

## **LANDSCAPE INTEGRATION IN ROAD DESIGN, CASE: BAHUICHIVO - CEROCAHUI IN CHIHUAHUA, MEXICO**

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### **ABSTRACT**

*The design of roads must be considered as an element of the landscape. The construction of a road brings affectations to the fragility and quality of the landscape. For this reason, it is necessary to study the concept of the landscape to integrate it into the planning and development of road projects. Designing roads that integrate the landscape in the state of Chihuahua will lead to harmonize with the environment. The objective of this research was to develop a methodology to integrate roads to the landscape. The methodology of landscaping design begins with selecting the route that is integrated into the landscape through cartographic, photogrammetric and satellite image analysis. After selecting the route, evaluations were made of the type of terrain and natural elements at the preliminary project level, and finally, the design recommendations for horizontal, vertical alignment and cross sections in the executive project of the road are included. This methodology was applied to a case study: Bahuichivo-Cerocahui road from km 5 + 000 to 17 + 000, in the state of Chihuahua. The results obtained from this research lead to a change in the methodology used in the Road Geometric Design Manual of the Ministry of Communications and Transportation.*

**KEYWORDS:** *Biodiversity, Roads, Landscape Design in Roads, Landscape*

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