

Extrudakerb Concrete Barrier Do Minimum Installation

Extrudakerb Concrete Barrier (ECB), represents Europe's latest and most advanced concrete road restraint system, fully tested and certified in accordance with EN1317:2010.

E CB has a Declared Performance of H2 containment, W1 working width, VI2 vehicle intrusion and ASI B, yet only requires a minimal foundation when compared to all other concrete road restraint systems. Declared Performance is delivered without the need for longitudinal steel strand or bar reinforcement.

ECB is a surface mounted concrete road restraint system and can be constructed both on and off structures without the need for embedment and restraint. ECB is the only European concrete road restraint system that can be surface mounted upon a bridge structure.

The minimum foundation construction required for ECB is a 790mm wide by 50mm deep bound upper foundation layer, laid upon a 790mm wide by 150mm deep unbound compacted granular lower foundation layer, laid upon a formation layer with a minimum 2.5% CBR.

On a structure the bridge deck itself provides both the minimum upper and lower foundation requirements, providing the total bridge deck thickness exceeds 200mm.

ECB can be constructed monolithically, here the 50mm upper foundation layer is cast simultaneously with the barrier, directly upon the 150mm lower foundation layer.

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This market leading reduced foundation allows ECB barrier to be constructed in a “do minimum” configuration, the lowest cost solution for replacement of life expired steel barrier with high performance, ultra-low maintenance, rigid concrete barrier.

This “do minimum” approach facilitates rapid removal and replacement of life expired steel barrier systems, at minimum cost. This results in a dramatic improvement to road user safety on account of the increased barrier containment level, working width and vehicle intrusion. This necessary replacement also offers significantly improved safety for the road workers with barrier maintenance and replacement being all but eliminated over a 50 year design life.

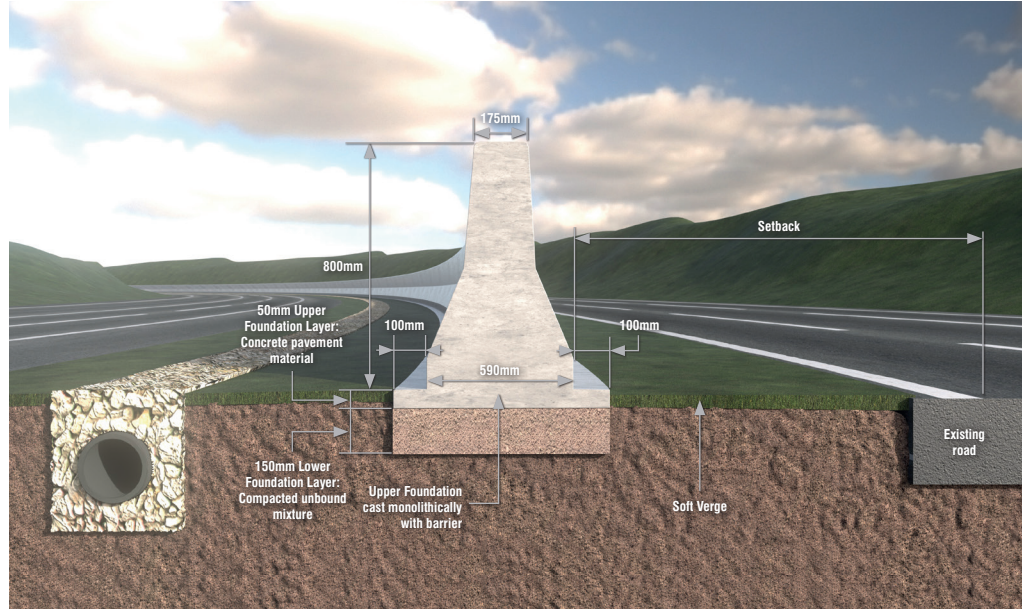
A detailed review, undertaken in 2020, by Highways England and one of their leading Maintaining Agents concluded that ECB could be provided in its “do minimum” configuration at less than the initial cost of providing a traditional N2 double sided steel system. Furthermore, the N2 steel system would require replacement within 25 years, when compared to the 50-year design life of ECB.

The specification of verges outside of the localised minimum ECB foundation zone is a matter for Road Overseeing Organisations and does not affect ECB’s Declared Performance.

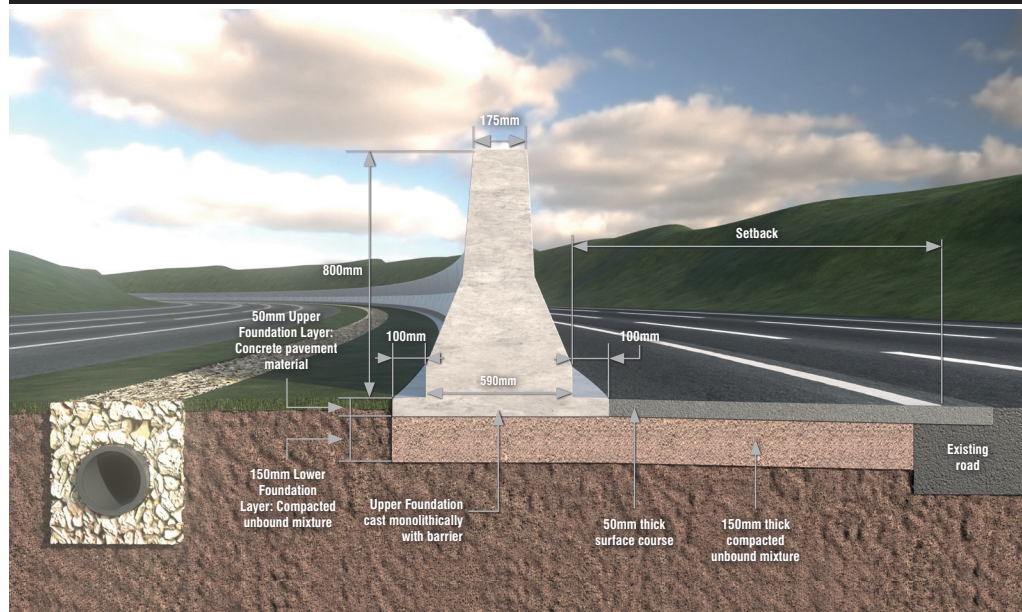
Where the reduction of verge maintenance is considered a high priority, a “do optimum” configuration has been developed where the setback zone between the ECB system and the pavement traffic zone is hardened.

Where a fully hardened central reserve is required, which exceeds the minimum depths required for ECB construction, the Road Overseeing Authority may choose to reduce these depths to match that of the minimum required for ECB construction.

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ECB - Do Optimum Installation



For more information on the Extrudakerb Concrete Barrier, call Extrudakerb on T: +44 (0) 1709 862 076 or E: sales@extrudakerb.co.uk