

DIVISION 9 - FINISHES

Section 09500 - Acoustical Treatment

Introduction

The selection and specification of acoustic ceiling systems should be based on a careful analysis of functional, aesthetic, and cost criteria. Fire resistance, sound absorption, noise reduction, durability, and appearance considerations will combine to narrow selection choices to a range of a few acceptable alternatives, so that cost may serve as a final determinant to list of two or three acceptable products for bid.

Ideally the specification should be performance-based, but it is in the University's best interest in acoustical ceilings to inform bidders through semi-proprietary specifications which describe essential characteristics and name a selection of 3 or more products by different manufacturers which the Consultant has determined meet the functional and aesthetic requirements.

Acoustic ceiling material specifications should list required type, form, pattern, noise reduction coefficient or articulation class, ceiling sound transmission class, light reduction coefficient, flame spread, fire resistance classification, and sanitation. On projects with unique requirements, such as performing theater or auditorium, a special acoustic consultant should be considered to advise the Consultant in the design of the space as well as the acoustic materials of the spaces.

Part 1 - General

- Where not otherwise required by code and so to achieve greatest flexibility and cost efficiencies, non-bearing interior partitions shall be uninsulated, both sides fully sheathed, textured and painted full height terminating at the top plate 6" above ceiling, and laterally braced to structure above. Exceptions to this basic design standard requires that the Design Professional at the onset of the Schematic Design phase estimate the added cost of all interior partitions having thermal or acoustical insulation and/or extending partitions above ceilings to underside of structural deck. Approval for such exceptions is required by the PDC project manager.
- Ceilings in general areas (offices, corridors, public spaces) should generally be 2' x 4' square-edged lay-in panels.
- Ceilings utilizing special lay in panels, different sized grids such as a 2 X 2 grid, and/or enhanced acoustical ceiling tile may also be considered if the special use and added cost is approved at the onset of the Schematic Design phase by the PDC Project Manager.
- Entry lobbies and conference rooms may use tile and grids with more design oriented features.

Part 2 - Products

- Specify color/light reflectance values and noise reduction coefficients of materials specific to project's individual space requirement needs and to achieve an appropriate design versus cost balance. The following industry standard technical characteristics should be discussed with the project manager as an initial basis of design.
 - Color/Light Reflectance White/LR not less than 0.75
 - Noise Reduction Coefficient NRC not less than 0.70
 - Ceiling Attenuation Class CAC not less than 35
- Grid shall be heavy duty or intermediate

Part 3 - Execution

- Grid

- Following texturing and painting wall, screw grid to studs- stapling of grid to wall is not allowed.
 - Tie tracks and grid tightly to allow easy tile removal.
 - Wires shall not be kinked and tails shall be cut
 - Do not hang from nonstructural elements.
 - Seismic bracing is not required.
 - Powder driven fasteners are allowed if installed correctly, i.e., proper load and pin length. Otherwise drilled anchors shall be used.
 - Provide separate wires for hanging light fixtures.
 - Dimension cuts and borders. Control the grid layout with dimensions, do not rely on a “balanced” layout.
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- Trapezes shall be installed where interference’s are encountered during the installation
 - Remodel or renovation projects may require that the existing grid be painted. Do not paint the existing tile and reuse it. Provide new tile.
 - Provide a detailed materials list with manufacturers name, lot number, stock number, name, color, etc. An extra stock of material shall be provided.

End of Section 09500