

San Mateo County Community College District Energy Efficiency Projects

Project Status Report

January 21, 2004

Project Status

Work Completed

- Underground piping repairs at CSM & Skyline College (Phase 1)
- Lighting retrofits at all campuses
- Boiler repairs and preventative maintenance at all campuses
- Variable flow pumping retrofits at Cañada & Skyline Colleges
- KCSM/Sutro Tower DTV transmitter installation
- Co-gen plant construction at CSM & Skyline College
- Air handling system refurbishments at Cañada & Skyline Colleges
- Installation of new control system at Cañada & Skyline Colleges
- Installation of Utility Vision real-time monitoring and metering platform

Project Status

Work Completed By the Numbers...

- Light Fixtures Retrofitted – Phase 1 & 2
 - Canada 4,065
 - Skyline 668
 - CSM 4,818
- Air Handlers Refurbished
 - Canada 27
 - Skyline 32
 - CSM 19 (of 54)
- Heat/Vent Units Refurbished
 - Canada 26
 - Skyline 112 (of 163)
 - CSM 4 (of 117)

Project Status

Work Completed By the Numbers...

- Boilers Re-tubed
 - Skyline 2
 - CSM 2
- Underground Piping Replacement
 - Skyline 160 feet of pipe, 4 valves
 - CSM 46 feet of pipe, 54 valves, 9 expansion compensators
- EMS Control Points Connected & Functioning
 - Canada 248
 - Skyline 275
 - CSM 591 (of 691)

Project Status

Work in Progress

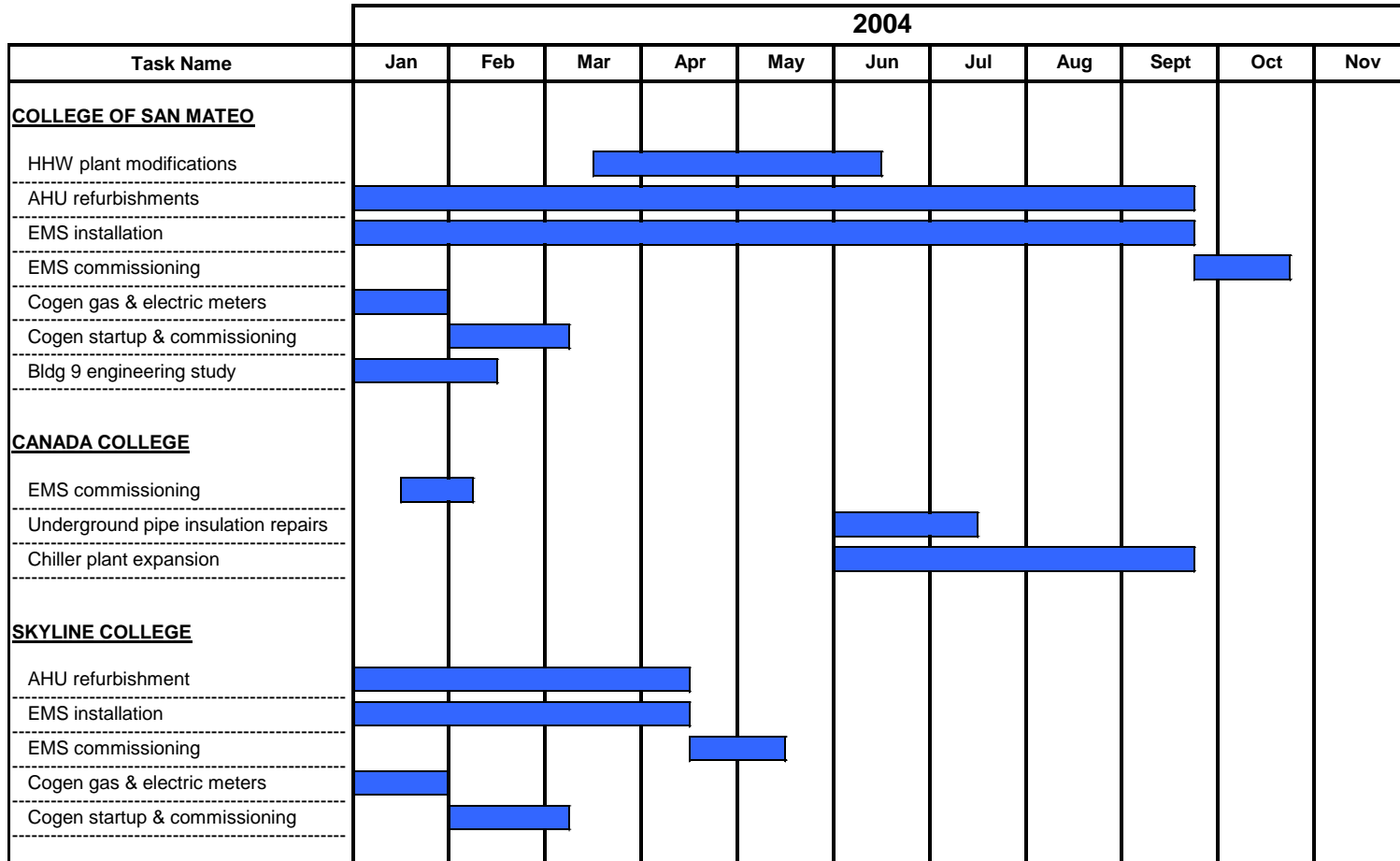
- Gas and electrical house line connections, meter installations and start up activities for CSM and Skyline Co-Gen systems
- Air Handling system refurbishments at CSM Campus
- Installation of new control system at CSM Campus and the DA facility
- Engineering Study of HVAC and electrical systems in B9, CSM
- Comprehensive systems commissioning at Cañada Campus

Work Yet to Start

- Cañada College chilled water plant expansion
- Cañada College pipe insulation repair
- Heating hot water variable flow pumping retrofits at CSM Campus
- Comprehensive systems commissioning at Skyline & CSM Campuses

Project Status

Schedule of Future Work



Project Status

Percent Completion Through 12/31/2003

Description of Work	Percent Complete
Mobilization	100%
Allowances	
2A - Skyline College piping repairs	100%
2B - CSM domestic water line relocation	100%
2C - Canada College asbestos abatement	100%
2D - Canada College dance room AHU repairs	100%
ECMs M1&M2 - Boiler repairs	
Skyline College	100%
Canada College	100%
College of San Mateo	100%
ECMs M3&M4 - U/G piping repairs	
College of San Mateo	100%
Canada College	0%

Description of Work	Percent Complete
KCSM/Sutro Tower project	
Sutro Tower	100%
KCSM Bldg 9	100%
ECM DG1 - Cogeneration	
Engineering - Skyline College	100%
Engineering - College of San Mateo	100%
Construction - Skyline College	90%
Construction - College of San Mateo	90%
ECM M10 - HHW variable flow conversion	
Engineering - Skyline College	100%
Engineering - Canada College	100%
Engineering - College of San Mateo	100%
Construction - Skyline College	90%
Construction - Canada College	90%
Construction - College of San Mateo	0%

Project Status

Percent Completion Through 12/31/2003

Description of Work	Percent Complete
ECMs M7&M8 - AHU refurbishment / Air & water balance	
Engineering - Skyline College	100%
Engineering - Canada College	100%
Engineering - College of San Mateo	100%
Construction - College of San Mateo	
Bldg 1	20%
Bldg 2/3/4	30%
Bldg 5	20%
Bldg 6	20%
Bldg 8	40%
Bldg 9	0%
Bldg 10/11/12	40%
Bldg 14	35%
Bldg 15	0%
Bldg 16	40%
Bldg 17	0%
Bldg 18	20%
Bldg 19	25%
Bldg 20	40%
Bldg 21/22/23/24	35%

Description of Work	Percent Complete
ECMs M7&M8 - AHU refurbishment / Air & water balance	
Construction - Skyline College	
Bldg 1	70%
Bldg 2	0%
Bldg 3	75%
Bldg 7/8	70%
Construction - Canada College	
Bldg 1	90%
Bldg 2	90%
Bldg 3	90%
Bldg 5/6/8	90%
Bldg 13	0%
Bldg 16	90%
Bldg 17	90%
Bldg 18	90%

Project Status

Percent Completion Through 12/31/2003

Description of Work	Percent Complete
ECM M14 - Utility Vision	
Engineering - Skyline College	100%
Engineering - Canada College	100%
Engineering - College of San Mateo	100%
Engineering - District HQ	100%
Construction - Skyline College	90%
Construction - Canada College	90%
Construction - College of San Mateo	90%
Construction - District HQ	90%
ECM M15A - Canada College CHW plant	
Engineering	100%
Construction - Bldg 3	0%
Construction - Underground piping	0%

Description of Work	Percent Complete
ECMs L1-L8 - Lighting retrofits	
Engineering - Skyline College	100%
Engineering - Canada College	100%
Engineering - College of San Mateo	100%
Construction - Skyline College	100%
Construction - Canada College	100%
Construction - College of San Mateo	100%

Project Status

Percent Completion Through 12/31/2003

Description of Work	Percent Complete
ECM C1 - DDC energy management system	
Engineering - Skyline College	100%
Engineering - Canada College	100%
Engineering - College of San Mateo	100%
Engineering - District HQ	100%
Construction - Skyline College	
Bldg 1	80%
Bldg 2	20%
Bldg 3	80%
Bldg 7/8	80%
Construction - Canada College	
Bldg 1	80%
Bldg 2	80%
Bldg 3	80%
Bldg 5/6	80%
Bldg 8	80%
Bldg 13	60%
Bldg 16	80%
Bldg 17	80%
Bldg 18	80%

Description of Work	Percent Complete
ECM C1 - DDC energy management system	
Construction - College of San Mateo	
Bldg 1	60%
Bldg 2/3/4	50%
Bldg 5/6	30%
Bldg 7	60%
Bldg 8	60%
Bldg 9	30%
Bldg 10/11/12	50%
Bldg 14	60%
Bldg 15	60%
Bldg 16	60%
Bldg 17	60%
Bldg 18	60%
Bldg 19	60%
Bldg 20	50%
Bldg 21/22/23/24	50%
District Admin Bldg	30%
Commissioning - Skyline College	
Commissioning - Skyline College	0%
Commissioning - Canada College	
Commissioning - Canada College	0%
Commissioning - College of San Mateo	
Commissioning - College of San Mateo	0%
Commissioning - District HQ	
Commissioning - District HQ	0%

Project Status

Canada College Chiller Plant Expansion – Existing Conditions

Bldg #	Area (Sq. Ft.)	Estimated Cooling Load (Tons)	Currently Air Conditioned ?	Use	Comments
1	39,500	98.8	No	Gym, locker rooms, offices	
2	8,237	20.6	Yes	Bookstore, classroom	Stand-alone rooftop A/C unit.
3	63,299	158.2	Yes	Theatre, offices, classrooms, workshops	Served by existing 180-ton chiller plant in Bldg 3
5/6	36,916	92.3	Partially (15%)	Library, student services, dining hall, offices, classrooms	One air handling unit has been retrofitted with a stand-alone DX coil
8	6,650	16.6	No	Administrative offices	
13	31,473	78.7	No	Classrooms, labs, offices	
16	16,972	42.4	No	Classrooms, labs, offices	
17	12,147	30.4	No	Classrooms, labs	
18	25,542	63.9	No	Classrooms, labs, offices	
LRC	51,000	127.5	-	TBD	Future building

Project Status



Existing pre-retrofit pumps

Project Status



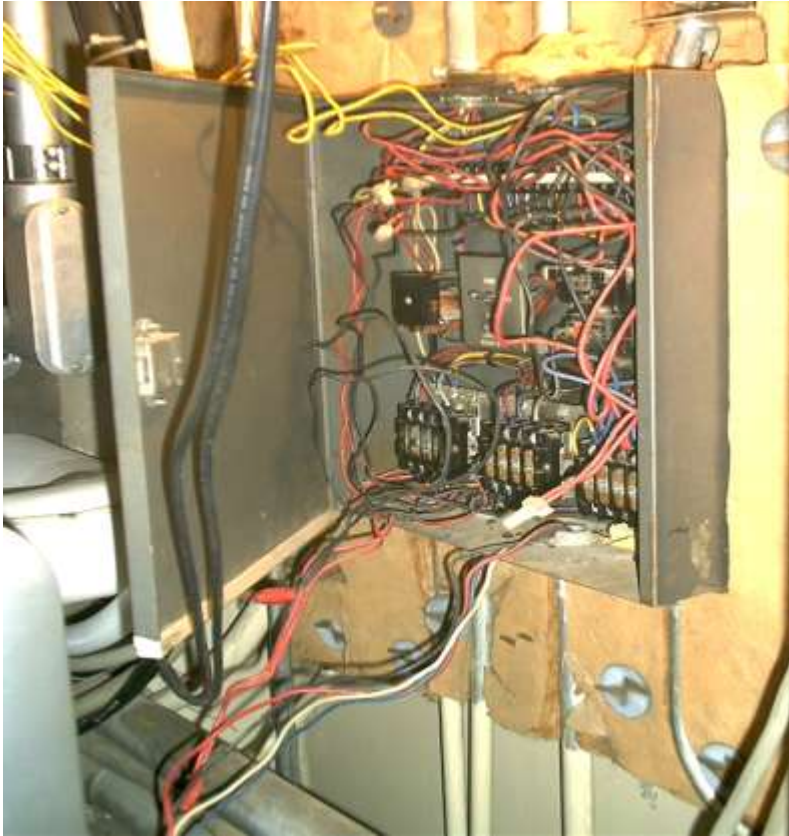
HHW System Conversion (Pumps) at Skyline College

Project Status



Pump retrofits at Canada College

Project Status



Pre & Post-Retrofit Control Panels

Project Status



Pre & Post-Retrofit Damper Actuators

Project Status



Pre & Post-Retrofit Piping

Project Status



Damaged Piping at CSM & Skyline College

Project Status



Piping repairs at CSM & Skyline College

Project Status



HHW & Domestic Water Piping Repairs – Skyline & CSM

Project Status



Cogen Pier Drilling & Placement – CSM

Project Status



Cogen Pad Construction - CSM

Project Status



Concrete Pumping & Finished Concrete Pad - CSM

Project Status



Co-gen Equipment Lift - CSM

Project Status



15,000Volt Feeders Underground and Overhead - CSM

Project Status



New Gas Line – Increased Pressure CSM

Project Status



Co-gen Plant - CSM

Project Status



Cogen Pad Construction – Skyline College

Project Status



Cogen Equipment Lift – Skyline College

Project Status



Boiler Refurbishment and Retubing All Campuses

Project Status



New Gymnasium Lighting – Skyline

Project Status



New Gymnasium Lighting – CSM

Project Status



KCSM Sutro Tower DTV Transmitter Construction

Project Status



KCSM Sutro Tower DTV Transmitter Construction