

## LDSA Guidance Notes and Possible Revision

All,

Following the last technical meeting Chris Barker spoke with Dinesh Patel from Arup and then I sent him the comments we had made on the latest LDSA guidance note. Dinesh's response is below.

This does throw the ball back into our court if we so want the change the guidance note. Please come to the next technical meeting with you views around the following either :

- We should not push to change the LDSA document – it is working as is with it's limitations
- We should provide test pile data and corresponding SI information. Please either bring this data or have a plan on how we can collect it.
- We should provide information on mini piles. Please either bring this data with you or have a plan on how we can collect it.

We have always been very bad as a group in collecting data like this. This is because it does fall outside our day job. However, I believe if we can it will show strength as an industry and will not impact individual company commercial advantage. If we are going to collate this we need to have a clear plan at the next meeting.

Regards,

Mark Pennington

*Mark*

*I understand from our previous meetings and recent FPS meetings that Chris has alerted me to, that there is still a strong desire for FPS members to see a pile design based on SPT's.*

*I am happy to consider this but it will also require the support of FPS members if possible , which I hope you can push. In the meantime, Stuart and I are doing the following :*

1. *Arup test pile database – to determine a different pile design method that relates directly to the SPT design line, we need to go back to our databases on preliminary pile tests where there is also a ground investigation having SPT data. We can then determine two things:*
  - a. *from the pile test determine the ultimate shaft friction on the embedded part of the pile in clay ( ideally from strain gauges if there is overburden above the London Clay);*
  - b. *determine a mean line through the SPT data*
  - c. *correlate the two to determine an “lets call it omega” factor. Of course the omega can be compared with Strouds “ f1 factor” only f1 was never related to a mobilised shaft friction*
  - d. *by doing this on a decent amount of pile test database, the trend in omega can be determined and a “mean omega” can be used for future designs*
2. *We have already doing above on our last 15 years database*

*However, we need the FPS members to help us :*

- a. *Please share your preliminary test pile data. We need SPT profiles and borehole / factual SI reports together with as-built records of the preliminary piles. Levels will be important if test piles are not as per ground levels on borehole logs*
- b. *Minipiles – the FPS required information in the LDSA guide to address this. I have not received this information for processing .*

*I think once we have both, it would be really useful to update the LDSA pile guide and I am happy to do that. It would be a lost opportunity if we updated the LDSA guide with 1) above but not for 2) though, would you agree ? I am thinking that if there is an appetite we can complete and publish a revised LDSA guide by end 2019.*

*Maybe you would like to request all members help on 2 to prompt and set a short time scale to provide data. Arup are happy to carry out an interpretation of 2, share this with FPS, with a view to what goes into the next guide.*

*I hope this helps and am happy to have a telephone conversation if this is of interest.*

*Best Regards*

*Dinesh*

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