

CHPS Criteria Interpretation [CCI-EQ-02]

Published [4/11/2019]

Topic: Reverberation times in Career Technical Education (CTE) classrooms

Category: Indoor Environmental Quality

Applicable Prerequisites/Credits:

Edition	Criterion Number and Name
US-CHPS 2014/2016	EQ 14.0 Acoustical Performance
CA-CHPS 2014/2016	
NE-CHPS v3.x	
HI-CHPS 2012	EQ.P7 Minimum Acoustical Performance
TX-CHPS 2009/2015	EQ 3.0 Minimum Acoustical Performance, EQ 14.0 Acoustical Performance
VA-CHPS 2011	EQ.P8 Minimum Acoustical Performance

Credit Interpretation Question:

I am the acoustical consultant working on the project and am wondering if you can provide some additional clarification regarding the EQ 14.0 prerequisite:

Are CTE classrooms, such as Auto Body, Welding, and Wood Shops, considered core learning spaces? In this project, these spaces are very large (over 60,000 and 130,000 cubic feet), and meeting the 1.0 second reverberation time criteria provided for core learning spaces over 20,000 cubic feet and ancillary spaces is quite challenging and costly, even with extensive sound-absorbing treatment throughout the ceiling surfaces.

Is it acceptable to specify a basis-of-design reverberation time design criteria based on the size and function of these spaces similar to what is described for PAS, LAS, and APS spaces under the EQ14.1.1 Enhanced Reverberation Time Requirements?

Credit Interpretation Ruling:

In CHPS, Career Technical Education (CTE) classrooms, such as Auto Body, Welding, and Wood Shops, are considered core learning spaces, which typically are required to meet the 1.0 second reverberation requirement found in EQ 14.0 Acoustical Performance in US-CHPS 2014. Given the large volumes of spaces that you are designing (over 60,000 and 130,000 cubic feet) the CHPS Technical Subcommittee on Acoustics recognizes the need for some flexibility on a reverberation time maximum. They suggest an approach adopted by M. David Egan's *Architectural Acoustics* of 1.2 seconds as a maximum reverberation time for these types of spaces, which would fall under the "lecture and conference room" category.