NOISE BARRIERS

The Problem Solvers Case Study

QuietLift™ Vertical Lift Doors

The Problem:

The Homeland Security Training Center (HTC) is a 39,714 sq ft training facility that in combination with the 65,000 sq ft Homeland Security Education Center form the Suburban Law Enforcement Academy on the campus of The College of DuPage in Glen Ellyn, a western suburb of Chicago. The HTC features a live ammunition firing range.

The Project Parameters:

Two of the main issues Legat Architects, Inc. had to address were noise control and safety related to the firing range. The Acoustical Consultant, Stan Roller of Stan Roller Associates, determined the acoustical requirements and contacted our local rep, Josh Terning of the Huff Company, for assistance in product selection and budget pricing. Then Josh assisted the architect in product specifications, construction details and addressing the safety needs of the doors.

It was determined that the personnel doors needed acoustical ratings of STC 43 and STC 50 and a vertical lift door with a rating of STC 50.

The personnel doors and the vertical lift door needed to have a bullet resistant rating per the National Institute of Justice of Level IV for .30-06 armor piercing ammunition. This is similar to the Underwriter's Lab rating of UL Level 9. These are bullet resistant ratings per NIJ 018.01 and UL 752.

The Challenge:

It was determined that it was not good idea to have police personnel transferring weapons from vehicles into the firing range so an 8' x 8' sound and bullet resistant Vertical Lift door was included in the project. Vehicles can be moved into the firing range and weapons unloaded out of site of the general public.

The Noise Barriers' QuietLift door needed a special design due to the limited overhead space. The available rough opening (RO) height for the VL door was 96" and there was only 103" above the RO. This was not sufficient space for a standard VL door design.

The Noise Barriers Solution:

Noise Barriers' QuietSwing and QuietLift doors were the ideal solution. Noise Barriers doors became the Basis of Design for acoustical and bullet resistant doors. The Vertical Lift door had to have notches on either side to be able to fit the lifting mechanism and clear the RO. This can be seen in the photograph. The Huff Company provided and installed the doors.

The Results:

Site acoustic measurements were never taken because the consultant, architect and owner visited the site while target practice was taking place and could not hear any gunfire.

The Bottom Line:

Our QuiteLift™ Vertical Lift Doors are just one of the many products Noise Barriers can use to solve your unwanted sound issues.