

# 1. Assessment Plan - Four Column



## PIE - Administrative Services: Facilities - Central Plant

### Where We Are Now: Analysis and Summary

**2018-19**

**Contact Person:** Art Cadena

**Email/Extension:** acadena6@mtsac.edu

**Program Planning Dialog:** Deliver high quality facilities planning, design, construction, and operational services of campus buildings, infrastructure, and equipment, while providing superior customer service. Operate clean, safe, functional, and reliable facilities by maximizing predictive, preventative, and scheduled maintenance activities, while responsively meeting ongoing and urgent maintenance requirements. Manage cost of operation by proactively developing standards of care and operating budgets for new facilities coming on line.

**Notable Achievements for Theme A: To Advance Academic Excellence and Student Achievement:** The energy services team is busy operating the energy management system and monitoring the mechanical and electrical system campus wide. The team is committed to energy savings while maintaining the comfort of our students and staff in a healthy and safe environment. We are committed to uphold new building energy saving standards.

**Contributors to the Report:** Art Cadena

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
<p><b>Deliver high quality facilities planning, design, construction, and operational services of campus buildings, infrastructure, and equipment, while providing superior customer service.</b> - Operate clean, safe, functional, and reliable facilities by maximizing predictive, preventative, and scheduled maintenance activities, while responsively meeting ongoing and urgent maintenance requirements. Manage cost of operation by proactively developing standards of care and operating budgets for new</p>	<p><b>Request - Full Funding Requested -</b> 300,000  <b>Describe Plans &amp; Activities Supported (Justification of Need):</b> A three-year service contract with Aircurity and Zaretsky for on-going maintenance and monitoring of the Aircurity and the Phoenix Controls system.  <b>Lead:</b> Art Cadena  <b>What would success look like and how would you measure it?:</b> Continued functioning flow hoods in all of the Science Buildings.  <b>Type of Request:</b> FACILITIES: This</p>	<p><b>Reporting Year:</b> 2018-19  <b>% Completed:</b> 0                      New request. (09/19/2019)</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
<p>facilities coming on line.</p> <p><b>Status:</b> Active  <b>Goal Year(s):</b> 2018-19  <b>Goal Entered:</b> 09/19/2019</p>	<p>section includes minor building improvement projects and alterations to specific rooms or operational areas.</p> <p><b>Planning Unit Priority:</b> High  <b>On-Going Funding Requested (if applicable):</b> 300000</p> <p><b>Request - Full Funding Requested -</b> 100,000</p> <p><b>Describe Plans &amp; Activities Supported (Justification of Need):</b>  Resurface flooring inside the Central Plant building, due to damages created during construction.</p> <p><b>Lead:</b> Art Cadena</p> <p><b>What would success look like and how would you measure it?:</b> Newly surfaced floors would create a safe working environment.</p> <p><b>Type of Request:</b> FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.</p> <p><b>Planning Unit Priority:</b> Medium  <b>One-Time Funding Requested (if applicable):</b> 100000</p>	<p><b>Reporting Year:</b> 2018-19  <b>% Completed:</b> 0  New request (09/19/2019)</p>
	<p><b>Request - Full Funding Requested -</b> 500,000</p> <p><b>Describe Plans &amp; Activities Supported (Justification of Need):</b>  Upgrade the six relays in the Central Plant that help provide electricity from the generators to the campus.</p> <p><b>Lead:</b> Art Cadena</p> <p><b>What would success look like and how would you measure it?:</b>  Upgraded relays would ensure future photocell integration for the campus.</p> <p><b>Type of Request:</b> FACILITIES: This</p>	<p><b>Reporting Year:</b> 2018-19  <b>% Completed:</b> 0  New request (09/19/2019)</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
-------------------	-------------------------	---

section includes minor building improvement projects and alterations to specific rooms or operational areas.  
**Planning Unit Priority:** High  
**One-Time Funding Requested (if applicable):** 500000

**Promote and integrate sustainable facilities, infrastructure, and equipment by implementing principles of the 2018 Educational and Facilities Master Plan, the 2018 Educational and Facilities Master Plan Environmental Impact Report, and the 2018 Climate Action Plan. -**

Utilize materials, supplies, vendors, and equipment that align with industry best practices and support the principles of sustainability embraced by the college and enumerated in the Facilities Master Plan, Environmental Impact Report and Climate Action Plan. Expand recycling and waste management practices to align with campus sustainability goals.

**Status:** Active  
**Goal Year(s):** 2018-19  
**Goal Entered:** 09/19/2019

**Improve teamwork at all levels within Facilities Planning and Management -** Engage productively in the planning, design, materials specification, and construction activities for all project types. Collaboratively transition projects from the construction closeout phase to the operations phase within the

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
-------------------	-------------------------	---

first year of operations.

**Status:** Active

**Goal Year(s):** 2018-19

**Goal Entered:** 09/19/2019

**Maintain the Central Plant at 100% capacity.** - Improve the Thermal Storage, Cogen and Central Plant logic to optimize efficiency for the campus cooling needs.

**Status:** Active

**Goal Year(s):** 2018-19

**Goal Entered:** 09/19/2019

**Report directly on Goal**

**Reporting Year:** 2017-18

**% Completed:** 50

Thermal Storage, Cogen Central Plant programming is a work in progress. Many factors must be concerned and taking into account before this plant can be at 100% capacity. We need to reevaluate all the mechanical and electrical system to incorporate a holistic approach to fine tuning this program. We need to account for the campus as a whole to better optimize electrical cost and meet the needs of our staff and students. (08/14/2018)

**In Progress** - Hire an Automatic Logic Controls contractor that has experience programming Cogen and TES tanks Central Plants. To improve, the programming at the Cogen Central Plant.

**Reporting Year:** 2018-19

**% Completed:** 0

Bid and Award process date tbd. (09/23/2019)

**Describe Plans & Activities**

**Supported (Justification of Need):**

The estimated cost for this work is \$50,000. The college will follow the bid process, receive three proposals and go with the lowest bidder.

**Lead:** Art Cadena, Energy Services Manager

**Type of Request:** FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.

**Planning Unit Priority:** High

**One-Time Funding Requested (if applicable):** 50000

**In Progress** - Maintain current documentation of the sequence of operations. Write new operation

**Reporting Year:** 2018-19

**% Completed:** 0

Work with consultant to write operation sequence for the

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
	<p>sequence so anyone can read it and understand how the Central Plant functions.</p> <p><b>Describe Plans &amp; Activities Supported (Justification of Need):</b> Estimated costs are \$50,000.</p> <p><b>Lead:</b> Art Cadena, Energy Services Manager</p> <p><b>Type of Request:</b> FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.</p> <p><b>Planning Unit Priority:</b> Medium</p> <p><b>One-Time Funding Requested (if applicable):</b> 50000</p>	<p>Central Plant. (09/23/2019)</p>
<p><b>Chiller One Absorption Chiller - Re-tube chiller</b></p> <p><b>Status:</b> Active</p> <p><b>Goal Year(s):</b> 2018-19</p> <p><b>Goal Entered:</b> 08/14/2018</p>	<p>Trane, who is the contractor, is currently doing the work.</p> <p><b>Describe Plans &amp; Activities Supported (Justification of Need):</b> With the absorption chiller, we will be able to save chilled water ton hours by precooling the return water before it enters the Thermal Storage Tank.</p> <p><b>Lead:</b> Fernan/Art Cadena</p> <p><b>Planning Unit Priority:</b> High</p>	<p><b>Reporting Year:</b> 2018-19</p> <p><b>% Completed:</b> 25</p> <p>Continue to work with Trane to complete the work. (09/23/2019)</p>
<p><b>Water Treatment - Automate the water treatment for the new TES Tank</b></p> <p><b>Status:</b> Active</p> <p><b>Goal Year(s):</b> 2017-18, 2018-19</p> <p><b>Goal Entered:</b> 09/26/2017</p>	<p><b>Report directly on Goal</b></p>	<p><b>Reporting Year:</b> 2018-19</p> <p><b>% Completed:</b> 50</p> <p>On-going treatment. (09/19/2019)</p> <hr/> <p><b>Reporting Year:</b> 2017-18</p> <p><b>% Completed:</b> 100</p> <p>New Automate water treatment was installed. (08/14/2018)</p>
	<p><b>In Progress - Hire US Water to install automated water treatment to the</b></p>	<p><b>Reporting Year:</b> 2017-18</p> <p><b>% Completed:</b> 100</p>

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
	<p>new TES tank open loop chilled water system.</p> <p><b>Describe Plans &amp; Activities Supported (Justification of Need):</b> Estimated \$40,000 to have current contract provider, US Water (five year contract), install the equipment at the central plant.</p> <p><b>Lead:</b> Art Cadena, Energy Services Manager</p> <p><b>Planning Unit Priority:</b> High</p> <p><b>In Progress -</b> Commissioning and testing of the new equipment.</p> <p><b>Describe Plans &amp; Activities Supported (Justification of Need):</b> Estimated \$40,000 for field commissioning and testing of the newly installed water treatment automation system.</p> <p><b>Lead:</b> Art Cadena, Energy Services Manager.</p> <p><b>Planning Unit Priority:</b> High</p>	<p>Installation complete. (08/14/2018)</p> <p><b>Reporting Year:</b> 2017-18 <b>% Completed:</b> 100 Equipment commissioned and tested. (08/14/2018)</p>
<p><b>Generators at the Central Plant -</b> Rewind and bake service for generators. <b>Status:</b> Archive <b>Goal Year(s):</b> 2018-19 <b>Goal Entered:</b> 08/14/2018 <b>Date Goal Archived/Inactivated:</b> 09/19/2019</p>	<p><b>Report directly on Goal</b></p> <hr/> <p>Hire contractor to preform service to the generators <b>Lead:</b> Art Cadena <b>Planning Unit Priority:</b> High</p>	<p><b>Reporting Year:</b> 2018-19 <b>% Completed:</b> 100 The generators were serviced, installed, and rewound. (09/19/2019)</p>