San Diego Mesa College
Math and Science Complex
SPATIAL RELATIONSHIPS

Project Description:

Construct a new Math and Science building complex to consolidate all four departments of Biology, Chemistry, Math and Physical Sciences.

Purpose:

The new complex will support the following functions:

1) Lecture rooms, classrooms, computer labs and laboratories (including fume hoods) for all functions of Biological Sciences, Chemistry, Mathematics and Physical Sciences;
2) Main and auxiliary lab prep rooms and storage/closets for all areas
3) Faculty offices and necessary workrooms for the above four departments;
4) Offices, work areas and conference room(s) for the Dean of School of Mathematics and Natural Sciences and Support staff;
5) Common student areas, study rooms and adjunct faculty work areas; and
5) Necessary storage facilities for hazardous materials as well as a separate room(s) for sensitive instrumentation.

Spatial Relationships:

1) Location to have proper road access for deliveries and disposal of hazardous materials as well as emergency access;
2) Separate ventilation systems for Chemistry and Biology laboratories, as these facilities produce odors and fumes which can be harmful;
3) Chemistry and Biology laboratories also to be placed at the top levels (see #2 above), resulting in a wider footprint versus a high rise structure;
4) All laboratory floors must be properly sealed to prevent floor-to-floor travel of spills in case of accidents;
5) Adequate electrical supply (110v and 220-240v) as many equipment require a high degree of power;
6) External building vibration to be minimized due to sensitive equipment;
7) An observatory facility on the top of the building with light considerations (be distant from major light sources such as stadium lights);
8) Distant from the radio tower to prevent interference with sensitive equipment;
9) Location to be such that major wind patterns are optimized to carry ventilated fumes and odors away from campus;
10) A vibration-free basement facility is highly desired for housing some sensitive equipment as well as providing significant storage capacity;
11) Strong consideration for integrating renewable energy sources;
12) Extensive built-in technology infrastructure to accommodate current as well as future needs; and
13) H-200 & H-300 areas would be the suggested site for this complex.
14) Free-standing and separate green house w/ south orientation and not in shade of any existing or future structures.
15) Surrounding area to be landscaped with native plants for educational purposes and also consideration of water conservation.
16) Physics labs should be completely isolated from outside as temperature/ humidity has undesirable effects on instruments and experiments.
17) Labs should have operable windows in Biology and Chemistry for emergency ventilation.