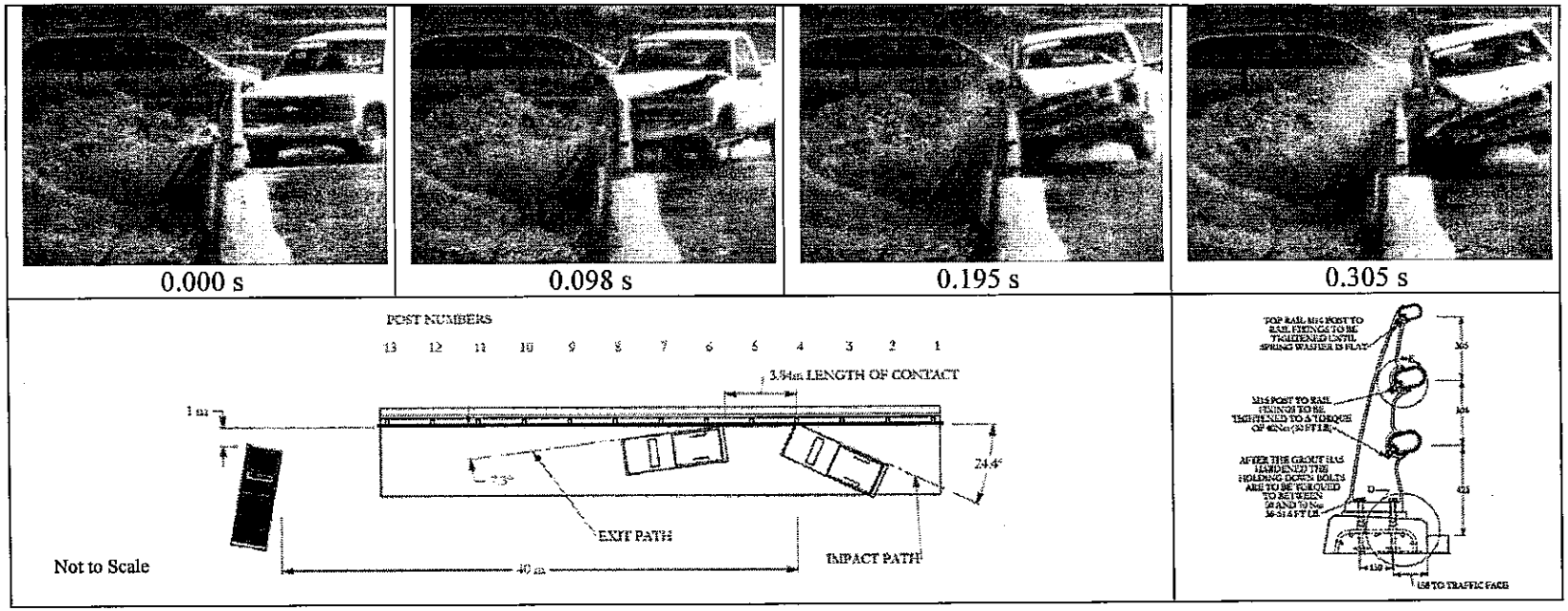

General Information
- Test Agency ..... Texas Transportation Institute
- Testing Standard Test No. ..... *NCHRP Report 350* 4-11
- Test No. 401761-VGL2
- Date 2010-04-28

Test Article
- Type ..... Bridge Rail
- Name ..... VGAN 300 Aluminum Bridge Parapet
- Installation Length ..... 30.3 m
- Material or Key Elements ..... 3 horizontal extruded 6082 T6 aluminum tubes sections on A444.0 T4 aluminum posts spaced at 2.44 m
- Soil Type and Condition ..... Concrete Deck, Dry

Test Vehicle
- Type/Designation 2000P
- Make and Model ..... 1997 Chevrolet C2500 Pickup
- Curb ..... 2174 kg
- Test Inertial ..... 2083 kg
- Dummy ..... No dummy
- Gross Static ..... 2083 kg

Impact Conditions
- Speed ..... 100.7 km/h
- Angle ..... 24.4 degrees
- Location/Orientation ..... At post 4

Exit Conditions
- Speed ..... 68.5 km/h
- Angle ..... 7.2 degrees

Occupant Risk Values
- Impact Velocity
  - Longitudinal ..... 6.6 m/s
  - Lateral ..... 7.5 m/s
- Ridedown Accelerations
  - Longitudinal ..... -18.2 G
  - Lateral ..... -12.6 G
- THIV ..... 35.7 km/h
- PHD ..... 9.9 G
- ASI 1.48
- Max. 0.050-s Average
  - Longitudinal ..... -10.7 G
  - Lateral ..... -11.7 G
  - Vertical ..... 5.7 G

Post-Impact Trajectory
- Stopping Distance ..... 40.2 m dwnstrm 1 m twd traffic

Vehicle Stability
- Maximum Yaw Angle ..... 114 degrees
- Maximum Pitch Angle ..... 19 degrees
- Maximum Roll Angle ..... -27 degrees
- Vehicle Snagging ..... No
- Vehicle Pocketing ..... No

Test Article Deflections
- Dynamic ..... 360 mm
- Permanent ..... 190 mm
- Working Width ..... 520 mm

Vehicle Damage
- VDS 01RFQ4
- CDC 01RFEW3
- Max. Exterior Deformation ..... 600 mm
- Max. Occupant Compartment Deformation ..... 100 mm

Figure 17. Summary of results for *NCHRP Report 350* test 4-11 on the VGAN 300 aluminum bridge rail.