



Gibraltar
4303 Innovation Loop
Marble Falls, TX 78654

Attention: Bill Neusch

Date: 01/31/13

Mr. Neusch,

Based upon the test performed on Tuesday, November 27, 2012 at KARCO Engineering, LLC., the as-tested configuration of the Gibraltar M50 P1 Wedge Barrier has received an impact rating of P1 at the M50 test level, based on the ASTM F 2656-07 standard test method. This test evaluated the M50 P1 Wedge Barrier for an impact to the center of the blocking width.

The M50 test level of the ASTM F 2656-07 is evaluated using a 6,800 kg test vehicle traveling at a nominal velocity of 80 km/h. The P1 penetration rating is given when penetration beyond the protected side of the barrier is less than 1.0 meter at lower leading edge of the test vehicle's cargo bed.

The M50 P1 Wedge Barrier completely disabled the test vehicle causing severe damage to the occupant compartment and drivetrain. The maximum penetration was recorded dynamically on the driver's side of the vehicle and was -1.6 m.

The M50 P1 Wedge Barrier sustained damage primarily along the center of its blocking width and to its two (2) inner blocking posts. The wedge barrier bent inward and forward in the direction of travel. The foundation cracked around the corners of the frame and shifted forward 130 mm on the left side and 167 mm on the right side. The wedge barrier remained in the foundation and the opening remained blocked after the impact.

Complete information relating to the test can be found in report number TR-P32190-01-NC and CD serial number 2012-2561 from KARCO Engineering, LLC., including test conditions, test vehicle information, test article specifications, manufacturer drawings and any deviations from the drawings in the as-tested configuration. This letter should not be considered complete documentation of this test without consideration of the test report and deliverable CD.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Frank D. Richardson".

Frank D. Richardson
President
KARCO Engineering, LLC.