

Interim Acceptance for Safety Barrier Product

Product: Brifen 4 Cable Wire Rope Safety Barrier (TL4-4R)

Safety Barrier – Permanent

Expiry Date: 30 June 2017

The Brifen 4 Cable Wire Rope Safety Barrier (designated Brifen TL4-4R) is a 4 cable wire rope barrier system utilising steel posts socketed into concrete footings. It has been tested in accordance with the National Cooperative Highway Research Project report 350 (NCHRP350) criteria, achieving Test Level 4 (refer FHWA letter of approval B-82B, March 2005). Additionally, the same system has been specifically re-tested for installation on a 1V:4H slope and achieved NCHRP350 Test Level 3 (refer FHWA letter of approval B-82B1, May 2006).

This system differs from that currently listed in NZ Transport Agency Specification M23 which is now superseded.

Based on the available testing information, the Brifen TL4-4R system is considered to provide NCHRP350 TL4 protection where installed on side slope of 1V:10H or flatter.

On a site specific approval basis only, the Brifen TL4-4R system may be installed on a slope as side protection. When installed on a side slope of between 1V:10H and 1V:4 H and no further than 1.2m from the edge of seal, the system may be considered to provide NCHRP350 TL3 protection. This configuration is only to be considered for retro-fit situations where shoulder widths are limited, but a side protection barrier is desired. A standard wire rope barrier system (refer NZ Transport Agency Specification M23) must be used for all new ("green field") sites and retrofit sites where shoulder width can reasonably be provided.

This interim acceptance is to confirm the acceptance by the NZ Transport Agency of the Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) for use on the State highway network. This system **must** be used in place of the current Brifen system in M23 Appendix A Section 2.1(a).

Product Identification



Brifen TL4-4R Line post



Brifen TL4-4R Anchor arrangement

Conditions of Use

The Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) is a 4 cable wire rope barrier system using steel posts socketed into concrete footings.

The Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) has been evaluated in accordance with Test Level 3 and 4 criteria in the National Cooperative Highway Research Project report 350 (NCHRP350) under the following test conditions:

- TL3 & TL4: 820kg small car impacting at an angle of 20° and a nominal speed of 100kph;
- TL3& TL4: 2000kg pick-up truck impacting at an angle of 25° and a nominal speed of 100kph; and
- TL4: 8000kg single axle truck impacting at an angle of 15° and a nominal speed of 80kph.

The Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) must be terminated using the tested end anchor treatment (refer FHWA letter of approval CC-86A, August 2005) with the minimum dimensions to be 1200mm x 1200mm x 1200mm (HxWxD).

The Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) must be installed and maintained in accordance with the product installation/maintenance manual and relevant NZ Transport Agency specifications. NZ Transport Agency specifications and standards shall prevail where there is discrepancy between the product manual(s) and the NZ Transport Agency specifications and standards.

Installers must ensure that they are familiar with relevant conditions, requirements and limitations of the system, particularly with regard to the appropriate length of need, minimum installation length and test deflection. Vehicle impacts that vary from the impact conditions used during testing may result in significantly different results than those experienced in testing.

A copy of this Interim Acceptance must be appended to the Installation Manual.

In-Service Performance Report

This interim approval requires the notification to the NZ Transport Agency of any site where the Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) is to be installed and the submission of an in-service report covering all installations after 12 months from the date of this acceptance notice. Dependant on the number and timeframe of installations, this period may be extended.

Expiry of Acceptance

This acceptance expires on 30 June 2017 and replaces any previous acceptance.

New installations of the Brifen 4 Cable Wire Rope Safety Barrier system (TL4-4R) must not be deployed on the state highway network after the expiry date of acceptance unless a further period of acceptance is granted or the product has been formally included in the NZ Transport Agency M23 Specification for Road Safety Barrier Systems, in which case the M23 specification would replace this interim acceptance.

Should the NZ Transport Agency discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the system being marketed differs significantly from that which was crash tested, it reserves the right to modify or revoke its acceptance.

Authorised by the National Manager Traffic & Safety