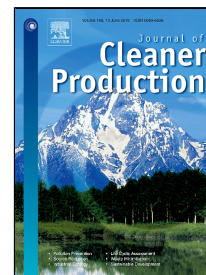


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Recycling screening waste and recycled mixed aggregates from construction and demolition waste in paved bike lanes



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1 **Recycling screening waste and recycled mixed aggregates from**  
2 **construction and demolition waste in paved bike lanes**

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15

16 **Abstract**

17 This research conducts a full-scale study on the use of recycled mixed aggregates from  
18 construction and demolition waste and its screening waste in an experimental bike lane.  
19 The subgrade and the natural and recycled materials used as the base and subbase courses  
20 were characterized in a laboratory. During the construction of the experimental section,  
21 densities and deflections were measured to evaluate the mechanical behaviour of the  
22 structural layers and to determine the Young's modulus of the natural and recycled  
23 materials. After the lane was open to traffic for two years, the moduli evolution of the  
24 materials were studied. For the first time, the results obtained have shown the feasibility  
25 of using screening waste that does not meet the physical-mechanical and chemical  
26 requirements for use on paved roads as structural layers in bike lanes.

27 **Keywords:**

28 Bike lane, backcalculation, recycled mixed aggregates, screening waste, construction and  
29 demolition waste.

30 **Acronyms:**

31 AASHTO - American Association of State Highway and Transportation Officials; CBR –  
32 California Bearing Ratio; CDW - construction and demolition waste; CRA - Catalogue of

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