



**United States Department of State**

Washington, D.C. 20520

JUN 6 2006

PRO Barrier Engineering LLC  
228 Grandview Drive  
Hummelstown, PA 17036

Attention: Mr. Thomas E. Potter

Dear Mr. Potter:

Based upon your request, a technical representative of the Department of State (DOS) witnessed the vehicle crash test at Pennsylvania Transportation Institute (PTI) on October 27, 2005 and has since evaluated the PTI Test Report 2006-07. The PRO Barrier model Permanent Arrestor been determined to meet the DOS certification criteria for vehicle barriers. Under the provisions of SD-STD-02.01, Revision A, *Test Method for Vehicle Crash Testing of Perimeter Barriers and Gates*, dated March 2003, the barrier is hereby certified with a K12 rating which will stop a 15,000 pound vehicle traveling at a speed of 50 mph with less than one meter penetration of the cargo bed.

The PRO Barrier Permanent Arrestor will be placed on the DOS list of certified equipment that is available for use by architects and planners. Your product still has to compete with other bidding manufacturers who are certified with the same classification. We cannot guarantee that your product will be chosen by architects that design the facilities.

Thank you for your interest and endeavors in protecting our personnel and facilities overseas.

Sincerely yours,

Deborah P. Glass  
Director  
Physical Security Division  
Bureau of Diplomatic Security



To Whom It May Concern:

The purpose of this document is to provide an overview of the assumptions that were taken to come to the internal K4 rating of The LightFoot barrier.

On October 27, 2005 the Arrestor Barrier designed and fabricated by Pro Barrier Engineering LLC received a K12 rating by the Department of State under the provisions of SD-STD-02.01. Please refer to accompanied certification letter by the Department of State as well as the crash test video.

A K12 rating requires a barrier to stop a 15,000 lb vehicle travelling at 50 miles per hour which comes to 1,253,000 ft-lbs. In turn a K4 rating requires a barrier to stop a 15,000 lb vehicle travelling at 30 miles per hour which comes to 451,000 ft-lbs.

Attached documents show the design of The Arrestor as well as the design of The LightFoot vehicle barriers. The Arrestor utilizes bands of proprietary size and material to achieve the desired stopping parameters. These bands are fed through the steel structure and are attached to pins in the base which are in turn sunk in concrete. Due to the fact that the K4 rating requires a third the stopping force, The LightFoot barrier is built to a third of the specifications of The Arrestor. One-third the number of bands of the same size and material are fed through the steel structure of The Lightfoot and are attached to steel pins in the base. The Lightfoot barrier base utilizes roughly half of the concrete surface area as The Arrestor.

Given that The Arrestor was built with a factor of safety of 1.3 over the desired K12 rating, it is the conclusion of Pro Barrier Engineering LLC that The LightFoot Barrier Design is sufficient to internally rate at a K4.

Tom Potter, PHD, PE  
Managing Member, President

Pro Barrier Engineering LLC.