



TEST No.: CAL3857  
Test Standard: ASTM F2656-15 M40  
Client: Gibraltar  
Test Article: G-1441, Ultra Shallow Bollard  
Product Rating: M40 – P1

November 22, 2019

To whom it may concern:

This letter is to certify that the subject Test Article, the model G-1441 Ultra Shallow Bollard, provided by Gibraltar, was tested to the requirements of the ASTM standard F-2656-15. This was the standardized Test Method for Vehicle Crash Testing of Perimeter Barriers, at the time the barrier crash test was performed.

The test was performed at Calspan Corporation, on November 19, 2019. The Gibraltar, model G-1441 Ultra Shallow Bollard, was impacted by a truck weighing 6811 kg (15,015 lbs.) travelling at 65.0 kph (40.4 mph). Post-test measurements of the dynamic movement of the test vehicle's payload (truck bed) show that the left and right, leading edge of the truck bed, were stopped at 0.75 meters and 0.14 meters respectively, after the trailing edge (reference line) of the impacted bollard. As such, based on the truck mass, impact velocity and penetration into the protected zone, the Test Article rating, as per the ASTM standard F2656-15, is M40 – P1.

Calspan is accredited to ISO 17025 to perform ASTM F2656-15 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 "Zachary Reisdorf". The signature is written in a cursive, flowing style.

Zachary Reisdorf

Test Director

*Safer Highways...Safer Skies*