NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 93000670 Date Listed: 7/30/93

The Powerhouse
Property Name

San Luis Obispo CA
County State

N/A
Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Antoinette J. Lee for 7/30/93
Signature of the Keeper Date of Action

==========

Amended Items in Nomination:

Statement of Significance: Under Applicable National Register Criteria, Criterion C is checked.

This information was confirmed with Cynthia Howse of the California State historic preservation office.

DISTRIBUTION:
National Register property file
Nominating Authority (without nomination attachment)

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

RECEIVED JUN 21 1993 NATIONAL REGISTER

RECEIVED DEC 23 1992

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name: Powerhouse, The
other names/site number: Old Powerhouse, Building 76

2. Location

street & number: N.E. corner of S. Perimeter & Cuesta Ave. — [ ] not for publication
city, town: San Luis Obispo — [ ] vicinity
state: California — code: CA — county: San Luis Obispo — code: 079 — zip code: 93407

3. Classification

Ownership of Property
- [ ] private
- [ ] public-local
- [X] public-State
- [ ] public-Federal

Category of Property
- [X] building(s)
- [ ] district
- [ ] site
- [ ] structure
- [ ] object

Number of Resources within Property

Contributing	Noncontributing	
1	0	buildings
0	0	sites
0	0	structures
0	0	objects
1	0	Total

Name of related multiple property listing: N/A

Number of contributing resources previously listed in the National Register: 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this [X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property [X] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.

Steade R. Craigo — June 11, 1993
Signature of certifying official — Date

California Office of Historic Preservation
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- [X] entered in the National Register. [ ] See continuation sheet. — Antoinette J. Lee — 7/30/93
- [ ] determined eligible for the National Register. [ ] See continuation sheet.
- [ ] determined not eligible for the National Register.
- [ ] removed from the National Register.
- [ ] other, (explain:)

for Signature of the Keeper — Date of Action

(enter categories from instructions)

INDUSTRY: energy facility
EDUCATION: school

(enter categories from instructions)

OTHER: storage

7. Description

Architectural Classification
(enter categories from instructions)

Mission/Spanish Colonial Revival

Materials (enter categories from instructions)

foundation concrete
walls stucco
roof asphalt
other wood

Describe present and historic physical appearance.

☒ See continuation sheet

Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:
☐ nationally ☒ statewide ☐ locally

Applicable National Register Criteria ☒ A ☐ B ☐ C ☐ D

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
EDUCATION	1909-1943	
INDUSTRY		
ENGINEERING		

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Weeks, William (architect)
Maino & Son (builder)

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

☒ See continuation sheet

[X] See continuation sheet

Previous documentation on file (NPS):

- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [ ] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings
  Survey # _____
- [ ] recorded by Historic American Engineering
  Record # _____

Primary location of additional data:

- [ ] State historic preservation office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [X] University
- [ ] Other

Specify repository: _____

10. Geographical Data

Acreage of property Less than one

UTM References

	Zone	Easting	Northing
A	10	712550	3908520
B			
C			
D			

[ ] See continuation sheet

Verbal Boundary Description

Pleaseseeattached scale map.

[ ] See continuation sheet

Boundary Justification

The boundaries encompass the historic resource and its immediate setting.

[ ] See continuation sheet

11. Form Prepared By

name/title Monty Boyd, Kristi Cordova and Rob Strom
organization Powerhouse Group date Dec. 14, 1992
street & number 2546 Victoria St. telephone (805) 543-7725
city or town San Luis Obispo state CA zip code 93401

Powerhouse Building
California Polytechnic State University
San Luis Obispo, CA

Description

The Powerhouse Building is a large, one-story, Mission/Spanish Colonial style structure, designed by William H. Weeks, and constructed in 1908-1909. It is situated in the oldest part of the Cal Poly campus, being one of the original buildings. The building sits at the corner of South Perimeter Road (the main road through the campus) and South Cuesta Road. It originally had a T-shaped floor plan with intersecting gable roofs. An early shed-roofed addition (c1915) made the floor plan L-shaped. The building is broken up into three different functional spaces: the main building, which contained the electrical generators and offices for the plant operators; the boiler room, which housed the boiler machinery; and the previously mentioned addition, which was used as laboratory space for student instruction. It sits immediately adjacent to a small lawn space and a similarly styled building (c1930).

Construction of the building throughout is wood frame with horizontal wood 1x sheathing, covered on the exterior by stucco, colored and textured to resemble adobe. The main building measures roughly 40'x 60'. The walls of the main building are 14 feet tall, framed with 2x6 rough redwood and resting on a concrete stemwall foundation (approximately 3 feet high). The roof is gable type, 4-in-12 pitch, framed with 2x8 rough redwood with 1x sheathing, and covered with asphalt composition shingles. In the middle of the roof is a raised vent/skylight structure which rises 4 feet above the surrounding roof. The boiler room measures roughly 20' x 40'. The walls of the boiler room are 16 feet tall, similarly framed. They rest on a slab-on-grade foundation. The roof is identical to that of the main building, with a similar skylight/vent. The shed-roofed addition measures roughly 18' x 35' and is of similar construction. The roof pitch is 2-in-12. Exterior woodwork on the building is minimal. There is a rough 2x12 fascia all around. The underside of the eaves (soffits) are finished with 1x8 Tongue & Groove siding, scored at 4 inches. Decorative crown moulding finishes the wall/eave intersection. All woodwork is painted a dark chocolate brown. There is no trim around the doors or windows.

Powerhouse Building

Description (continued)

The main building is entered by climbing a short flight of concrete stairs to a landing. A railing was added to these stairs in 1967 by architecture students. The doorway, which was originally flush with the exterior, has been recessed, and new doors built. This was done sometime around 1970. The floor level is approximately 2 1/2 feet above grade. The original floor was diagonal 1x sheathing, and was covered over in the 70's with a hardboard material similar to Masonite. The wall and roof framing is exposed and painted white. The windows are rectangular 16 lite casements, mounted 2 together and opening opposite. Above the entry and above the center window on the north wall are arched windows. The original arched windows, and the north wall center window were replaced in 1974 with student built stained glass windows. Directly opposite the main entry is the entrance to the boiler room.

The boiler room rests on a slab-on-grade foundation, 2 feet below the finished floor level of the main room. The finished floor of the boiler room is the concrete slab. The walls are finished with a coating of stucco, probably as fire protection for the framing. The boiler room has a framed ceiling, 16 feet high, also covered with stucco. The ceiling is pierced by a skylight identical in height and width to the skylight in the main room. The south wall of the boiler room has a pair of large doors (4'x 8') that open onto a fenced courtyard. To the left of the door is a window similar to those of the main building. The east wall has two round openings, 10 feet above the floor level, 16 feet apart, and approximately 2 feet in diameter. These originally were the openings for the boiler stacks. After the removal of the boilers they were converted to windows. In the middle of the east wall is a door that opens on to a small covered patio. A student-built (c1970) pottery kiln occupies most of the patio. A double door on the north wall opens into the 1915 shed- roofed addition.

The addition rests on a slab-on-grade foundation. The type of construction of the addition is similar to the rest of the building. Originally there was no interior finish material, but a Celotex-type material was added to the walls and ceiling after 1970. The finished floor is the concrete slab. Three windows,

Powerhouse Building

Description (continued)

similar to those in the main building, occupy the north wall of this room. Sometime after 1953 the middle window was converted to a doorway. This room's function was as laboratory space for electrical engineering students. Equipment that was no longer on line in the main room of the power plant was set up in here to used in experiments. A concrete transformer vault was added to the northeast corner of the building in 1923.

The most striking aspect of the Powerhouse is the interior light quality. The combination of the large skylights and many windows produces enough light for any of the activities that have taken place in the building, from taking instrument readings and maintaining machinery to sketching and rendering artworks. Another important aspect is the flexibility of the large spaces contained within the building. It is indeed a tribute to the design of the building that it was able to maintain its usefulness long after it ceased to function as a powerhouse

Statement of Significance

The history of the "Old Power Plant" is more than just the narrative of an architecturally interesting utilitarian structure. The Powerhouse is a living monument to the establishment and success of California State Polytechnic University. As one of the original, William H. Weeks designed buildings, and as it currently stands, the oldest remaining building on campus, its preservation is critical if any vestige of the original school and Weeks' work here is to remain. Its construction utilized student labor, and operation of the power plant and maintenance of the machinery were primarily conducted by students, thus physically and tangibly embodying Cal Poly's philosophy - "learn by doing". The machinery housed in the building was supplying electricity to the campus in 1910, 16 years before the county of San Luis Obispo had rural service, and continued to supply power through the 1940's at a substantially lower cost than could be had from the local utility. And, even after it was abandoned as a power house and was taken over by the school of Architecture and Environmental design it continued to serve the university as design lab space, display

Powerhouse Building

Statement of Significance (continued)

gallery, and lecture hall until 1990, when the administration ordered it to be vacated.

California Polytechnic State School was established in 1901. In that same year the state gave the school a small land grant immediately adjacent to the City of San Luis Obispo. In 1902, William H. Weeks, a Watsonville architect well known for his school and library buildings, was contracted as "School Architect". He was to oversee the design of the original buildings on campus, the first being the Administration Building, and the last being the Powerhouse. Cal Poly began instruction in September of 1903. Its founder and principal guiding figure, Myron Angel, established the operating philosophy of the school. His vision was a school for the vocational arts that would "teach the hand as well as the head". At the school, students would be expected to work in the various operations of the school, (i.e. the dairy; the animal husbandry unit; the power plant), as well as attend classes with more conventional instruction. Out of this method of practical instruction was born the school motto, "learn by doing".

The school grew quickly, and expanded accordingly. 1905 saw the appropriation of $6000 for the construction of a new power and heat plant. In 1908, construction began on the Powerhouse.

Typical of the method of instruction at the school, students in the carpentry classes were utilized in the construction of the building. Maino and Son Construction (still in business in San Luis Obispo) oversaw the work, and in 1910 the Powerhouse was completed and "put under steam". The plant had two full time operators who supervised students employed in the operation and maintenance of the equipment. The students were paid for their work, and thus were able to subsidize the cost of their schooling, in addition to learning power plant operation. Classes in Mechanical and Electrical Engineering were held in the Powerhouse, and students were provided the opportunity to work with the machinery and to see the abstract concepts of Mechanics and Electricity employed in practice.

The original equipment of the Powerhouse consisted of one 100hp boiler, one 50hp steam engine, and one 30kW DC generator. The machinery was constantly being expanded and upgraded to match, and sometimes facilitate, the growth of the school. One

Powerhouse Building

Statement of Significance (continued)

particularly significant piece of machinery that was added was a 50hp International Harvester natural gas engine. This motor was on display at the 1915 Panama-Pacific Exposition in San Francisco, and was purchased directly from the exposition. At that time it was the only engine of its kind on the west coast.

The Powerhouse was in continuous operation as an electrical power and steam heating plant from 1910 to 1940. At this point it was becoming obvious that the schools power and heating requirements were outgrowing the Powerhouse's abilities. At some point after 1940 it stopped generating electricity (although in 1947 the electrical equipment was put back on line and was generating about 10% of the schools needs). The 1940 Annual Report to the State spelled out the need for an appropriation to replace the Powerhouse with a new, centrally located structure. Subsequent annual reports continued to seek funding for a new plant, and in 1950 the state approved money for a new power plant. That name is somewhat of a misnomer, in that the new plant would produce steam (for heat only), and would contain transformers, electrical switching equipment and backup generators, but would produce no actual power. With the completion of the new power plant in 1955, the old Powerhouse was abandoned. The new power plant employed a full-time, non-student staff. Mechanical and Electrical Engineering classes were moved to laboratories elsewhere on campus. It seemed the days of student participation in the operation of the school were waning.

In 1967, George Hasslein, the Dean of Architecture at Cal Poly, asked the school for the use of the old Powerhouse. The School of Architecture and Environmental Design (SAED) was a recent addition to the University, and George Hasslein was to the SAED what Myron Angel was to Cal Poly. The Dean, and by extension the SAED, embodied much of the old polytechnic school's attitude of self-reliance and student self-directedness. The old Powerhouse, with its generous expanse of space and its marvelous quality of light, was seen by the Dean as an excellent place for student energy to be directed and focused, first through cleanup and rehabilitation of the building, and later through encouraging student projects dealing with or centered around the building, and by teaching some of the more experimental, avant-garde classes in the old Powerhouse. The old boiler room was converted to a wood

Powerhouse Building

Statement of Significance (continued)

and metal shop, for use by SAED students. Faculty meetings, special events, and Distinguished Speaker lectures (R. Buckminster Fuller spoke there in 1968) were held in the main room. As the SAED grew and expanded, the building continued to serve the SAED in a variety of functions. Even after a new, multi-million dollar Architecture Building was constructed, the Powerhouse continued to be the most sought after design lab space by Architecture students. When the University Administration ordered it abandoned in 1990, the SAED lost, in the eyes of the students and most of the faculty, its most prized possession.

The Powerhouse is currently slated for demolition and a footprint for a new building is shown on the current Master Plan. However, with the current budget situation no monies exist for either the demolition or the new building. The Powerhouse is currently being used for storage. Numerous leaks have appeared in the roof, and are contributing to the degradation of the building.

From its construction utilizing student labor, to its significance in terms of its architect, to its service as the power and heat source of the campus, to its use as a mechanical engineering lab, and finally to its use by the School of Architecture and Environmental Design, the Powerhouse's ability to accept growth and change reflected the growth of the school and its transition from a trade school to the respected polytechnic university of today. Cal Poly has grown in such a way as to obliterate it's past. Perhaps this is to erase its humble beginnings as a vocational high school. All of the original buildings by William Weeks have been destroyed, with the exception of the Powerhouse. And while the Powerhouse is the least grand of these original buildings, what better landmark could be established than this humble, utilitarian structure, for it perfectly embodies the pragmatic nature of Cal Poly.

The period of significance ends in 1955when the power plant ceased to function. However, since no exceptional significance is in evidence, the period has arbitrarily been ended at 1943, fifty years ago.

Powerhouse Building

Statement of Significance (continued)

IMPORTANT DATES

1901	State Legislature establishes School founding act
1903	Cal Poly begins instruction as a state vocational high school
1905	Legislature appropriates allotment of $6,000 for the razing of the old power plant and the erection of a new one
1908	Construction of Powerhouse begins (Maino Constr.)
1909	Legislature approves $10,000 for " a new power and lighting plant"
1910	Powerhouse "put under steam" on September 10. Old equipment moved into powerhouse that summer. Old boiler deemed insufficient for needs. Original equipment was one 100hp boiler (the old boiler from the previous powerhouse was moved but never used), one 50hp steam engine, and one 30kW DC generator.
1911	Power generation changes from DC to AC. 75hp Ball engine, 50kW AC generator, and 30kW AC generator added.
1913	Additional 100hp boiler added
1916	50hp International Harvester natural gas engine installed. This motor was on display at the Pan-Pacific Exposition of 1915, and at that time was the only one of it's kind in the west.

Powerhouse Building

Statement of Significance (continued)

1923 Campus completely rewired. Previous wiring was 10 years old, done poorly, or done on a "temporary" basis as the campus grew. Shops were wired for lights - daylight was previously the only source of light in the shops. Improvement in light quality of drafting rooms and library. Fire-proof concrete transformer vault added to powerhouse (safety req.)

1926 Boilers deemed unsafe by state engineer. $5,300 appropriation from state for complete overhaul and repair of boilers.

1927 $10,000 (of $137,975 state appropriation) earmarked for gas or diesel engine, $25,000 for "addition & equipment to mechanical unit". New Engineering bldg. will be started this year. It is to be situated "on the northeast corner of the present power plant" (This is part of what is currently called the Air Conditioning bldg.)

1927 Cal Poly raises it's level of instruction to that of a junior college, since most state high schools offered industrial and vocational training.

1928 Installation of new 120hp diesel motor

1933 Cal Poly becomes a two-year technical college

1936 Other colleges begin accepting Cal Poly Degree transfer students. Third year of instruction added.

Powerhouse Building

Statement of Significance (continued)

1937-1940	Annual reports document money saved by generating own power, as opposed to purchasing from outside. At this point it is becoming obvious that the power needs of the campus with the projected post-war enrollment surge will be greater than can feasibly be generated on campus.
1940-1947	At some point in this span of years the Powerhouse stops generating power, but continues to generate steam.
1940	Cal Poly authorized by State Board of Education to grant Bachelor of Science degrees. Fourth year of instruction added. Cal Poly's Annual Report to the State specifically points out the shortcomings and safety hazards of Powerhouse. Recommendation for new, centrally located structure housing utilities and fire-fighting equipment.
1943	Annual Report again points out need for new power plant.
1947	Annual Report cites the "antiquated central heating and utility distribution center" as "the most serious limiting factor in the development of the Cal Poly campus". Powerhouse electricity generating equipment put back on line after "an idle period of several years". At this point it was producing about 10% of the campus' requirements.
1948	Overhauled diesel engine installed in Powerhouse
1954	Construction begins on new power plant.
1955	Old Powerhouse abandoned after completion of new plant.
1960	Old Powerhouse machinery taken out and sold.

Powerhouse Building

Statement of Significance (continued)

1967	Powerhouse given to Architecture Department for use as lab space. Architecture students and faculty clean out building, remove old boilers, put in new flooring, skylights.
1967-1990	Revamped building serves a multitude of functions for the recently established School of Architecture and Environmental Design: drawing classes; Form and Materials classroom; design lab; support shop with wood- and metal-working equipment; pottery studio, complete with kiln; cafe; art gallery; lecture hall for such distinguished speakers as R. Buckminster Fuller; and as a faculty meeting room. The building is appreciated by students and faculty alike for its light quality, the spacious feel of it's interior, and it's feeling of flexibility and adaptability.
1990	SAED made to abandon Powerhouse by administration. Reason cited is seismic instability. Building is left to rot by campus administration. Slated for demolition, but with no specific date. Footprint for new building on Powerhouse site exists in current campus master plan.

Bibliography

Personal Interviews

All interviews conducted by the Powerhouse Group (Monty Boyd, Kristi Cordova, Rob Strom) and transcripts are located at: 2546 Victoria St. San Luis Obispo, CA 93401.

Sept. 25 1992 Mark Hall-Patton, Curator, San Luis Obispo County Historical Museum.

Oct. 5 1992 Rex Wolf, Facilities Manager, Plant Operations, Cal Poly State University, San Luis Obispo.

Powerhouse Building

Bibliography (continued)

Oct. 5 1992 Dan Krieger, Professor of History, Cal Poly State University, San Luis Obispo.

Oct. 7 1992 Robert Kennedy, Retired Cal Poly President 1952-198?

Oct. 10 1992 Arthur Young, Retired supervisor, New Steam Plant, Cal Poly.

Oct. 22 1992 George Hasslein, Professor of Architecture and former Dean of Architecture, Cal Poly State University, San Luis Obispo.

Oct. 30 1992 Gary Dwyer, Professor of Landscape Architecture, Cal Poly State University, San Luis Obispo.

Books

Smith, Morris Eugene. A History of California State Polytechnic College, the First Fifty Years, 1901-1951. Thesis. Cal Poly State University, 1968.

Articles

The articles used came from past Cal Poly school papers all of which are located on microfilm in the Cal Poly University Archives.

El Polygram 1923-1926

The Polygram 1927

El Mustang 1953-1966

Summer Mustang 1967

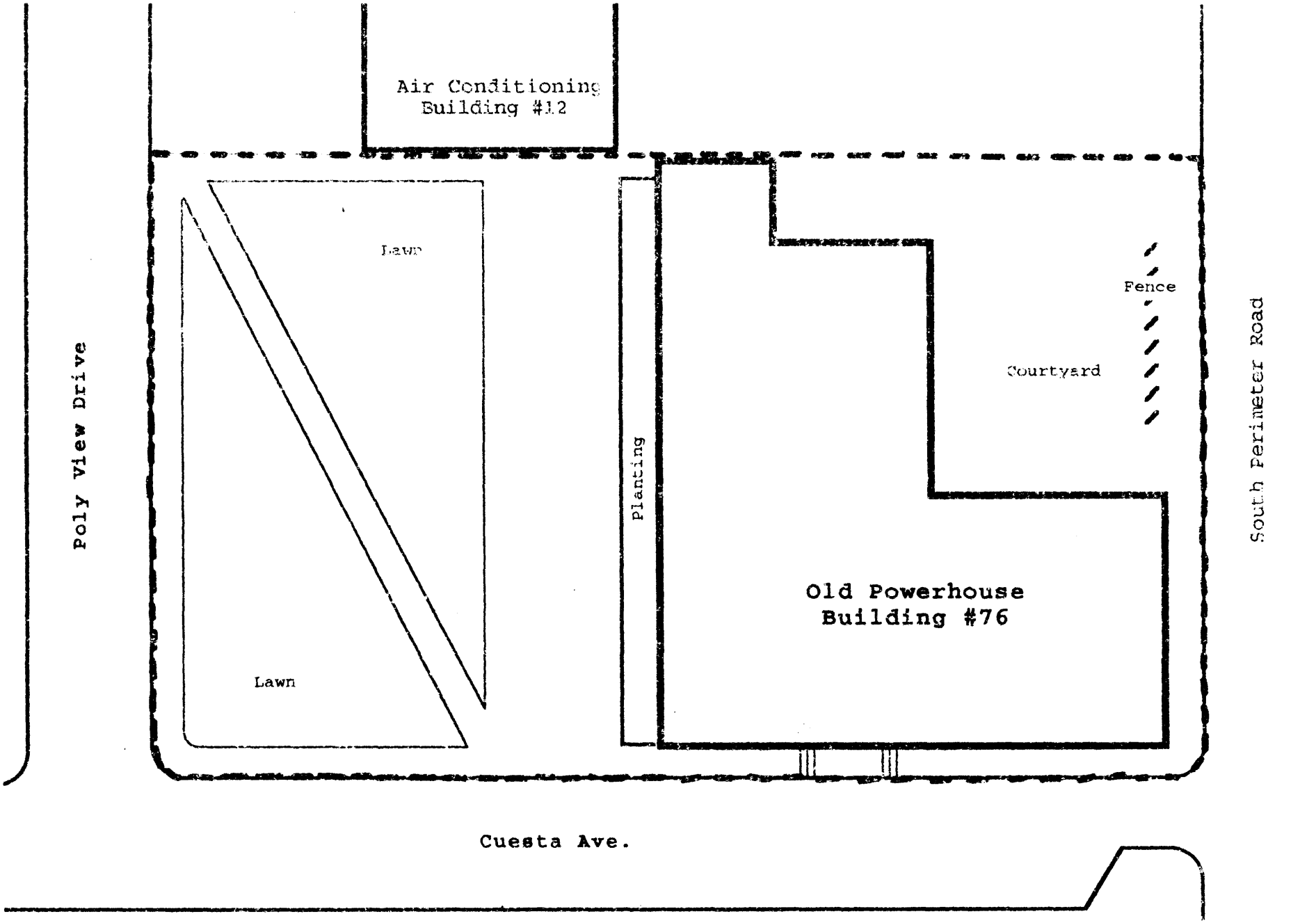
Mustang Daily 1968-1981

Powerhouse Building

Bibliography (continued)

Annual Reports

Cal Poly State University, Annual Reports to The State Board of Trustees, 1910-1951. Cal Poly University Archives.



Bldg 76

Cal Poly State University
Old Powerhouse 1908
San Luis Obispo California

Scale: 1" = 20'

N.P. Boundary is broken line.

20 0 20
scale feet

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number Photo Log **Page** _____

All photos taken March 1993. Photographers: The Powerhouse Group
Location of negative: 2546 Victoria St.
San Luis Obispo, CA 93407

Views:
1. West elevation
2. Overview from northwest
3. South elevation
4. Overview from north
5. Partial east elevation