

Reliance Foundry Co. LTD.

6450 148th Street, Unit 207
Surrey, BC, Canada V3S 7G7
Attention: Mr. Shane Kramps



Date: 02/24/2025

Mr. Shane Kramps,

Based upon the test performed on January 22, 2025, at Applus IDIADA, the as-tested configuration of the Reliance Foundry R-1010-S20-R received an impact rating of P1 at the S20 Test Level of the ASTM F3016-19 standard test method. This test evaluated the R-1010-S20-R bollard for an impact at its center.

The bollard was evaluated using a surrogate vehicle weighing 5,019 lbs. traveling at a velocity of 20.73 mph. Test articles are evaluated and given a penetration rating based on the amount the protective device or surrogate test vehicle penetrates past the barrier reference point. The protective device reference point for the R-1010-S20-R is the protected side face. A P1 rating is given when either the bollard or the surrogate vehicle does not pass the 1.0 ft. penetration limit. The maximum dynamic penetration recorded was 0.34 ft. The maximum static penetration recorded was 0.25 ft. The surrogate vehicle was successfully stopped and rebounded after impact.

Complete information relating to the test can be found in report number TR-P45002-01 and Deliverable No. 2024-7371 from Applus IDIADA, including test conditions, test vehicle information, test article specifications, and manufacturer drawings. This letter should not be considered complete documentation of the test without consideration of the test report and deliverable package.

Sincerely yours,

A handwritten signature in black ink, appearing to read "AB", written over a horizontal line.

Alex Beltran
Engineering Manager
Applus IDIADA