Arthur Casagrande Memorial Lecture
Bengt H. Fellenius Dr. Tech, P.Eng

Thursday, November 8, 2018
Hyatt Regency Cambridge
575 Memorial Drive Cambridge, MA 02139
Social Hour: 5:30 PM to 6:30 PM
Dinner: 6:30 PM
Presentation: 7:30 PM

Presentation description:
Available case histories reporting observations on full-scale piled rafts show that the settlement response to applied load can be modeled as that for an equivalent flexible pier due to compression of the piles and the soil matrix plus that of an equivalent raft for compression of soil layers below the pile toe level. Piles and soil, combined as a pier, have strain compatibility, which requirement determines the distribution of load between the piles, the contact stress, and the load-transfer movement of the piles. Interior piles engage the soil from the pile toe level upward in contrast to a single pile, which engages it from the ground downward. The response between the interior and perimeter piles differ. Particularly so in non-subsiding and subsiding environment, because perimeter piles can be subjected to downdrag and drag forces, while downdrag or drag force will have minimal effect on the interior piles. In non-subsiding environment, it is advantageous to make perimeter piles shorter than interior piles, while, in subsiding environment, perimeter piles best be longer. The load distribution across the raft is also governed by the degree of rigidity of the raft and by the difference in dishing at the pile toe level and in the dishing of the actual raft. "Bearing capacity" of pile and raft has little relevance, if any, to a rational design.

The presentation is illustrated by examples of case histories and analyses results with emphasis on how to include settlement analysis in the design of piled foundations.

Registration Deadline: Thursday, November 1, 2018
Registration Fees (Members $130, Non-Members $160)
(Public Sector Members $110, Public Sector Non-Members $130)
(Senior Members (65+), Students $50)

Information/Registration:
Register to attend this meeting and pay by credit card online at bit.ly/2zJ5AzW. To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a BSCES Event Registration Form and follow the submission instructions. Cancellations received after November 1, 2018 and no-shows will be billed.