REGISTRATION

In order to register, please send the following information before June 5th 2010 to the course organiser.

Surname:

First name:

Titles and initials:

Organisation:

Address:

Country:

VAT No.:

E-Mail:

Telephone:

Fax:

Course fee: € 1200

Plaxis bv
P.O. Box 572
2600 AN Delft
The Netherlands
www.plaxis.nl

Mr. Dennis Waterman
Tel: + 31 (0)15 2517720
Fax: + 31 (0)15 2573107
E-mail: courses@plaxis.nl

Registration by e-mail is preferred

Date:

Signature:

VENUE

The Village Hotel in Cheadle, near Manchester, is conveniently located between the City of Manchester and the Peak District National Park, the Village Hotel is ideal for both course participants and fresh air seekers.

Delegates staying at the hotel will enjoy free internet, a bar and restaurant and extensive leisure facilities, including 25m heated indoor pool, fitness and aerobic studio, sauna, steam room, gymnasium and squash courts. For more information see:

http://www.village-hotels.co.uk/hotels/Cheadle/

GENERAL INFORMATION

The total number of participants is limited to forty (40). Registration will be accepted in the order in which they are received. Participants who require a visa are suggested to register early. The process of obtaining a visa may take up to two months.

To register for the course, please complete the registration form and send it to the course organiser. Directly after registration participants will receive a letter of confirmation, travel suggestions and additional information. Or register and pay directly via our website: www.plaxis.nl

CANCELLATION

Participants are requested to give immediate written notification if, after registration and confirmation formalities have been completed, they are unable to attend the course. Cancellation of course registration with refund of the course fee, less €125 service charge, will be accepted by the organisers if it is received no later than 3 weeks before the course starts.

Only 50% registration fee will be refunded between 1 and 3 weeks before the start of the course and no refund can be given when cancelling in the last week of the course or in case of no show. In case the course is cancelled by the organiser the fees for the course will be fully refunded.

PLAXIS Expert Services

This course relates to Plaxis Expert Services among which we can also provide:

- In-house training
- Numerical modelling and analysis
- Review and mentoring of Plaxis projects

For information contact: expert.services@plaxis.nl or look on our website: www.plaxis.nl

PLAXIS

essential for geotechnical professionals

STANDARD COURSE ON COMPUTATIONAL GEOTECHNICS

22 - 24 June 2010, Manchester, United Kingdom

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INTRODUCTION

This standard course in the UK has a long tradition in advanced geotechnical engineering. Each year it is well attended by participants from consulting and contracting companies, public work bodies and universities. As usual, the forthcoming course consists of a balanced mixture of lectures and hands-on computer analyses. As in previous years the lectures focus mainly on soil behaviour and advanced methods in geotechnical engineering and less on the use of the PLAXIS programs.

Subjects as undrained behaviour and consolidation, previously treated only in advanced courses, have been included in this course. They are illustrated by practical case studies of embankments and deep excavations. This way, the course offers an introduction to the modelling of geotechnical problems that are encountered in day-to-day engineering practice. The computer exercises are performed with the PLAXIS 2D V9 code. As a consequence of the easy program operation, teaching and tutoring will focus on geotechnical aspects, which allows for the short course format of three days.

SUBJECT MATTER

The main subject of the course is the use of the finite element method (FEM) for stress and deformation analyses and stability assessment. The following topics are dealt with: the schematisation of complex soil conditions, obtaining the basic input data for both simple and advanced soil models, modelling realistic projects with various construction stages and interpreting the computational results. Special attention is paid to undrained soil behaviour and consolidation, as well as the determination of safety factors using FEM.

BASIC LECTURES

On the first day of the course, experts will give lectures on finite element modelling and basic topics of advanced geotechnical engineering. Exercises will provide the participants with hands-on experience. The specific areas of the lectures are:

- FEM in geotechnical engineering – M. Karstunen
- Introduction to Plaxis 2D – P. G. Bonnier
- Mohr-Coulomb model – M. Karstunen
- Nonlinear computations – P. G. Bonnier
- Introduction to Hardening Soil– M. Karstunen
- Modelling structural elements – P. G. Bonnier

APPLICATION LECTURES

The second day consists of lectures and exercises on advanced soil modelling and introduces the use of the Hardening Soil model. Again, lectures are presented by senior engineers with extensive experience on the topics considered. The day closes with lectures on the modelling of dams and embankments.

- Dams & embankments – M. Karstunen
- Initial stresses & Safety analysis – P. G. Bonnier
- Consolidation – M. Karstunen
- Undrained behaviour – M. Karstunen
- Soil stiffness parameters – H. Burd
- Groundwater flow– P. G. Bonnier
- Modelling groundwater in Plaxis – P.G. Bonnier

EXCAVATIONS AND FOUNDATIONS

The third day starts with a lecture on deep excavations. This lecture is illustrated by a case study and an exercise. In the afternoon 3D analysis of foundations is discussed followed by an introductory to the Plaxis 3D Foundation program. The day ends with an exercise concerning a shallow foundation.

- Deep excavations – P. Scott
- Deep excavation case history – P. Scott
- Foundations – M. Karstunen
- Introduction to Plaxis 3D – P. G. Bonnier

SOFTWARE

Exercises and case studies are based on the computer programs Plaxis 2D v9 and Plaxis 3D Foundation v2, which are used by geotechnical engineers worldwide.

The user-friendly code has been developed for deformation analysis, stability assessment, groundwater flow and consolidation. It contains special options for geotechnical structures involving retaining walls, soil anchors, geotextiles, tunnel linings, etc. Plaxis has a fully automatic mesh generator based on the graphical input of soil-layer geometries, and several new features facilitate the input and analysis of complex situations.

FORMAT

The course begins with registration on Tuesday morning followed by the first session and ends with a session on Thursday evening. Sessions are held each morning and afternoon. Each session begins with an hour and a half of lecturing followed by an application exercise of the same length. Lectures are given in English.

COST

The cost of the course is € 1200. This includes all lunches and refreshments. The course fee also includes a full set of instruction manuals and the use of a computer.

Hotel accommodation at the Village Hotel must be arranged by the participant. Additional information including a discount code will be sent upon registration.

Dates:	22 – 24 June, 2010
Location:	Village Hotel Cheadle (Manchester), UK
Course leader:	Dr. Minna Karstunen, Strathclyde University
Organisers:	Wilde FEA and Plaxis bv

THE LECTURERS

Dr Minna Karstunen - Reader in Civil Engineering, University of Strathclyde
Minna is a Reader at University of Strathclyde and the leader of the Infrastructure Research Group. She has been a user of finite elements since 1990 and developer since 1993. Her industrial experience relates to the design of roads, tunnels and bridge foundations on very soft soils. Her research focuses on constitutive and numerical modelling of soft and/or unsaturated soils, considering the effects of anisotropy, structure and time-dependence. She has coordinated EC funded research training networks on soft soil modelling (SCMEP 2000-2005) and advanced modelling of ground improvement (AMGISS 2005-2009), in which PLAXIS was used as the main computational platform. Currently she is finalising the negotiations for an EC-funded Industry-Academia Partnerships and Pathways project (GEO-INSTALL) in collaboration with U. Stuttgart, TU Delft, U. Stellenbosch, PLAXIS, NGI, Keller and GeoDelft Innovations.

Dr Harvey Burd - Lecturer in Engineering Science, Oxford University
Harvey has been a University Lecturer at Oxford University since 1987. His principal current research interests are the modelling of tunnelling operations in urban areas, soil nailing and pipe jacking. His experience also includes a wide variety of consultancy projects.

Dr. Paul Bonnier - Plaxis bv
Paul started working on the development of PLAXIS software when he started his PhD study in 1988. His work involves the development and implementation of a wide range of subjects in the finite element method.

Peter Scott - Technical Director, Buro Happold
Peter has over 25 years experience in civil and structural engineering. Working for several leading consultancy firms he has acquired geotechnical expertise in infrastructure, buildings, landslips and deep excavations. He promotes finite element analysis as the primary design tool for geotechnical specialists, and has led the foundation design for the Millennium Dome and the British Museum, as well as major overseas projects.