Record Nr. UNINA9910140474003321 Foundation engineering for expansive soils / / John D. Nelson [and **Titolo** three others]; cover image, Adrian Morgan Pubbl/distr/stampa Hoboken, New Jersey:,: Wiley,, 2015 ©2015 **ISBN** 1-118-41529-9 1-118-99609-7 1-118-41799-2 Descrizione fisica 1 online resource (xxv, 385 pages: illustrations TEC009020 Classificazione Disciplina 624.151 Soggetti Soil-structure interaction Swelling soils Foundations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Machine generated contents note: Preface Chapter 1. Introduction 1.1 Purpose 1.2 Organization 1.3 Terminology Chapter 2. Nature of Expansive Soils 2.1 Microscale Aspects of Expansive Soil Behavior 2.2 Macroscale Aspects of Expansive Soil Behavior 2.3 Identification of Expansive Soils 2.4 Characteristics of Expansive Soil Profiles Chapter 3. Site Investigation 3.1 Program of Exploration 3.2 Forensic Investigation Chapter 4. Soil Suction 4.1 Soil Suction Components 4.2 Soil Water Characteristic Curve 4.3 Measurement of Matric Suction 4.4 Measurement of Osmotic Suction 4.5 Measurement of Total Suction Chapter 5. State of Stress and Constitutive Relationships 5.1 State of Stress and Stress State Variables 5.2 Stress-Volume Relationships 5.3 Stress-Water Relationships Chapter 6. Oedometer Testing 6.1 Consolidation-Swell and Constant Volume Tests 6.2 Correction of Oedometer Test Data 6.3 Relationship Between CS and CV Swelling Pressures (The "m Method") 6.4 Factors Influencing Oedometer Test Results Chapter 7. Water Migration in Expansive Soils 7.1 Water Flow in Unsaturated Soils 7.2 Depth and Degree of Wetting 7.3 Determination

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## Sommario/riassunto

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