CONCEPTION OF PROJECT:

Define green building... sustainable society.
★ Natural step -- see video "Completing the Campus"
★ Guiding principles of sustainable design
   by National Park Service
★ World Watch Institute report on progress toward a sustainable society

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PRE PROGRAMMING:
★ Find examples of green buildings of a similar function
★ Precedents -- table of design criteria & actual performance
   ◆ Regional planning issues
   ◆ Site planning
   ◆ Resource efficiency
   ◆ Energy conservation
   ◆ Daylighting
   ◆ Resource efficient building materials
   ◆ Indoor health issues

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PROGRAMMING:
Project goals, functional requirements, design criteria, budget and schedule
★ Brainstorming sessions to get everyone to pull in the same direction
   ◆ All decision makers present for consensus building meetings
   ◆ Full design team and contractor present
★ Establish design criteria
★ Establish performance goals

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INTEGRATED DESIGN TEAM PROCESS: It is synergistic
★ Every component is evaluated for its effects on the whole
★ How each will effect the building's
   ◆ Functional use
   ◆ Productivity of occupants
   ◆ Operations and maintenance
   ◆ Energy performance
   ◆ Indoor health
   ◆ Local ecology
   ◆ Aesthetic response, etc.

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PERFORMANCE SIMULATIONS:
Challenge architect & engineers:
Test alternative design concepts
★ Computer simulations of energy use and daylighting.
★ Scale model for daylighting test at PG & E Energy Center.
★ Scale model for wind tunnel testing for natural ventilation.

Good management combines nurturing and nudging: peer review

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MATERIAL SELECTION CRITERIA
1 Avoid loss of biodiversity, habitat alteration, stratospheric ozone depletion, & global climate change.
2 Use products made from, with & packaged with renewable resources obtained in a sustainable manor.
3 Use products that conserve resources: that is reused, recycled, uses by products, uses faster growing species of wood, from sustainable forests, from sustainable agricultural practices, etc.
4 Is product less toxic in mining, manufacturing, installation, use & maintenance.
5 Is product durable, low maintenance, not need painting or coatings. Consider life cycle cost and longevity. Consider weather, fire, vermin, seismic, & wind resistance.
6 Use products that are very efficient in use of electricity, petroleum, water, etc. Low embodied energy overall; consider transportation.
7 Are components reusable, recyclable or at least biodegradable. Consider deconstruction issues.
8 Use socially responsible criteria in selection of designers, suppliers & contractors.

This is the text of the slides presented by George Beeler of AIM Associates, Petaluma, CA 707-763-3300 aimassocia@metro.net "A Case Study of the Environmental Technology Center at Sonoma State University" on 8 October 1999 at the National Sustainable Buildings Workshop Center for Sustainable Systems (CSS) University of Michigan, Ann Arbor, MI