岩石力学与工程学报 2005 24 (2005-S1): 5267 ISSN: 1000-6915 CN: 42-1397/O3

土钉墙稳定性的一种简化分析方法

冯志焱1，2，唐 竞3

(1. 西安理工大学 岩土工程研究所，陕西 西安 710048；2. 西安建筑科技大学 土木工程学院，陕西 西安 710055；
3. 西北综合勘察设计研究院，陕西 西安 710003)

收稿日期 2004-3-30 修回日期 2004-5-12 网络版发布日期 2008-3-18 接受日期 2004-3-30

摘要 根据土钉墙的实测结果和理论分析，提出一种土钉墙稳定性分析的简化方法，可用于土钉墙的初步分析。对两个实际工程的计算表明，该方法具有一定的实用价值。

关键词 土木工程；基坑支护；土钉墙；稳定性；简化分析方法

分类号

A SIMPLIFIED METHOD FOR THE STABILITY ANALYSIS OF SOIL- NAILED WALL

FENG Zhi-yan1，2，TANG Jing3

(1. Institute of Geotechnical Engineering，Xi¢an University of Technology，Xi¢an 710048，China；
2. College of Civil Engineering，Xi¢an University of Architecture and Technology，Xi¢an 710055，China；
3. Northwest Research Institute of Engineering Investigations and Design，Xi¢an 710003，China)

Abstract

Based on the in-situ tests and theoretical analysis，a simplified method，which can be used to analyze the stability of soil-nailed wall，is proposed. The simplified method assumes that the fixed circular potential failure surface passes through the toe of the wall and intersect the top at about 0.36 H，and trapeziform earth pressure along the depth of the wall. This method has the advantage of avoiding the tedious processes of trial and error to search the potential failure surface. The calculation results of two engineering projects show that the proposed method has its practical value.

Key words civil engineering；foundation pit；soil-nailed wall；stability；simplified method

DOI:

通讯作者