

DIVISION 11
EQUIPMENT

SECTION 11130: AUDIO-VISUAL EQUIPMENT STANDARDS

I. GENERAL

- A. Refer to specific program requirements for all buildings to determine specific size and equipment required. Verify all equipment specified with the Campus *Media Services* Department in consultation with the Project Manager.
- B. Refer to *related publication*, "UCSC Classroom Guidelines", for specific information applicable to classrooms.

II. MATERIALS

- A. Projection Screens: "Da-lite" Senior Electrol, matte white finish, *borderless* motorized projection screen, or equal. Refer to "UCSC Classroom Guidelines". Verify size with the Project Manager.

III. EXECUTION (not used)

SECTION 11600: LABORATORY EQUIPMENT STANDARDS

I. GENERAL

- A. The Executive Architect is to verify all specific chemical resistance properties of the countertop surface material with the Project Manager. *A list of chemicals to be used and stored in the room is needed to make a proper selection of the hood, fume exhaust duct work and storage. The user or lab programmer shall prepare an HVAC data sheet for each room. Obtain form from project manager.*

II. MATERIALS

- A. Wood cabinets are preferred for laboratory use.

B. Fumehoods

1. *Except for specialized applications, we want to limit hood width to 5' due to the very high energy costs associated with larger hoods.*
2. *For many existing buildings "constant volume, bypass type" fume hoods are required in order to be compatible with the existing building fume exhaust system.*
3. *For new buildings provide variable volume fume hoods.*
4. *Due to the costs involved, however, we normally only pipe the utilities which are required by the user. Commonly these are: DI Water (Lab Grade 3), Industrial Cold Water, Industrial Hot Water, Air, Vacuum, & Gas .*
5. *The hood may either be direct purchased or furnished as part of a remodel contract. Furnishing the hood as part of a remodel contract offers the following advantages; a.) Less coordination risk b.) Competitive bidding of the hood for a better price. Equivalent hoods by: Hamilton, Kewahnee, or St.Charles are all acceptable.*
6. *If a flammable storage cabinet is required, it will need to ventilated. Cabinet should be ordered with optional vent assembly.*
7. *Hood should be specified with optional electronic safety alarm with face velocity indicator. (Relative velocity LED read out OK in lieu of analog velocity gauge).*
8. *Hood electrical outlets, light, and switch configuration should be verified.*
9. *Air balancing should be included in the project scope. The system will need to be adjusted for proper air flow after the new hood is installed. For retrofit installations, sufficient fume exhaust / make-up air capacity to accommodate the selected hood should be verified by the consultants. This should be accomplished by making reasonable inferences from as-built drawings of the original building. The consultants should inform UCSC should they conclude that capacity is marginal. In such cases, air flow measurement may need to be taken prior to completing the design.*
10. *Air volume through the lab should be determined by the most critical of the following requirements; 1.) Hood air volume based on a velocity of 100 FPM with the vertical sash set at 18" open. 2.) 6 air changes / hour.*

III. EXECUTION (not used)