

**MICHAEL THIELMANN:**

**„Entwicklung eines Standortkonzeptes für die Errichtung von Tank- und Rastanlagen an der A 33 von Paderborn bis Osnabrück unter Berücksichtigung von Raumwiderständen sowie eine überschlägliche Dimensionierung der Anlagen“**

Bachelorar Thesis at the subject area Traffic and Transport, Hochschule OWL, Detmold 2017

**Abstract**

The Bundesautobahn (BAB) 33 runs from the BAB 44 in the north-west direction via Paderborn and Bielefeld (BAB 2) and ends, after completion of the sections currently under construction, at Osnabrück in Niedersachsen (BAB 30). Over the entire length of approx. 95 km, no rest and service areas have been built or planned.

The task was to identify areas that could be used as a location for rest and service areas. These areas have been determined taking account of the environmental and environmental constraints as well as the aspects of traffic safety and economic viability. The basis was the "Recommendations for Rest and Service Areas - ERS" (2011) by the Forschungsgesellschaft für Straßen- und Verkehrswesen (FGSV).

According to the ERS the distances between rest and service areas should be 50 – 60 km. Under this prerequisite, a position determination was first carried out. The functional, economic, environmental and transport requirements were determined, and the BAB 33 and the direct environment were examined. A first pre-selection was made with clear exclusion criteria. Sites and areas which, due to their spatial resistances (protection of nature and man), preclude a structural change, have been sorted out. Stretch sections without a defect in parking lots were only examined for the expansion of existing unoccupied latching systems. The remaining sections were then also considered from an economic point of view. From this, possible sites were selected for rest and service areas, which had a slight overlapping of room resistances. They were also examined more intensively for their environment, the effects on the environment, as well as the traffic and economic boundary conditions. Subsequently, an assessment of the individual sites was made, which led to a selection of ultimately 2 locations, which are recommended as sites for rest and service areas. The first location in Hesseln near Halle should be planned as a new building in the section still under construction. A location concept for the resting system was developed and implemented in a preliminary design. Here, a rest and service area with parking lots for 62 trucks, 14 buses and 114 passenger cars as well as some special car parks can be realized on each side. The second location is the resting area Hövelsenne near Hövelhof, Paderborn. The expansion of the rest area should be planned here by means of an extension around a gas station, service area and parking lots for 25 or 36 trucks and 132 or 104 passenger cars.

The BAB 33 is to be investigated in a further step in the section between Bielefeld and Borgholzhausen at sites for rest areas. Here, there are clear deficits according to the rule distances.