



California State University Monterey Bay, Monterey, California

Feasibility Study & Design Services for Combined Heat and Power Plant & Infrastructure with Multiple Phases I, II, & III



Project Descriptions

California State University Monterey Bay (CSUMB) is located on the old Fort Ord Army base just outside Monterey, California. The university was supplied mostly by older distributed boilers, which contributed to high heating and maintenance costs.

CSUMB secured the services of Salas O'Brien to conduct a study to determine the feasibility of constructing a central combined heat and power (CHP) plant. The study included both technical and financial analyses. Salas O'Brien's role also included numerous presentations at

the CSU Chancellor's Office to secure funding for the project, which totaled \$8M in direct 'energy project' funding, \$12M in State infrastructure funding and another \$1.1M from the State for scheduled maintenance. A portion of the \$28M package evolved from taking a 'total impact' approach, integrating it into the overall Campus Master Plan and other funded projects.

The funding included a new CHP Plant, as well as all associated piping, distribution and controls. The physical plant is sized for eventual build-out to 3 MW, with Phase I funding the first 1mW engine. Final funding for the CHP/cogeneration system was not obtained and a revised central boiler plant was designed in a previously used Army Vehicle Maintenance building. This building was completely remodeled to include new boilers, pumps. Control room and operator offices.

Salas O'Brien was chosen to design the entire \$28M project. This was due to the firm's experience and capabilities in the areas of planning, designing, construction management and, the firm's familiarity with the CSUMB Campus and its systems. The project involved coordination with all utilities and infrastructure for the new 200,000 square foot library:

- Project management associated with the California Environmental Quality Act (CEQA)
- Air Quality permits
- Utility interconnection
- Design (schematic, design development and construction drawings)
- Construction administration.





Project Information

Discipline

- Full Utilities Infrastructure
- Architecture

Completion Date

- 2009

Campus Size

- 1M Sq Ft

Project Cost

- Sports Field: \$5M
- Central Plant \$3M
- Infrastructure \$12M
- Energy Project \$8M

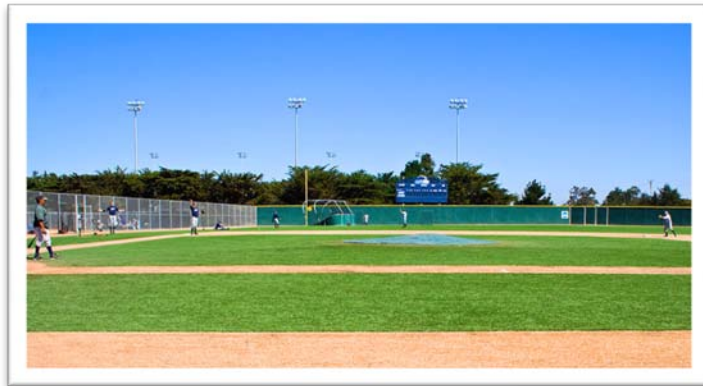
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Phase I - Sports Fields which included the men's baseball, and women's softball field, the Freedman Field House renovation, and a complete transformation of an old Army building into an office, meeting and restroom facility.



Phase II - Central Plant: A complete renovation of an old Army Vehicle Maintenance building: boiler room, office, and control room.

Phase III - Infrastructure: Installation of an underground heating system to eight campus buildings; water, storm drain, and sanitary sewer upgrades; electrical upgrades; removal of old pole mounted distribution; new transformers, switch-gear; new street lighting.

Architecture – This involved both the creation of re-use buildings and the renovation of an old and abused Freedman Field House slated to be torn down. As a structure of significance, Salas O'Brien's architects worked to not only save the building, but create a space suited for the new needs of University campus.

