



**Facilities Department  
5-Year Plan**

# Glendale Community College

## Facilities Department Mission Statement

*The Facilities Management Department is committed to providing quality maintenance and operational support as well as identifying potential safety hazards that may affect all organizations of the Glendale Community College District. This guides our focus to providing and maintaining the physical place where learning is supported. As one of the largest departments in the Glendale Community College District with over 60 employees, we oversee daily operations of the district, campus development, and sustainability efforts. We strive to continue and reinforce a culture of collaboration, communication, and employee empowerment within the department. This will, in turn, increase community relations, resulting in our students' pursuit of knowledge, skills, and self-development in order to contribute to and enrich our global society. Our goal is to keep Glendale Community College ready and able to facilitate an environment conducive to learning and one that gains respect from the community.*

# Net Asset Value (NAV)

Measuring the “percent good” condition of a building

Portfolio	NAV (Net Asset Value) Range
Capital Upkeep	100% - 85%
Repair & Maintain	84% - 70%
Systemic Renovation	69% - 50%
Transitional	Below 50%

NAV (Net Asset Value) Formula :  
(Replacement Value – Building Need) / Replacement Value

Sierra Vista:  
 $(\$42,796,400 - \$2,977,000) / \$42,796,400 = 93\%$

Sierra Nevada:  
 $(\$8,002,978 - \$7,046,000) / \$8,002,978 = 12\%$

## Investment Strategy

**Capital Upkeep Stage:** Primarily new or recently renovated buildings with sporadic building repair & life cycle needs

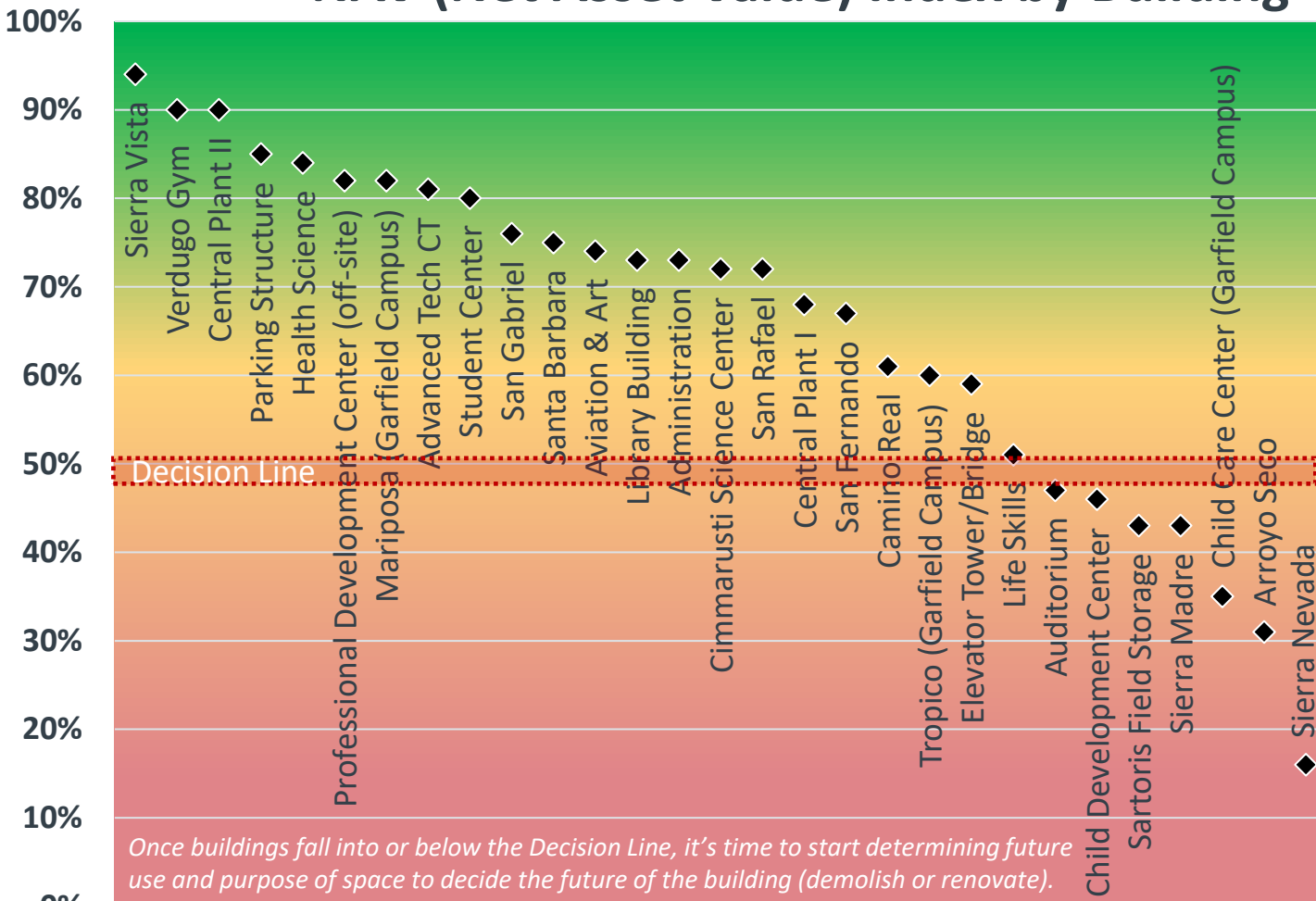
**Repair & Maintain Stage:** Buildings are beginning to show their age and may require more significant investment and renovation on a case-by-case basis

**Systemic Renovation Stage:** Buildings require more significant repairs; major building components are in jeopardy of complete failure; large-scale capital infusions or renovations are inevitable

**Transitional Stage:** Major buildings components are in jeopardy of failure. Reliability issues are widespread throughout the building.

# Net Asset Value (NAV)

## NAV (Net Asset Value) Index by Building\*



\*NAV reflects building need only, and does not reflect infrastructure need

## Investment Strategy

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# Buildings Ranked by ( Facilities Condition Index) FCI

The FCI is a quality rating expressed as the total cost of needed building repairs divided by the current cost of replacing the building.

Building	FCI
Sierra Vista	6%
Verdugo Gym	10%
Central Plant II	10%
Parking Structure	15%
Health Science	16%
Professional Development Center (off-site)	18%
Mariposa (Garfield Campus)	18%
Advanced Tech CT	19%
Student Center	20%
San Gabriel	24%
Santa Barbara	25%
Aviation & Art	26%
Library Building	27%
Administration	27%
Cimmarusti Science Center	28%
San Rafael	28%
Central Plant I	32%
San Fernando	33%
Camino Real	39%
Tropico (Garfield Campus)	40%
Elevator Tower/Bridge	41%
Life Skills	49%
Auditorium	53%
Child Development Center	54%
Sartoris Field Storage	57%
Sierra Madre	57%
Child Care Center (Garfield Campus)	65%
Arroyo Seco	69%
Sierra Nevada	84%

# Replacement Value for Bldgs.

Building	Replacement Value
Sierra Vista	\$45,946,974
Central Plant II	\$549,336
Verdugo Gym	\$19,199,944
Parking Structure	\$5,041,579
Health Science	\$20,457,287
Mariposa (Garfield Campus)	\$19,518,101
Professional Development Center (off-site)	\$5,234,280
Advanced Tech CT	\$10,851,354
Student Center	\$8,167,896
San Gabriel	\$31,456,883
Santa Barbara	\$2,535,705
Aviation & Art	\$14,454,981
Administration	\$21,286,268
Library Building	\$35,044,418
Cimmarusti Science Center	\$8,164,094
San Rafael	\$16,900,961
Central Plant I	\$859,831
San Fernando	\$8,090,113
Camino Real	\$10,674,343
Tropico (Garfield Campus)	\$13,344,147
Elevator Tower/Bridge	\$483,177
Life Skills	\$623,974
Auditorium	\$22,657,987
Child Development Center	\$2,052,687
Sartoris Field Storage	\$505,628
Sierra Madre	\$8,468,279
Child Care Center (Garfield Campus)	\$936,260
Arroyo Seco	\$10,298,863
Sierra Nevada	\$8,592,139

The Replacement Value is a model that considers each building's:

1) Gross Square Footage

2) Function of Space

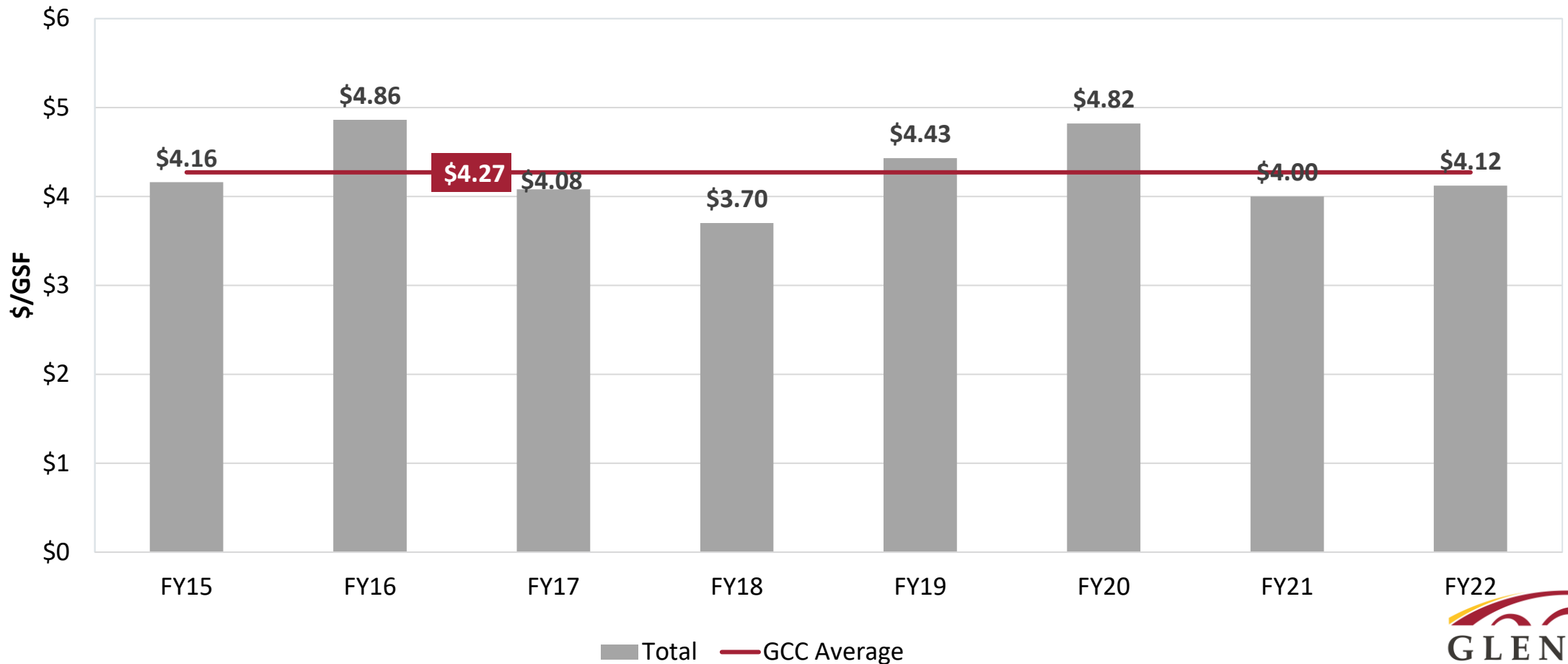
3) Technical Complexity

(based on the number of HVAC outside air changes)

# Facilities Operating Budget

GCC spend for running campus day-to-day decreased over the past couple of years  
(data excludes people costs: i.e., salaries, wages, benefits, and overtime)

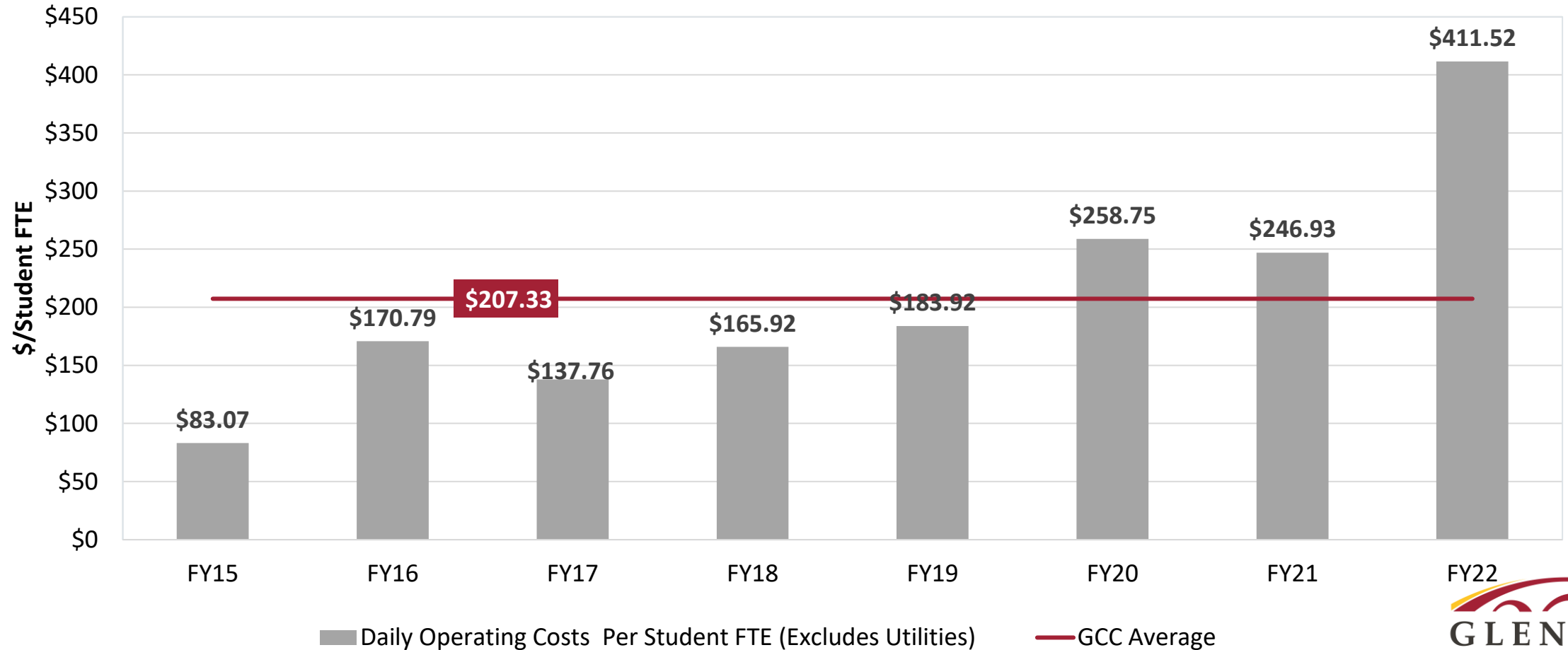
## Facilities Operating Actuals



# Facilities Operating Budget

With enrollment down for fiscal year 2022, the amount of dollars on average per student FTE rose.

## Facilities Operating Actuals





# Electrical Maintenance

Currently filled through a third-party vendor

- **1 Full-Time Equivalent (2,080 hours)**
- **Completes both minor capital projects for the College District and daily work orders across all buildings**
- **Participates in extra training required in addition to the Facilities Department current regularly scheduled safety training**
- Adding square footage and increasing the number of classrooms on campus will inevitably result in more electrical maintenance. Examples include:
  - Energy management of occupancy sensors and LED fixtures
  - Above items require maintenance throughout the lifespan of the equipment
- District must keep up with the new, upgraded, technologies ordered by faculty
- Safety issues to consider:
  - Updating the older electrical infrastructure, especially with original buildings on campus is critical
  - Annual preventative maintenance of building switch gears – will mitigate unforeseen power shutdowns
- Although some funds come from Measure GC to remodel various electrical infrastructure, we need a sustainable budget to maintain and invest in upgrading systems over the next few years as the current work orders being generated are patches to the existing systems

# Plumbing Maintenance

Currently filled through a third-party vendor

- **0.6 Full-Time Equivalent (1,248 hours)**
- **Completes both minor capital projects for the College District and daily work orders across all buildings**
- **Participates in extra training required in addition to the Facilities Department current regularly scheduled safety training**
- There are a wide range of costs associated with water conservation, instructional support, and preventative maintenance for the health and safety of students, faculty, and staff
- These include:
  - Increasing quality of drinking water around campus and installing bottle filling stations
  - Installing motion detection valves on sinks, urinals, and any item that dispenses water (annual maintenance needed)
  - Air compressors for faculty equipment such as:
    - CNC machines and welding machines
    - Instructional equipment used in art, sculpture, and ceramics classes (bi-annual preventative maintenance required)
  - Implementing preventative maintenance on drains by hydro jetting
  - Bi-annual evaluations of storm drains, especially in preventing insect infestations
  - Upgrade drains and pipes of original campus buildings to prevent frequent stoppages due to deferred maintenance

# Door and Lock Maintenance

Currently filled through a third-party vendor

- **1 Full-Time Equivalent (2,080 hours)**
- **Completes both minor capital projects for the College District and daily work orders across all buildings**
- **Participates in extra training required in addition to the Facilities Department current regularly scheduled safety training**

Increasing the size of the campuses requires the installation of more doors/locks, preventative maintenance for proper function, and upgrades to existing infrastructure. The following are already being done in addition to other goals that would require more funding for operations:

- Installing doors and locks with safety and security features for instances such as an active shooter on campus
- Current work is being done on over 250 doors district-wide for new safety and security features
- Faculty and staff requests of electronic locks for increased security and convenience; however, these locks are susceptible to damage if not used properly and require regular maintenance
- Bi-annual preventative maintenance on door closures and exit devices in buildings to ensure reliable security overnight and on the weekends
- Increasing area and building access for students with disabilities on the main campus, Garfield, and PDC in line with the ADA Act
- Substantially completed the installation of touchless ADA door opening sensors – remaining areas for installations in progress

# HVAC Maintenance

Currently filled through a third-party vendor

- **2 Full-Time Equivalent (2,080 hours each)**
- **Completes both minor capital projects for the College District and daily work orders across all buildings**
- **Participates in extra training required in addition to the Facilities Department current regularly scheduled safety training**
- Expanding the square footage of the college's campuses will require new systems to be put in place and as a result more funds required for maintenance and repair of the increased number of HVAC systems and equipment.
- Some examples of equipment with high operational costs that need increased repair, replacement, maintenance, and upgrades are:
  - Filters
  - Sheaves/Pulleys
  - Variable Frequency Drives
  - Boilers
  - Contactors/Compressors
- Related responsibilities include scheduling deferred maintenance for HVAC equipment such as boilers, air handlers, and chillers
- Progressing toward ever-increasing energy efficient technology will create a better outlook of financial sustainability for the College District down the road, but will require a cost upfront in the short-term to help reach that goal

# HVAC Energy Management & Controls

Currently filled through a third-party vendor

- 0.6 Full Time Equivalent (1,248 hours)

- Our Energy Management System (EMS) is a vital part of our HVAC system to monitor proper airflow, room temperatures, and CO2 levels
  - We have recently installed software that allows the Facilities Department to be notified of any energy management related faults, such as:
    - Motors failure
    - Pump failure
    - Air handler malfunctions
    - Variable frequency drive malfunctions
- In addition to our EMS system, the square footage increase would require the use of a new Direct Digital Control system to more efficiently monitor and diagnose problems on campus
- The Facilities Department is consistently exploring new methods to incorporate to the College District's EMS as well as updating associated graphics of respective buildings and equipment

# General Building Maintenance

Currently filled through a third-party vendor

- **1 Full-Time Equivalent (2,080 hours)**
- **Completes both minor capital projects for the College District and daily work orders across all buildings**
- **Participates in extra training required in addition to the Facilities Department current regularly scheduled safety training**
  - Conducting inspections to maintain buildings' safety standards. This is especially critical for seismic compliances that are necessary via Work Order Spot Checks as it is a life and safety matter
  - Cosmetic repairs and maintenance connected to carpets, ceiling tiles, wall repairs as well as painting and patching rooms
  - Assembling of furniture for faculty and staff
  - Removing or repairing any vandalized items or areas district-wide

# Grounds Maintenance

Currently staffed by District employees

- **4 Full-Time Equivalent (2,080 hours each)**
  - **Completes both minor capital projects for the College District and daily work orders across all buildings**
  - **Participates in extra training required in addition to the Facilities Department current regularly safety training**
- Maintaining areas located on the peripheries of District campuses, such as the Verdugo CDC where nature meets our urban environment, would prevent the spread of health hazards caused by pests. In addition, these same areas may also pose fire hazards as well given California's history of brush fires in drought seasons if areas are left unkept
  - Maintenance of District grounds, especially in greenery areas also prevent the formations of trip hazards to students, faculty, and staff
  - Current processes of trimming hedges, bushes, trees, planting drought resistant plants, and implementing drip-irrigation systems:
    - Align with our District Mission of water conservation
    - Reduce the cost of utilities
    - Improve aesthetics of the District Campuses
    - Provide overall increased financial sustainability
  - Modernization of Grounds Department equipment to maintain safety standards and increase efficiency of grounds maintenance

# Environmental Services and Upkeep

Currently staffed with District employees and supplemented by a third-party vendor

- **44 total individuals (includes 37 Full-Time Equivalents and 7 Full-Time third-party vendor employees) - 2,080 hours each**
- **Completes both minor capital projects for the College District and daily work orders across all buildings**
- **District employees participate in extra training required in addition to the Facilities Department current regularly scheduled safety training**
- Upgrading custodial equipment where the machines have reached the end of their lifespan.
  - We are in the process of ordering new equipment and implementing semi-annual maintenance processes for the equipment
  - Current equipment is sent for repair 2 to 3 times a month, costing more time and money as well as loss of maintenance to classrooms
- Training custodial staff to work around class schedules for more stripping and waxing of classrooms in order to improve the condition of learning spaces for a better instructional environment for our students
- Purchasing training packages and outsourcing contractors for training to ensure safety of custodians and continuation of improved performance to maintain health, safety, and proper instructional environments district-wide



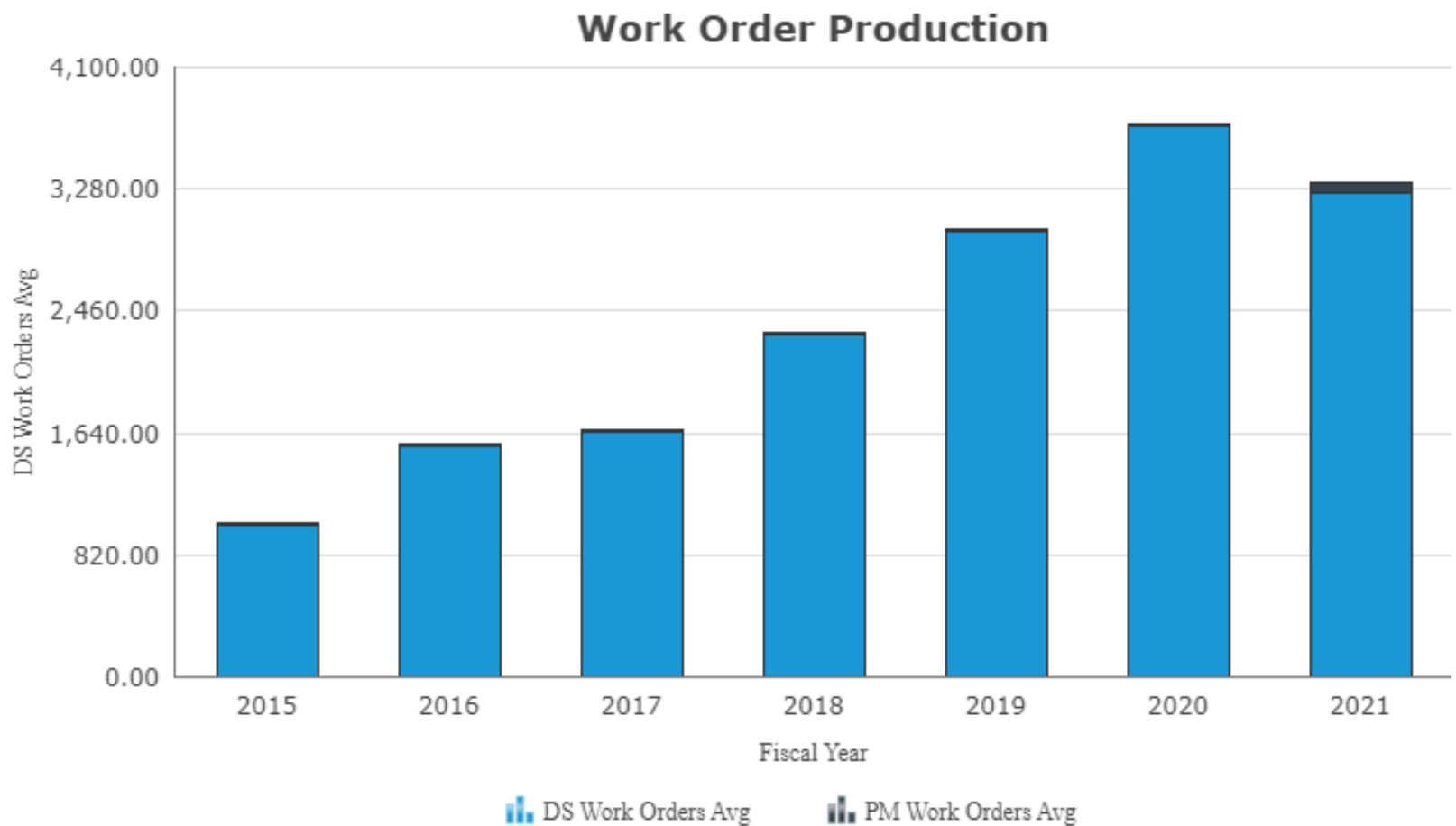
# Maintenance Analysis & Evaluation

The District has systems in place to ensure access, safety, and security of all learning and working environments, and to quickly identify improvement or repair needs through regular reports, evaluations, committee meetings, and the work order system. The Facilities Plan reflects the District's commitment to mission-driven planning of physical resources.

For example, the plan details how Measure GC prioritizes the expansion and improvement of instructional and learning support spaces in ways that support the mission and align with the Institutional Strategic Plan.

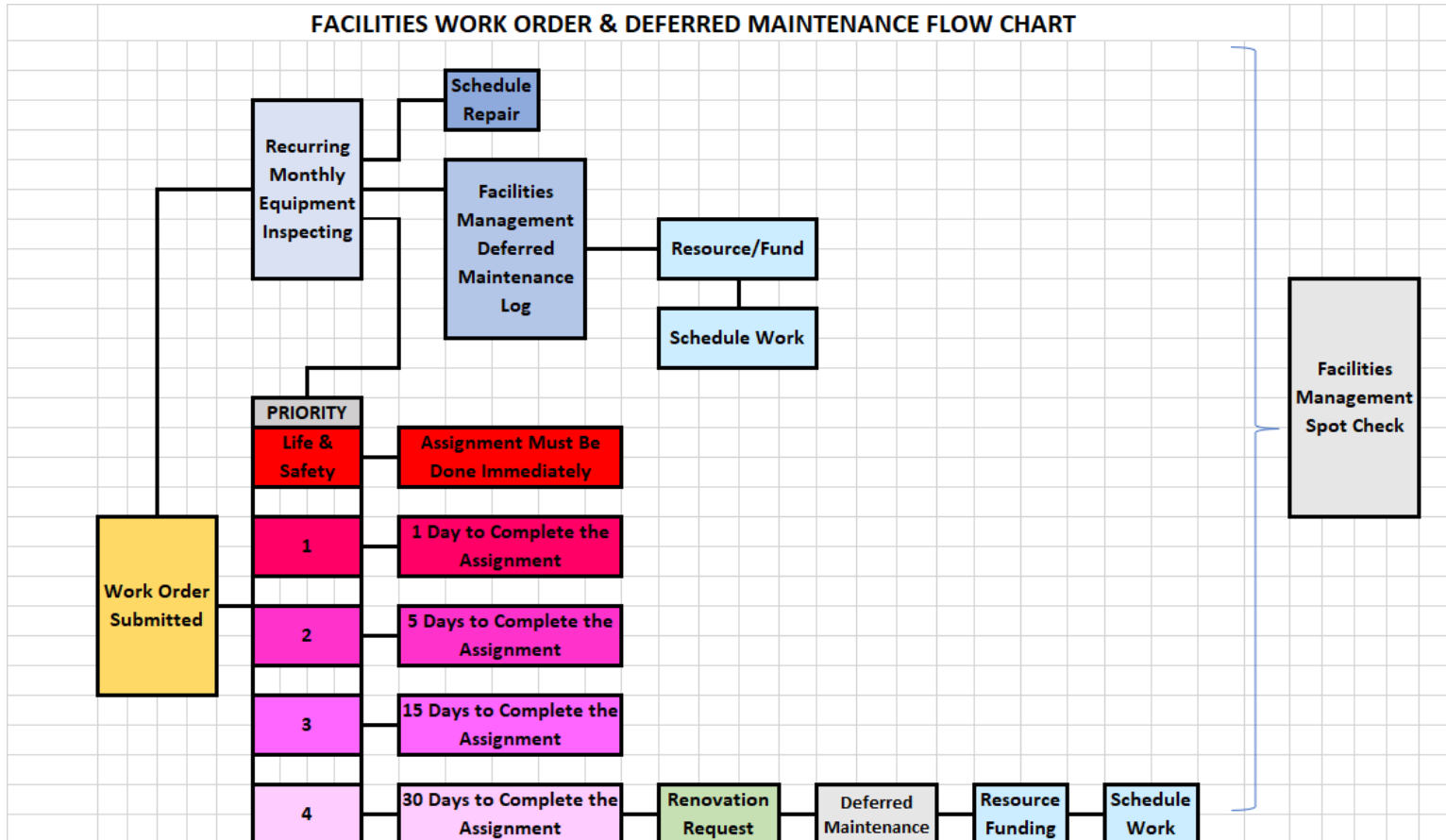
The Facilities Department also conducts a regular program review to evaluate its effectiveness in addressing facilities and equipment needs that support programs and services. The program review documents the Facilities department's substantial efforts to ensure health and safety to students and employees for whom learning and working on campus was necessary during an unprecedented pandemic. For instance, ionization systems and ultraviolet lights were installed in air handlers and air filtration was upgraded district wide. Face mask and hand sanitizer stations as well as plastic sneeze guards were also installed district wide. Further, the program review describes the repair of equipment such as electric carts to meet the need for transporting students with disabilities to various areas of the College.

# Success With the Work Order System Tracking



# Success With the Work Order System

FACILITIES WORK ORDER & DEFERRED MAINTENANCE FLOW CHART



## Why it's important?

### Efficiencies & Effectiveness

- Discover campus hotspots
- Integrate capital selection
- Provide leadership with hard data
- Fix instead of band aid

### Standards & Processes

- Standard submittal process
- Automated PM Schedule
- Customer Service Process
- Home base for Operators

### Facilities Fast Facts

- What's broken
- Trouble buildings
- How often it breaks
- Who fixed it

# Glendale Community College

## Major Capital Projects and Physical Resource Support

*As presented in the Facilities Plan, physical spaces are assessed and plans are subsequently established to ensure facilities are sufficient to meet the needs of the District. Such planning and evaluation is supported by benchmarking and analysis as well as the review of space inventories. The District has also implemented a new physical assets management process to ensure ongoing investment, renovations, and life extension of all physical assets. All new buildings and renovations are designed to meet seismic, structural, fire/life/safety and access requirements under California code, as per approval of the Division of the State Architect (DSA). The maintenance of structural and facilities safety standards is ensured by monthly safety audits as part of its Injury and Illness Prevention Program as well as work order completion reports from the work order system. Hazardous waste is regularly disposed of in a safe manner and compliance with all requirements regarding air quality is ensured.*

# Waste Recycling Program

The following information outlines our commitment in doing everything we can on our Verdugo and Garfield campuses to help the environment:

- All of the contents of our waste bins are taken by Southland Disposals, where they transport these items to their own Materials Recovery Facility (MRF)
  - Through an initial evaluation of each load of waste, all recyclable materials such as cans, bottles, paper metal, glass, and cardboard are separated
  - After the initial recyclable material filtration process, remaining waste is sent to another MRF to go through the contents again to maximize reusable materials of each load
  - Green waste is also taken to the MRF where non green items are removed and the remaining green waste is taken to a mulching facility to be processed and reused
- We are required by the State, under AB 75, to recover at least 50% of our trash from the waste stream. We accomplish this goal through various methods that include:
  - Receiving credit by using electronic forms
  - Reusing previous office equipment when possible
  - Recycle our electronic equipment
  - Use mulching mowers for maintaining green spaces
  - Replacing our grass field with artificial turf



# Paper Recycling Program

The following process is implemented when confidential documents are in need of disposal/recycling:

- All confidential documents in need of shredding are stored in secured containers (delivered district-wide upon request via work order)
- When containers are approximately 80% full, the Facilities Department coordinates with a third party vendor to shred the stored confidential documentation
- Documents are recycled via the third party vendor post shredding process



# GCCD Capital Improvements

The Glendale Community College District (GCCD) Facilities Department remains involved in various projects large and small either in progress or in the que district-wide.

There is a special webpage (<https://capitalimprovements.glendale.edu/>) to keep the public informed of the largest capital improvement projects in the district. Once there, individuals can look up projects by campus or an overall projects tab. The website is also a useful tool to track pending notices that impact all 3 district campuses and the community.

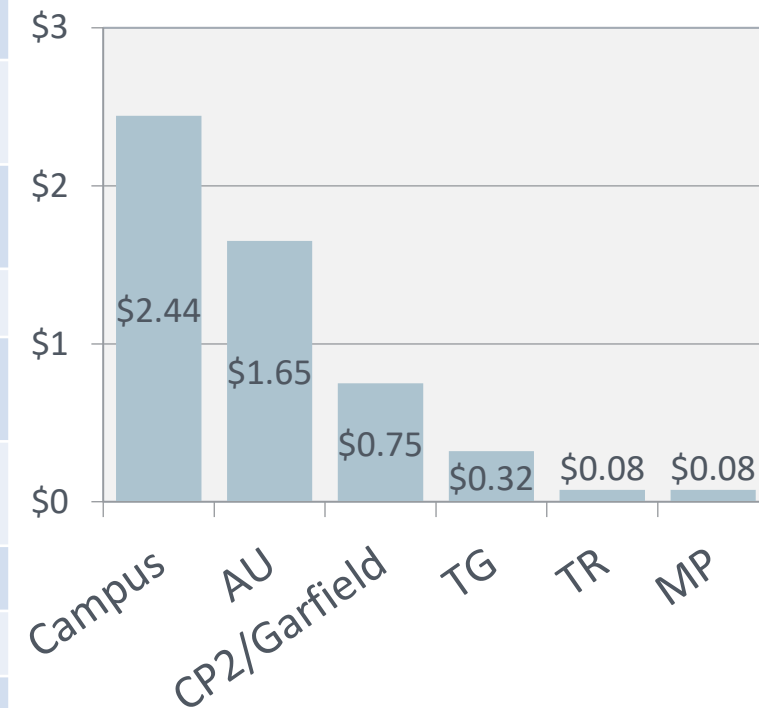


# GCCD Capital Improvement Plan

## FY2022-2023

Building	Project	State Funds	Investment Criteria	Problem Timeframe
TR/MP	Roof Replacement	\$150K	Asset Preservation	2-5 Years
Campus	Energy Mgmt. Automated Systems Upgrades	\$350K	Modernization	2-5 Years
TG	Electrical Panel / Infrastructure Upgrades	\$320K	Modernization	2-5 Years
Campus	Aerial Lighting Improvements	\$350K	Modernization	2-5 Years
Campus	Emerg. Lighting System Upgrade	\$100K	Safety/Code	2-5 Years
SR	Air Handler Replacement / CP2 Connection	\$TBD	Modernization	2-5 Years
SR	Fire Alarm Installation 1F	\$TBD	Safety/Code	2-5 Years
AU	Window Replacement	\$1.6M	Asset Preservation	2-5 Years
Campus	Exterior ADA Upgrades	\$1.4M	Safety/Code	2-5 Years
CP2/Garfield	Install New Chillers	\$750K	Modernization	2-5 Years
Campus	Exterior Painting	\$200K	Asset Preservation	2-5 Years

### Project Costs for FY22-23



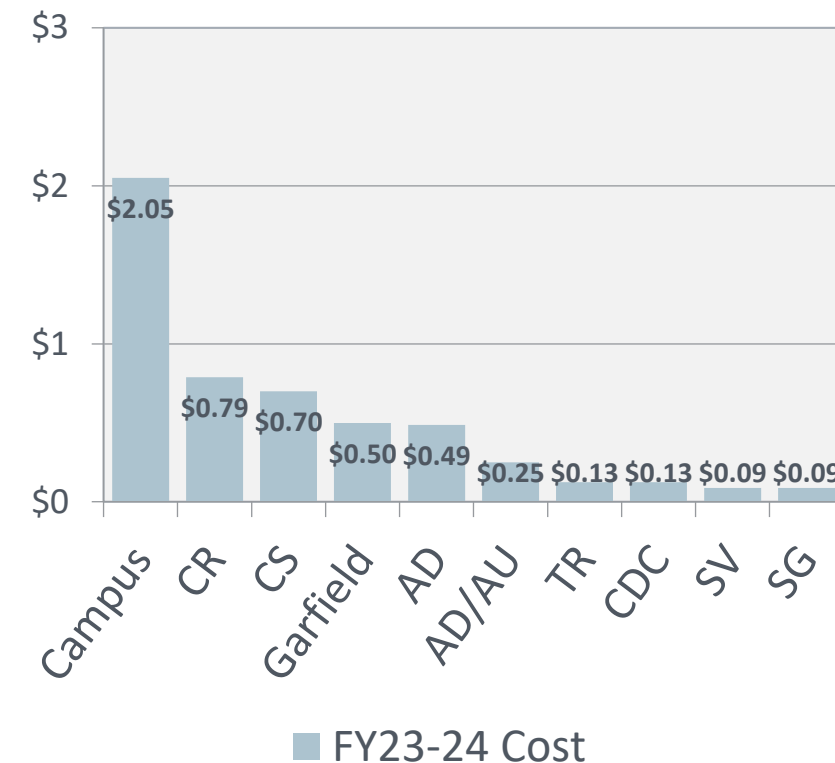


# GCCD Capital Improvement Plan

## FY2023-2024

Building	Project	State Funds	Investment Criteria	Problem Timeframe
CR/CS	Window Replacement	\$1.4M	Asset Preservation	2-5 Years
AD	Air Handler Upgrade	\$400K	Asset Preservation	0 Years
Garfield	Replace Chiller 1 & 2	\$500K	Asset Preservation	0 Years
Campus	Exterior Painting	\$300K	Asset Preservation	0 Years
AD/CR/SG/SV	VFD Replacement	\$350K	Asset Preservation	0 Years
Campus	Boiler Replacement	\$500K	Asset Preservation	0 Years
TR/CDC	Upgrade Fire Alarms	\$250K	Safety/Code	0 Years
Campus	Wayfinding Signage Upgrades	\$500K	Safety/Code	0 Years
Campus	Convert to Drip Irrigation	\$400K	Modernization	0 Years
AD/AU	Hot Water Upgrades	\$250K	Asset Preservation	0 Years
Campus	Sewer Line Upgrades	\$350K	Asset Preservation	0 Years
CP1&2 (FY24-25)	CP Loop Upgrades	\$7M	Modernization	0 Years
Campus (FY25-26)	Elec. Lock System Upgrades	\$5M	Safety/Code	0 Years
CR/CS (FY26-27)	Roof Resurfacing & Repairs	\$150K	Asset Preservation	2-5 Years
AT (FY26-27)	Roof Resurfacing & Repairs	\$75K	Asset Preservation	2-5 Years

### Project Costs for FY23-24



# Energy Conservation

To achieve the energy conservation goals of the Glendale Community College District (GCCD) in accordance with the State of California Community College Chancellor's Office guidelines, the GCCD Facilities Department is diligently working with several agencies, including the City of Glendale, to reduce the carbon footprint of the GCCD.

We are taking proactive approach to employ the benefits of the incentive based energy conservation programs set forth by the City of Glendale Water & Power which include but are not limited to:

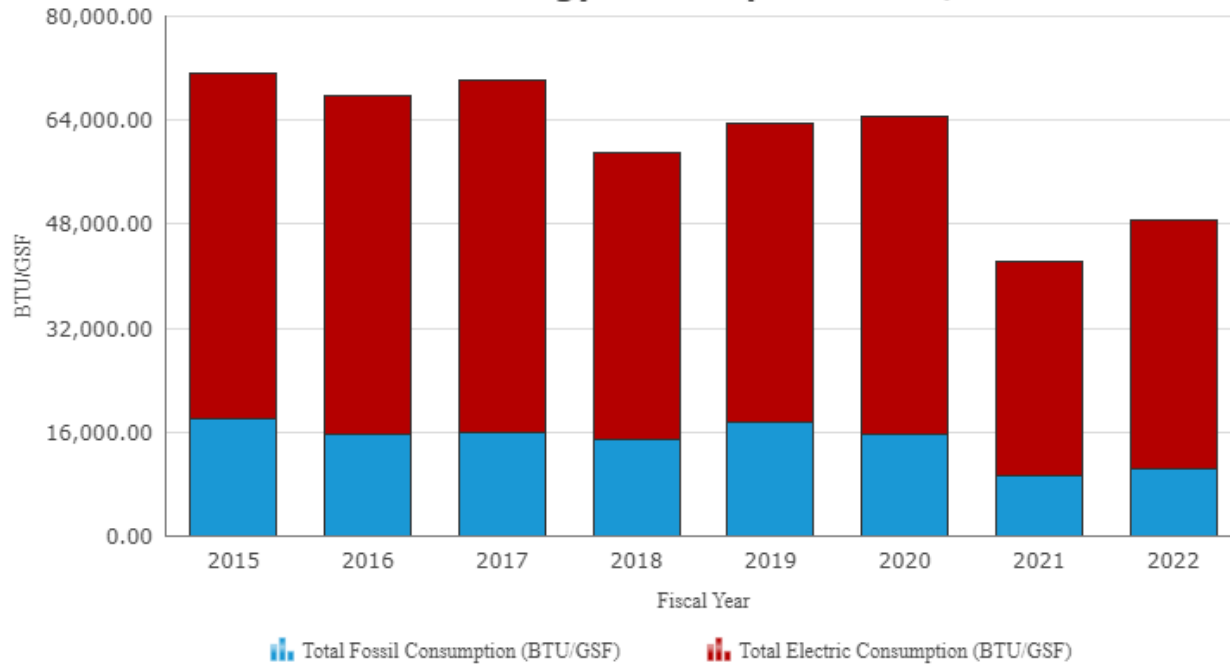
- Changing lighting district-wide from fluorescent to LED
- Exploring installation of electrical water heaters as opposed to gas operative options
- Researching areas such as building rooftops to utilize space for potential solar panel installations

Fiscal Year	Annual Electricity KWH Usage	Electricity to BTU Conversion	Annual Natural Gas Therm Usage	Therm to BTU Conversion	Total Annual BTU's Consumed	Gross Square Feet From Space Inventory	Weeks of Academic Operation	Total Weeks of Operation	Average BTU's Per GSF Per Week	Percent Reduction of Baseline Year
2001-2002	10,585,333	36,127,741,529	201,699	20,169,900,000	56,297,641,529	491,830	48	51	2312	Baseline Year
2002-2003	10,244,700	34,965,161,100	150,745	15,074,500,000	50,039,661,100	491,830	48	51	2055	-11.12%
2003-2004	11,103,115	37,894,931,495	181,075	18,107,500,000	56,002,431,495	512,222	48	51	2209	-4.48%
2004-2005	11,254,420	38,411,335,460	199,002	19,900,200,000	58,311,535,460	516,222	48	51	2282	-1.32%
2005-2006	11,159,537	38,087,499,781	185,444	18,544,400,000	56,631,899,781	518,339	44	51	2300	-0.53%
2006-2007	11,878,002	40,539,620,826	216,597	21,659,700,000	62,199,320,826	518,339	44	51	2526	9.25%
2007-2008	13,236,999	45,177,877,587	238,413	23,841,300,000	69,019,177,587	902,094	44	51	1611	-30.34%
2008-2009	12,346,931	42,140,075,503	181,434	18,143,400,000	60,283,475,503	902,094	44	51	1407	-39.16%
2009-2010	11,084,916	37,832,818,308	171,207	17,120,700,000	54,953,518,308	902,094	48	51	1231	-46.78%
2010-2011	10,576,191	36,096,539,883	179,511	17,951,100,000	54,047,639,883	902,094	48	51	1210	-47.66%
2011-2012	10,453,236	35,676,894,468	176,380	17,638,000,000	53,314,894,468	902,094	48	51	1194	-48.37%
2012-2013	11,133,604	37,998,990,452	182,779	18,277,900,000	56,276,890,452	902,094	48	51	1260	-45.50%
2013-2014	11,672,076	39,836,795,388	249,166	24,916,600,000	64,753,395,388	902,094	48	51	1450	-37.29%
2014-2015	11,098,941	37,880,685,633	179,023	17,902,300,000	55,782,985,633	902,094	48	51	1249	-45.98%
2015-2016	10,803,796	36,873,355,748	153,034	15,303,400,000	52,176,755,748	902,094	48	51	1168	-49.47%
2016-2017	11,166,789	38,112,250,857	154,491	15,449,100,000	53,561,350,857	902,094	48	51	1199	-48.13%
2017-2018	10,455,466	35,684,505,458	155,172	15,517,200,000	51,201,705,458	962,094	48	51	1075	-53.51%
2018-2019	11,630,956	39,696,452,828	183,601	18,360,100,000	58,056,552,828	962,094	48	51	1219	-47.28%
2019-2020	11,372,599	38,814,680,387	222,762	22,276,200,000	61,090,880,387	988,902	48	51	1248	-46.03%
2020-2021	8,015,771	27,357,825,285	100,366	10,036,600,000	37,394,425,285	1,068,552	48	51	707	-69.43%
2021-2022	9,524,344	32,506,586,072	55,440	5,544,000,000	38,050,586,072	1,068,552	48	51	719	-68.89%

# Tracking Energy Consumption & Cost Overtime

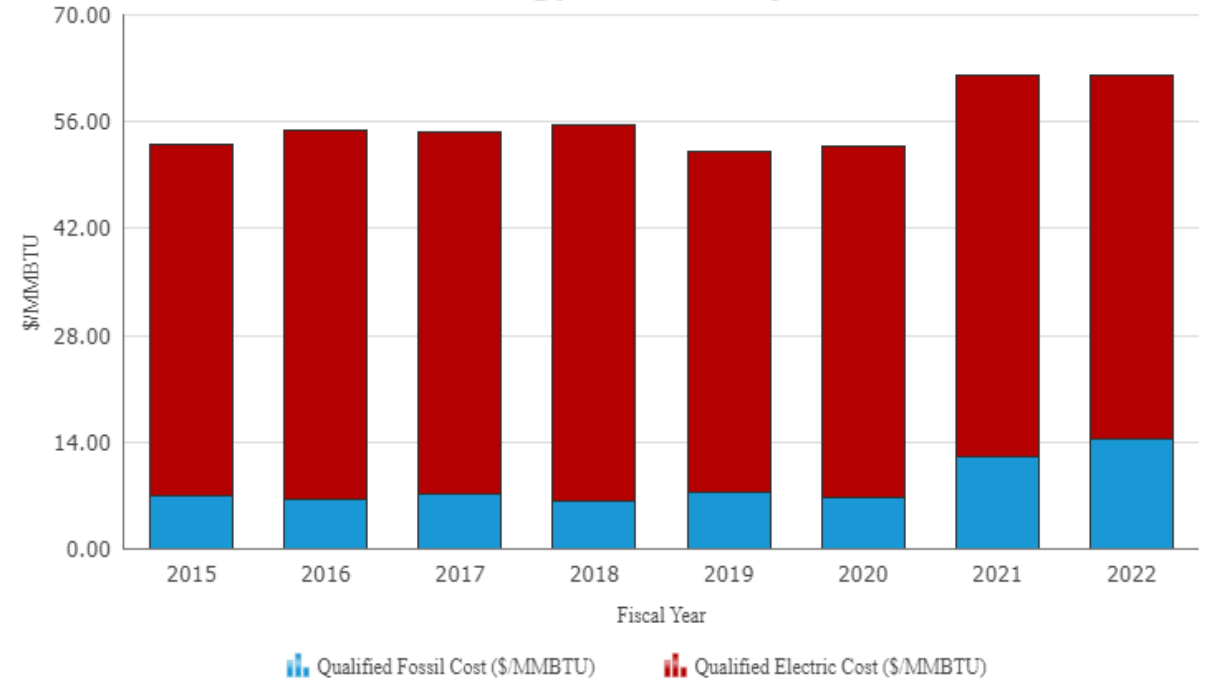
The last two years show a reduction in consumption, relative to FY2015-2020.

**Total Energy Consumption - BTU/GSF**



Higher utility unit costs in FY2021-22 contribute to lower spend/consumption.

**Energy Unit Cost By Fuel**



# Codes & Compliances

To maintain the highest safety standards, the Facilities Department oversees the inspection of plans and works to ensure compliance with building, environmental, and education codes as well as approved specifications, plans, and criteria.

Through our commitment to support all District programs and safety measures, the department ensures required inspections of facilities and compliance with reporting requirements for waste management, utilities, energy conservation, construction, and health and safety agencies, as shown by cooperation in the following areas (**not an exhaustive list**):

- ADA compliances
- State elevator compliance
- Building fire and brush fire compliances
- Potable water and plumbing standards
- AQMD compliance
- Food and safety compliance
- Electrical code compliance
- Hardware and Safety compliance
- Hazardous Waste compliance
- Safety Data Sheet compliance
- OSHA workplace compliance

# Facilities Organizational Chart

