

ABSTRACT

Analysis of Park and Ride Needs Planning in the KIPP 1A Ibukota Nusantara (IKN) Area

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The development of Ibukota Nusantara (IKN) in East Kalimantan as the new capital city of Indonesia requires transportation planning that supports the concept of "Zero Emission Energy" with a KPI of 80% green transportation and 20% private transportation. One important aspect of such planning is the availability of park and ride facilities to accommodate private transportation users to switch to public transportation. This study aims to analyze the need for park and ride in KIPP 1A Ibukota Nusantara (IKN) which includes motorcycles, private cars, and buses, evaluate the performance of parking space units, and design effective park and ride planning such as parking building planning and user facilities. The study was conducted by calculating parking characteristics, designing SRP referring to the 1996 Technical Guidelines for the Implementation of Parking Facilities on an area of 10,000 m². The results of the parking characteristics analysis showed a parking demand of 997 for cars, 155 for motorcycles, and sufficient capacity for 40 buses. An 8-story parking structure was designed to accommodate these requirements, with a total capacity of 1034 for cars and 400 for motorcycles. The parking layout design adopts a 90° island parking pattern for motorcycles and buses, and a 90° double-sided parking pattern for cars. There are additional facilities such as bus stops and souvenir kiosks as the attraction of the park and ride area.

Keywords: *Ibukota Nusantara (IKN), Parking Spaces, Parking Building, Park and Ride*

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