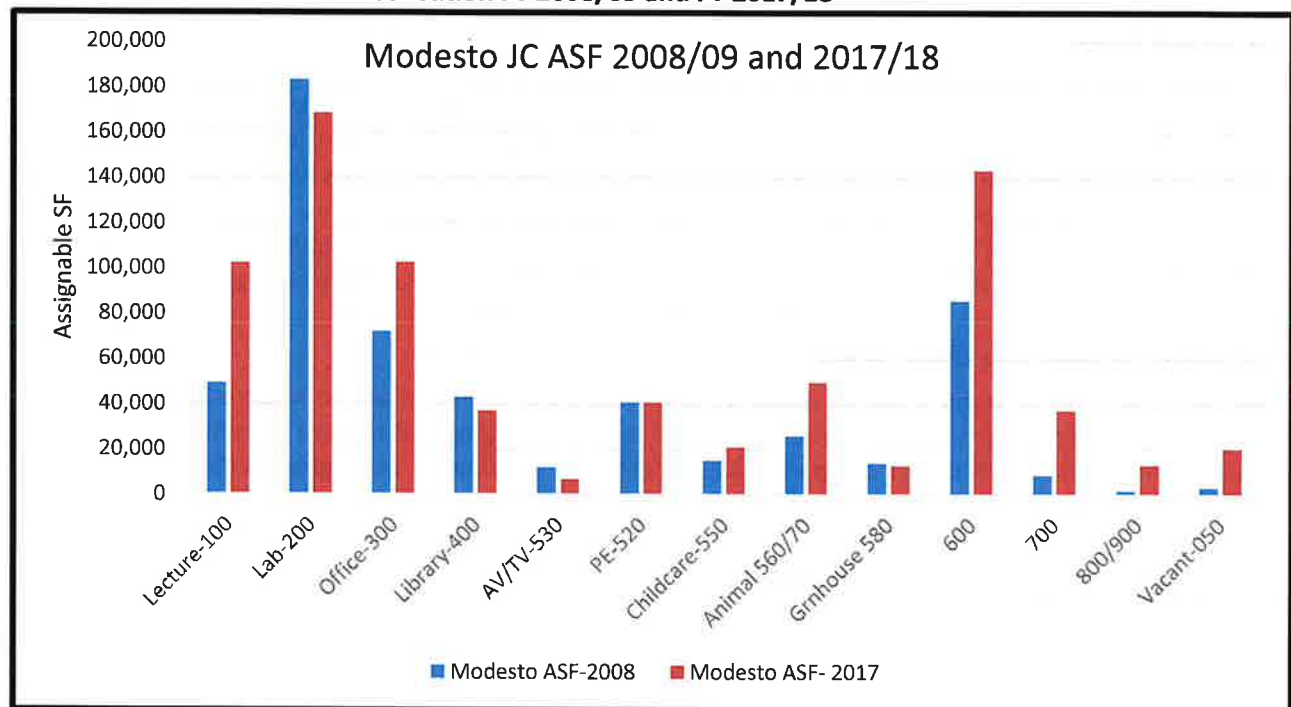


Table 4.1.A Modesto Junior College Capacity Load Ratio FY 2008/09 and FY 2017/18

	Modesto JC 2008/09	Modesto JC 2017/18
Lecture	69%	186%
Laboratory	99%	98%
Office	107%	183%
Library	64%	67%
Audio Visual/ TV	71%	44%

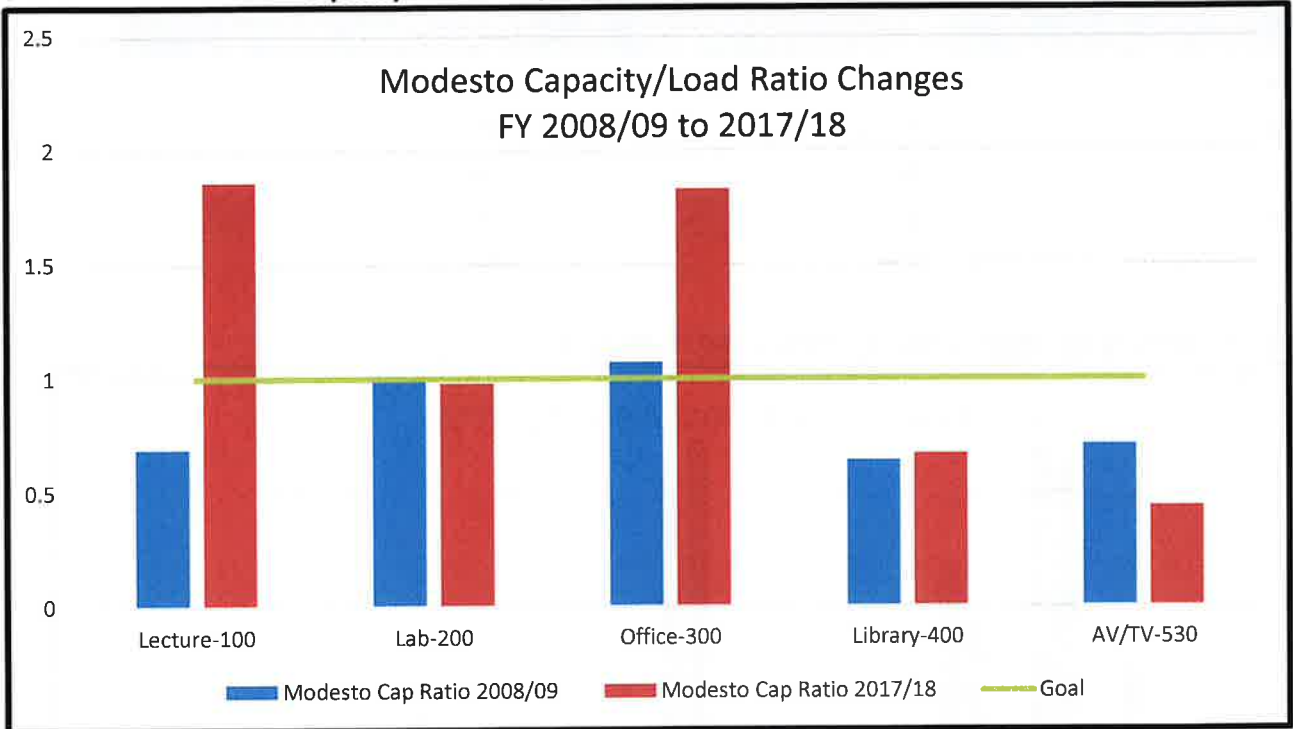
Chart 4.1.B Modesto JC ASF Distribution FY 2008/09 and FY 2017/18



The comparison of the assignable square feet (ASF) between the beginning of the bond projects in FY 2008/09 and the end in FY 2016/17 indicates a focus on expanded classroom and offices. The amount of laboratory space remained fairly consistent. The addition of the new Performing Arts Center increased the 600 space type

As illustrated in the following chart the additional classroom and office space resulted in capacity load ratios significantly exceeding 100% in lecture and office spaces.

Chart 4.1.C- Modesto JC Capacity Ratio Comparison- FY 2008/09 to FY 2017/18



Columbia College Capacity Load Ratios

The Columbia College bond program balanced renovation and limited additional new space. The Educational Plan anticipated that the high capacity load ratios would gradually reduce with increased student enrollment. For example, the College anticipated a high capacity load ratio in lecture space in FY 2008/09 would decrease due to enrollment growth through FY 2017/18; however, this anticipated enrollment growth did not occur, resulting in a continuing overbuilt status in FY 2017/18 in all space types except AV/TV

Chart 4.1.D- Columbia WSCH Projection Comparison FY 2008/09 to FY 2017/18

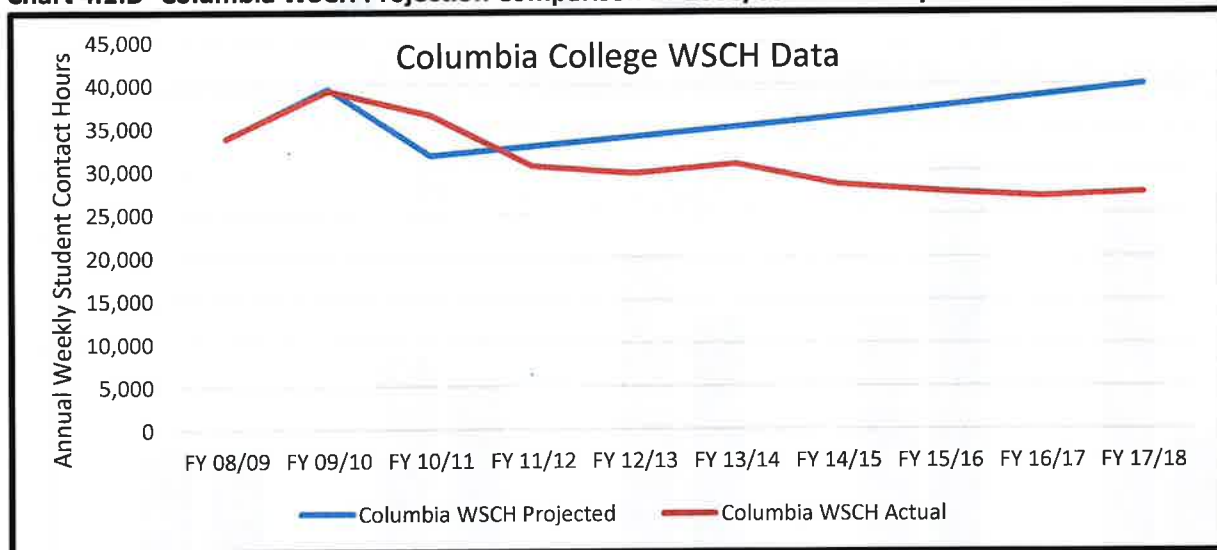


Table 4.1.B- Columbia College Capacity Load Ratio Comparison FY 2008/09 and FY 2017/18

	Columbia FY 2008/09	Columbia FY 2017/18
Lecture	85%	214%
Laboratory	233%	149%
Office	147%	182%
Library	115%	128%
Audio Visual/TV	78%	80%

Chart 4.1.E Columbia ASF Distribution FY 2008/09 and FY 2017/18

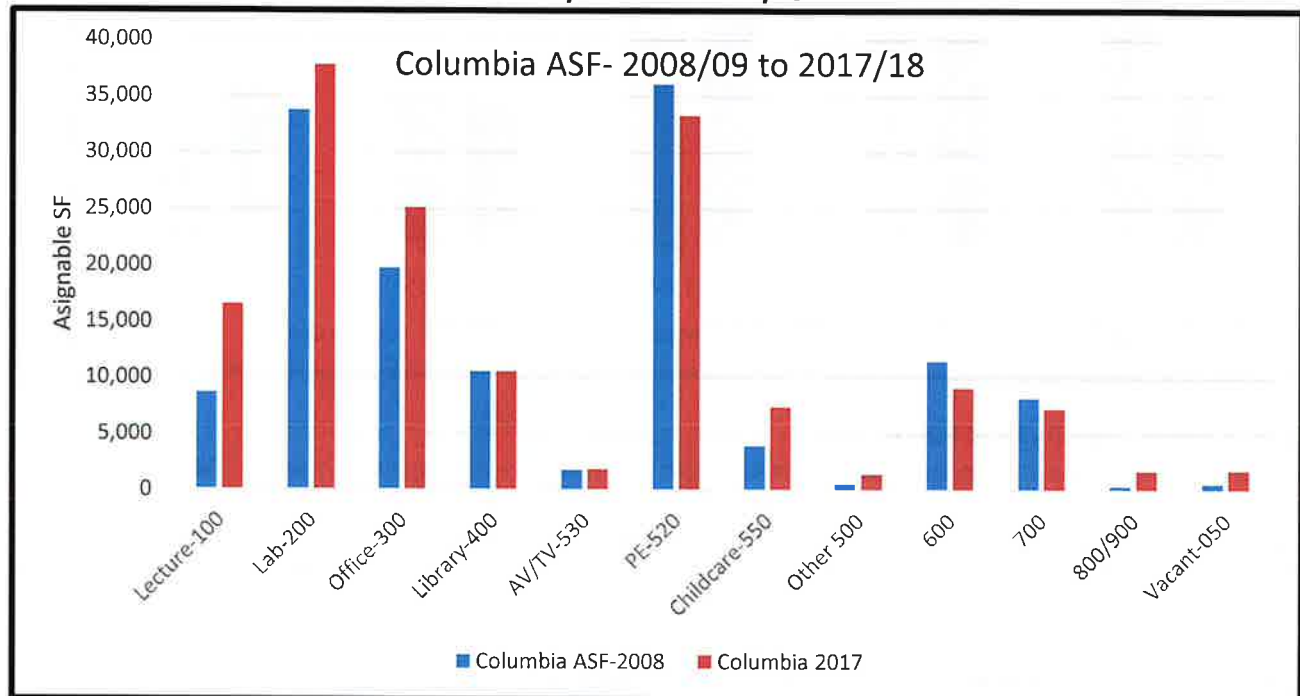
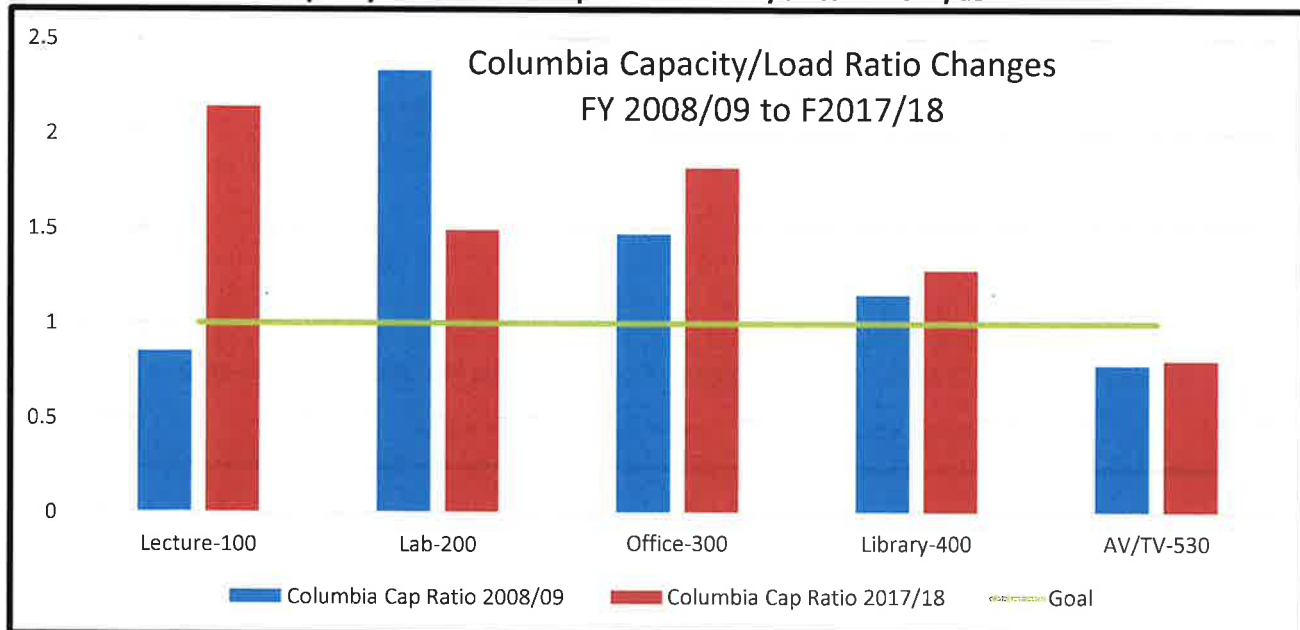


Chart 4.1.F- Columbia Capacity Load Ratio Comparison FY 2008/09 to FY 2017/18



SECTION 4.2- ANNUAL OPERATIONS COST

The Annual Operations Cost includes costs to operate, repair and maintain District Facilities, including:

- Maintenance and operations staff wages including maintenance, custodial, grounds and management staff,
- Utilities including gas, electrical, water and sewer, trash and recycling
- Facilities maintenance expenses including materials, parts and service vendors

The Annual Cost analysis groups information into two groups:

- 1) Modesto Area facilities including the Modesto Junior College East and West Campus and the Central Services office
- 2) Columbia College

The custodial staffing analysis is based on only buildings maintained by custodial staff. Buildings not included in the custodial analysis include buildings closed for renovation, inactive buildings, the fire tower, and animal-related facilities. However, all these facilities are included in maintenance staffing, M&O expenses and all utility evaluations.

Maintenance and Operations (M&O) Staffing

The staffing evaluation begins with the 2017 M&O organization chart showing the M&O staffing and management and administration staff Districtwide. The M&O organization is a Central Services resource that is assigned to the colleges. The M&O staff in Modesto move between the Modesto JC East and West campuses and Central Service facilities as needed and their time at each work location is not tracked. Therefore, this analysis combines the Modesto JC East and West campuses and Central Services facilities in a single group noted as the Modesto Area. Each college has a full-time campus M&O manager to coordinate the M&O operations on the campus. The M&O staff also includes part time/on-call custodial and grounds staff to respond to workload changes and backfill full-time employees due to vacation and sick leave. The Maintenance and Operations organization has maintained essentially the same staffing levels for the past 10 years.

The Association of Physical Plant Administrators (APPA) has developed staffing guidelines for maintenance, custodial and grounds staff based on building space type and use intensity. The guidelines suggest staffing levels for APPA's five defined Service Level levels. The five levels range from Level 1- excellent to Level 5- marginal or poor. APPA and others have developed calculators that calculate staffing for each of the five APPA levels based on a building configuration and type of space and intensity of use. Many institutions establish the APPA Level 3 as the benchmark to gauge their staffing levels.

This report used a calculation tool developed by Goshen College. The facilities staff at Goshen College created an Excel spreadsheet to develop a macro-model for custodial staffing for each of the five APPA service levels:

- Level 1- Orderly Spotlessness
- Level 2- Ordinary Tidiness
- Level 3- Casual Inattention
- Level 4- Moderate Dinginess
- Level 5- Unkempt Neglect

The spreadsheet combines the APPA standard task hour matrix with specific characteristics of the facilities. The facilities are defined by square feet by use type and flooring materials. The spreadsheet sets a Level 2 for restrooms and cafeterias, level 4 for non-student areas such as storage and utility area. The remaining spaces are calculated at Levels 1 to 5 to compare staffing levels. The spreadsheet calculates staffing for all five APPA levels of custodial staffing. Input to the model combines California Community College defined assignable square footage spaces based on the educational use category with lobbies, corridors and other non-assignable space to calculate Gross Square Feet (GSF). The model adds adjustments for areas of heavy use and various flooring types.

APPA custodial staffing is calculated as full-time equivalents. The APPA staffing numbers also do not include administrative, clerical or support staff. The custodial staffing evaluation indicates a predicted Service Level between

APPA Level 3 (Casual Inattention) and 4, (Moderate Dinginess) for both the Modesto Area and Columbia College.

TABLE 4.2.A- Calculated Custodial Staffing Levels and Actual Staffing

	Level 1	Level 2	Level 3	Level 4	Level 5	Actual FY 16/17
Modesto Area	104.0	58.1	43.8	34.0	28.5	35.5
Columbia	24.5	12.3	10.5	7.5	6.8	7
Total			53.9	41.5		43.5

Custodial Staffing per Gross Square Feet

A key performance indicator is the total building gross square feet divided by the number of custodial staff. The higher the gross square feet per staff, the lower the level of cleanliness and maintenance. Adding new buildings without adding staff has increased the work load of the custodial and maintenance staff. The current custodial staffing is below the APPA Service Level 3 performance level.

The charts below illustrate as new buildings were added to both campuses without adding custodial staff, their workload increased and the level of service or level of care decreased. Over the past 10 years the GSF maintained by custodial staff has increased by 30% from 23,053 GSF/staff to 30,177. This can be compared to the calculated Level 3 (Casual Inattention) service level of 25,000 GSF/custodian. Similarly, custodians at Columbia work load has increased by 35% over the past 10 years from 25,961 GSF/custodian to 35,027 GSF/staff. This can be compared to the calculated Level 3 service level of 23,300 GSF/custodian.

Table 4.2.B- Modesto Area Custodial Staff per Gross Square Feet Historical data

Modesto	FY 08/09	FY09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross SF	818,389	819,349	804,815	921,455	888,290	1,017,379	1,007,779	1,071,280	1,071,280
Custodial	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
GSF/Custodian	23,053	23,080	22,671	25,956	25,022	28,659	28,388	30,177	30,177

Chart 4.2.A- Modesto Area GSF per Custodian Historical data

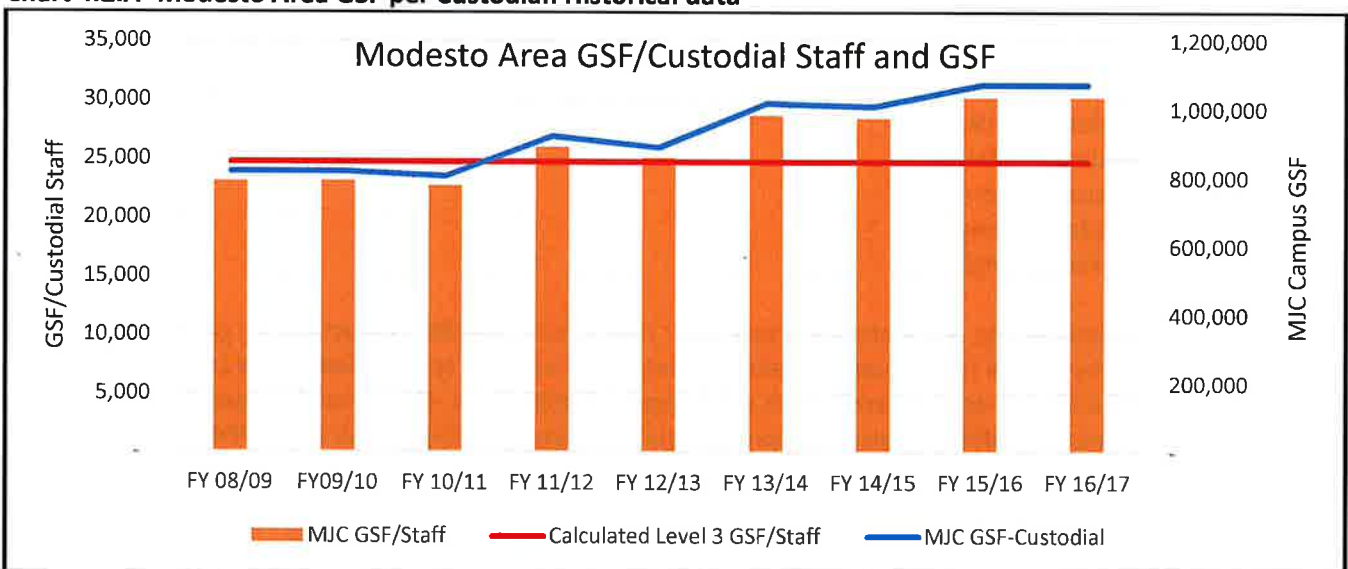
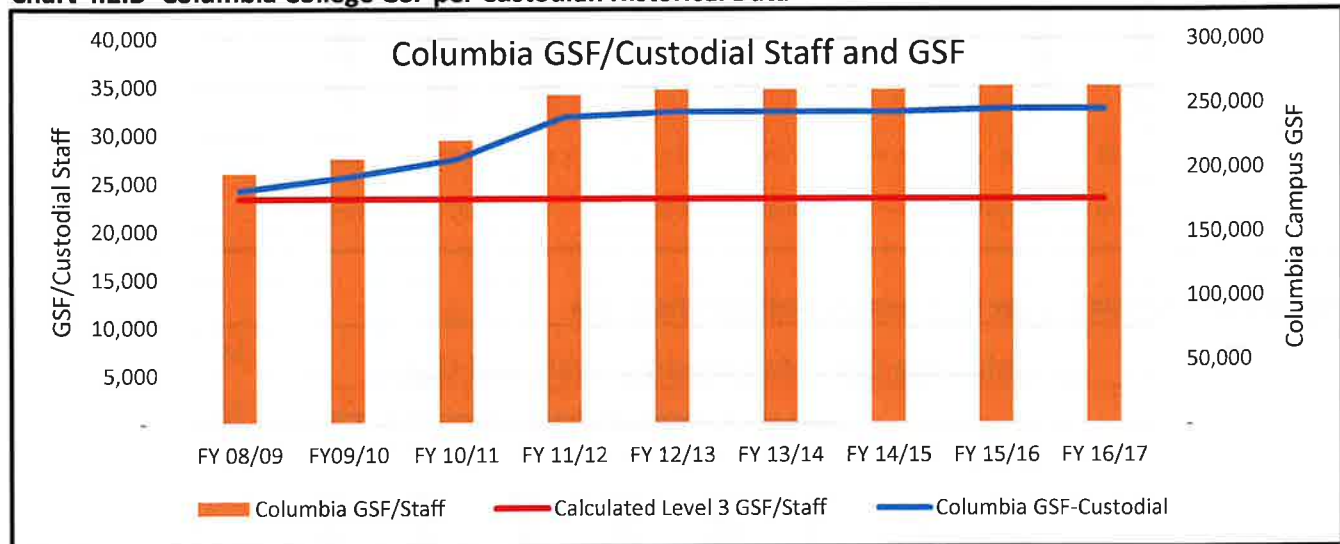


Table 4.2.C- Columbia Custodial Staff per Gross Square Feet Historical Data

Columbia	FY 08/09	FY09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross SF	181,725	192,463	206,174	238,763	242,643	242,643	242,643	245,187	245,187
Custodial	7	7	7	7	7	7	7	7	7
GSF/Staff	25,961	27,495	29,453	34,109	34,663	34,663	34,663	35,027	35,027

Chart 4.2.B- Columbia College GSF per Custodian Historical Data**Maintenance Staffing Per Gross Square Feet**

Staffing projections for maintenance and ground staff were calculated using APPA based calculations and the specific type of space, intensity of use with adjustments for the age of the facility. The maintenance staffing indicates staffing at a Service Level 3 (Managed Care).

The graphic below indicates maintenance staffing approached Level 2 (Comprehensive Stewardship) at the beginning of the period and gradually decreased to a Level 3 (Managed Care). Previously, the District maintenance staff handled major renovation work that would have typically been contracted out, in addition to the normal daily repair and minor maintenance work. For example, the painting crew repainted the exterior and interior of multiple buildings. As a result, the maintenance staffing exceeded a Level 3 in FY 08/09, but as space was added, and staffing remained the same, the staffing approached Level 4 (Reactive Management) in FY 16/17. The maintenance staffing at Columbia continues to exceed Level 3; however, this is largely due to the small staff size.

Table 4.2.D APPA Calculated Maintenance Staff and actual FY 2016/17

Maintenance	Level 1	Level 2	Level 3	Level 4	Level 5	Actual 16/17
Modesto Area	27.6	21.2	14.8	10.6	7.4	15
Columbia	5.7	4.5	3.4	2.3	1.1	5
Combined	33.3	25.7	18.2	12.9	8.5	20

Chart 4.2.C Modesto Area GSF per Maintenance Staff Historical Data

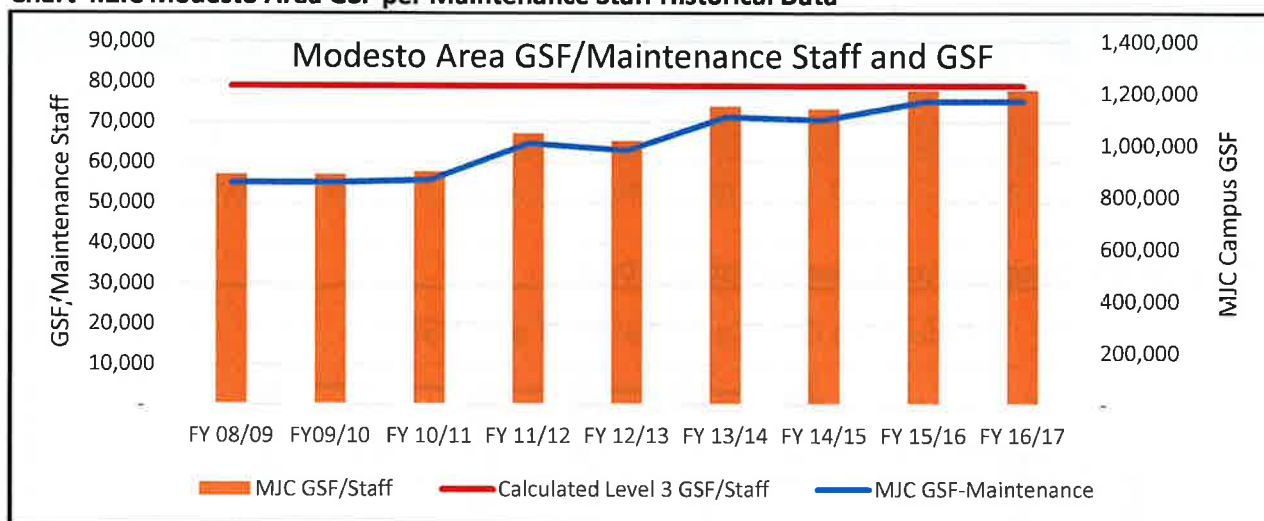
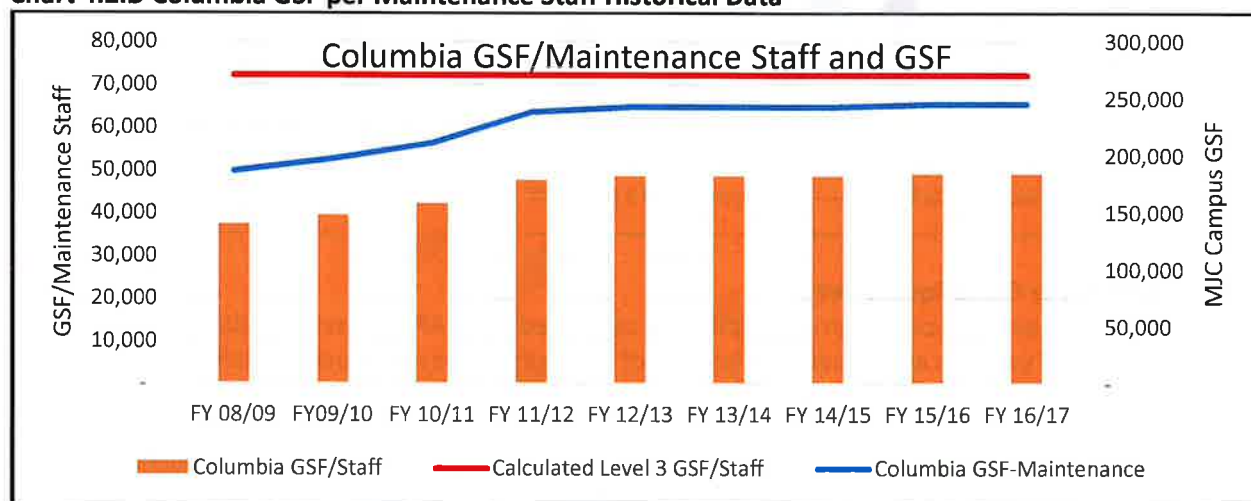


Chart 4.2.D Columbia GSF per Maintenance Staff Historical Data



Grounds Staffing Levels

The grounds staff maintains the exterior grounds including the hardscape such as sidewalks and landscaping including lawn, shrubs, trees and flowering plants. The Modesto East campus is 58 acres, the Modesto West campus is 167 acres and the Columbia campus is 280 acres. The grounds staff is also responsible for the maintenance of the athletic fields. The athletic field maintenance includes mowing, irrigation, striping and repairs after events. The APPA spreadsheet calculated current staffing levels meet a Level 3 service level (Moderate Level of Maintenance).

Table 4.2.E- APPA Model Calculated Grounds FTE Staff

Grounds Staff	Level 1	Level 2	Level 3	Level 4	Level 5	Actual 16/17
Modesto Area	25.7	14.7	11.3	5.9	3	10
Columbia	4	2.8	2	1.5	0.6	2

Calculated Combined Colleges M&O Staffing Levels

The following table summarizes the calculated staffing levels combining the models for custodial, maintenance and grounds. The staffing models are based on Full Time Equivalent positions. Extra work includes exterior clean up performed by custodial staff in addition to the interior custodial activities. The last column contains the actual Modesto Area and Columbia actual staffing for FY 2016/17. These M&O staffing numbers do not include managers, supervisors and administrative staff.

TABLE 4.2.F- Modesto Area APPA Calculated M&O Staffing Levels and Actual

Modesto Area	Level 1	Level 2	Level 3	Level 4	Level 5	Actual 16/17
Maintenance	27.6	21.2	14.8	10.6	7.4	15
Custodial	104	58.1	43.8	34	28.5	35.5
Grounds	25.7	14.7	11.3	5.9	3	10

Table 4.2.G- Columbia APPA Calculated M&O Staffing Levels and Actual

Columbia	Level 1	Level 2	Level 3	Level 4	Level 5	Actual 16/17
Maintenance	5.7	4.5	3.4	2.3	1.1	5
Custodial	24.5	12.3	10.5	7.5	6.8	7
Grounds	4	2.8	2	1.5	0.6	2

Total Maintenance and Operations Staff Cost

The total cost of Maintenance and Operations staff is a key performance indicator. The M&O staff are accounted within three account codes. The maintenance staff for Modesto JC and District facilities are in account code 7150. Custodial and Grounds staff for Modesto JC and the District are in account code 8150. All Maintenance, Custodial and Grounds staff at Columbia College are in account 9150. The following staff cost includes salary, fringe benefits, overtime for regular classified staff, supervisors, managers and hourly staff. The charts and tables indicate consistent staffing levels with increased costs due to normal salary step and range increases.

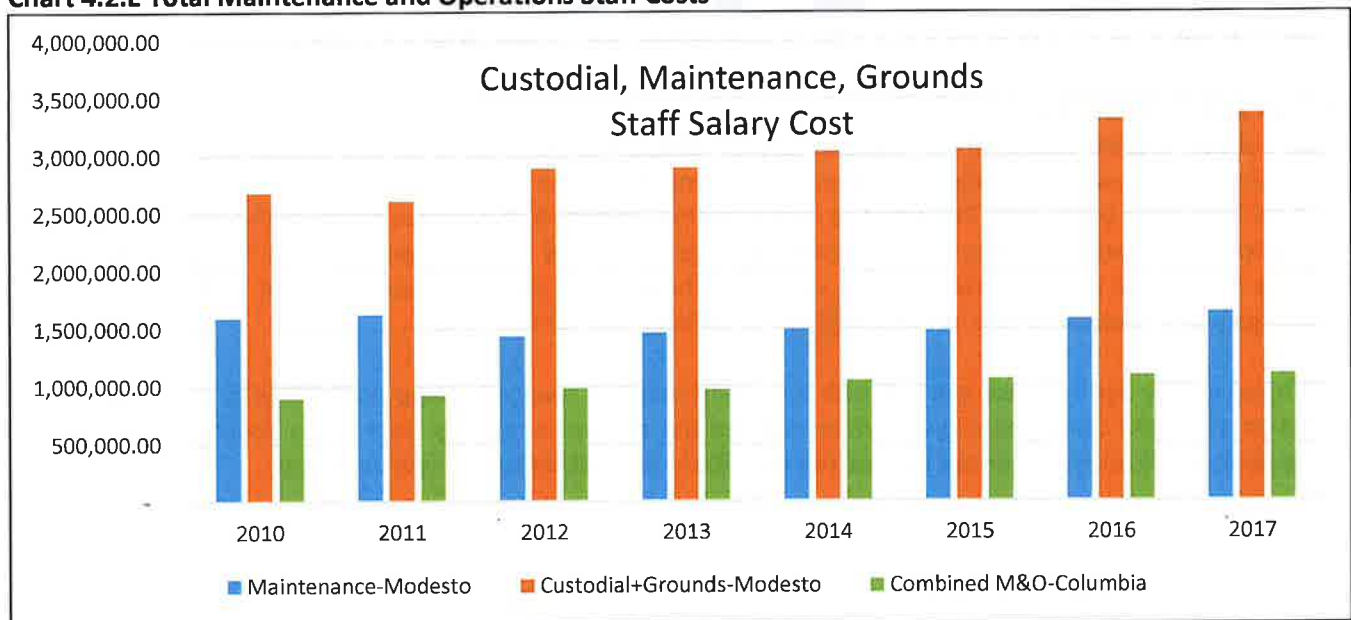
Chart 4.2.E Total Maintenance and Operations Staff Costs

Table 4.2.H- Total Modesto JC+ District M&O Staff Cost and Unit Cost

Modesto JC + District	2012/13	2013/14	2014/15	2015/16	2016/17
Gross SF	979,175	1,108,264	1,098,664	1,168,265	1,168,265
Custodial + Grounds	\$2,892,898	\$3,034,158	\$3,053,872	\$3,315,830	\$3,363,588
Maintenance	\$1,459,420	\$1,490,688	\$1,479,119	\$1,578,313	\$1,637,631
Management	\$521,414	\$562,448	\$526,913	\$511,356	\$462,400
Admin/Clerical/Movers	\$349,347	\$366,177	\$365,323	\$361,673	\$382,025
Management	\$521,414	\$562,448	\$526,913	\$511,356	\$462,400
Total	\$5,223,079	\$5,453,470	\$5,425,227	\$5,767,173	\$5,845,644
Cost /GSF	\$ 5.33	\$ 4.92	\$ 4.94	\$ 4.94	\$ 5.00

Table 4.2.I- Total Columbia M&O Staff Cost and Unit Cost

Columbia	2012/13	2013/14	2014/15	2015/16	2016/17
Gross SF	242,643	242,643	242,643	245,187	245,187
M&O Staff	\$966,111	\$1,044,442	\$1,059,861	\$1,089,568	\$1,098,746
Admin/Clerical	\$48,809	\$55,626	\$55,875	\$63,563	\$72,845
Management	\$198,031	\$207,490	\$213,243	\$205,971	\$214,816
Total	\$1,164,142	\$1,251,932	\$1,273,104	\$1,295,539	\$1,313,562
Cost/GSF	\$ 4.80	\$ 5.16	\$ 5.25	\$ 5.28	\$ 5.36

SECTION 4.2.1- UTILITY COSTS – ENERGY USE AND COST

Energy Sources Overview

Each college obtains energy from multiple energy companies with some on-site photovoltaic generation. The Modesto JC campuses purchased electrical energy from Modesto Irrigation District, natural gas through SPURR (School Project for Utility Rate Reduction) a Joint Powers Authority that provides access to the wholesale gas market to California educational institutions. Columbia College purchased electrical energy from Tuolumne Public Power Agency (TPPA) and propane from various vendors. The building GSF only includes those buildings in active use, buildings under renovation are not included in the Building GSF for this model.

Electrical energy use increase tracked with increased building square footage until 2015/16 and 2016/17 as the addition of on-site photovoltaic generation reduced the amount of energy from utility sources. The natural gas usage was significantly influenced by weather conditions in addition to the new buildings.

Modesto Area Energy Source and Use

Chart 4.2.F Energy Usage Modesto Operations

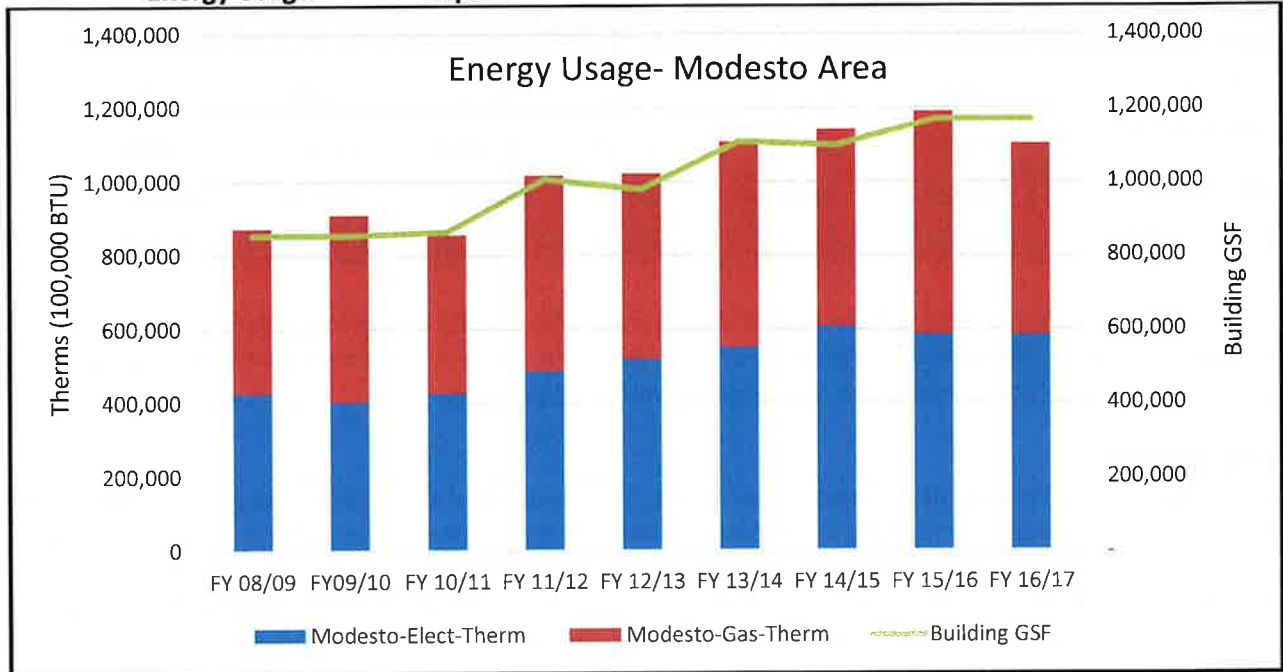


Table 4.2.J- Modesto Area Historical Energy Use

Modesto Area	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross SF	1006,524	979,175	1,108,264	1,098,664	1,168,265	1,168,265
MID MWh in MBTU	487,547	518,093	550,678	606,717	584,804	583,542
SPURR MBTU	299,689	274,798	555,781	533,392	603,883	518,576
DGS MBTU	228,456	228,456				
Total Utility MBTU	1,015,692	1,021,347	1,106,459	1,140,109	1,188,687	1,102,118

Columbia Energy Source and Use

Chart 4.2.G Energy Usage Columbia

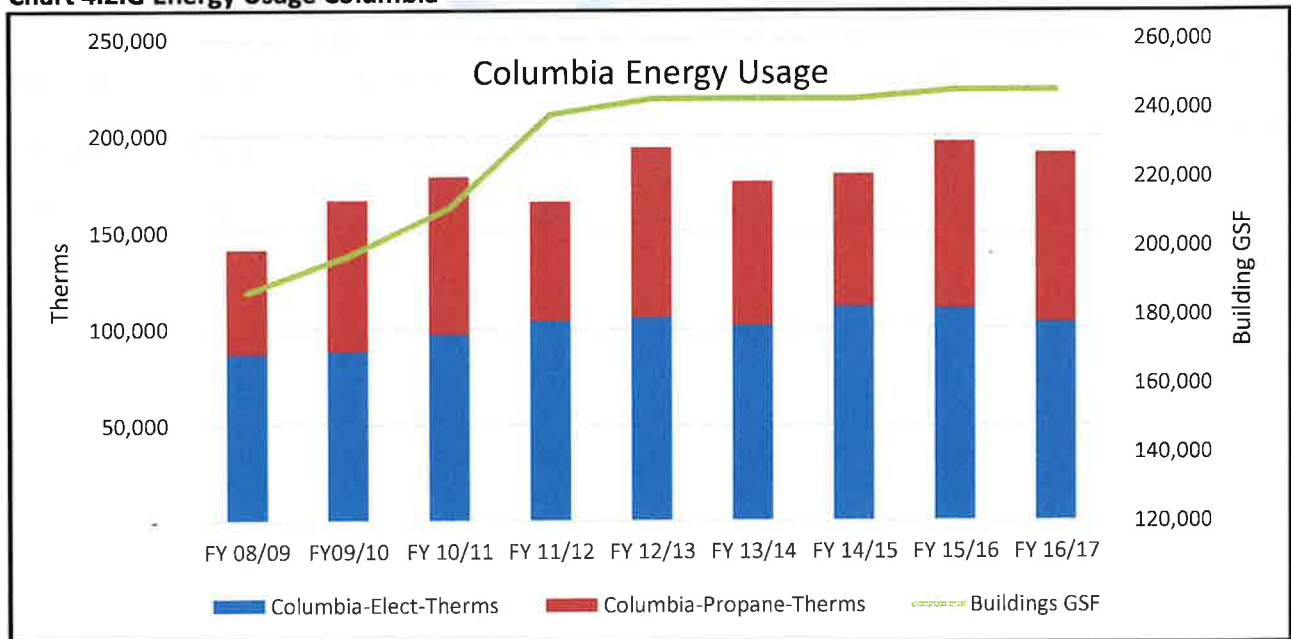


Table 4.2.K- Columbia Energy Use

Columbia	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross SF	238,163	242,643	242,643	242,643	245,187	245,187
Elec MWh in MBTU	103,930	105,612	101,450	111,367	110,256	103,092
Propane MBTU	61,920	88,097	74,547	68,693	86,535	87,876
Total Energy MBTU	165,850	193,709	175,997	180,060	196,791	190,968

Columbia College's electrical energy use decreased slightly over time despite an approximately 3% increase in gross square footage. As with Modesto area facilities, utilities fluctuate and are influenced by weather conditions. A possible decrease may be attributed to the on-site photovoltaic generation.

Energy Use Intensity

Energy Use Intensity (EUI) is a key performance benchmark. EUI is calculated as the total energy use in Million British Thermal Units (MBTU) divided by Building Gross Square Feet. The EUI difference between the two colleges can be ascribed to the warmer climate at Modesto requiring more air conditioning energy than the foothill climate at Columbia and longer hours of operation at the Modesto JC facilities. The 2017 APPA national EUI performance benchmark is 114; indicating the Colleges are more energy efficient than the APPA national averages.

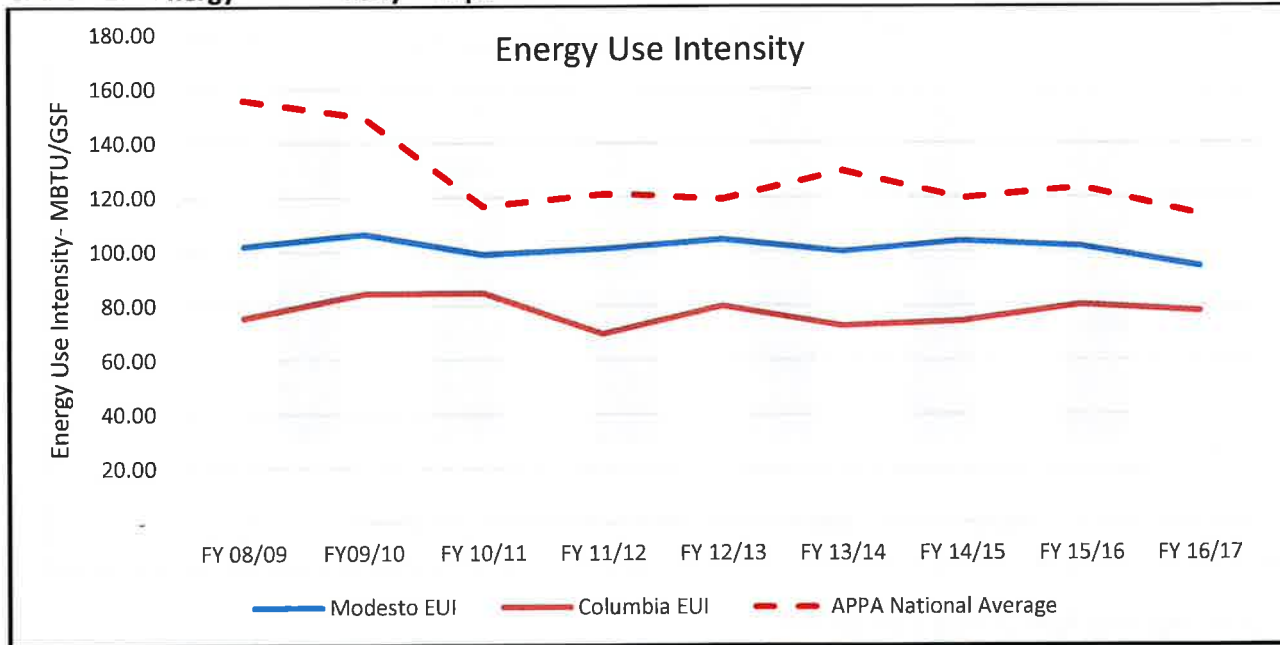
Table 4.2.L- Modesto Area Energy Use Intensity

	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
MJC+ Dist Gross SF	1,006,524	979,175	1,108,264	1,098,664	1,168,265	1,168,265
Total MBTU	1,015,692	1,021,347	1,106,459	1,140,109	1,188,687	1,102,118
EUI	101	104	100	104	102	94

Table 4.2.M- Columbia Energy Use Intensity

	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Columbia GSF	238,163	242,643	242,643	242,643	245,187	245,187
Total MBTU	165,850	193,709	175,997	180,060	196,791	190,968
EUI	70	80	73	74	80	78

Chart 4.2.H Energy Use Intensity Comparison



While energy use intensity has declined over time, the cost of energy per square foot has increased over time. In Modesto, MID has kept electric rates very stable over the past 5 years, however, TPPA at Columbia has increased the electrical kWh rate by 50% over the same time. Gas prices fluctuate greatly with demand and weather. The cost for propane at Columbia is significantly higher than natural gas used at Modesto. Water and sewer costs between the campuses are similar and both show impact of the drought.

Chart 4.2.I- Modesto JC + District Utility Cost Distribution

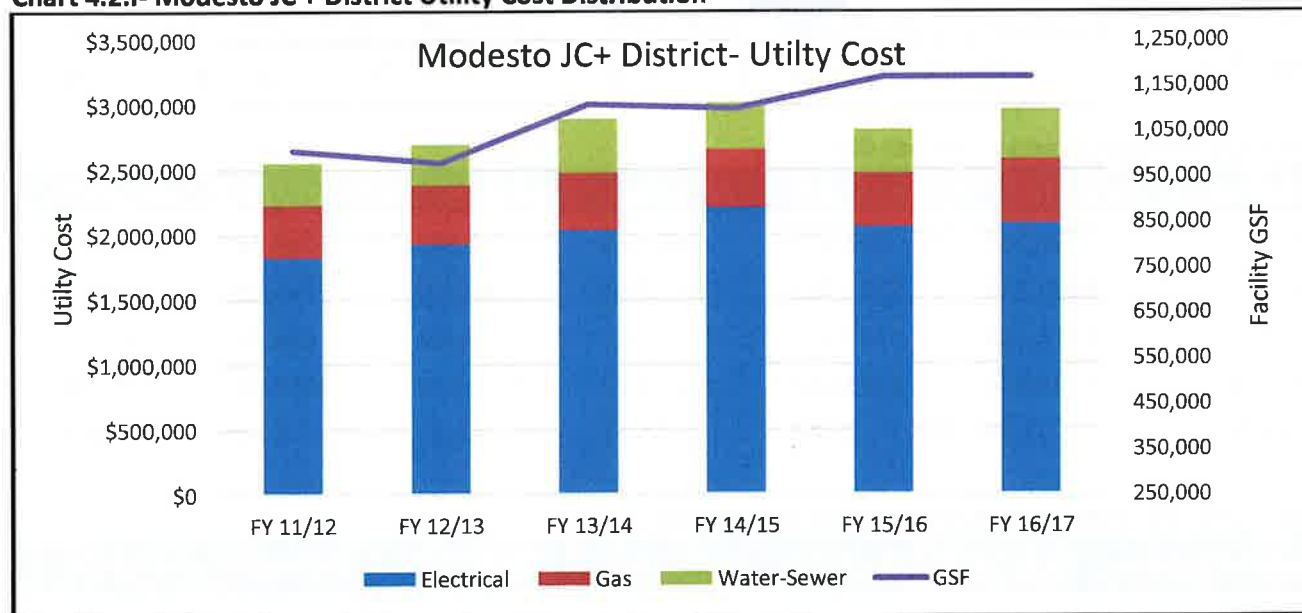


Chart 4.2.J- Columbia Utility Cost Distribution

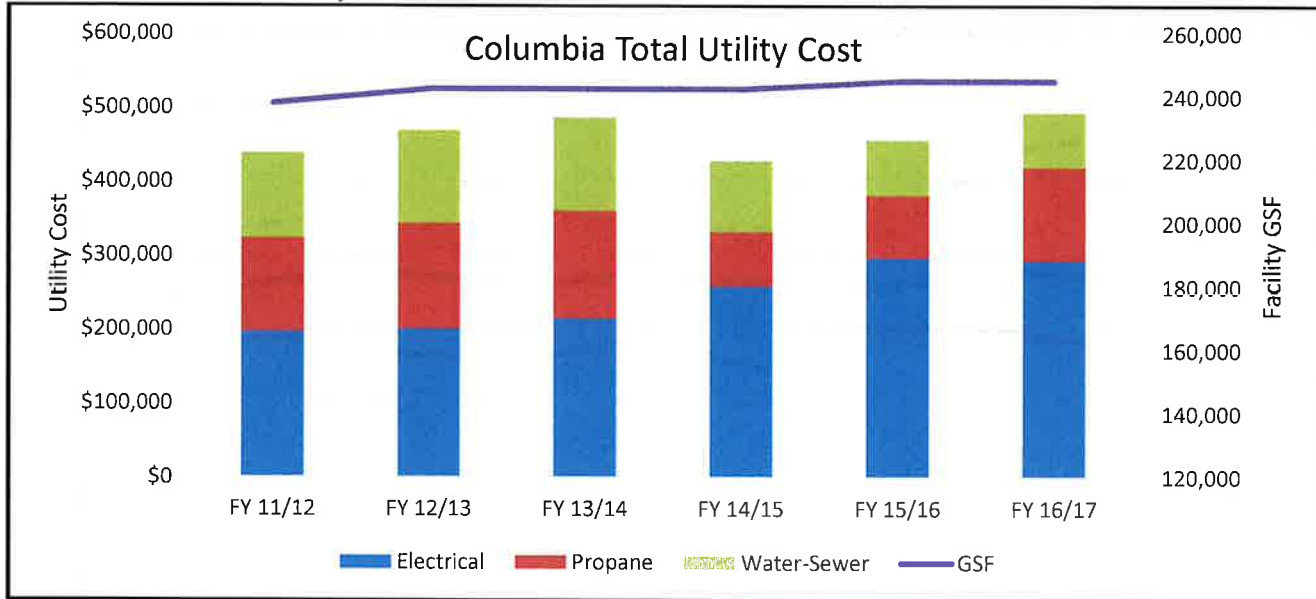


Table 4.2.N- Modesto Area Energy Cost per GSF

Modesto Area	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross SF	1,006,524	979,175	1,108,264	1,098,664	1,168,265	1,168,265
Elect \$\$	\$1,822,913	\$1,930,000	\$2,033,237	\$2,206,079	\$2,058,476	\$2,084,723
SPURR Gas \$\$	\$236,913	\$232,602	\$442,971	\$452,116	\$412,820	\$496,864
DGS Gas \$\$	\$169,329	\$221,401				
Energy \$\$	\$2,229,155	\$2,384,003	\$2,476,209	\$2,658,195	\$2,471,297	\$2,581,587
Energy \$\$/GSF	\$ 2.21	\$ 2.43	\$ 2.23	\$ 2.42	\$ 2.12	\$ 2.21

Table 4.2.O- Columbia Energy Cost per GSF

Columbia	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross SF	238,163	242,643	242,643	242,643	245,187	245,187
Elect \$\$	\$197,536	\$201,316	\$215,285	\$258,898	\$297,459	\$293,565
Gas \$\$	\$126,388	\$142,516	\$145,827	\$73,406	\$84,234	\$126,418
Energy \$\$	\$323,924	\$343,832	\$361,112	\$332,304	\$381,693	\$419,983
Energy/GSF	\$1.36	\$1.42	\$1.49	\$1.37	\$1.56	\$1.71

Table 4.2.O1- Modesto Area Utility Unit Cost Comparison

Modesto Area	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Elec \$/KWH	\$0.128	\$0.127	\$0.126	\$0.124	\$0.120	\$0.122
Gas \$/Therm	\$0.95	\$0.86	\$0.63	\$0.81	\$0.77	\$0.82
Water \$/CCF	\$2.49	\$2.57	\$2.47	\$2.20	\$3.06	\$3.83

Table 4.2.O2- Columbia Utility Unit Cost Comparison

Columbia	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Elec \$/KWH	\$0.065	\$0.065	\$0.072	\$0.079	\$0.092	\$0.097
Gas \$/Therm	\$2.04	\$1.62	\$1.96	\$1.07	\$0.97	\$1.44
Water \$/CCF	\$3.90	\$3.81	\$3.73	\$4.38	\$2.90	\$2.95

UTILITY COSTS- Water/Sewer

The cost of water and sewer represents approximately 15% of the utility cost for the colleges.

Table 4.2.P- Modesto Area Water and Sewer Costs per GSF

Modesto Area	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross Square Feet	1,006,524	979,175	1,108,264	1,098,664	1,168,265	1,168,265
Domestic Water	\$326,305	\$313,642	\$416,282	\$356,996	\$337,182	\$380,810
Cost/GSF	\$0.32	\$0.32	\$0.38	\$0.32	\$0.29	\$0.33

Table 4.2.Q- Columbia Water and Sewer Costs per GSF

Columbia	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Gross Square Feet	238,163	242,643	242,643	242,643	245,187	245,187
Total Cost	\$114,904	\$125,179	\$125,756	\$96,485	\$75,203	\$74,089
Total Cost/GSF	\$0.48	\$0.52	\$0.52	\$0.40	\$0.31	\$0.30

Total Utility Cost Per Gross Square Foot

The total utility cost per gross square foot is an APPA performance benchmark.

The tables below show that MJC's Total Utility Cost Per Square Foot has been reduced to 2011-12 levels, whereas Columbia's has increased almost 10%. This is due to the almost 50% increase in TPPA's electrical rates at Columbia College compared to the very stable MID electrical rates at MJC.

Table 4.2.R- Modesto Area Total Utility Cost per Gross Square Foot

Modesto Area	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Electrical/ GSF	\$1.81	\$1.97	\$1.83	\$2.01	\$1.76	\$1.78
Nat Gas/GSF	\$0.40	\$0.46	\$0.40	\$0.41	\$0.35	\$0.43
Water/GSF	\$0.32	\$0.32	\$0.38	\$0.32	\$0.29	\$0.33
Total Cost/GSF	\$2.54	\$2.76	\$2.61	\$2.74	\$2.40	\$2.54

Table 4.2.S- Columbia Total Utility Cost per Gross Square Foot

Columbia	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Electrical/ GSF	\$0.83	\$0.83	\$0.89	\$1.07	\$1.21	\$1.20
Nat Gas/GSF	\$0.53	\$0.59	\$0.60	\$0.30	\$0.34	\$0.52
Water/GSF	\$0.48	\$0.52	\$0.52	\$0.40	\$0.31	\$0.30
Total Cost/GSF	\$1.84	\$1.93	\$2.01	\$1.77	\$1.86	\$2.02

SECTION 4.2.2- MAINTENANCE AND OPERATIONS OPERATING EXPENSE

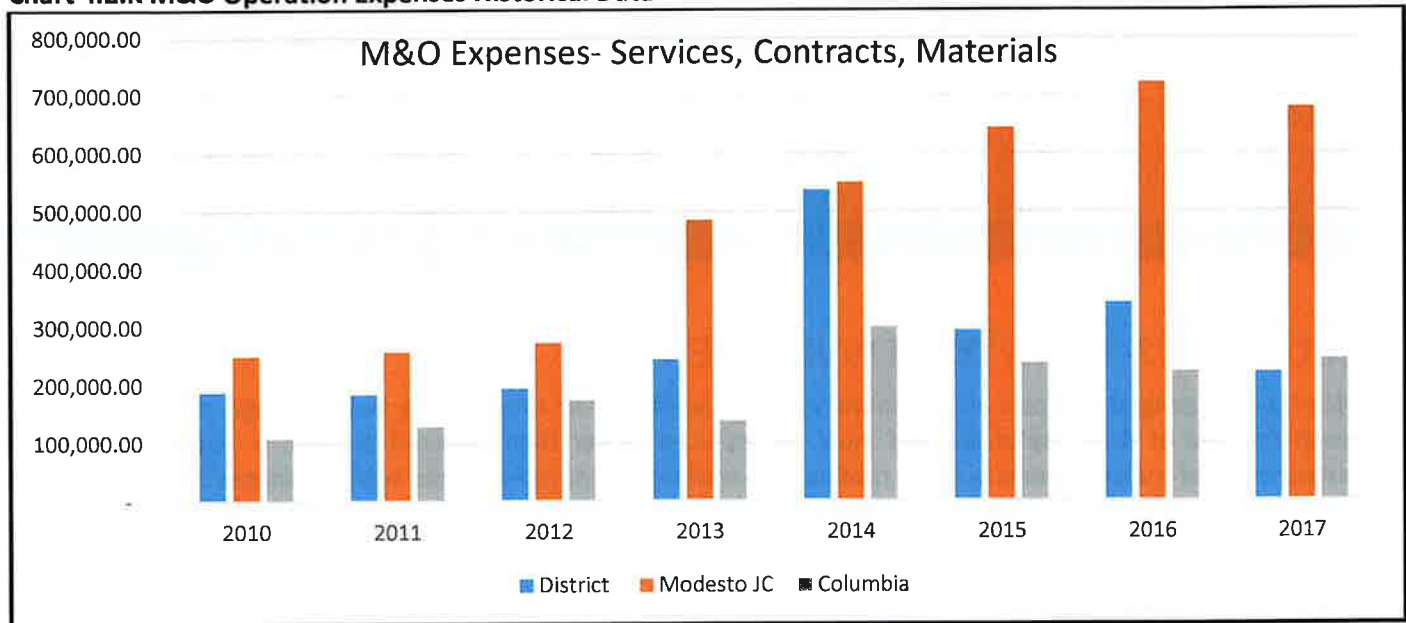
The Maintenance and Operations expense includes materials and supplies for the maintenance, custodial and grounds departments. It also includes service contracts for specialized equipment such as elevators and the automatic fire sprinkler systems and contracts for large repair projects. The expenses include operation, repair and replacement parts of the District Transportation vehicles and M&O equipment.

These costs are charged to District, Modesto JC and Columbia M&O account codes. The M&O expense costs dipped during the reduced District budgets. The expenses fluctuate depending upon available budget, the addition of service agreements and supplies such as paper products for new buildings, and large equipment repair expenses that are not consistent year-to-year.

Table 4.2.T- M&O Operations Expense Modesto Area and Columbia

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Modesto GSF	864,752	1,006,524	979,175	1,108,264	1,098,664	1,168,265	1,168,265
District	\$184,135	\$194,599	\$243,579	\$536,023	\$293,810	\$341,384	\$220,862
Modesto JC	\$257,898	\$273,509	\$484,584	\$550,155	\$643,841	\$722,950	\$678,940
Total	\$442,033	\$468,108	\$728,163	\$1,086,178	\$937,652	\$1,064,334	\$899,801
Cost/GSF	\$0.51	\$0.47	\$0.74	\$0.98	\$0.85	\$0.91	\$0.77

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Columbia GSF	210,974	238,163	242,643	242,643	242,643	245,187	245,187
Columbia	\$128,558	\$173,929	\$138,256	\$299,381	\$237,099	\$223,237	\$243,925
Cost/GSF	\$0.61	\$0.73	\$0.57	\$1.23	\$0.98	\$0.91	\$0.99

Chart 4.2.K M&O Operation Expenses Historical Data

SECTION 4.2.3- TOTAL ANNUAL OPERATING COSTS

The total Annual Cost of Operations combines M&O staffing, M&O operating expenses and utility costs for a total annual cost to operate and maintain the campus facilities, grounds and utility systems. The total annual cost per gross square foot is an estimate of the needed increase to the District's annual operating budget to operate any new facility.

The table below shows that while the MJC and District office square footage has increased by 16% since 2011-12, the amount spent on M&O staff per square foot has decreased. This largely illustrates that the same number of staff are cleaning and maintaining more square footage as was shown in Section 4.2. The amount per square foot for M&O expenses has decreased by 64% and, as noted previously, the utilities at MJC are the same as in 2011-12.

Table 4.2.U- Modesto JC + District Total Cost of Operations per Gross Square Foot

MJC +Dist	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
MJC +Dist GSF	1,006,524	979,175	1,108,264	1,098,664	1,168,265	1,168,265
M&O Staff	\$5.16	\$5.33	\$4.92	\$4.94	\$4.94	\$5.00
M&O Expense	\$0.47	\$0.74	\$0.98	\$0.85	\$0.91	\$0.77
Utilities	\$2.54	\$2.76	\$2.61	\$2.74	\$2.40	\$2.54
Total	\$8.17	\$8.83	\$8.51	\$8.54	\$8.25	\$8.31

Columbia College's gross square footage has increased slightly since 2011-12 and the college's M&O cost per square foot has increased by approximately 9%; however, the smaller size of Columbia prevents the economies of scale achieved at MJC. M&O expenses at CC increased by only 36%. As noted previously, the utility expenditures at CC have increased largely due to increased electrical rates.

Table 4.2.V- Columbia Total Cost of Operations per Gross Square Foot

Columbia	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
Columbia GSF	238,163	242,643	242,643	242,643	245,187	245,187
M&O Staff	\$4.93	\$4.80	\$5.16	\$5.25	\$5.28	\$5.36
M&O Expense	\$0.73	\$0.57	\$1.23	\$0.98	\$0.91	\$0.99
Utilities	\$1.84	\$1.93	\$2.01	\$1.77	\$1.86	\$2.02
Total	\$7.50	\$7.30	\$8.40	\$7.99	\$8.06	\$8.37

SECTION 4.3- LONG TERM INVESTMENT

Maintenance programs repair and maintain existing facilities over time. As the buildings age, multiple elements reach the end of their useful life and must be replaced rather than repaired through a major renovation or replacement of major systems such as roofing, renovation or repurpose of the building spaces or replacement of the entire building. Studies have determined that an institution should plan on investing 1%-2% of the Current Replacement Value (CRV) of the total assets per year for major maintenance, renovation or replacement projects.

MAJOR MAINTENANCE

Major Maintenance expense includes scheduled maintenance. This work involves projects or programs to restore damaged systems or replace worn out major systems such as roofing replacement or HVAC whole equipment replacement. The estimated amount of Scheduled Maintenance is listed in the 2015 Facility Condition Assessment report posted in the FUSION site. Modesto Junior College (MJC) totals \$94,110,158 and Columbia totals \$23,811,959 to replace building systems that have exceeded their useful life. The Facility Condition Index (FCI) percentage, comparing estimated major maintenance value to current replacement value, is a key performance indicator. According to the 2015 Facility Condition Assessment report, MJC has a FCI of 17.8% and Columbia's FCI is 20.5%. The magnitude of these numbers may be overstated as the District has continued to renovate campus facilities since this 2015 survey. The District's last assessment was in 2015, and another will be completed in the next cycle of assessments beginning in 2019.

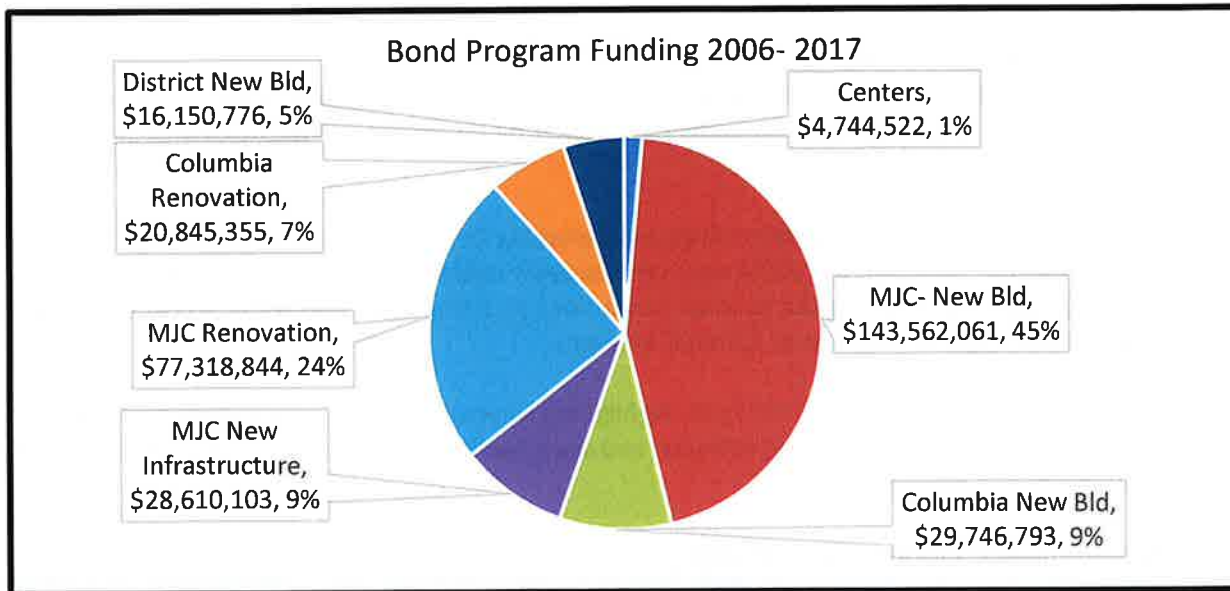
RENOVATION, REPURPOSE AND UPGRADES

Renovation, repurpose and upgrade project funding is needed to adapt facilities to new programs, improve performance and upgrade to meet new code mandated requirements. In addition, the Measure E program developed campus wide infrastructure projects, expanded the transportation network, and upgraded the technology infrastructure and Fire/Life-Safety systems.

INVESTMENT IN FACILITIES

The Facilities Master Plan incorporated Major Repair, Repurpose and Upgrade work into renovation projects at each campus. Combining the Renovation/Repair projects, the District invested an average of \$9M per year or 1.7% of the Modesto JC East and West campus Current Replacement Value of \$527M over the 10 year bond program and at Columbia College an average of \$2.4M per year or 2.1% of the \$116M CRV. This investment rate matches industry averages for ongoing investment to maintain facilities for their effective use.

Chart 4.3.A- Measure E Investment



The following tables illustrate the District's commitment to upgrading existing facilities over the 10 year bond program. This investment rate matches industry averages for ongoing investment to maintain and renovate facilities for effective use. The investment eliminated most of the significant scheduled maintenance, upgraded the campus buildings to current codes and technology standards, and repurposed spaces vacated after the construction of new facilities.

Table 4.3.A- Modesto JC 10 year Long-Term Renovation Investment

Modesto JC	
Bond Funds (fund 42)	
Renovation	\$77,318,844
Sched Maintenance	\$12,975,975
Total Investment	\$90,294,819
10 year Average	\$9,029,482
Current Replace	
Value	\$526,634,127
Annual Investment	1.7%

Table 4.3.B Columbia 10 year Long-Term Renovation Investment

Columbia	
Bond Funds	
Renovation	\$20,845,355
Sched Maintenance	\$3,755,596
Total Investment	\$24,600,951
10 year Average	\$2,460,095
Current Replace	
Value	\$116,201,370
Annual Investment	2.1%

SECTION 5- PERFORMANCE REVIEW

Section 5.1- Performance Benchmarks

The District will annually evaluate its performance against key performance indicators. They will compare against year over year performance and against benchmarks maintained by governmental agencies and statewide and national peers.

The following table lists key FY 2016/17 Modesto Area and Columbia College data and performance benchmarks with appropriate comparison benchmarks. APPA standards provide national averages for the table listed below. The high custodial staff cost may be attributed to some institutions selecting level 5 of cleanliness as their standard and higher salaries for our region compared to national averages.

The cap load ratios listed below are from FY 2017/18, highlighted in gray. The high percentage for Modesto and Columbia is due to anticipated growth not being achieved and aging facilities not removed from inventory, resulting in an excess of classroom and office space.

Table 5.1.A Key Performance Indicator Comparisons

Benchmark	Modesto	Columbia	Comparison	Data Source
Energy Cost/GSF	\$2.21	\$1.71	\$2.06	APPA
Energy Use Intensity (MBTU/GSF)	94	78	114	APPA
Custodial Staff Cost/GSF	3.11	3.02	\$1.46	APPA
Maintenance Staff Cost/GSF	1.51	1.76	\$1.67	APPA
GSF/ Maintenance Staff	77,884	49,037	75,376	APPA
GSF/ Custodial Staff	30,177	35,027	35,638	APPA
Facility Condition Index	19.87%	20.49%	18%	APPA
Annual Re-Investment	1.70%	2.10%	2.00%	APPA
Cap Load Ratio- Lecture	186%	214%	100%	CCCCO
Cap Load Ratio- Lab	98%	149%	100%	CCCCO
Cap Load Ratio- Office	183%	182%	100%	CCCCO

Section 5.2- Performance to Accreditation Section 3 Standards

The District will develop specific action steps and processes in conjunction with Accreditation review

Item 1- Develop and maintain adequate safe and secure facilities to support the educational needs of the institution.

Item 2- Develop and maintain facilities to assure effective utilization and continuing quality.

Item 3- Perform periodic re-evaluation to assure effectiveness of resources.

Item 4- Develop long term capital plans using Total Cost of Ownership.

SECTION 6- ACTION PLAN

The Yosemite Community College District is implementing a TCO Program to provide a methodology that provides data driven information to facilitate well maintained facility assets. The TCO program establishes policy, data sources, benchmarks and goals for each of the three TCO elements.

Some suggestions for the action plan are listed below:

Project Development

Objective—The Facilities Master Plan shall align with the Educational Master Plan/Strategic Goals and Objectives for Columbia College and the Education Master Plan for Modesto Junior College that will flex for input from Program Reviews. The CCCCCO Cap Load Ratio shall be evaluated before any new facility space is developed in response to Educational Program changed space needs. Every project that adds space to a campus shall complete a Life Cycle Cost analysis. Life Cycle Cost analysis will assist in the decision to remodel or build new for new programs.

Data Sources – CCCCCO Cap Load Ratio, Life Cycle Cost, Association of Physical Plant Administrators (APPA) Staffing Recommendations, APPA Key Performance Indicators

Funding - Measure E Bond Funds, State Scheduled Maintenance, Strong Workforce, State Capital Outlay Funds

- Goals** -
- Cap Ratio = 100% for Classroom, Laboratory and Office spaces
 - Energy Use Intensity (EUI)—Continue to reduce(EUI)
 - APPA Staffing Analysis=Align District Maintenance and Operations staffing and required budgets with projections of capital improvement plans
 - New Facilities= LEED Silver Certification minimum (*below is Certified, above is Gold and Platinum*)
 - District Standards=Expand and Update all District Standards for maintenance and cost savings
 - 5-year Capital Plan=Align with Facilities Master Plan

Annual Operating Costs

Objective—The District shall maintain M&O staffing for maintenance, custodial and grounds staff to meet or exceed APPA Level 3 performance, adjusting staffing as facility configurations change. (*This needs to be discussed for overall effect to the budget and to align with the campus desired level of service*).

Data Sources- APPA Standards, Utility Costs, M&O department Costs, Energy Star Regional Averages

Funding - Annual District Budget. The current Budget Allocation Model will be revised to reflect that annual

Maintenance and Operations cost is a function of total building square footage rather than student enrollment to ensure adequate M&O funding to maintain the desired APPA Level 3 performance. *(Discussion)*

- Goals -**
- M&O Staffing= Maintain APPA Level 3 staffing levels *(Discussion)*
 - Energy Cost= Continue trending lower energy usage and costs per GSF
 - Water Cost= Continue trending lower water usage per GSF
 - M&O Expenses=Trend lower repair costs due to new preventative maintenance program Annual
 - Operating Costs= Trend lower
 - M&O Work Order response time=Continue to reduce response and resolution time

Long Term Management

Objective—The District will identify and track scheduled maintenance projects. They may be a separate project or incorporated into Strong Workforce or Capital Outlay renovation projects. The District will develop and maintain a Scheduled Maintenance program. The District will develop campus wide projects to upgrade and update building and utility systems to address code and operation changes. The District will continue to pursue outside funding sources for sustainability related upgrades and improvements.

Data Sources - Facilities Assessment Report, State Scheduled Maintenance Project List, Facilities Master Plan

Funding - State Scheduled Maintenance Funds, Strong Workforce, State Capital Outlay

- Goals -**
- Facilities Assessment Report = State Scheduled Maintenance amounts continue to trend downward
 - Scheduled Maintenance=Funded annually
 - Measure E – Renovation and Replacement expenditures allocated by project lists and approval of Scheduled Maintenance projects
 - Assess funding shortfalls for scheduled maintenance and the possibility of a new bond measure which includes an amount for long-term small capital outlay projects.

APPENDIX A

Columbia - Individual Major Buildings 10 year Total Cost of Ownership

Draft

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building
BUCKEYE (BUSINESS)

Building Number 907

Factors

Current Replacement Value	2015	\$2,689,568
Assignable SF		3,130
Gross SF		5,585
Major Repair Percentage	1.5%	
FCI		37.94%
Current Repair Cost	2015	\$1,020,388
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1969	
Last Renovation			
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 6.29
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 9.30

Calculated Staff

Custodial
Maintenance

Building Name BUCKEYE (BUSINESS)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Current Replacement Value	2,689,568								
Annual Costs									
Utility- Electric	6,702	6,970	7,249	7,539	7,840	8,154	8,480	8,819	9,172
Utility- Gas	2,904	3,020	3,141	3,267	3,398	3,533	3,675	3,822	3,975
Utility- Water	1,676	1,743	1,812	1,885	1,960	2,039	2,120	2,205	2,293
M&O Staff	35,131	36,185	37,271	38,389	39,540	40,727	41,948	43,207	44,503
Misc Expense	5,529	5,695	5,866	6,042	6,223	6,410	6,602	6,800	7,004
Total Annual Expenses	51,942	53,613	55,339	57,121	58,962	60,862	62,825	64,853	66,947
Long Term									
Major Repair	40,344	41,554	42,800	44,084	45,407	46,769	48,172	49,617	51,106
Renovation/Upgrades									
Total Cost of Ownership	2,781,854	95,167	98,139	101,205	104,369	107,632	110,998	114,470	118,053

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building
FIR (INTERDISCIPL.)

Building Number

922

Factors

Current Replacement Value	2015	\$3,785,140
Assignable SF		5,319
Gross SF		7,860
Major Repair Percentage	1.5%	
FCI		48.06%
Current Repair Cost	2015	\$1,818,962
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1976	
Last Renovation			
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 5.48
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 8.49

Calculated Staff

Custodial
Maintenance

Building Name

FIR (INTERDISCIPL.)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	
Current Replacement Value	3,785,140									
Annual Costs										
Utility- Electric	9,432	9,809	10,202	10,610	11,034	11,475	11,934	12,412	12,908	
Utility- Gas	4,087	4,251	4,421	4,598	4,781	4,973	5,172	5,378	5,594	
Utility- Water	2,358	2,452	2,550	2,652	2,759	2,869	2,984	3,103	3,227	
M&O Staff	43,041	44,332	45,662	47,032	48,443	49,896	51,393	52,935	54,523	
Misc Expense	7,781	8,015	8,255	8,503	8,758	9,021	9,291	9,570	9,857	
Total Annual Expenses	66,700	68,859	71,090	73,395	75,775	78,234	80,774	83,398	86,109	
Long Term										
Major Repair	56,777	58,480	60,235	62,042	63,903	65,820	67,795	69,829	71,924	
Renovation/Upgrades										
Total Cost of Ownership	3,908,617	127,340	131,325	135,437	139,678	144,054	148,569	153,227	158,033	

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building

MANZANITA (LRC)

Building Number

912

Factors

Current Replacement Value	2015	\$14,513,816
Assignable SF		22,222
Gross SF		31,183
Major Repair Percentage	1.5%	
FCI		34.33%
Current Repair Cost	2015	\$4,982,752
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		2017	
Last Renovation			
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 4.77
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 7.78

Calculated Staff

Custodial
Maintenance

Building Name

MANZANITA (LRC)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Current Replacement Value	14,513,816								
Annual Costs									
Utility- Electric	37,420	38,916	40,473	42,092	43,776	45,527	47,348	49,242	51,211
Utility- Gas	16,215	16,864	17,538	18,240	18,969	19,728	20,517	21,338	22,192
Utility- Water	9,355	9,729	10,118	10,523	10,944	11,382	11,837	12,310	12,803
M&O Staff	148,699	153,160	157,755	162,487	167,362	172,383	177,554	182,881	188,367
Misc Expense	30,871	31,797	32,751	33,734	34,746	35,788	36,862	37,968	39,107
Total Annual Expenses	242,560	250,467	258,636	267,076	275,797	284,808	294,118	303,739	313,680
Long Term									
Major Repair	217,707	224,238	230,966	237,895	245,031	252,382	259,954	267,752	275,785
Renovation/Upgrades									
Total Cost of Ownership	14,974,083	474,705	489,601	504,971	520,828	537,190	554,072	571,491	589,465

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building

OAK PAVILION

Building Number 927

Factors

Current Replacement Value	2015	\$32,684,704
Assignable SF		34,550
Gross SF		51,026
Major Repair Percentage	1.5%	
FCI		15.87%
Current Repair Cost	2015	\$5,187,940
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1991	
Last Renovation			
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 5.53
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 8.54

Calculated Staff

Custodial
Maintenance

Building Name

OAK PAVILION

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	:
Current Replacement Value	32,684,704									
Annual Costs										
Utility- Electric	61,231	63,680	66,228	68,877	71,632	74,497	77,477	80,576	83,799	
Utility- Gas	26,534	27,595	28,699	29,847	31,040	32,282	33,573	34,916	36,313	
Utility- Water	15,308	15,920	16,557	17,219	17,908	18,624	19,369	20,144	20,950	
M&O Staff	282,002	290,462	299,176	308,151	317,395	326,917	336,725	346,827	357,231	
Misc Expense	50,516	52,031	53,592	55,200	56,856	58,562	60,318	62,128	63,992	
Total Annual Expenses	435,590	449,688	464,251	479,293	494,832	510,882	527,463	544,591	562,285	
Long Term										
Major Repair	490,271	504,979	520,128	535,732	551,804	568,358	585,409	602,971	621,060	
Renovation/Upgrades										
Total Cost of Ownership	33,610,565	954,667	984,379	1,015,025	1,046,635	1,079,240	1,112,872	1,147,562	1,183,345	

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building

PUBLIC SAFETY CENTER

Building Number 931

Factors

Current Replacement Value	2015	\$2,823,948
Assignable SF		3,962
Gross SF		5,774
Major Repair Percentage	1.5%	
FCI		0.00%
Current Repair Cost	2015	\$0
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1971	
Last Renovation		2009	
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 8.27
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 11.28

Calculated Staff

Custodial
Maintenance

Building Name

PUBLIC SAFETY CENTER

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Current Replacement Value	2,823,948								
Annual Costs									
Utility- Electric	6,929	7,206	7,494	7,794	8,106	8,430	8,767	9,118	9,483
Utility- Gas	3,002	3,123	3,247	3,377	3,512	3,653	3,799	3,951	4,109
Utility- Water	1,732	1,801	1,874	1,948	2,026	2,107	2,192	2,279	2,371
M&O Staff	47,750	49,182	50,658	52,178	53,743	55,355	57,016	58,726	60,488
Misc Expense	5,716	5,888	6,064	6,246	6,434	6,627	6,826	7,030	7,241
Total Annual Expenses	65,130	67,200	69,337	71,544	73,821	76,172	78,599	81,105	83,692
Long Term									
Major Repair	42,359	43,630	44,939	46,287	47,676	49,106	50,579	52,096	53,659
Renovation/Upgrades									
Total Cost of Ownership	2,931,437	110,830	114,276	117,831	121,497	125,278	129,178	133,201	137,351

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building
SEQUOIA (LIFE SCI)

Building Number

925

Factors

Current Replacement Value	2015	\$3,971,508
Assignable SF		6,150
Gross SF		8,247
Major Repair Percentage	1.5%	
FCI		64.38%
Current Repair Cost	2015	\$2,556,956
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1977	
Last Renovation		2013	
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 3.98
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 6.99

Calculated Staff

Custodial
Maintenance

Building Name

SEQUOIA (LIFE SCI)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Current Replacement Value	3,971,508								
Annual Costs									
Utility- Electric	9,896	10,292	10,704	11,132	11,577	12,040	12,522	13,023	13,544
Utility- Gas	4,288	4,460	4,638	4,824	5,017	5,218	5,426	5,643	5,869
Utility- Water	2,474	2,573	2,676	2,783	2,894	3,010	3,131	3,256	3,386
M&O Staff	32,843	33,828	34,843	35,888	36,965	38,074	39,216	40,393	41,604
Misc Expense	8,165	8,409	8,662	8,922	9,189	9,465	9,749	10,041	10,343
Total Annual Expenses	57,666	59,563	61,523	63,549	65,643	67,807	70,044	72,356	74,746
Long Term									
Major Repair	59,573	61,360	63,201	65,097	67,050	69,061	71,133	73,267	75,465
Renovation/Upgrades									
Total Cost of Ownership	4,088,747	120,923	124,724	128,646	132,692	136,868	141,177	145,623	150,211

Yosemite Community College District - Columbia
Total Cost of Ownership Projections -By Building

SUGAR PINE

Building Number 938

Factors

Current Replacement Value	2015	\$18,418,977
Assignable SF		17,098
Gross SF		32,589
Major Repair Percentage	1.5%	
FCI		0.07%
Current Repair Cost	2015	\$13,338
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		2011	
Last Renovation			
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 5.49
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 8.50

Calculated Staff

Custodial
Maintenance

Building Name

SUGAR PINE

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Current Replacement Value	18,418,977								
Annual Costs									
Utility- Electric	39,107	40,671	42,298	43,990	45,749	47,579	49,483	51,462	53,520
Utility- Gas	16,946	17,624	18,329	19,062	19,825	20,618	21,442	22,300	23,192
Utility- Water	9,777	10,168	10,574	10,997	11,437	11,895	12,371	12,865	13,380
M&O Staff	179,029	184,400	189,932	195,630	201,498	207,543	213,770	220,183	226,788
Misc Expense	32,263	33,231	34,228	35,255	36,312	37,402	38,524	39,680	40,870
Total Annual Expenses	277,122	286,094	295,361	304,934	314,822	325,037	335,589	346,490	357,751
Long Term									
Major Repair	276,285	284,573	293,110	301,904	310,961	320,290	329,898	339,795	349,989
Renovation/Upgrades									
Total Cost of Ownership	18,972,383	570,667	588,471	606,838	625,783	645,327	665,488	686,285	707,740

Yosemite Community College District - Columbia

Total Cost of Ownership Projections -By Building

TAMARACK HALL(LRC/MEDIA)

Building Number

929

Factors

Current Replacement Value	2015	\$11,315,669
Assignable SF		15,678
Gross SF		20,021
Major Repair Percentage	1.5%	
FCI		0.12%
Current Repair Cost	2015	\$13,603
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		2003	
Last Renovation			
Elect	\$/GSF	\$ 1.20	\$ 1.20
Nat Gas	\$/GSF	\$ 0.52	\$ 0.52
Water/Sew	\$/GSF	\$ 0.30	\$ 0.30
M&O Staff	\$/GSF	\$ 5.36	\$ 3.87
M&O Expen	\$/GSF	\$ 0.99	\$ 0.99
Total		\$ 8.37	\$ 6.88

Calculated Staff

Custodial
Maintenance

Building Name

TAMARACK HALL(LRC/MEDIA)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Current Replacement Value	11,315,669									
Annual Costs										
Utility- Electric	24,025	24,986	25,986	27,025	28,106	29,230	30,400	31,616	32,880	
Utility- Gas	10,411	10,827	11,260	11,711	12,179	12,666	13,173	13,700	14,248	
Utility- Water	6,006	6,247	6,496	6,756	7,027	7,308	7,600	7,904	8,220	
M&O Staff	77,564	79,891	82,287	84,756	87,299	89,918	92,615	95,394	98,255	
Misc Expense	19,821	20,415	21,028	21,659	22,308	22,978	23,667	24,377	25,108	
Total Annual Expenses	137,827	142,366	147,058	151,907	156,919	162,100	167,455	172,990	178,712	
Long Term										
Major Repair	169,735	174,827	180,072	185,474	191,038	196,769	202,673	208,753	215,015	
Renovation/Upgrades										
Total Cost of Ownership	11,623,231	317,193	327,130	337,381	347,957	358,869	370,127	381,743	393,727	

APPENDIX B

Modesto Junior College - Individual Major Buildings 10 year Total Cost of Ownership

Yosemite Community College District - Modesto Junior College

Total Cost of Ownership Projections -By Building

ANSEL ADAMS HALL(N. HALL

Building Number

46

Factors

Current Replacement Value	2015	\$11,758,872
Assignable SF		15,206
Gross SF		23,546
Major Repair Percentage	1.5%	
FCI		36.22%
Current Repair Cost	2015	\$4,259,510
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1974	
Last Renovation			
Elect	\$/GSF	\$ 1.78	\$ 1.78
Nat Gas	\$/GSF	\$ 0.43	\$ 0.43
Water/Sew	\$/GSF	\$ 0.33	\$ 0.33
M&O Staff	\$/GSF	\$ 5.00	\$ 6.13
M&O Expen	\$/GSF	\$ 0.77	\$ 0.77
Total		\$ 8.31	\$ 9.44

Calculated Staff

Custodial
Maintenance

Building Name

ANSEL ADAMS HALL(N. HALL

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	
Current Replacement Value	11,758,872									
Annual Costs										
Utility- Electric	41,912	43,588	45,332	47,145	49,031	50,992	53,032	55,153	57,359	
Utility- Gas	10,007	10,407	10,824	11,257	11,707	12,175	12,662	13,169	13,695	
Utility- Water	7,770	8,081	8,404	8,740	9,090	9,454	9,832	10,225	10,634	
M&O Staff	144,421	148,754	153,217	157,813	162,548	167,424	172,447	177,620	182,949	
Misc Expense	18,130	18,674	19,235	19,812	20,406	21,018	21,649	22,298	22,967	
Total Annual Expenses	222,241	229,505	237,011	244,767	252,781	261,063	269,621	278,465	287,604	
Long Term										
Major Repair	176,383	181,675	187,125	192,739	198,521	204,476	210,611	216,929	223,437	
Renovation/Upgrades										
Total Cost of Ownership	12,157,496	411,180	424,136	437,505	451,302	465,539	480,232	495,394	511,041	

Yosemite Community College District - Modesto Junior College
Total Cost of Ownership Projections -By Building

ART

Building Number 7

Factors

Current Replacement Value	2015	\$10,608,255
Assignable SF		14,251
Gross SF		21,242
Major Repair Percentage	1.5%	
FCI		43.59%
Current Repair Cost	2015	\$4,624,559
Annual Escalation- Labor+ Mat	3.0%	
Annual Escalation -Utilities	4.0%	

Year Built		1964	
Last Renovation			
Elect	\$/GSF	\$ 1.78	\$ 1.78
Nat Gas	\$/GSF	\$ 0.43	\$ 0.43
Water/Sew	\$/GSF	\$ 0.33	\$ 0.33
M&O Staff	\$/GSF	\$ 5.00	\$ 3.98
M&O Expen	\$/GSF	\$ 0.77	\$ 0.77
Total		\$ 8.31	\$ 7.28

Calculated Staff
Custodial
Maintenance

Building Name ART

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	
Current Replacement Value	10,608,255									
Annual Costs										
Utility- Electric	37,811	39,323	40,896	42,532	44,233	46,003	47,843	49,756	51,747	
Utility- Gas	9,028	9,389	9,765	10,155	10,561	10,984	11,423	11,880	12,355	
Utility- Water	7,010	7,290	7,582	7,885	8,201	8,529	8,870	9,224	9,593	
M&O Staff	84,472	87,006	89,616	92,305	95,074	97,926	100,864	103,890	107,007	
Misc Expense	16,356	16,847	17,352	17,873	18,409	18,961	19,530	20,116	20,720	
Total Annual Expenses	154,677	159,856	165,211	170,750	176,478	182,403	188,530	194,867	201,422	
Long Term										
Major Repair	159,124	163,898	168,814	173,879	179,095	184,468	190,002	195,702	201,573	
Renovation/Upgrades										
Total Cost of Ownership	10,922,055	323,753	334,026	344,629	355,574	366,871	378,532	390,569	402,995	