



TEST No.: BR0146
Test Standard: ASTM F3016-19
Company: Reliance Foundry
Model: Crash Rated Bollard R-1040-S10
Product Rating: S10 – P1

3/24/23

To whom it may concern:

This letter is to certify that the Crash Rated Bollard R-1040-S10 provided by Reliance Foundry was tested to the requirements of the ASTM standard F3016-19. This was the standardized test method for low speed (30mph and lower) dynamic crash testing using a surrogate test vehicle for perimeter barrier crash testing at the time the test was performed.

Testing was performed at the Calspan Corporation, on March 16, 2023. The Crash Rated Bollard R-1040-S10 was impacted by a surrogate test vehicle (STV) weighing 2274.5 kg (5014.4 lbs.) travelling at 9.2 mph [14.8 kph]. Post-test measurements of the maximum dynamic penetration into the protected area as measured from the reference line of the test article, found the test article to have the greatest intrusion. The test article was measured as having a maximum intrusion of less than 1" [25.4mm] behind the trailing edge (reference line) of the impacted test article. As such, based on the surrogate test vehicle's mass, impact velocity and measured penetration into the protected area, the test article was given a penetration rating of S10 – P1 as allowed by the standard

Calspan is accredited to ISO/IEC 17025:2017 to perform ASTM F3016-19 testing by Perry Johnson Laboratories Accreditation, Inc. (PJLA) under Certificate Number L22-574 and Accreditation Number 76654.

Respectfully,

A handwritten signature in blue ink that reads "David Casey".

David Casey
Test Director
Calspan Barrier Test
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Safer Highways...Safer Skies