Astm D4429 Method

Innovations in Road, Railway and Airfield Bearing Capacity - Volume 2 comprises the second part of contributions to the 11th International Conference on Bearing Capacity of Roads, Railways and Airfields (2022). In anticipation of the event, it unveils state-of-the-art information and research on the latest policies, traffic loading measurements, in-situ measurements and condition surveys, functional testing, deflection measurement evaluation, structural performance prediction for pavements and tracks, new construction and rehabilitation design systems, frost affected areas, drainage and environmental effects, reinforcement, traditional and recycled materials, full scale testing and on case histories of road, railways and airfields. This edited work is intended for a global audience of road, railway and airfield engineers, researchers and consultants, as well as building and maintenance companies looking to further upgrade their practices in the field. Comprehensive in its scope and directly applicable to daily waste management problems of specific industries, Waste Treatment in the Metal Manufacturing, Forming, Coating, and Finishing Industries

covers hazardous industrial waste treatment, renovation, and reuse in the metal manufacturing, forming, coating, enameling, and finishing industries. It details specific hazardous and industrial wastes from metal industries, basic and advanced principals and applications, augmented by figures, tables, examples, and case histories. This book elucidates new industries and new waste management topics and provides all of the necessary technical information on industrial and hazardous waste treatment. Focusing on new developments in innovative and alternative technologies, it offers in-depth coverage of environmental pollution sources, waste characteristics, facility innovations, design criteria, control technologies, management strategies, process alternatives, costs, and effluent standards. It also addresses the regional and global effects of important pollution control practices specific to the process industries. Since the field of industrial hazardous waste treatment is very broad and no one can claim to be an expert in all industries, the editors have collected contributions from a wide range of experts, making the information in this handbook authoritative, inclusive, and cutting-edge. It seamlessly interweaves

the traditional with the novel, covering all sectors of pollution control and delineating the need for a total environmental control program and how to achieve it.

This volume provides an authoritative and comprehensive state-of-the-art review of hot desert terrains in all parts of the world, their geomaterials and influence on civil engineering site investigation, design and construction. It primarily covers conditions and materials in modern hot deserts, but there is also coverage of unmodified ancient desert soils that exhibit engineering behaviour similar to modern desert materials. Thorough and up-to-date guidance on modern field evaluation and ground investigation techniques in hot arid areas is provided, including reference to a new approach to the desert model and detailed specialized assessments of the latest methods for materials characterization and testing. The volume is based on world-wide experience in hot desert terrain and draws upon the knowledge and expertise of the members of a Geological Society Engineering Group Working Party comprising practising geologists, geomorphologists and civil engineers with a wealth of varied, but complementary experience of

working in hot deserts. This is an essential reference book for professionals, as well as a valuable textbook for students. It is written in a style that is accessible to the non-specialist. A comprehensive glossary is also included.

Concrete Floors on Ground

Field Reference Manual

Coal Combustion Byproducts

Reclaimed Fly Ash as Select Fill Under PCC Pavement

Mécanique des sols et des roches (TGC volume 18)

Hot Deserts

More than ten years have passed since the first edition was published. During that period there have been a substantial number of changes in geotechnical engineering, especially in the applications of foundation engineering. As the world population increases, more land is needed and many soil deposits previously deemed unsuitable for residential housing or other construction projects are now being used. Such areas include problematic soil regions, mining subsidence areas, and sanitary landfills. To overcome the problems associated with these natural or man-made soil deposits, new and improved methods of analysis, design, and implementation are needed in foundation construction. As society develops and living standards rise, tall buildings, transportation facilities, and industrial complexes are increasingly

being built. Because of the heavy design loads and the complicated environments, the traditional design concepts, construction materials, methods, and equipment also need improvement. Further, recent energy and material shortages have caused additional burdens on the engineering profession and brought about the need to seek alternative or cost-saving methods for foundation design and construction.

Most industrial and hazardous waste management resources cover the major industries and provide conventional in-plant pollution control strategies. Until now however, no book or series of books has provided coverage that includes the latest developments in innovative and alternative environmental technology, design criteria, managerial decision met

A synthesis of years of interdisciplinary research and practice, the second edition of this bestseller continues to serve as a primary resource for information on the assessment, remediation, and control of contamination on and below the ground surface. Practical Handbook of Soil, Vadose Zone, and Ground-Water Contamination: Assessment, Prevention, and Remediation, Second Edition includes important new developments in site characterization and soil and ground water remediation that have appeared since 1995. Presented in an easy-to-read style, this book serves as a comprehensive guide for conducting complex site investigations and identifying methods for effective soil and ground water cleanup. Remediation engineers, ground water and soil scientists, regulatory personnel, researchers, and field

investigators can access the latest data and summary tables to illustrate key advantages and disadvantages of various remediation methods.

Specifications for Structural Concrete, ACI 301-05, with Selected ACI References

ACI Manual of Concrete Practice

A Symposium Sponsored by ASTM Committee D-35 on Geotextiles, Geomembranes, and Related Products, Los Angeles, CA, 26 June 1985

Proceedings of the International Conference on Stabilisation/Solidification Treatment and Remediation, 12-13 April 2005, Cambridge, UK

Soil Testing Manual

Annual Book of ASTM Standards

The investigation phase is the most important segment of any geotechnical study. Using the correct methods and properly interpreting the results are critical to a successful investigation. Comprising chapters from the second edition of the revered Geotechnical Engineering Investigation Handbook, Geotechnical Investigation Methods offers clear, conc

This comprehensive design guide summarizes current developments in the design of concrete pavements. Following an overview of the theory involved, the authors detail optimum design techniques and best practice, with a focus on highway and infrastructure projects. Worked examples and calculations are provided to describe

standard design methods, illustrated with numerous case studies. The author provides guidance on how to use each method on particular projects, with reference to UK, European and US standards and codes of practice. Concrete Pavement Design Guidance Notes is an essential handbook for civil engineers, consultants and contractors involved in the design and construction of concrete pavements, and will also be of interest to students of pavement design.

"The subcommittee has called this hearing so that members might learn more about coal ash, the small businesses that turn coal ash into useful products and the concerns that these businesses have about the proposed Federal regulations that they believe may have a negative effect on their industry ... The EPA has recently issued two proposals for regulating coal ash. One would regulate coal ash as a solid waste and would provide very limited Federal enforceability and may not provide adequate protection of the environment and human health. The other would list coal ash as a special waste under the Hazardous Waste Subtitle in the Resource Conservation and Recovery Act, Subtitle C. The second option is one that we will focus on ... since it has generated great

concerns among small businesses across this country. These businesses, many of which are represented here today, have reason to believe that regulating coal ash under Subtitle C, even as a special waste, will open recycling operations to added litigation and a stigma that will discourage the ... use of the products made with recycled coal ash."--P. 1-2.

Waste Treatment in the Metal Manufacturing, Forming, Coating, and Finishing Industries

Concrete Pavement Design Guidance Notes

Proceedings of the 18th International Road Federation World Meeting & Exhibition, Dubai 2021

Geotextile Testing and the Design Engineer

avec écoulements souterrains et transferts de chaleur

Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018 – The Official International Congress of the Soil-Structure Interaction Group in Egypt (SSIGE)

The Ground Engineer's Reference Book provides the most comprehensive survey of ground engineering in a practical and assimilable form for the practicising engineer. It systematically covers all aspects of the subject: properties and behaviour of ground; ground treatment;

investigation; construction methods; numerical methods and modelling. Each of the specialized contributions is supported by numerous references, diagrams and tables and is comprehensively illustrated throughout. * The most detailed study of ground engineering available * Written by more than 50 international experts * Practical guidance and solutions based on professional experience

Modern highway engineering reflects an integrated view of a road system's entire lifecycle, including any potential environmental impacts, and seeks to develop a sustainable infrastructure through careful planning and active management. This trend is not limited to developed nations, but is recognized across the globe. Edited by renowned authority

Without proper hydraulic fill and suitable specialised equipment, many major infrastructure projects such as ports, airports, roads, industrial or housing projects could not be realised. Yet comprehensive information about hydraulic fill is difficult to find. This thoroughly researched book, written by noted experts, takes the reader step-by-step through the complex development of a hydraulic fill project. Up-to-date and in-depth, this manual will enable the client and his consultant to understand and properly plan a reclamation project. It provides adequate guidelines for design and quality control and allows the contractor to work within known and generally accepted guidelines and reasonable specifications. The ultimate goal is to create better-designed, more adequately specified and less costly

hydraulic fill projects. The Hydraulic Fill Manual covers a range of topics such as: · The development cycle of a hydraulic fill project · How technical data are acquired and applied · The construction methods applicable to a wide variety of equipment and soil conditions, the capabilities of dredging equipment and the techniques of soil improvement · How to assess the potentials of a borrow pit · Essential environment assessment issues · The design of the hydraulic fill mass, including the boundary conditions for the design, effects of the design on its surroundings, the strength and stiffness of the fill mass, density, sensitivity to liquefaction, design considerations for special fill material such as silts, clays and carbonate sands, problematic subsoils and natural hazards · Quality control and monitoring of the fill mass and its behaviour after construction. This manual is of particular interest to clients, consultants, planning and consenting authorities, environmental advisors, contractors and civil, geotechnical, hydraulic and coastal engineers involved in dredging and land reclamation projects.

Department Of Defense Index of Specifications and Standards Alphabetical Listing Part I July 2005

ASTM Standardization News

Contemporary Issues in Soil Mechanics

With Equations, Tables, Graphs and Check Lists

Measuring in Situ Mechanical Properties of Pavement Subgrade Soils

Practical Handbook of Soil, Vadose Zone, and Ground-

Water Contamination

Geotextiles: From Design to Applications presents valuable information on the high performance fabrics used in soil separation, drainage, filtration, reinforcement, and cushioning. These polymeric materials offer solutions for geoengineering and other civil engineering specialties due to their advanced physical, mechanical, hydraulic, and endurance properties. This important book offers comprehensive coverage of the manufacture, functions, properties, designs, and applications of geotextiles. Part One begins with a chapter on the history of geotextiles, followed by chapters giving detailed reviews of the types of fabrics and their manufacturing processes, from resin type, to fiber extrusion, to textile fabrication. Part Two covers the properties, behavior, and testing of geotextiles, with Part Three focusing on applications dealing with the specific primary functions of geotextiles. In Part Four, chapters offer numerous general applications of geotextiles, including those in waste containment, marine engineering, walls/slopes, agriculture, and erosion control. Finally, the chapters of Part Five address quality control and assurance for geotextiles, and the increasingly important topic of sustainability. Reviews the types of fabrics used for geotextiles and their manufacturing processes Covers the properties, behavior, and testing of geotextiles Contains detailed discussions of the primary functions of geotextiles and their wide range of applications

Transportation Research Record 1757 contains the following papers: PART 1 - Performance and Evaluation of Cementitious Stabilized Materials contains the

following papers: In situ monitoring of lime-stabilized subgrade (Boardman, DI, Glendinning, S, Rogers, CDF and Holt, CC); Performance evaluation of recycled and stabilized bases in Texas (Syed, IM and Scullion, T); Evaluation of structural contribution of lime stabilization of subgrade soils in Mississippi (Yusuf, FA, Little, DN and Sarkar, SL); Ultrasonic testing for evaluation of stabilized mixtures (Yesiller, N, Hanson, JL, Rener, AT and Usmen, MA); PART 2 - Chemical and Mechanical Stabilization contains the following papers: Evaluation of chemical modifiers and stabilizers for chemically active soils-clays (Petry, TM and Das, B); Mechanisms of soil stabilization with liquid ionic stabilizer (Katz, LE, Rauch, AL, Liljestrand, HM, Harmon, JS, Shaw, KS and Albers, H); Design and installation of horizontal wick drains for landslide stabilization (Santi, PM, Elifrits, CD and Liljegren, JA); Methodology for improving weak foundations by lateral consolidation (Chang, DT, Chang, JC, Chang, JY); PART 3 - Behavior and Performance of Granular Base Materials contains the following papers: Permanent deformation behavior of granular materials and the shakedown concept (Werkmeister, S, Dawson, AR and Wellner, F); Cross-anisotropic characterization of unbound granular materials (Adu-Osei, A, Little, DN and Lytton, RL); Stress path testing for proper characterization of unbound aggregate base behavior (Chou, FJ and Tutumler, E); Assessment of performance specification approach for pavement foundations (Frost, MW, Fleming, PR and Rogers, CDF); PART 4 - Effect of Aggregate Structure on Asphalt Concrete contains the following papers: Discrete element modeling of asphalt

concrete : microfabric approach (Buttlar, WG and You, Z); Computer simulation of statistical characterization of aggregate inhomogeneity in asphalt concrete (McCuen, RH, Azari, H and Shashidar, N); Distinct element method for study of failure in cohesive particulate media (Ullidtz, P); PART 5 - Aggregate Characteristics and Performance contains the following papers: Evaluation of dolomite and related aggregates used in bituminous overlays for Indiana pavements (West, TR, Choi, JC, Bruner, DW, Park, HJ and Cho, KH); Correlation of fine aggregate imaging shape indices with asphalt mixture performance (Masad, E, Olcott, D, White, T and Tashman, L); Characterizing alkali-silica reactivity of aggregates using ASTM C 1293, ASTM C 1260, and their modifications (Touma, WE, Fowler, DW, Carrasquillo, RL, Folliard, KJ and Nelson, NR).

This synthesis report will be of interest to pavement and geotechnical design and research engineers, geologists and engineering geologists, and related laboratory personnel. It describes the current practice for measuring in situ mechanical properties of pavement subgrade soils. The tests conducted to measure the mechanical properties of soil strength and stiffness are the primary topics, and these are discussed in the context of design procedures, factors affecting mechanical properties, and the variability of measurements. Information for the synthesis was collected by surveying U.S., Canadian, and selected European transportation agencies and by conducting a literature search. This TRB report provides information on existing and emerging technologies for static and dynamic, and destructive and nondestructive testing for

measuring in situ mechanical properties of pavement subgrade soils. Correlations between in situ and laboratory tests are presented. The effects of existing layers on the measurement of subgrade properties, and soil spatial and seasonal variability are discussed. Most importantly, the use of soil properties in pavement design and evaluation are explained. New applications or improvements to existing test methods to support the use of mechanistic/stochastic-based pavement design procedures are also explained.

Stabilisation/Solidification Treatment and Remediation

Ground Engineer's Reference Book

Potential Impact of a Hazardous Waste Designation on Small Businesses in the Recycling Industry : Hearing Before the Committee on Small Business, United States House of Representatives, One Hundred Eleventh Congress, Second Session, Hearing Held July 22, 2010 Volume 2

Geotechnical Engineering Investigation Handbook, Second Edition

The Handbook of Highway Engineering

This handy reference manual puts a wealth of ready-to-use information, data, and practical procedures within immediate reach of geo-engineers and technicians, whether they be in the field or office. It assembles and organizes the most-needed set of equations, tables, graphs and check-lists on six major subfields of geo-engineering: investigations, testing, properties, hazards, structures and works. This

practical reference for the professional and others interested in the subject of ground engineering skips lengthy definitions to highlight best practice and methods proven most effective. While reflecting codes and standards, it also fills the gaps with non-standard approaches when existing ones are skimpy on practical details or agreement. Enhanced by 146 illustrations and 83 tables, the Practical Guide to Geo-Engineering points users to supporting information and data through its extensive reference list. Audience: This book is of interest to everyone involved in practical geo-engineering.

The Geotechnical Engineering Investigation Handbook provides the tools necessary for fusing geological characterization and investigation with critical analysis for obtaining engineering design criteria. The second edition updates this pioneering reference for the 21st century, including developments that have occurred in the twenty years since the first edition was published, such as: • Remotely sensed satellite imagery • Global positioning systems (GPS) • Geophysical exploration • Cone penetrometer testing • Earthquake studies • Digitizing of data recording and retrieval • Field and laboratory testing and instrumentation • Use of the Internet for data

retrieval The Geotechnical Engineering Investigation Handbook, Second Edition is a comprehensive guide to a complete investigation: study to predict geologic conditions; test-boring procedures; various geophysical methods and when each is appropriate; various methods to determine engineering properties of materials, both laboratory-based and in situ; and formulating design criteria based on the results of the analysis. The author relies on his 50+ years of professional experience, emphasizing identification and description of the elements of the geologic environment, the data required for analysis and design of the engineering works, and procuring the data. By using a practical approach to problem solving, this book helps engineers consider geological phenomena in terms of the degree of their hazard and the potential risk of their occurrence. Stabilisation/Solidification Treatment and Remediation - Advances in S/S for Waste and Contaminated Land contains 39 papers, summaries of the four keynote lectures and the seven State of Practice reports presented at the International Conference organized by the EPSRC-funded network STARNET (Stabilisation/solidification treatment and remediation).

From Design to Applications
Proceedings of the International Conference on Contemporary Ergonomics (CE2005), 5-7 April 2005, Hatfield, UK
ASTM Standards on Environmental Sampling
Manual of Test Procedures for Materials
Practical Guide to Geo-Engineering
Engineering Standards for Forensic Application

This publication, Geotextile Testing and the Design Engineer, contains papers presented at the international symposium of the same name held in Los Angeles, California on 26 June 1985. The symposium was sponsored by ASTM Committee D-35 on Geotextiles, Geomembranes, and Related Products. Joseph E. Fluet, Jr., of GeoServices Inc. Consulting Engineers, presided as symposium chairman and was editor of this publication.

Filled with handy tables; charts; diagrams; and formulas; this reader-friendly guide gives authoritative solutions and simplifies each step of every process; from selecting appropriate methods to analyzing your results. --

Engineering Standards for Forensic Application presents the technologies and law precedents for the application of engineering standards to forensic opinions, discussing Fundamentals, Disciplines,

Engineering Standards, The Basics and the Future of Forensics. The book explores the engineering standard and how it is used by experts to give opinions that are introduced into evidence, and how they are assumed to be the best evidence known on the topic at hand. Final sections include coverage of NFL Brain Injuries and the Flint Water Crisis. Examples of the use of engineering standards are shown and discussed throughout the work. Addresses a wide variety of forensic engineering areas, including relevant law Provides a new approach of study that includes the work of both engineers and litigators Contains contributions from over 40 experts, offering the reader examples of general forensic methods that are based on reliable engineering practice

Engineering, Geology and Geomorphology : Engineering Group Working Party Report

Procedures, Classification Data, and Sampling Practices

Index of Specifications and Standards

Geomaterials 2001

Geotextiles

Handbook of Advanced Industrial and Hazardous Wastes Treatment

This volume is of interest to practical engineers. It discusses some contemporary issues related to soil mechanics in earthwork projects which are critical

components in civil construction and often require detailed management techniques and unique solution methods to address failures. Being earth bound, earthwork is influenced by geomaterial properties at the onset of a project. Hence, an understanding of the in-situ soil properties is essential. Slope stability is a common problem facing earthwork construction, such as excavations and shored structures. Analytical methods for slope stability remain critical for researchers due to the mechanical complexity of the system. Striving for better earthwork project managements, the geotechnical engineering community continues to find improved testing techniques for determining sensitive properties of soil and rock, including stress-wave based, non-destructive testing methods. To minimize failure during earthwork construction, past case studies and data may reveal useful lessons and information to improve project management and minimize economic losses. This volume discusses these aspects using appropriate methods in a simple way. The volume is based on the best contributions to the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018 – The official international congress of the Soil-Structure Interaction Group in Egypt (SSIGE).

The broad and developing scope of ergonomics - the application of scientific knowledge to improve peoples' interaction with products, systems and environments - has been illustrated for over twenty years by the books that make up the Contemporary Ergonomics series. Presenting the proceedings of the Ergonomics Society's annual conference, the series embraces the wide range of topics. Individual papers provide insight into current practice, present new research findings and form an

invaluable reference source. The volumes provide a fast track for the publication of suitable papers from international contributors. These are chosen on the basis of abstracts submitted to a selection panel in the autumn prior to the Ergonomics Society's annual conference held in the spring. A wide range of topics are covered in these proceedings, including: applications of ergonomics, air traffic control, cognitive ergonomics, defence, design, environmental ergonomics, ergonomics4schools, hospital ergonomics, inclusive design, methods and tools, occupational health and safety, slips, trips & falls and transport. As well as being of interest to mainstream ergonomists and human factors specialists, Contemporary Ergonomics will appeal to all those who are concerned with people's interactions with their working and leisure environment including designers, manufacturing and production engineers, health and safety specialists, occupational, applied and industrial psychologists, and applied physiologists.

La mécanique des sols et la mécanique des roches sont des disciplines généralement traitées séparément dans la littérature. Pour la première fois, un traité réunit ces deux spécialités, en intégrant également les connaissances en lien avec les écoulements souterrains et les transferts thermiques. A la fois théorique et pratique, cet ouvrage propose tout d’abord une description détaillée de la nature et de la composition des sols et des roches, puis s’attache à la modélisation de problèmes aux conditions limites et présente les essais permettant de caractériser les sols et les roches, tant d’un point de vue mécanique qu’hydraulique et thermique. La problématique des sols non saturés et des écoulements multiphasiques est également abordée. Une attention particulière est portée

aux lois de comportement mécanique et à la détermination de leurs paramètres par des essais in situ et en laboratoire, et l'ouvrage offre également une présentation détaillée des systèmes de classifications des sols et des massifs rocheux, ainsi que du comportement des fondations, des pressions sur les écrans, de la stabilité des pentes et du comportement des cavités souterraines. Spécifiquement conçue dans un esprit d'ingénierie, cette référence sans équivalent se réfère aux normes les plus récentes, et ceci dans une perspective internationale. Elle s'adresse tout autant aux professionnels de la construction, aux ingénieurs géotechniciens, aux géologues et aux responsables de laboratoires d'essais sur les géomatériaux qu'aux étudiants en génie civil, géologie, mécanique, sciences de la terre, ingénierie des mines, environnement et pédologie.

Advances in Road Infrastructure and Mobility

For Dredging and Reclamation Works

Assessment, Prevention, and Remediation, Second Edition

A Field Guide for Geotechnical Engineers

Advisory circular

Soil Improvement and Ground Modification Methods

Written by an author with more than 25 years of field and academic experience, Soil Improvement and Ground Modification Methods explains ground improvement technologies for converting marginal soil into soil that will support all types of structures. Soil improvement is the alteration of any property of a soil to improve its engineering performance. Some sort of soil improvement must happen on every construction site. This combined

with rapid urbanization and the industrial growth presents a huge dilemma to providing a solid structure at a competitive price. The perfect guide for new or practicing engineers, this reference covers projects involving soil stabilization and soil admixtures, including utilization of industrial waste and by-products, commercially available soil admixtures, conventional soil improvement techniques, and state-of-the-art testing methods. Conventional soil improvement techniques and state-of-the-art testing methods Methods for mitigating or removing the risk of liquefaction in the event of major vibrations Structural elements for stabilization of new or existing construction industrial waste/by-products, commercially available soil Innovative techniques for drainage, filtration, dewatering, stabilization of waste, and contaminant control and removal

One-volume library of instant geotechnical and foundation data Now for the first time ever, geotechnical, foundation, and civil engineers...geologists...architects, planners, and construction managers can quickly find information they must refer to every working day, in one compact source. Edited by Robert W. Day, the time -and effort-saving Geotechnical Engineer's Portable Handbook gives you field exploration guidelines and lab procedures. You'll find soil and rock classification, basic phase relationships, and all the tables and charts you need for stress distribution, pavement, and pipeline design. You also get abundant information on all types of geotechnical analyses, including settlement, bearing capacity, expansive soil,

slope stability - plus coverage of retaining walls and building foundations. Other construction-related topics covered include grading, instrumentation, excavation, underpinning, groundwater control and more.

With the support of the Iowa Fly Ash Affiliates, research on reclaimed fly ash for use as a construction material has been ongoing since 1991. The material exhibits engineering properties similar to those of soft limestone or sandstone and a lightweight aggregate. It is unique in that it is rich in calcium, silica, and aluminum and exhibits pozzolanic properties (i.e. gains strength over time) when used untreated or when a calcium activator is added. Reclaimed Class C fly ashes have been successfully used as a base material on a variety of construction projects in southern and western Iowa. A pavement design guide has been developed with the support of the Iowa Fly Ash Affiliates. Soils in Iowa generally rate fair to poor as subgrade soils for paving projects. This is especially true in the southern quarter of the state and for many areas of eastern and western Iowa. Many of the soil types encountered for highway projects are unsuitable soils under the current Iowa DOT specifications. The bulk of the remaining soils are Class 10 soils. Select soils for use directly under the pavement are often difficult to find on a project, and in many instances are economically unavailable. This was the case for a 4.43-mile grading (STP-S- 90(22)-SE-90) and paving project in Wapello County. The project begins at the Alliant Utilities generating station in Chillicothe, Iowa, and runs west to

the Monroe-Wapello county line. This road carries a significant amount of truck traffic hauling coal from the generating station to the Cargill corn processing plant in Eddyville, Iowa. The proposed 10-inch Portland Cement Concrete (PCC) pavement was for construction directly on a Class 10 soil subgrade, which is not a desirable condition if other alternatives are available. Wapello County Engineer Wendell Folkerts supported the use of reclaimed fly ash for a portion of the project. Construction of about three miles of the project was accomplished using 10 inches of reclaimed fly ash as a select fill beneath the PCC slab. The remaining mile was constructed according to the original design to be used as a control section for performance monitoring. The project was graded during the summers of 1998 and 1999. Paving was completed in the fall of 1999. This report presents the results of design considerations and laboratory and field testing results during construction. Recommendations for use of reclaimed fly ash as a select fill are also presented.

Contemporary Ergonomics 2005

Geotechnical Investigation Methods

Eleventh International Conference on the Bearing Capacity of Roads, Railways and Airfields

Aggregate, Hot Mix Asphalt, Portland Cement Concrete, Soils, Other Materials

Foundation Engineering Handbook

Practical Guide to Geo-EngineeringWith Equations, Tables, Graphs and Check ListsSpringer Science &

Business Media
Hydraulic Fill Manual
Department Of Defense Index of Specifications and Standards Federal Supply Class Listing (FSC) Part III September 2005
Geotechnical Engineer's Portable Handbook