

## MINUTES OF A TECHNICAL COMMITTEE MEETING

**Date:** Thursday 14<sup>th</sup> November 2019

**Time:** 10:00am

**Location:** Hallam Conference Centre, 44 Hallam Street, London, W1 6JJ

**PRESENT:**

Mike Johnson	Abbey Pynford
Chris Barker	Arup
Andrew Brindle	A-Squared Studio
Tony Suckling	A-Squared Studio
Andrew Fingland	Atkins
David Hard	Bachy Soletanche
Richard Ball	Card Geotechnics
Sebastian Draghici	Central Piling
Toby Hayward	Expanded
Andrew Bond	Geocentrix
Ebenezer Adenmosun	Geofirma Ltd
Chris Beynon	JRL Civil Engineering
Andrew Heathcote	Keller
David Roy	Keltbray
Keith Miller	Laing O'Rourke
James Blackwell	Martello Piling
Darren Milo	Murphy Ground Engineering
James Hayward	Pile Designs
Jonathan Ball	Roger Bullivant Limited
Martyn Ellis	Socotec
Simon Shaw	Van Elle

**In the Chair:** Mark Pennington BBGE

**Guest:** Chris Harnan Ceecom Consult / EFFC  
Kieran Tully CIRIA

**In Attendance:** Ciaran Jennings FPS Secretary  
Grace Hawkins FPS Secretariat

No	TOPIC	ACTION
1	<b>APOLOGIES FOR ABSENCE</b>	
	Apologies had been received from Ash Rogers (Aarsleff), Michael Gavins (Atkins), James Binns (Byland Engineering), Zoe Baldwin (Cementation Skanska), Andrew Bell (Cementation Skanska), Chris Fox (Murphy Ground Engineering), David Illingworth (Pile Designs) and Mark Toye (Socotec UK)	
2	<b>MINUTES OF THE LAST MEETING</b>	
	The minutes of the meeting held on the 12 <sup>th</sup> September 2019 were approved.	
3	<b>MATTERS ARISING</b>	
a)	<p><b>CIRIA proposed update of their 1970s piling guides – An open discussion with Kieran Tully, CIRIA</b></p> <p>Kieran Tully advised the Committee that CIRIA are a not-for-profit organisation and are looking are looking to redraft six PG guidance notes written in the 1970s and 80s. They are seeking £300k in total from the contractors and trade associations involved in the sector. It was noted the funding for each document is around £5k and after funding the FPS would be invited to input.</p>	

Kieran explained that CIRIA pull best practice guidance from industry to form their guidance. They have several programmes of research, contaminated land, process and technical, infrastructure and environment with specialist panels. He noted the Ground panel have identified issues in the industry that suggested C760 was no longer compliant.

Kieran advised their members were asked what the problems in the industry are and it was noted the piling guidance needed updating. He added every project needs to be financed on its own merits. In support of this proposal, there is a lot of concern in the industry that there is a lot of error and defects.

Tony Suckling advised he is on the CIRIA Ground Engineering panel and came to the FPS Technical meeting to support the proposal from Kieran, he added it is important, when he first came into the industry, the people already in industry had experienced the problems and solutions which were included in the guide. He continued there are now new experiences which need to be recorded for the next generation coming into the industry. There are technological changes taking place in the industry, it was noted the updates can reflect these changes.

Mark Pennington agreed learning needs to be acknowledged, he reported that he feedback at the last FPS Quarterly meeting that the FPS should support this and the response was that they did not know about the guidance, however he advised that the Technical Committee strongly support this and the Quarterly agreed. He added that they still need to talk about the funding.

Kieran advised CIRIA would be looking for £50k for a light update and £75k for more in depth updates. He advised so far Tier ones have funded the project, but support is needed from the large clients to encourage further support. It was noted HS2 supported the project which encouraged further support. Associated organisations have asked if the FPS will support the project.

Kieran reported that the intention would be to produce a pipeline of the guides until October 2022 but it depends on the funding and the appetite for the scope. He explained they would pay authors to write the guidance as working from a voluntary basis takes a long time.

Tony noted there is an issue around Contractors being honest with competitors regarding their problems. Kieran advised CIRIA can get Contractors to open up on an anonymous basis.

Tony added the FPS can further promote the *why use an FPS member* initiative with this as an example of the FPS supporting industry initiatives.

It was suggested the FPS could approach its members for funding, but Mark advised it has been previously reported that the FPS has large reserves which can be used to fund it.

Kieran advised that CIRIA have a steering group, which will majority be funders but there will also be a balance of Suppliers, Clients and Contractors. He added they need to look at leadership and it would be good to say the FPS are supporting this financially and contributing technical expertise.

Tony asked if they could amalgamate PG1 and PG2 and PG8, Kieran replied he would take this to the steering group for consideration. Jonathan Ball agreed he liked the idea of merging these together.

Mark advised the FPS has discussed offering £5k towards each guide, but felt this was not enough, so he agreed to discuss the level of funding further with the FPS Quarterly Committee. Ciaran Jennings advised the meeting is due to take place on the 13<sup>th</sup> February 2020, but the budget will be discussed in January at the FPS Executive.

**Mark Pennington**  
**Ciaran Jennings**

<p>b)</p> <p>c)</p>	<p><b>BSI 5975: Code of practice for temporary works procedures</b></p> <p>Mark Pennington advised that Andrew Bell sent in his apologies, however Cementation Skanska have produced their Temporary Works training which is open to FPS members. He added members should contact Andrew for information. It was noted Cementation Skanska were awarded the FPS 2019 Safety award for their training.</p> <p><b>Apprenticeship Degree</b></p> <p>Ciaran Jennings reported that he attended the last Ground Forum meeting, he reported that Nick Koor, Engineering Geologist, from Portsmouth University attended, Nick reported that they want to revitalise the level 6 degree.</p> <p>It was noted at the last FPS Technical meeting it was reported that a level 7 apprenticeship degree in geotechnical engineering is being facilitated by Birmingham, it will be a MSc for apprentice's post degree, but is also open to someone with extensive experience. It was reported that the occupational profile was submitted in August and there was a six-week review to establish that there is a need for it in the industry. This is due to be approved.</p>	
<p>4.</p>	<p><b>LOAD CASES GUIDANCE DOCUMENT PRESENTATION 2020</b></p>	
	<p>Mark Pennington reported that Debbie Darling contacted the IStructE (Institute of Structural Engineers) for the FPS to present at their regional events. The IStructE have provided some 2020 dates. It was agreed the IStructE are the right place to be pushing this forward.</p>	
<p>5.</p>	<p><b>SITE INVESTIGATION DATA</b></p>	
<p>a)</p> <p>b)</p> <p>c)</p>	<p><b>Guidance on Minimum Site Investigation requirements for foundation design</b></p> <p>This item was discussed as part of the questionnaire update below.</p> <p><b>Ground Investigation Questionnaire update</b></p> <p>The FPS reported that 23 surveys have been submitted from BBGE, Arup and Keller. It was noted the survey asks members to comment on the suitability of site investigation and weigh up the useful site investigation being received.</p> <p>The FPS Secretariat agreed to resend the survey.</p> <p>Andrew Bond advised there is a big opportunity, there is going to be an update to part 2 and 3 Eurocode. He added it would be good to have more specific rules, he suggested the FPS speed up getting the survey results to be included in the code, setting a minimum standard.</p> <p>Jonathan Ball reminded the Committee the surveys need to be completed before the 1st January 2020. Andrew stated this should mean the results can be included.</p> <p>It was also noted the AGS will be revising the guidance notes in the Yellowbook, the FPS can contribute towards the factual background.</p> <p>Tony Suckling recognised that margins are tight, not enough is being invested into ground investigation, the bare minimum is being done. He added it needs to be included in legislation, however getting it into the Eurocode will be beneficial.</p> <p><b>AGS Procurement of Ground Investigation Steering Group</b></p> <p>This item was discussed as part of the above.</p>	
<p>6.</p>	<p><b>FPS GUIDE TO DEEP PILES IN LONDON</b></p>	
	<p>This item was agreed to be placed on hold but would remain on the agenda.</p>	
<p>7.</p>	<p><b>EUROCODES AND EXECUTION CODES</b></p>	

<p>a) <b>Revision of EN1997-3 Clause 6 – Pile Design</b> This item was not discussed.</p> <p>b) <b>Revision of Eurocode 7</b> Please <a href="#">click here</a> to see the presentation from Andrew Bond for the Eurocode 7 Parts 2 and 3 timetable for submitting UK comments. It was agreed to set up a meeting prior to the end of the year. The FPS Secretariat agreed to check venue availability on the week commencing the 9<sup>th</sup> December and send a meeting invite. It was also agreed to invite Andrew Bond and Chris Raison. Jonathan Ball agreed to lead the meeting.</p> <p>c) <b>Update of Codes</b> This item was not discussed.</p> <p>d) <b>Tower Crane Loadings &amp; CIRIA C654</b> This item was not discussed.</p> <p>e) <b>EN 1997-3 – Clause 6 Draft – Design of Piled Rafts</b> This item was not discussed.</p>		<b>FPS Secretariat Jonathan Ball</b>
<b>8.</b>	<b>FPS DIGITAL DEVELOPMENT TASK GROUP</b>	
	<p><b>AGS/FPS Data Information Transfer for Piling</b></p> <p>Mark Pennington reported that the Digital Development Group has been looking to increase the use of AGS Data as a standard format and look at making it a contractual requirement, however no progress has been made since the last FPS Technical Committee meeting.</p> <p>He also reported that there is a meeting taking place between Neil Chadwick and Jason Boddy next week. Ciaran Jennings added that Germany are using AGS Data.</p>	
<b>9.</b>	<b>LIMITATIONS IN ULS RETAINING WALL DESIGN</b>	
	<p>Mark Pennington advised there is no update on this item, at the last meeting it was noted that someone from BBGE is progressing it.</p>	
<b>10.</b>	<b>FPS WEBSITE</b>	
	<p>It was noted that a schedule of updates was issued last year, Ciaran Jennings advised that those with actions to update documents need to be followed up.</p> <p>It was also noted that the old Sperwall guidance has been removed from the website and a statement was added advising that the Sperwall has been superseded but can contact the FPS Secretariat for a copy if required. It was agreed it will remain on the members area.</p> <p>Ciaran suggested an agenda item for guidance documents which need reviewing.</p>	<b>FPS Secretariat</b>
<b>11.</b>	<b>RIG BEARING PRESSURE SPREADSHEETS</b>	
	<p>The FPS Secretariat reported that the next FPS Rig Bearing Pressure Spreadsheet workshops are taking place in London on the 4th December 2019.</p> <p>Ciaran Jennings reported that David Corke produced a paper on plate testing analysis which was rejected by Ground Engineering publication, Ciaran asked the view of the FPS. Tony Suckling felt it was trying to back analyse, Chris Barker agreed it did not bring anything new to the understanding of working platforms. Ebenezer Adenmosun agreed it did not have enough content. Tony advised he has never been challenged using the BRE design method, but thought the Rig bearing pressure spreadsheet is good, however if improperly used, the results will be no good.</p>	
<b>12.</b>	<b>EFFC</b>	
	<b>a. Support Fluids Field Research Study project</b>	

	<p>At the start of the meeting Chris Harnan presented to the FPS Technical Committee the EFFC working task group support fluids update. Chris provided the Committee with a Field Research Study update, <a href="#">click here</a> to view. The scope of Field Research Study included selected sites over Europe and US to evaluate standard and non-standard test procedures, equipment to monitor fluid behaviour and excavation integrity, and interface between fluid and concrete.</p> <p>He noted the UK has not taken on slump flow and are still doing flow table. Mark Pennington agreed they will only do slump flow if requested, Chris advised the R&amp;D report is available on the EFFC website and it concludes that slump flow is the best method. There seems to be a reluctance from the UK to change.</p> <p>Chris asked members of the Technical Committee to go back to their sites and look at slump flow, it is easier than flow tables, however he suggested they are careful when doing bleed, the only way to check is to do static testing. Chris added the SperWall does not fully take it on board, but it does refer to it.</p> <p>Chris explained the Supports Fluid are embarking on a R&amp;D programme to start the second version of the Support Fluid Guide, the first version is more of a reference guide. Chris reported they have been doing tests in Los Angeles, US, next week they are in Denmark then Belgium.</p> <p>Chris requested UK test sites especially polymer sites, as there is a risk all the testing is on polymer sites in the US and all bentonite in Europe. He added the benefit to businesses is improved quality and product.</p> <p>Tony Suckling advised that Steffan Jeffries is worried about the quality of bentonite over time and that polymers are added to fix this issue. Chris commented that there were increasing problems in diaphragm walls and also in piles and that there is a need to understand the products that we use as an industry.</p> <p>Chris reported that this is being paid for by sponsors and the task group has signed a confidentiality agreement, any members who are involved have the right to veto and to check they are happy with what is included.</p> <p>Andrew Heathcote agreed it is beneficial to the members and industry, however he needs to get approval from site manager and the client. Chris confirmed he would be happy to talk to people directly on site. The FPS Secretariat agreed to send the Committee contact details for Chris Harnan.</p> <p style="text-align: center;"><b>b. Sustainability</b></p> <p>This item was not discussed.</p>	<b>FPS Secretariat</b>
<b>13.</b>	<b>INDUSTRY EVENTS</b>	
	<p><b>BGA Piling Conference 15-16<sup>th</sup> September 2020</b></p> <p>Mark Pennington reported that the deadline for papers to be submitted for the BGA Piling Conference in Durham has been announced as the 1<sup>st</sup> December 2019.</p>	
<b>14.</b>	<b>SOCIAL EVENTS</b>	
	<p>a)FPS Summerball 27th June 2020, Coombe Abbey, Brinklow Rd, Coventry CV3 2AB</p> <p>b)FPS Golf Day – details to be confirmed</p> <p>c)Annual Awards Dinner – 16th October, venue to be confirmed</p>	
<b>15.</b>	<b>ANY OTHER BUSINESS</b>	
	<p><b>NHBC acceptance to CIRIA designed bored piles design in Chalk, without Pile Load Testing</b></p>	

	<p>Mike Johnson reported that they found recently that the NHBC no longer accept piles designed without load testing with a global Factor of Safety of 2.5 in accordance with CIRIA C574 &amp; PR86. Instead they are reverting to their internal guidance of either a FoS=3.0 or an EC7 design.</p> <p>Typically, they would always assess the pile type, however the NHBC is no longer accepting this. After speaking with the NHBC it was suggested if an industry body like the FPS or CIRIA can provide some up to date revised guidance to substantiate the obviation of working pile tests under these circumstances, then they will look at the information and if necessary amend their in-house guidance.</p> <p>Jon Ball agreed this needs to be addressed, he advised that they came across this previously, but had time and space to complete the test.</p> <p>It was noted that NHBC have written internal guidance, Andrew Heathcote advised that CIRIA has a statement which he will send to Mike. He advised there is 2.5 factor of safety, but you must carry out a load test.</p> <p>Jon advised his view would be to echo non testing factors and write a technical note. Tony Suckling advised there is a range in quality of design in chalk across the industry, he added there is an FPS guidance which could be updated. Mark Pennington agreed the Committee is happy to update the chalk guidance. Mike agreed to work with Jon on this.</p> <p><b>Heathrow Expansion Project</b></p> <p>Ciaran Jennings reported that the Heathrow expansion team contacted the FPS and met with them. It was noted that they are in the procurement phase.</p> <p>Ciaran reported that there is a further meeting taking place on the 27<sup>th</sup> November 2019, they have asked if the FPS can sense check two method statements for a trial pile, that they are planning to do. They have sent across their specifications. It was noted it will be a vast project, the size of Crossrail.</p> <p>Martyn Ellis advised the FPS remains mindful of an NDA; Ciaran advised the information is currently in the public domain.</p>	<p><b>Mike Johnson Jon Ball</b></p>
<b>16. DATE OF NEXT MEETINGS</b>		
	<ul style="list-style-type: none"> <li>• 27<sup>th</sup> February 2020</li> <li>• 21<sup>st</sup> May 2020</li> <li>• 3<sup>rd</sup> September 2020</li> <li>• 5<sup>th</sup> November 2020</li> </ul> <p>To start at 10am at Hamilton House, Mabledon Place, London, WC1H 9BD.</p>	