

**STRUCTURAL INTEGRITY REPORT PERTAINING TO SUBSIDENCE  
FOR FOUR BED DETACHED GROUND + ROOF PROPERTY**





## PEARL ENGINEERS PLANNERS AND PROJECT MANAGERS

Name of the client:

Address of property inspected:

Reference: **SIR/2024/04/ST**

Weather: **Overcast and Cold**

Date of Inspection: **12-04-2024**

| Doc No.        | Date          | Rev. | Document Type               | Prepared By                                                                                                                     |
|----------------|---------------|------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| SIR-2024-04-SA | APRIL<br>2024 | C2   | Structural Integrity Report | Muhammad Moiz BE<br>CE PGc DM Chartered Building Engineer Chartered Construction Manager CBuild E RIBA A. MCABE C Build E MCIOB |

Disclaimer:

This report has been prepared by a surveyor merely in their capacity as an employee or agent of a firm, company or other business entity (PEPP). The report is the product of the Company, not of the individual surveyor. All of the statements and opinions contained in this report are expressed entirely on behalf of the Company, which accepts sole responsibility for them. For their part, the individual surveyor assumes no personal financial responsibility or liability in respect of the report, and no reliance or inference to the contrary should be drawn. This document has been prepared in accordance with the scope of PEPP's appointment with its client and is subject to the terms of that appointment. It is confidential, addressed to and for the sole use and reliance of PEPP's client. PEPP's accepts no liability for any use of this document other than by its client and only for the purposes stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part), use or rely on the contents of this document, without the prior written permission of a director of PEPP's. Any advice, opinions or recommendations within this document should be read and relied upon only in the context of the document. The contents of this document are not to be



construed as providing legal, business or tax advice or opinion.

## Table of Content

|                                            |   |
|--------------------------------------------|---|
| 1. Directives.                             | 4 |
| 2. Report Analytical Focus.                | 4 |
| 3. Scope of the Works.                     | 5 |
| 4. Comprehensive Overview of the Property. | 5 |
| 5. Narratives (Observation/Causes).        | 6 |
| 6. Conclusion (prevention/Solutions).      | 7 |

SAMPLE PROJECT



## 1. Directives

Upon the instructions received from the client to inspect the existing subsidence, Pearl Engineers Planners and Project Managers conducted a survey at 12 Crofton Road Orpington BR6 8AF. To confirm the structural integrity of the property pertaining to subsidence, prevention causes and solution.

## 2. REPORTS ANALYTICAL FOCUS

This report's scope includes the identification of existing dampness in exterior walls its causes, prevention, and solution. The on-site conditions were being investigated via different non-destructive methods such as, physical, visual and acoustics of the materials.

We have not conducted a thorough examination of the woodwork or any concealed areas within the structure, and as such, I cannot verify the absence of defects in these sections of the building.

We appreciate the client's cooperation in granting access to the property as scheduled and assisting in addressing inquiries raised during our discussions.

### 3. SCOPE OF WORK

- Conduct a survey to inspect the existing subsidence and establish its Causes preventions and solutions.

During the visit dated 12<sup>th</sup> April 2024, the client's representative was present to guide us throughout the survey.

### 4. Comprehensive Overview of the Property.

xxxxxx is a Four Bedroom Detached property comprised of a single Dwelling. Access to the property is gained through the front main road by concrete paved steps accessing to the main entrance door which up on the hill. Similarly, access can be gained by the access rear entrance where there is a space for two car parking, a outbuilding and a small rear garden.

The property is traditionally built, where the ground and first floors are made up of timber suspended flooring, and the external walls are made up of facing bricks with a clay-tiled roof.

**SAMPLE PROJECT**

## 5. Narratives.

- SAMPLE PROJECT**
- 1] The front elevation along with the front portion of side elevations of the property is subjected to high levels of subsidence due to which alarming levels of structural cracks are formed. Please refer to photographs 1,2,3,4 and 5.
  - 2] Similarly due to the adverse effects of subsidence the internal walls, ceiling, and other finishing elements are also been affected by subsidence resulting in severe structural cracks.
  - 3] As per the client's brief the drainage CCTV survey has already been conducted and all the drains are already repaired except one manhole which is in the front, there is no reason why this manhole was not investigated as if it's allowing water to seep towards the foundation and its surroundings it will effectively cause movement in the foundations.
  - 4] Similarly, There was an oak tree that has been removed to avoid the subsidence, which may have caused the subsidence issue. The oak trees are on top of the list to cause subsidence issues.
  - 5] It will be suggested to monitor the house for further subsidence after taking manholes/drainage reinstatement and the removal of oak tree which is already in place.
  - 6] The house is under continuous monitoring and there are several readings have been taken at different intervals, however, there is no conclusion found from these readings in any of the reports, therefore we request you to please provide test/observation methodology (Method of statement) or the conclusion of the monitoring with substantiations.

- 7] A similar effect has been seen in the rear outbuilding which is more susceptible to being caused by the damaged rain water guttering.
  
- 8] All these are some general parameters to be done in such situations where the subsidence is affecting the properties, however as this property is above the hill and the front elevation is directly near the change in level of elevation, therefore there are chances of land sliding.

## 6. Conclusion:

**According to the observations made above the following recommendation and conclusion have been derived.**

"The measures taken presumably the course of actions during such subsidence, however, the recent measurements recorded for the movement show no conclusion either if it is considered as subsidence or not, therefore as mentioned above it needs to be concluded by the vendor engage in such observations.

If it is subsidence then a specialist subsidence repair company to be employed to undertake ground foundation improvement works the repair and reinstatement works, such a company should also consider the land sliding and provide ground improvement advice on such.

Similarly, if the subsidence is not active and it is concluded that the subsidence has been stopped due to the reinstatement of the drains and the removal of the oak tree then the structural crack repairs should proceed followed by further monitoring, and if cracks appear again then we have to employ a subsidence repair specialist to undertake the works".

In case of any further queries, please revert to the undersigned for further investigation. We hope that this letter serves its purpose, however, if you have any questions or concerns, please do not hesitate to reach out and contact us at

Photograph #1



SAMPLE PROJECT

Photograph #2



Photograph #3



SAMPLE PROJECT

Photograph #4



Photograph #5

