

## RESEARCH GREENHOUSE



**BUILDING:** Jane Gray Research Greenhouse

**OWNER:** University of California  
Berkeley, CA, USA

**CLIENT:** Noll & Tam Architects  
Berkeley, CA, USA  
Mr. Christopher Noll, AIA

**AREA:** 24,400 sq. ft. (3,600 sq.ft. as planned)

**COMPLETION:** 2004

The project included construction of new research greenhouses located in the University of California Botanical Garden (UCBG) in Berkeley. The new greenhouse facility is intended to be used by the Department of Integrative Biology for research in ecological interactions between plants and other organisms, including herbivores, pathogens and mutualists. The facility includes 4 research/exhibition greenhouses compartments and a breezeway.

Agritechnove was part of a larger design team for this project and was responsible for the Engineering services related to the greenhouse (Design, performance drawings and specifications, production of bid documents, shop drawing review, answer to contractors RFIs).

**SPECIAL FEATURES** - Glass partition walls on grids and perimeter purlins at eave height to allow “visibility” of structural elements in any compartment: this permits addition of any suspended equipment without perforating glass. 12' clearance under the trusses. Fresh air taken in greenhouses through the breezeway.

**TECHNICAL SYSTEMS** - Commercial A-Frame structural system, aluminum dampers for air inlets, insect screening for exclusion of pollinator to 1mm, natural ventilation, pad cooling system, benching, HID lighting system, interior horizontal automatic shading system, south wall vertical automatic shading system, exhaust fans, HAF recirculation, manual irrigation with fertilizing station system in each compartment, gas fired unit heaters, computer control system tied to a weather station for all functions (over 140 points of control).

**PROJECT PHASING-** The project budget does not allow all six compartments as planned to be constructed under the contract, four compartments and a reduced breezeway were built first and the balance will be built at a later date.

