1. Record Nr. UNINA9910682553003321 Autore Ding Zhi <1962-> Titolo Influence of shield tunneling on adjacent structures and control technology / / Zhi Ding, Xinjiang Wei, and Yong Wu Hangzhou, China:,: China Architecture & Building Press,, [2023] Pubbl/distr/stampa ©2023 **ISBN** 981-19-1134-7 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (258 pages): illustrations (black and white, and color) Disciplina 690 Buildings - Effect of nearby construction on Soggetti Tunneling - Risk assessment Tunnels - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia Nota di contenuto Introduction -- Measurement and Analysis of Ground Settlement of Shield Tunneling Adjacent to Different Foundation Buildings --Calculation of Soil Deformation Caused by Shield Tunneling -- Studies the Influence of Longitudinal Tunneling of Shield on Adjacent Shallow Foundation Buildings -- Research on the Influence of Shield Longitudinal Excavation Adjacent to Short Pile Foundation Buildings --Research on the Influence of Double-line Shield tunneling Adjacent to Buildings and Control Standards -- Prediction of Lateral Ground Settlement Caused by Shield Tunneling Adjacent to Buildings --Construction Control Technology of Shield Tunneling Adjacent to Structures. Sommario/riassunto This book introduces the synergy theory model to analyze the calculation results of the soil deformation and the lateral displacement law caused by the longitudinal shield tunneling based on in-depth scientific research and engineering practice on deformation of structures caused by shield tunneling. The influence of shield tunneling on different adjacent foundation buildings was studied, and the deformation law and internal force distribution law of the structures

were obtained. It aims to help practitioners in understanding the mechanism, predictive analysis method, and corresponding control

technology of the influence of surrounding structures' deformation caused by shield tunneling.