



July 12, 2016

To whom it may concern:

This letter is to certify that the subject barrier, the Vehicle Arrestor 2.0 **Net Based Active Vehicle Barrier – 80' Span provided by Barrier1**, was tested to the requirements of the ASTM standard F-2656-07, Standard Test Method for Vehicle Crash Testing of Perimeter Barriers, in place when test was performed.

The test was performed at Calspan Corporation on June 30, 2016. **The barrier was impacted by a truck weighing 6887.9 kg (15,185 lbs.) travelling at 80.82 kph (50.22 mph).** Post-test measurements of the dynamic movement of the test vehicle's payload (truck bed) with respect to the trailing edge of the gate show that the left and right leading edge of the truck bed passed the one meter intrusion line by 4544 mm and 4,281 mm respectively but was stopped short of the seven meter intrusion line by 1456 mm and 1719 mm respectively. As such, based on the truck mass, impact velocity and penetration into the protected zone, the **barrier rating per the ASTM standard F-2656-07 is M50-P2.**

Calspan is accredited to ISO 17025 to perform ASTM F2656-07 testing by Perry Johnson Laboratories Accreditation, Inc. (PJLA) under Certificate Number L13-137 and Accreditation Number 76654.

Respectfully,

A handwritten signature in blue ink that reads "Edward Dutton".

Edward Dutton
Test Director

Safer Highways...Safer Skies



May 26, 2016

To whom it may concern:

This letter is to certify that the subject barrier, the Vehicle Arrestor 2.0 **Net Based Active Vehicle Barrier - 29'-3" Span provided by Barrier1**, was tested to the requirements of the ASTM standard F-2656-07, Standard Test Method for Vehicle Crash Testing of Perimeter Barriers, in place when test was performed.

The test was performed at Calspan Corporation on May 18, 2016. **The barrier was impacted by a truck weighing 6772.2 kg (14,930 lbs.) travelling at 80.10kph (49.77 mph).** Post-test measurements of the dynamic movement of the test vehicle's payload (truck bed) with respect to the trailing edge of the gate show that the left and right leading edge of the truck bed passed the one meter intrusion line by 1,571 mm and 1,626 mm respectively but was stopped short of the seven meter intrusion line by 4429 mm and 4374 mm respectively. As such, based on the truck mass, impact velocity and penetration into the protected zone, **the barrier rating per the ASTM standard F-2656-07 is M50-P2.**

Calspan is accredited to ISO 17025 to perform ASTM F2656-07 testing by Perry Johnson Laboratories Accreditation, Inc. (PJLA) under Certificate Number L13-137 and Accreditation Number 76654.

Respectfully,

A handwritten signature in blue ink that reads "Edward Dutton".

Edward Dutton
Test Director

Safer Highways...Safer Skies



4455 Genesee Street
Buffalo, New York 14225
July 9, 2013

To Whom It May Concern:

This letter is to certify that the subject barrier, the 80 foot span retractable net barrier system provided by Barrier1 Systems Inc., was tested March 14, 2013, to the requirements of the ASTM standard F-2656-07, Standard Test Method for Vehicle Crash Testing of Perimeter Barriers, in place at the date of the test under the following test configurations as described herein.. It achieved the same ASTM M50 rating when impacted from either traffic direction (bi-directional ASTM M5- crash tested).

In a first test, performed at Calspan Corporation on July 9, 2010, the barrier was impacted by a truck weighing 6769.9 kg (14925 lbs.) traveling at 82.9 kph (51.5 mph). The front edge of the truck bed protruded 6.91 meters past the 7 meter line. The net system spanned a distance of 27.58 meters (90 feet -6 inches) when measured to the inside edges of the support stanchions. Based on the truck mass, impact velocity and penetration into the protected zone, the barrier rating per the ASTM standard F-2656-07 is M50. In this test the control or latching end support was installed on the left (driver) side and static anchor side was on the right.

A subsequent test was performed at Calspan Corporation on March 14, 2013 on a new installation of the same barrier test design. The barrier was impacted by a truck weighing 6788.1 kg (14965 lbs.) traveling at 81.15 kph (50.42 mph). The front edge of the truck bed protruded 4.54 meters into the protected zone. The net based system spanned a distance of 27.43 meters (80 feet) when measured to the inside edges of the support stanchions. Based on the truck mass, impact velocity and penetration into the protected zone, the barrier rating per the ASTM standard F-2656-07 is M50-P2. In this test the control and latching end support was installed on the right (passenger) side and anchor side was on the left, where Net Barrier was impact in the opposite traffic direction.

As a result of these two crash tests performed on the same net barrier, the Barrier1 retractable net barrier demonstrated its bi-directional stopping capability with an ASTM M50 rating when impacted from either traffic direction (bi-directional ASTM M50 crash rated).

Calspan is accredited to ISO 17025 to perform ASTM F2656-07 testing by the Laboratory Accreditation Bureau under Certificate Number L-2332.

Respectfully,

A handwritten signature in blue ink, appearing to read "Gregory W. Campbell".

Gregory Campbell
Senior Director