

Big Sky Acoustics

PROJECT PROFILE: VISITOR CENTER



PROJECT: Old Faithful Visitor Education Center
Yellowstone National Park

To meet the information, orientation and educational needs of 2.6 million visitors to Old Faithful each year, the National Park Service replaced the old Visitor's Center with this new LEED certified \$26 million facility. The building consolidated services and Park offices into a single location. As part of the design team, the architect trusted Big Sky Acoustics to address the acoustical design issues of this high-profile project.

BSA's SERVICES AND SOLUTIONS:

Sound Isolation

- Determined the STC design goals for wall constructions between the Auditorium, the Gift Shop and the Lobby to reduce disturbances to employees and visitors.
- Determined the STC and IIC design goals for the floor-ceiling construction between the Auditorium and the offices above, to reduce distractions in both spaces.
- Estimated the STC and IIC ratings of the proposed floor-ceiling constructions, and STC rating of the proposed wall constructions.
- Recommended modifying the walls and doors, and installing a spring-isolated ceiling in the Auditorium to reduce the sounds transmitted through the constructions, especially low frequency noise during movies.

Room Acoustics

- Created a computer model of the Auditorium and Exhibit Spaces to analyze their acoustical characteristics and predict their reverberation times.
- Used the models to evaluate the effectiveness of various acoustical treatments, including wall panels, seating materials, and ceiling treatments to ensure speech intelligibility in the Auditorium, and control overall noise levels and echoes in the Exhibit Spaces.

