

\*\*\*

The below answer sheet is for your own self-assessment.  
Please keep your completed questionnaires and answers on file for your record.  
These do not need to be sent to CPD Live. CPD-Live will send you certificate.

\*\*\*

## A GUIDE TO VERTICAL CABLE SAFETY BARRIERS- PRINCIPLES FOR GOOD DESIGN

Proudly supported by



TENSILE ARCHITECTURE

### 1) What is meant by the term 'Vertical Cable Safety Barrier'.

A Vertical Cable Safety Barrier is a floor to ceiling barrier comprised of tensioned stainless-steel cables, which is designed to enclose a void, balcony, stair or other space, and eliminate the possibility of falls.

### 2) How does the NCC regulate the installation of Vertical Cable Safety Barriers?

The relevant NCC codes articulate design requirements in terms of only the wire diameter and construction, as well as tension and spacing of wires.

### 3) Outline one or more of the limitations in the NCC's approach to Vertical Cable Safety Barriers.

Answers include one of the following:

- While the NCC's 'Deemed to Satisfy' provisions are suitable for wire balustrades from floor to handrail height, they are not suitable for floor to ceiling barriers which have to be individually engineered.
- The NCC verification methods provide some guidance but do not govern or recommend cable connections. Instead, it leaves cable specification details up to structural engineers to determine.

### 4) Why are some structural engineers not equipped to determine cable specifications of Vertical Cable Safety Barriers?

Structural engineers may be inexperienced in terms of the behavior of cables and know little about how the cables should be designed to mate effectively with and transfer the cable loads to the building structure.

### 5) As it stands, many sub-contractors and builders attempt to manufacture Vertical Cable Safety Barriers themselves. Can the performance of such systems be trusted? Why/Why not?

No, because builders and sub-contractors may not have the tools, dies, or experience required to achieve the level of cable performance expected by structural designers.

### 6) What sorts of cable end connections should specifiers who are considering Vertical Cable Safety Barriers be looking out for?

Cable end connections should be such that no systematic bending occurs in the connecting parts; they are able to articulate and provide rotational freedom.