

Temporary Works Design Certificate



Project:	EASTLANDS SUBSTATION
Structure:	WORKING PLATFORMS – PILING MATS
Section Of Works:	TEMPORARY WORKS
Design Org. Originator	IDH
IDH Document Ref:	8295-01-CHK0

1. We certify that we have used reasonable professional skill and care in preparing and/or checking the temporary works design for the above section of the project.

The designs have been prepared in accordance with the following codes and standards:

- BS 5975:2019 - Code of practice for temporary works procedures
- BRE 470 - Working platforms for tracked plant
- BS EN 1990 - Basis of structural design
- BS EN 1997-1 - Geotechnical design - General rules

The designs have been prepared in accordance with the following documentation obtained from the client:

- Geotechnical Testing Results (Appendix 2);
- Schedule of Piling Rig Component Weights, Dimensions, Forces and Pressure for KLEMM KLM4 (KR709-1);
- KLEMM 4 General Specification;

2. This design certificate constitutes the equivalent of the following check:

CAT I ☒

CAT II ☐

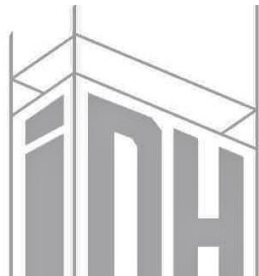
CAT III ☐



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3. Comments are as follows

Section	Comment																																								
General	IDH have been commissioned to undertake a design of piling rig working platform to facilitate the installation of piles at the Eastlands Substation site for proposed KLEMM KLM4 (KR709-1) piling rig																																								
	Taking into account the ground conditions from Ground Investigation Report, the existing subgrade was idealised as granular made ground with a minimum N-value of 8.0.																																								
	Two proposed rig has been considered in the design considering the following track loads:																																								
	<table><tr><th colspan="5">Pressure Summary for Platform Design (unfactored)</th></tr><tr><th>MODE</th><th>BRE LOAD CASE (1 or 2)</th><th>Length (m)</th><th>Width (m)</th><th>UDL Pressure (kPa)</th></tr><tr><td>Standing</td><td>1</td><td>2.54</td><td>0.5</td><td>46</td></tr><tr><td>Travelling</td><td>1</td><td>2.00</td><td>0.5</td><td>70</td></tr><tr><td>Handling</td><td>1</td><td>2.29</td><td>0.5</td><td>54</td></tr><tr><td>Penetrating</td><td>2</td><td>0.89</td><td>0.5</td><td>95</td></tr><tr><td>Extracting</td><td>2</td><td>1.15</td><td>0.5</td><td>134</td></tr><tr><td>Other</td><td>NOT USED</td><td>N/A</td><td>0.5</td><td>N/A</td></tr></table>	Pressure Summary for Platform Design (unfactored)					MODE	BRE LOAD CASE (1 or 2)	Length (m)	Width (m)	UDL Pressure (kPa)	Standing	1	2.54	0.5	46	Travelling	1	2.00	0.5	70	Handling	1	2.29	0.5	54	Penetrating	2	0.89	0.5	95	Extracting	2	1.15	0.5	134	Other	NOT USED	N/A	0.5	N/A
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As a result of the analysis, it has been determined that for the existing ground conditions granular working platform is required .																																									
Granular working platform was designed as min 350 mm thick 6F2 working platform (compacted in layers) to be laid on the existing granular formation. Formation has to be compacted to achieve a minimum CBR value of 1.50 % prior to placing the mat.																																									
Any potential soft spots shall to be dug out and replaced with compacted backfill.																																									
The 6F2 material shall have min. 20 kN/m ³ dry density and min. 45° angle of friction.																																									
The details are presented in 8295-01-CC0 spreadsheet and 8295-01-P0 drawing.																																									
																																									

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4. Nothing in this certificate shall impose upon us any greater liability than the exercise of reasonable professional skill, care and diligence.

Signed:	<i>Gabriela Król</i>	Date:	13/09/2023
Designer Name:	Gabriela Król	Title:	Senior Design Engineer

Signed:	<i>Wojciech Fijalkowski</i>	Date:	13/09/2023
Checker Name:	Wojciech Fijalkowski	Title:	Associate Director

