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Nota di contenuto	""CONTENTS""; ""1 HISTORY OF BURIED STEEL PIPE""; ""1.1 The Ancient World""; ""1.2 The History of Iron and Steel Pipes""; ""1.3 The Pioneers in Pipe Design""; "1.4 Contributors to Design""; ""2 NOMENCLATURE, CONSTANTS, AND TERMINOLOGY""; ""2.1 Nomenclature""; ""2.2 Constants""; ""2.3 Terminology""; ""3 PIPE MECHANICS""; ""3.1 Introduction""; ""3.2 Internal Pressure Design""; ""3.3 Minimum Thickness for Handling""; ""3.4 Ring Stiffness""; ""3.5 Ring Compression""; ""3.6 Performance Limits of Cement Mortar Linings and Cement Mortar Coatings""; ""3.7 Ring Deflection""; ""3.8 Yield Stress"" ""4 SOIL MECHANICS"""4.1 Introduction"; ""4.2 Notation""; ""4.3 Soil Conduit""; ""4.4 Flaws In Applying Elastic Theories to Soil""; ""4.5 Unit Weights of Soil"; ""4.6 Vertical Soil Pressures (Stresses)""; ""4.7 Soil Strength""; ""4.8 Soil Slip""; ""4.19 Particle Size and Gradation""; ""4.10 Soil Friction Angle"; ""4.11 Passive Resistance""; ""4.12 Cohesion in Soil""; ""4.13 Soil Compression""; ""4.14 Embedment"; ""4.18 Soil Movement"; ""4.19 Earthquakes"; ""4.20 Soil Specifications""

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""4.21 Finite Element Analysis"""5 PIPEa€?SOIL INTERACTION""; ""5.1 Introduction""; ""5.2 Ring Deflection""; ""5.3 Relative Effect of Pipe and Soil on Ring Deflection""; ""5.4 Hydrostatic Collapse in a Fluid Environment""; ""5.5 Ring Deformation Failure of Buried Flexible Pipe""; ""5.6 Minimum Cover""; ""6 DESIGN ANALYSIS""; ""6.1 Case 1a€?Internal Pressure and Handling""; ""6.2 Case 1Aa€?Ring Stability""; ""6.3 Case 1Ba€?Ring Stability With Vacuum"; ""6.4 Case 1Ca€?Ring Stability With Vacuum and Water Table Above Pipe""; ""6.5 Case 2Aa€?Ring Stability at a Given Depth with Partial Vacuum""

""6.6 Case 2Ba€?Pipe Stiffness to Prevent Collapse"""7 SPECIAL CONSIDERATIONS"; ""7.1 Introduction"; ""7.2 Parallel Pipes in a Common Trench"; ""7.3 Parallel Trenches""; ""7.4 Trenches in Poor Soil""; ""7.5 Flowable Fill""; ""7.6 Longitudinal Forces""; ""7.7 Buried Pipe on Bents""; ""7.8 Seismic Considerations""; ""7.9 Encased Pipe""; ""References""; ""APPENDIX A: THE IOWA FORMULAa€?WHAT IT IS AND IS NOT""; ""APPENDIX B: SOIL SLIP ANALYSIS""; ""APPENDIX C: FINITE ELEMENT DESIGN EXAMPLE TRENCH PARALLEL TO A BURIED PIPE""; ""APPENDIX D: EXTERNAL FLUID PRESSURE""

""APPENDIX E: THE STORY OF BURIED STEEL PIPES AND TANKS"""" APPENDIX F: RING ANALYSIS""; "APPENDIX G: IMPACT FACTORS IN SOIL""; ""GLOSSARY""; ""A""; ""B""; ""C""; ""D""; ""E""; ""F""; ""H""; ""I""; ""L""; ""M""; ""P""; ""R""; ""S""; ""U""; ""BIBLIOGRAPHY""; ""INDEX""; ""A""; ""B""; ""C""; ""D""; ""E""; ""F""; ""G""; ""H""; ""I""; ""J""; ""L""; ""M""; ""N""; ""P""; ""Q""; ""R""; ""S""; ""T""; ""U""; ""W""; ""Y""; ""SI CONVERSION TABLE""