

# HIGH CAC CEILINGS

## what you need to know

### Ceiling Attenuation Class (Cac):

What's CAC? CAC is a measure for rating the performance of a ceiling system as a barrier to airborne sound transmission through a common plenum between adjacent closed spaces such as offices.

- The higher the CAC rating, the better the performance. A ceiling system with a CAC less than 25 is very low performance, whereas a ceiling with a CAC of 35 or greater is considered high performance.
- When using a high CAC ceiling, wall construction with a minimum STC 40 rating should be specified.

### Balanced Acoustical Design:

You can block noise with an effective combination of wall and ceiling construction, using a high performance CAC ceiling.

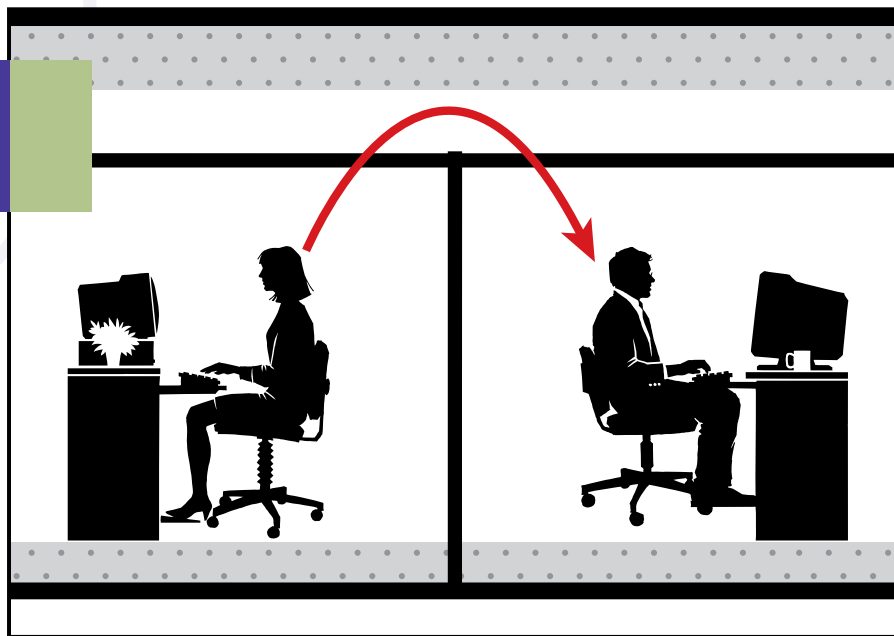
Other considerations affecting the ability to effectively block sound:

- Door and window seals
- Wall system joints
- Penetration in light fixtures
- Wall/floor interface
- Air returns

### Application Considerations:

CAC is important between closed spaces and from closed rooms to adjacent spaces, such as corridors:

- Closed office, conference rooms
- Classrooms/core learning areas
- Mixed plan offices
- Healthcare exam rooms, doctors' offices



CAC is measured according to ASTM E1414

### Other resources available:

- Website [www.armstrong.com/acoustics](http://www.armstrong.com/acoustics)
- BPCS-3832 Marshall Erdman case study
- BPCS-3513 HIPAA/Speech Privacy white paper
- BPCS-3712 Office Acoustics white paper
- BPCS-4556 Sound Design™ brochure

### Armstrong Product Families Offering High CAC

- MetalWorks™ (unperforated)
- Ultima®
- Cirrus®
- Mesa™
- School Zone® Fine Fissured™
- Ceramaguard®
- Ceramaguard® Fine Fissured™
- Clean Room™ VL
- Cortega®

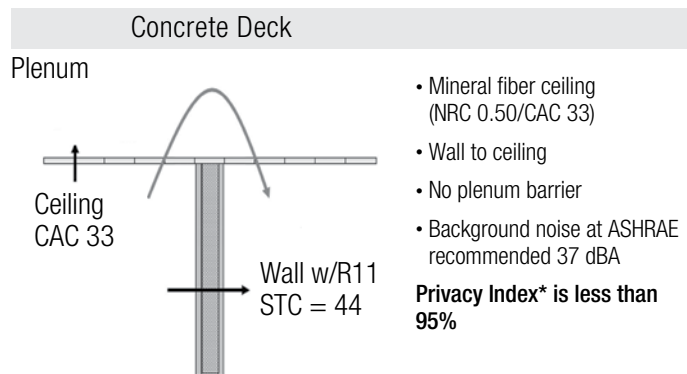


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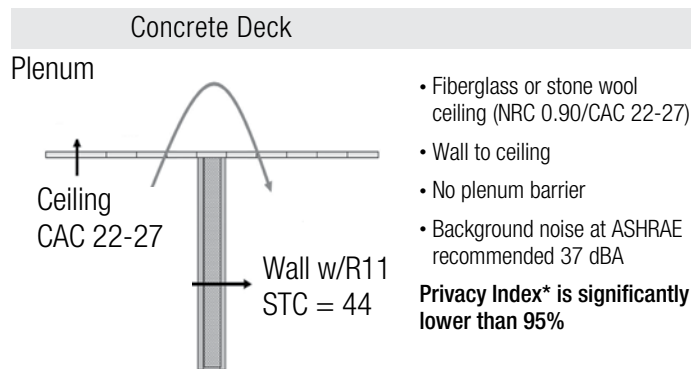
## Effective Building Design for Speech Privacy Using Sound Blocking Techniques

Building design can have significant impact on speech privacy and construction costs. Below are typical construction scenarios showing how speech privacy is affected.

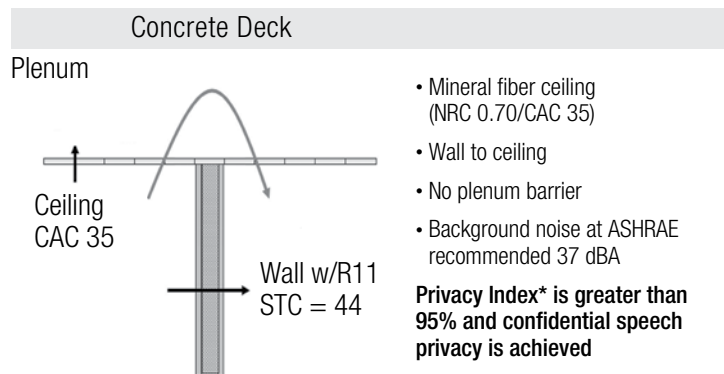
### Scenario 1: Typical Design



### Scenario 2: Perceived Upgrade



### Scenario 3: HIPAA Compliant Solution



\*Privacy Index measurement and calculation are defined in ASTM E1130

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