

# Soil / cut-off wall interaction at Diemerzeedijk, Amsterdam

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**ABSTRACT:** The land remediation project at Diemerzeedijk, Amsterdam, includes a series of land fill operations and the construction of a cement-bentonite cut-off wall in the slope of the embankment. PLAXIS has been used to analyse the effect of accelerated drainage of excess pore water pressures and the performance of the cut-off wall. The evaluation of this performance in terms of stress levels and the likelihood of crack development has been carried out as a separate analysis on the basis of the PLAXIS results.

## 1 INTRODUCTION

This paper presents results of a PLAXIS-calculation for the contaminated land remediation project at Diemerzeedijk, Amsterdam. The considered area is of approximately  $0.6 \text{ km}^2$ , with a circumference of about 4 km and is illustrated in figure 1 below.

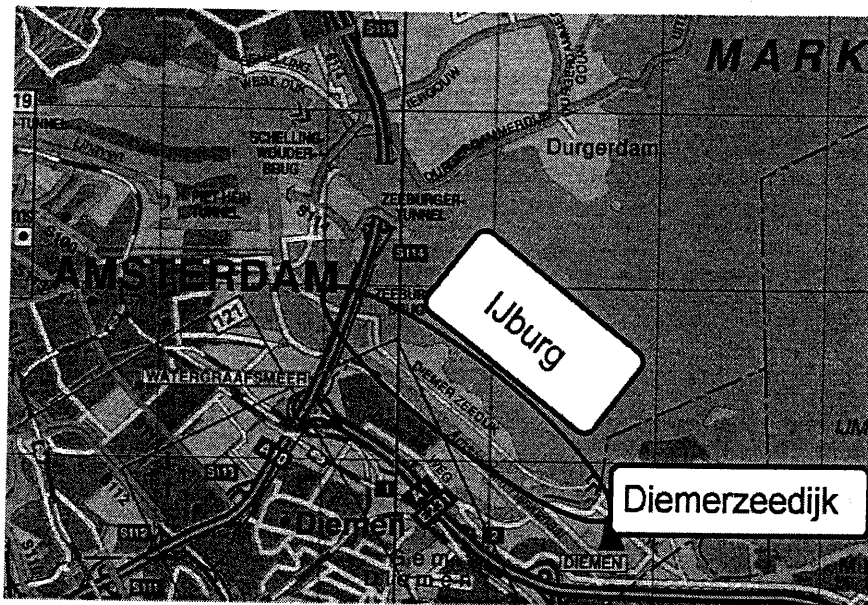


figure 1: Project location

The contamination was caused by continuous waste dumping during the 1960's and 70's, resulting in significant concentrations of benzenes, dioxins and other chemicals. Environmental awareness developed in the seventies eventually lead to a closure of this dump-site and the location was left unused throughout the eighties. Figures 2 and 3 give an impression of the site shortly before start of the construction activities.

