



LIGHTWEIGHT BUILDING SOLUTIONS
Education

USG BORAL 
INNOVATION INSPIRED BY YOU.™

The Education Revolution is here!

In recognition of the critical role of education to the future prosperity of the nation, it is imperative that the children study in an environment which is conducive to learning.

Significant advances are being made to improving education infrastructure, increasing the number of skills training places and encouraging students to undertake further studies.

A revolution is also taking place in the design of our educational facilities, with new technologies and products being developed to meet the challenges of the 21st century.

The impact of the education infrastructure on learning outcomes has been extensively researched and documented. Overall building design and condition, lighting, internal air quality, temperature, acoustics – all have an effect on student achievements and behavior.

In addition to the minimum requirements set out in the National Building Code of India (NBC), various government authorities and educational institutions have developed their own criteria in regard to key aspects of building design such as building layout, noise levels, wall finishes, etc. Utilisation of sustainable design principles and materials is now a core requirement on most government funded projects.



India's leading supplier of building materials and systems, USG Boral offers a wide range of lightweight wall and ceiling solutions to suit various project requirements.

In addition to standard wall and ceiling systems utilised on most building projects, USG Boral offers solutions that satisfy specific requirements of education buildings, such as Fire Protection, Sound Isolation, Sound Absorption and Impact Resistance. The use of USG Boral lightweight products and systems can also contribute to the Environmental Performance and Green Star rating of a project.

This publication provides an overview of USG Boral lightweight solutions for the Education Sector.

Acoustic Design

Verbal communication is the primary mode of teaching in most educational settings. Careful attention to acoustical design is therefore essential for creating an effective learning environment.

Teacher or lecturer effectiveness in delivering the message is all too often compromised by even modest levels of noise intruding from the adjacent areas, and sound reverberation generated within the room.

USG Boral offers a range of lightweight wall and ceiling solutions that address these critical issues.

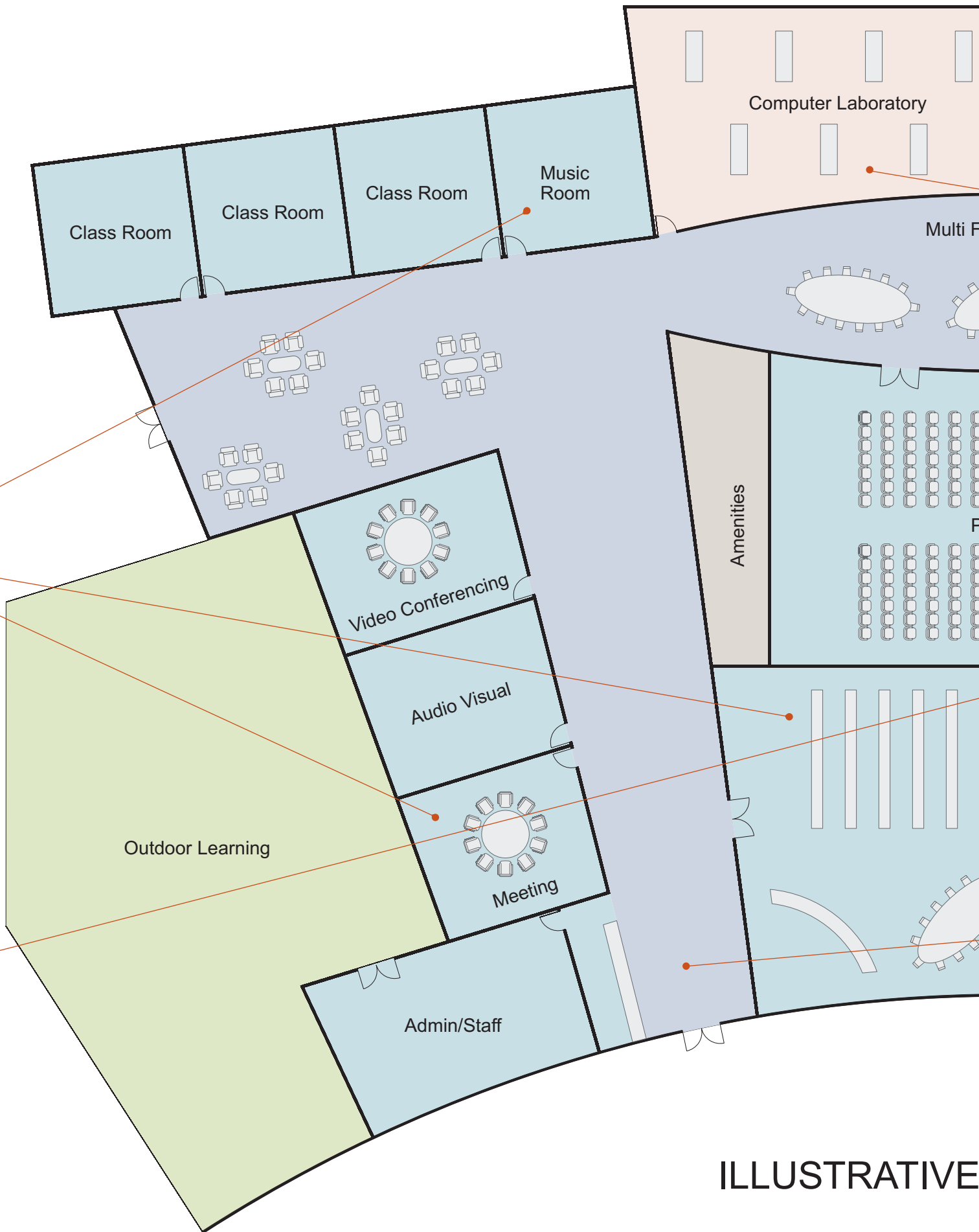


Reverberation within the room is caused by sound bouncing off the hard floor, ceiling and wall surfaces. In order to reduce reverberation, these surfaces need to be treated with sound absorbing materials.

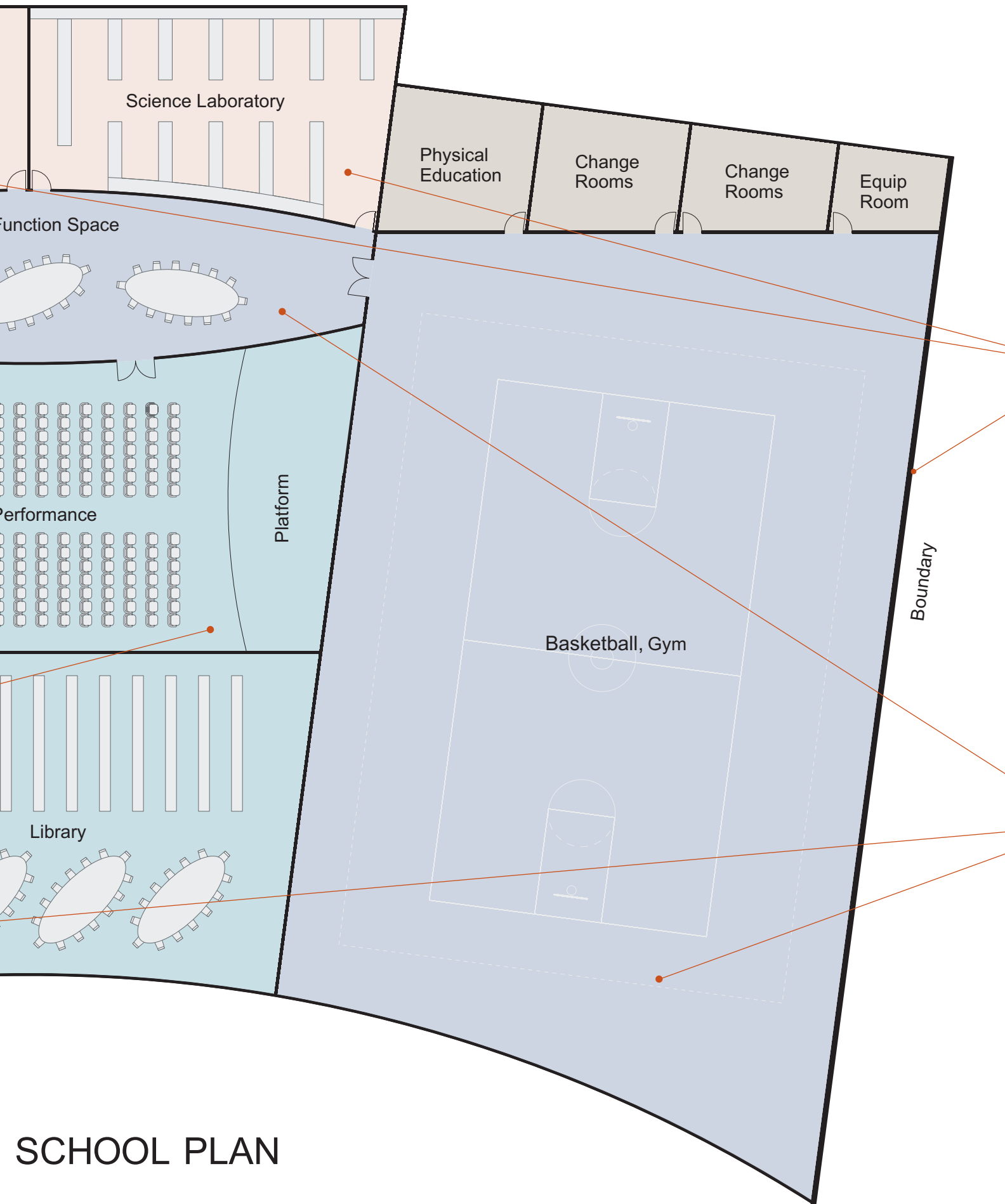
USG Boral offers a range of wall and ceiling lining materials with high sound absorptive properties.

USG Boral EchoBloc™ perforated plasterboard is available in two attractive designs, and can be used on both ceilings and walls to provide Noise Reduction Coefficients up to NRC 0.80. Detailed information on Boral EchoBloc™ plasterboard can be found at www.usgboral.com/en_india.html

USGBoral also offers a complete ceiling tile system with an extensive range of acoustic ceiling tiles providing Noise Reduction Coefficients up to NRC 0.95



ILLUSTRATIVE



SCHOOL PLAN

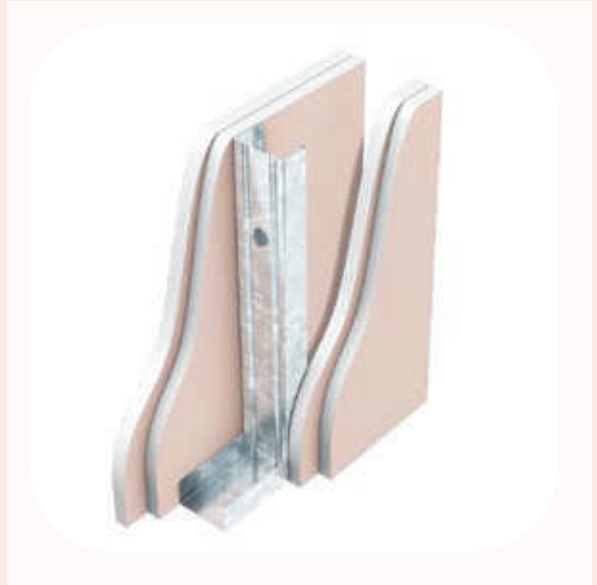
Fire Protection

USG Boral offers cost effective solution to satisfy the minimum fire requirements for school and other education buildings .

From fire rated internal and external walls to fire protection of beams and columns, USG Boral offers a wide range of lightweight fire rated solutions incorporating the proprietary FireBloc™ plasterboard.

USGBoral fire rated plasterboard systems have been designed to achieve fire ratings up to 2 hours.

For more information on USG Boral FireBloc™ plasterboard systems can be found at www.usgboral.com/en_india.html



Impact Protection

Impact damage to internal wall surfaces is a major contributor to the high maintenance costs of educational buildings. Be it in corridors, classrooms or sports halls, walls are often subject to damage far in excess of normal wear and tear.

It is for such high risk areas that USG Boral introduced its ImpacBoard™ impact resistant plasterboard.

ImpacBoard™ is 12.5mm thickness high density plasterboard which has continuous fibreglass mesh embedded within its core. Impactstop® plasterboard can be distinguished by its ivory paper lining.

ImpacBoard™ plasterboard offers excellent resistance to soft body impact and should be used in high traffic areas and other applications where walls may be subjected to bumps and blows.

For more information on USG Boral ImpacBoard™ plasterboard please visit www.usgboral.com/en_india.html



