

Notices received

CIRIA Special Publication 45: Recommendations for the procurement of ground investigation is obtainable from Publications Department, CIRIA, 6 Storey's Gate, London SW1P 3AU, price £8.00. This Special Report identifies the underlying reasons for shortcomings in ground investigation and recommends ways to improve the situation.

New lime stabilization manual from BACMI. Lime producers in BACMI (British Aggregates Construction Materials Industries), the national aggregates trade federation, have issued a new lime stabilization manual. This complements the recently issued Department of Transport *Specification for Highway Works*, part 2 of which (series 600 Earthworks) contains, for the first time, a clause dealing with lime stabilization to form a capping layer. Lime soil stabilization has been used extensively in the United States; the technique is also widely practised now in Germany and France. In the UK it has yet to be widely used, in spite of the fact that most clayey soils respond effectively to lime treatment.

The new manual, which is well illustrated and clearly written, deals with applications, the mechanism of lime stabilization and, most importantly, the construction method. Advice is given on the preparation of the formation, lime spreading, mixing and pulverization, compaction and curing. The final sections deal with laboratory testing the site control testing. *BACMI Lime Stabilization Manual*, December 1986. 32 pp, 7 figs, 22 illustrations, 19 refs. Available at £3.50 post free from BACMI, 156 Buckingham Palace Road, London SW1W 9TR.

Aggregates output going up. BACMI, in the new edition of its *Statistical Year Book*, shows that sales of construction aggregates noticeably increased in 1985, confirming a trend apparent since 1981. This underlies a steady overall increase in construction output during this period.

Total production of crushed rock, sand and gravel for construction rose from 182 million tonnes in 1981 to 217 million tonnes in 1985—an increase of over 19%. Of the 89 million tonnes of sand and gravel produced in 1981, 11.5 million tonnes (12.9%) were marine-dredged; this proportion increased to 13.5% in 1985 (13.8 million tonnes marine-dredged out of a total of 102 million tonnes of sand and gravel).

The principal end uses of aggregates are in road construction and maintenance (28%), in private industrial and commercial building (22%) and in private housing (20%). Other public works account

for 16%, public housing for 7% and miscellaneous maintenance for another 7%. Contractors' output for public sector investment in 1985 was £4.4 billion—some 20% less in real terms than 5 years ago—while private sector investment rose from £7.5 billion in 1981 to £10.2 billion in 1985—an increase of nearly 26.5%. This output for the private sector accounts for almost 70% of all construction investment.

In spite of the encouraging growth of the last few years, tables of international comparison of construction investment in the report all show that the UK is at the bottom of the list. Output of processed aggregates has also increased. Production of bituminous coated materials (some 90% of which go into road construction and maintenance) rose 17.8% from 23 million tonnes in 1981 to 28 million tonnes in 1985. Ready-mixed concrete production increased by 9% over the same period, from 19.8 million to 21.6 million m². The main uses of ready-mixed concrete are in private industrial and commercial building (33%), private housing (30%), road construction (16%), other public works (13%) and public housing (5%).

Details of these and many other statistics are given in the *BACMI Statistical Year Book 1986*. Its 43 tables and six graphs are based on the latest (December 1986) official mineral figures and on current construction output and investment data. The book brings together in one single and accessible form information on construction aggregates and on the construction market in general. It is available, price £10.00 post free, from BACMI, 156 Buckingham Palace Road, London SW1W 9TR.

The Geological Society has received **Bulletin No. 1** of the **International Symposium on Engineering Geology** as related to the study, preservation and protection of ancient works, monuments and historical sites. For further information write to: Greek Committee of Engineering Geology, 1988 Symposium Secretariat, P.O. Box 19140, GR-117 10 Athens, Greece. Telex: 45 4312 POLX (c/o Professor Paul G. Marinos).

The Seventh International Conference on Computational Methods in Water Resources (formerly Finite Elements in Water Resources) will be held on 13–17 June, 1988 at the Massachusetts Institute of Technology, Cambridge, MA, USA. Suggested topics include: Groundwater simulation, Surface water simulation, Convective–diffusive transport, Parameter estimation and optimization techniques, Software developments: from micros to supercomputers, Finite element methods, Collocation methods, Boundary

element methods and Alternative numerical techniques. A block of dormitory rooms has been reserved at MIT for the week of the conference. Hotel accommodation is also available in the Cambridge area. The projected conference fee will be \$350 (US).

Abstracts, which must not exceed 300 words, should be sent by 15 September 1987 to: Michael A. Celia, Parsons Lab. Rm. 48-207, Department of Civil Engineering, MIT, Cambridge, MA 02139, USA. Further information also available from the above.

Erratum

Quarterly Journal of Engineering Geology, London, 1987, Vol. 20, pp. 114-5.

On p. 115 the fifth line of the first paragraph in the left-hand column should read as follows:

Upper Carboniferous. In this example, infrared