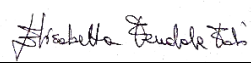
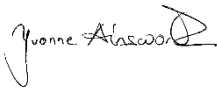


Category II Check Certificate for Greville Street, London

|  |  |   |                                   |
|--|--|---|-----------------------------------|
| <b>Category II (Competent Independent Team in same Organisation) Check Certificate for the validation of the 3<sup>rd</sup> Party Developer's proposals for protection of Crossrail Infrastructure at risk within the Zone of influence of works</b>   |  |   |                                   |
| <b>3<sup>rd</sup> Party Development:</b> 20-30 Greville Street, London   |  |   |                                   |
| <b>Category II Checking Organisation:</b> Gavin & Doherty Geosolutions Ltd.  |  |   |                                   |
| <b>Designer for 3<sup>rd</sup> Party Development:</b> Atelier One  |  |   |                                   |
| <b>Category II Check Scope:</b> <ul style="list-style-type: none"> <li>Assessment of Ground Movement Impact on Crossrail Infrastructure, predicted to result from implementation of the design for development</li> <li>Calculation of load take down before, during and on completion of development</li> </ul>   |  |   |                                   |
| <b>Brief description of the subject of Category II Check including all disciplines covered and geographical extent:</b> <ul style="list-style-type: none"> <li>Independent check on the PDisp analysis carried out including geotechnical properties used; model geometry and load takedown;</li> <li>Independent check on the analysis of the results specifically radius of curvature and diametrical distortion.</li> </ul>   |  |   |                                   |
| <b>Documents Checked:</b><br>Greville Street Tunnel Assessment Letter by Gavin & Doherty Geosolutions Ltd  |  |   |                                   |
| <b>Requirements, Standards and Codes applied in this Check</b><br>BS EN 1997-1:2004+A1:2013 Eurocode 7. Geotechnical design. General rules   |  |   |                                   |
| <b>Any other relevant details:</b>   |  |   |                                   |
| <b>Declaration by Checking Organisation:</b>   |  |   |                                   |
| <b>By Validation Team Leader of the Organisation undertaking Category II Check:</b> <p>I certify that, exercising reasonable professional skill and care, consistent with the agreed professional services, I have checked the Design of the 3<sup>rd</sup> Party Development identified above, with the objective of ensuring that the predicted ground movement impact on Crossrail's infrastructure resulting from implementation,</p> <ul style="list-style-type: none"> <li>complies with the Requirements, Standards, Codes and any other relevant details stated above;</li> <li>does not exceed the minimum acceptance criteria specified in Crossrail guidance for the protection of its infrastructure against the effects of the Development works.</li> <li>Is accurate in its adoption of correctly calculated surcharge loading, interpreted soil parameters and intended construction sequences applicable to this development</li> </ul> <p>In my reasonable opinion, the provisions made to protect Crossrail Infrastructure are considered to be satisfactory.</p> <p>I confirm that the Category II check was undertaken by a team wholly independent of the team responsible for the assessment and design of infrastructure protection to mitigate the 3<sup>rd</sup> Party Development impact on Crossrail infrastructure.</p> |  |   |                                   |
| <b>Name:</b><br><b>Elisabetta Feudale Foti</b>   | <b>Position:</b><br><b>Senior Engineer</b> | <b>Signature:</b><br> | <b>Date:</b><br><b>08/01/2021</b> |
| <b>By Project Director of the Organisation undertaking Category II Check:</b> <p>I certify that the staff who have completed the above check are competent to carry out their duties and that they have used reasonable skill and care, and that inter-discipline interfaces have been managed and coordinated appropriately</p>   |  |   |                                   |

Category II Check Certificate for Greville Street, London

|  |                                      |   |                            |
|--|--------------------------------------|---|----------------------------|
| <b>Name:</b><br>Yvonne Ainsworth   | <b>Position:</b><br>Project Director | <b>Signature:</b><br> | <b>Date:</b><br>08/01/2021 |
| <b>Acceptance by Crossrail: The certificate is accepted by CRL's Safeguarding team</b> |                                      |   |                            |
| <b>Name</b>  | <b>Position</b>                      | <b>Signature</b>  | <b>Date</b>                |

| Attachment 1.0 – Documents Checked   |   |  |
|--|---|--|
| Documents listed below comprise those made available for the review, and are included in this Category II check. |   |  |
| Document Reference   | Title   | Notes  |
| GDG letter to Aterlier One – Ref 20248-Letter-210108   | Greville Street Tunnel Assessment Letter 210108 | Letter from GDG outlining the greenfield settlement assessment undertaken. |
|  |   |  |
|  |   |  |

| Attachment 2.0 – Documents for Information   |       |       |
|--|-------|-------|
| Documents listed below comprise those made available for the review, and are included in this Category II check. |       |       |
| Document Reference   | Title | Notes |
|  |       |       |
|  |       |       |
|  |       |       |