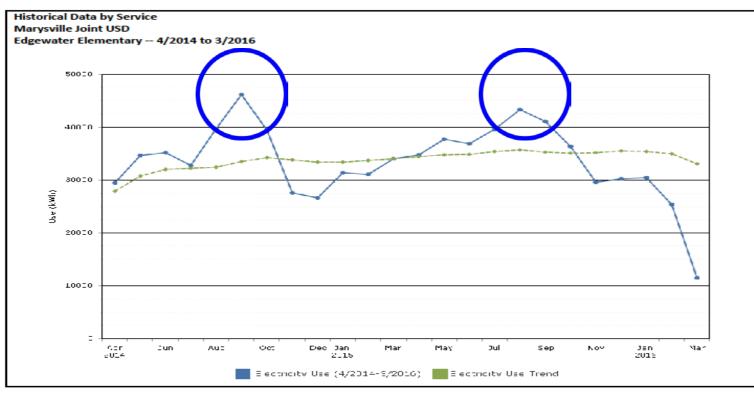


Proposal Pending as of 08/25/2016 for replacement of 15 5-ton HVAC units and the replacement of five 3-ton BARD units. 8 5-tons located on MHS main bldg. 7 more to be located. Units date to 1993-1996. 3 BARD units located on P101-P103 and two on the west face of the MHS music building.



# **ENERGY MANAGEMENT**

- 1. Facilities Staff Continual "shut downs" and audits over breaks and holidays
- 2. Meet with sites for garnering ideas and support
- 3. Summer 2016 Shut Off Checklists distributed in May
- 4. Results Pending for Summer to Summer and year to year by site results



Edgewater Example: Avg. cost per kWh = \$0.15; Peak cost per kWh = \$0.22

Historical Data by Service report produced by Cynthia Jensen on 04/25/2016 at 3:03 PM

Page 1 of 1



# FACILITIES MASTER PLAN

- Facilities Master Plan approved at June 28<sup>th</sup> Board meeting
- Yearly update needed for Needs Assessment and Facilities Master Plan to add further details
- Ongoing meetings between Business Services Departments to develop scope and estimated costs estimates along with potential funding sources:
  - GF One-Time Money, Deferred Maintenance, ERP, Hardship, Grants, Incentives, for example





### FACILITIES MASTER PLAN UPDATING EXAMPLE

Tier 1 Projects									
Project Priority Rank	School Site	Project	Points	Estimated Cost	Funding Source	Responsible Dept.	Status Update		
1	District Support	Electrical system capacity/safety upgrade	78	\$ 180,875	FUND 1	Facilities	PROPOSAL RECEIVED		
2	Lindhurst High	Drinking fountains	74	\$ 9,500 \$-	FUND 1 FUND 14	Facilities/ Maintenance	COMPLETED SUMMER 201 FACILITIES – 1 AND M&O -		
3	Loma Rica Elementary	Permanent Wall to replace construction barriers at street corner and along road (CMU Wall) fast traffic/very close to classrooms	70	\$ TBD	TBD	Facilities	COMBINE ALL LOMA RICA TIER 1 ITEMS		
4	Loma Rica Elementary	Ramps and rails in 3 older portables if not replaced with new modular classrooms	69	\$ TBD	TBD	Facilities	ACCESS PORTABLES FURTHER – REFURBISH O REPLACE		
4	Loma Rica Elementary	ADA sink and hardward in 3 older portables if not replaced with new modular classrooms	69	\$ TBD	TBD	Facilities	ACCESS PORTABLES FURTHER – REFURBISH O REPLACE		
4	Loma Rica Elementary	ADA door hardware in 3 older portables if not replaced with new modular classrooms	69	\$ TBD	TBD	Facilities	ACCESS PORTABLES FURTHER – REFURBISH O REPLACE		
5	Loma Rica Elementary	Replace 3 older portables with new modular classrooms reconfigure with new site drainage and retaining walls to ensure adequately- diverted storm water flow throughout campus.	68	\$ TBD	TBD	Facilities	ACCESS PORTABLES FURTHER – REFURBISH O REPLACE		

Note: Business Services Departments will complete estimated costs, scope and potential funding sources over the next six months and update thereafter as applicable. Subject to change as details are developed.



# FACILITIES MASTER PLAN

- Plan project matrix (Tier I projects) and non-FMP plan matrix will be updated and provided to Board in October
- Next Facilities Update at November Board Meeting will be aligned with Plan and Plan format
- Board direction and input will be sought



# **THANK YOU**



# **QUESTIONS?**