

# GRANVILLE HIGH SCHOOL AUDITORIUM



ACOUSTIC DESIGN OF THIS PERFORMANCE SPACE REQUIRED PLANNING FOR VOCAL AND INSTRUMENTAL MUSIC, AS WELL AS THEATRE AND SPEECH. THE IDEAL COMBINATION OF BUILDING MATERIALS SUCH AS WOOD PANNELLING, SPLIT FACE BLOCK AND GYPSUM BOARD WERE CALCULATED. ECKEL TYPE II PANELS WERE USED IN THE REAR/SIDE AND THE CEILING. PERDUE "ROCKWOOL" ACOUSTIC PANELS WERE INSTALLED ON THE REAR WALLS IN SPACES BETWEEN WOOD PANELS. GYPSUM BOARD DIFFUSERS WERE DESIGNED AND INSTALLED ON THE SIDE WALLS PROVIDING LOW FREQUENCY ABSORPTION AND EARLY SIDE WALL REFLECTION. (RECENT STUDIES INDICATE THAT THE PERCEPTION OF "GOOD ACOUSTICS" IS BASED UPON EARLY SIDE WALL REFLECTION OF DESIRED SOUND.) THE USE OF AN ORCHESTRA SHELL WAS CALCULATED AS AN OPTION DURING MUSIC PERFORMANCE. PREDICTED SOUND REVERBERATION TIME, WITH SHELL WAS 1.82 SECONDS (500 Hz). WITH THE SHELL REMOVED, THE SOUND REVERBERATION TIME FELL TO 1.56 SECONDS (500 Hz).

Acoustic Design By:

**The D.H. Kaiser Co.**  
**P.O. Box 21035**  
**Canton, Ohio 44701**

Volume: 248,000 cubic feet

Reverberation Time: 1.82 Seconds w/shell (500 Hz)  
 1.50 Seconds no shell (500 Hz)

Occupancy: 800

Acoustic Function Criteria:

Primary - Vocal & Orchestral Music

FULL DETAILS, SPECIFICATIONS AND TEST DATA  
 ARE AVAILABLE UPON REQUEST

CALL D.H. KAISER CO. 330-456-7000 / 1-800-550-7007(OH)

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NO SHELL W/RECOMMENDATIONS 01/10/02

