Big Sky Acoustics, LLC

Consulting services for noise assessment & acoustical design.

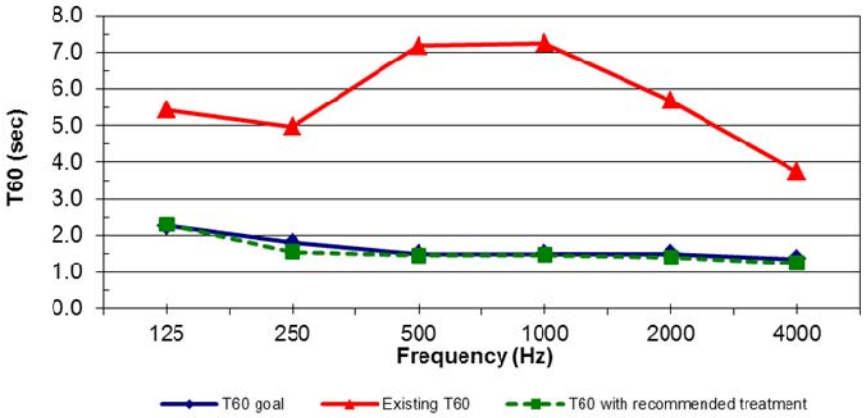
PROJECT PROFILE: GYMNASIUM

PROJECT: Montana Tech - Kelvin Sampson Court Gym
Butte, Montana

Since 1977, the Orediggers have enjoyed the benefits of home court advantage in the 2,000-seat Kelvin Sampson Court Gymnasium. The room acoustics amplifies the crowd but causes echoes that make announcements garbled, which is detrimental to other uses including graduations, concerts and community events.

BSA's SERVICES AND SOLUTIONS:

- Measured the reverberation time at 10 locations throughout the gymnasium, and the resulting T_{60} averaged 7.4 seconds, which is well above a functional level.
- Developed a computer model of the gym and verified the accuracy by comparing the predicted and field-measured results.
- Calculated an optimum reverberation time goal of 1.5 seconds, in order to improve speech intelligibility and reduce overall noise levels during activities.
- Determined that installing sound-absorbing material over the exposed metal deck, would be the most cost-effective acoustical treatment to balance the acoustical characteristics of the space.
- Specified the following three ceiling treatment options:
  - ◊ Acoustical ceiling panels
  - ◊ Spray-on material
  - ◊ Banners
- Calculated the required thickness, quantity, and location for each treatment option, provided multiple product manufacturers, as well as installation and material costs.
- When installed, the new treatment will balance the need for intelligible spoken words and home court advantage.



PO Box 27 Helena, MT 59624
Tel: (406) 457-0407 Fax: (406) 442-1296
www.bigskyacoustics.com