

SUMMARY TEST REPORT

Contract No.: P2012-086
Summary Test Report No.: STR-400001-RSSI1
Project Name: ASTM F2656-07 M40 Crash Test for Electric Cable Trap System
Sponsor Name: RSSI Barriers LLC
DATE: 2012-05-15
TO: Jeff Burnham
RSSI
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SUMMARY TEST REPORT:

Disclaimer:

This report does not constitute a standard, specification, or regulation. Texas A&M University and Texas Transportation Institute assume no liability for its contents or use thereof. The names of specific products or manufacturers listed herein do not imply endorsement of those products or manufacturers. The results reported herein apply only to the security device being crash tested. The crash test was performed according to *ASTM F2656-07* standard specifications and TTI Proving Ground quality procedures.

Test Article Design and Construction

Complete details of the test article may be found in report number 510601-RSSI1 from Texas Transportation Institute Proving Ground.

Assessment and Conclusions

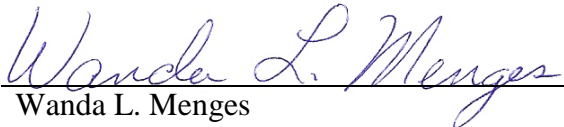
On January 30, 2012, TTI Proving Ground performed *ASTM F2656-07* M40 test on the cable trap system manufactured by RSSI. A 2000 International 4700 single-unit flatbed truck impacted the cable trap system at 87.9 degrees, with the centerline of the vehicle aligned with the centerline of the cable trap system. The acceptable range for impact speed for this M40 test was 38.0-46.9 mi/h, and the actual impact speed was 39.7 mi/h. The cable trap system brought the vehicle to a stop. The cargo remained onboard the vehicle; however, the hood of the vehicle and parts of the security device were thrown beyond the “protected” edge of the cable trap system. The vehicle was disabled. The leading edge of the cargo bed penetrated 3.62 ft beyond the “protected” edge of the cable trap system.

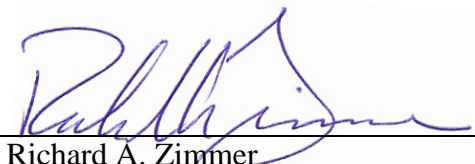
A better job done safer and sooner.

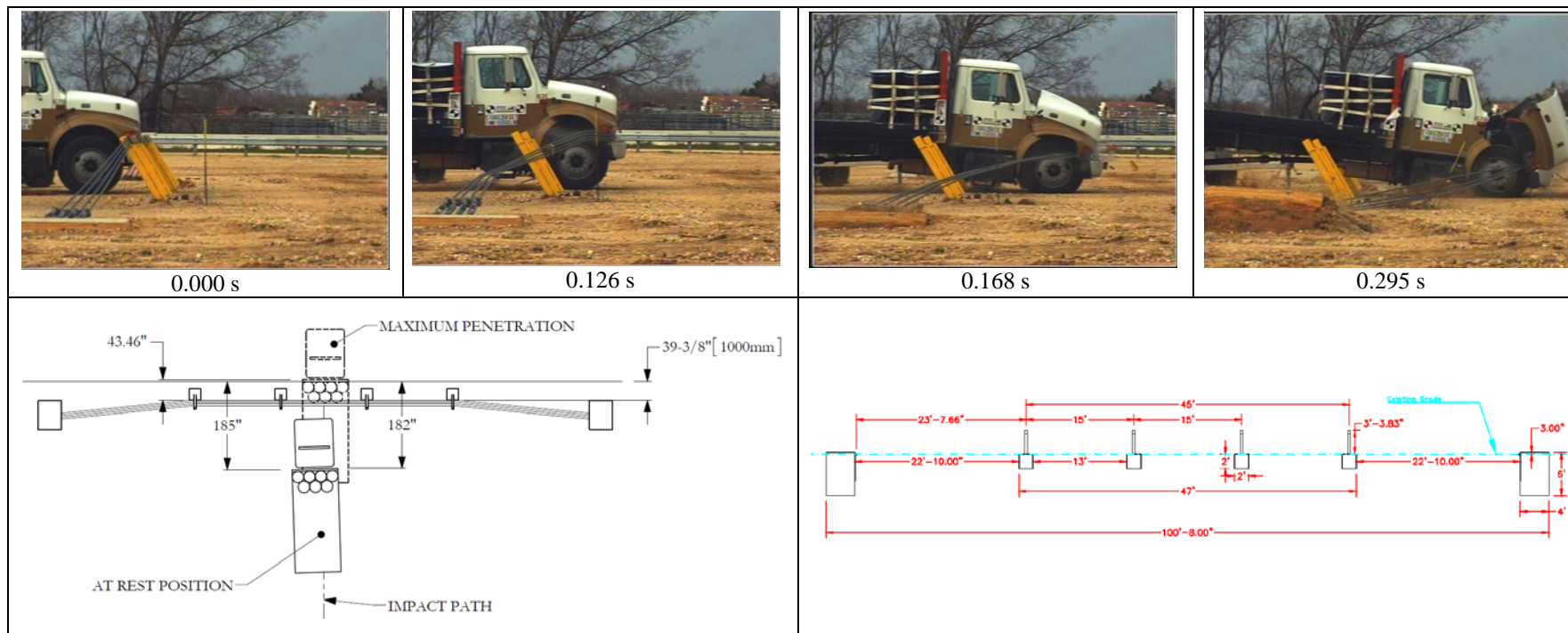
ASTM F2656-07 provides a range of vehicle test designations and penetration levels that allow agencies to select perimeter security devices that satisfy their specific facility needs. The amount of vehicle penetration of the security device at the required impact velocity determines the dynamic penetration rating for each condition designation.

The leading edge of the cargo bed penetrated 3.62 ft beyond the inside edge of the cable trap system. According to ASTM F2656-07, the cable trap system meets Condition Designation/Penetration Rating M40/P2, which allows penetration of 3.31 to 23.0 ft when impacted by the medium duty truck at 40 mi/h.

A summary of the pertinent information from the test may be found in the following table. Further details of the test article, test vehicle, test conditions, test results and evaluation criteria may be found in report number 510601-RSSII from TTI Proving Ground.


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**General Information**

Test Agency Texas Transportation Institute (TTI)
 Test Standard Test No. ASTM F2656-07 M40
 Test No. 510602-RSS1
 Date 2012-01-30

Test Article

Type Security Fence
 Name RSSI Cable Trap System
 Installation Length 100 ft 8 inches
 Material or Key Elements Four 1-inch diameter wire ropes
 terminated in concrete anchor
 foundations

Soil/Foundation Type Concrete anchors and posts in crushed
 limestone

Test Vehicle

Type Medium Duty Truck
 Designation M40
 Model 2000 International 4700
 Mass
 Curb 12,050 lb
 Test Inertial 15,180 lb

Impact Conditions

Speed 39.7 mi/h
 Angle 87.9 degrees

Exit Conditions

Speed Stopped
 Angle 85 degrees

Occupant Risk Values

Impact Velocity
 Longitudinal 31.2 ft/s
 Lateral 1.3 ft/s
 Ridedown Accelerations
 Longitudinal 12.4 G
 Lateral 4.5 G
 Max. 0.050-s Average
 Longitudinal -9.9 G
 Lateral -2.5 G

Penetration of Cargo Bed

Distance Beyond Inside
 Edge of Security Device 3.62 ft
 Truck Disabled? Yes

Summary of results for *ASTM F2656-07 M50* test on the RSSI cable trap system.