



Bellamy Wallace Partnership
Consulting Structural Engineers

CLIENT:

Redrow

**REPORT ON VISUAL INSPECTION OF
CONDITION OF EXISTING BUILDINGS AT
SITE OF PROPOSED REDEVELOPMENT**

AT

**Arundel Road
Angmering,
Littlehampton,
BN16 4ET**

Springfield Rag Room
Mill Lane
Maidstone
Kent
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Contents

1.0.	Introduction.....	4
2.0.	Site Description	4
3.0	Block A	9
3.1	Conclusion.....	9
4.0	Block B	16
4.1	Conclusion.....	16
5.0	Block C	22
5.1	Conclusion.....	22
6.0	Block D.....	31
6.1	Conclusion.....	31
7.0	Block E	34
7.1	Conclusion.....	34
8.0	Block F	38
8.1	Conclusion.....	38
9.0	Block G.....	39
9.1	Conclusion.....	39
10.0	Block H	40
10.1	Conclusion.....	40
11.0	Block J.....	41
11.1	Conclusion.....	41
12.0	Isolated ground bearing slabs, walls and cable ducts.	42
12.1	Conclusion.....	42
13.0	Possible buried structure adjacent to southern boundary of site	43
13.1	Conclusion.....	43
14.0	Recommendations.....	44
14.1	Block A	44
14.2	Block B	44
14.3	Block C.....	44
14.4	Block D.....	44
14.5	Block E	44
14.6	Block F	44
14.7	Block G.....	45
14.8	Block H.....	45
14.9	Block J.....	45
14.10	Isolated ground bearing slabs, walls and cable ducts.	45
14.11	Possible buried structure adjacent to southern boundary of site	45

1.0. Introduction

1.1. Bellamy Wallace Partnership have been instructed to carry out a visual survey and produce a structural condition report on a number of existing buildings at the site of a proposed development at the former B&B Autos site at Arundel Angmering, West Sussex.

1.2. A site visit was carried out on 22nd February 2023, the weather was overcast with slight drizzle at times.

2.0. Site Description

2.1. The site address is Arundel Road, Angmering, BN 16 ET.

2.2. The site comprised flat open ground on which several existing buildings were situated. The buildings have been listed in Figures 1 to 8. A visual inspection of the buildings was undertaken on Wednesday 22nd of February 2023. The buildings and items inspected comprise the following:

- 1) Block A – A brick-built bungalow painted white at the north end of the site.
- 2) Block B – A large shed with stone and concrete block walls and a corrugated iron roof.
- 3) Blocks C – 5no. Nissen style huts with low walls in blockwork with curved corrugated iron roofs.
- 4) Block D - A large shed with stone walls at the rear and brick walls at the front. The roof is of a corrugated cement construction.
- 5) Block E - A large shed with rendered block walls and a corrugated iron construction.
- 6) Block F - A small shed with a corrugated iron roof.
- 7) Block G - A small shed with corrugated cement walls and corrugated iron roof.
- 8) Block H - A small shed with block walls and a corrugated iron roof.
- 9) Block J – A small shed with prefabricated plaster board walls and a corrugated iron roof.
- 10) Isolated ground bearing slabs. At the southern part of the site several isolated ground bearing slabs were observed.
- 11) Possible buried structure at the southern perimeter of the site. The structure is just outside the site boundary but it may affect the foundation of any proposed adjacent building.

List of Figures

Figure 1 - Site Layout with Blocks A, B, C & D highlighted

Figure 2 - Site Layout showing Block E

Figure 3 - Site Layout showing closer view of Block A

Figure 4 - Site Layout showing closer view of Blocks C and Block B

Figure 5 - Site Layout showing closer view of Block D and Block F

Figure 6 - Site Layout showing closer view of Block D and Block F

Figure 7 - Site Layout showing closer view of Block E, F G & H

Figure 8 - Site Layout showing closer view of Block J, Block C and Block F

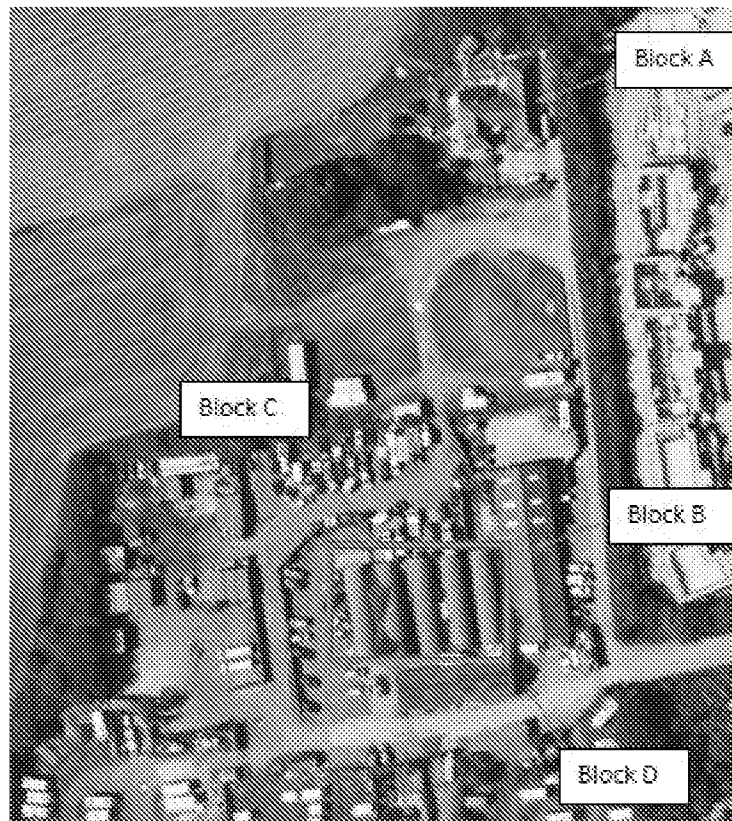


Figure 1 - Site Layout with Blocks A, B, C & D highlighted



Figure 2 - Site Layout showing Block E



Figure 3 - Site Layout showing closer view of Block A

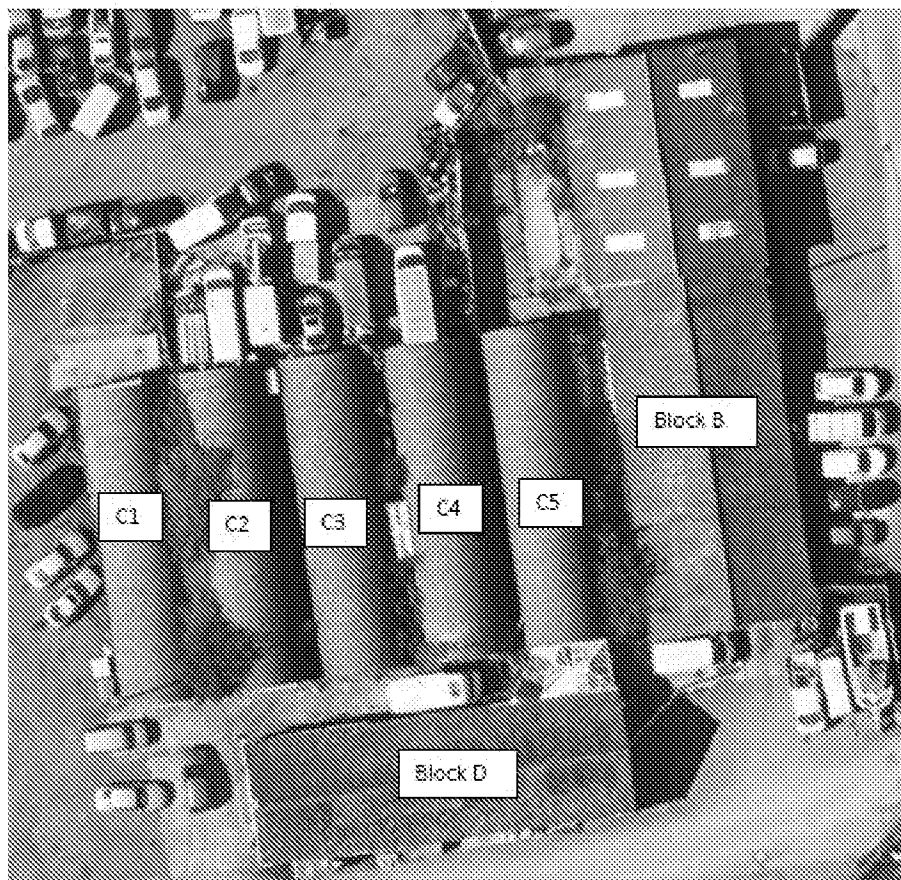


Figure 4 - Site Layout showing closer view of Blocks C and Block B

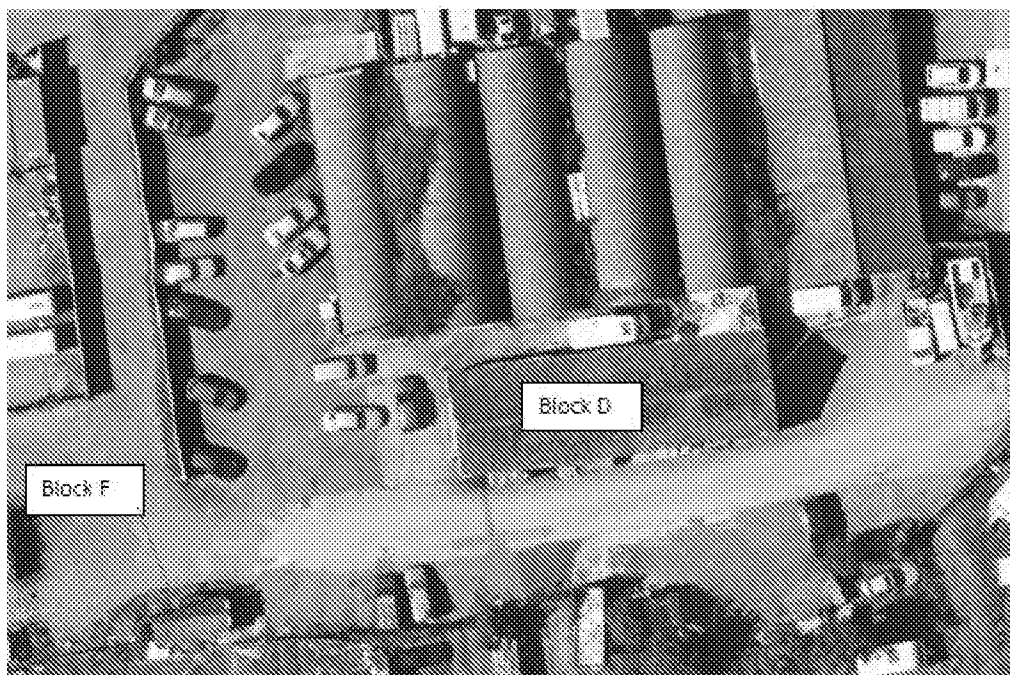


Figure 5 - Site Layout showing closer view of Block D and Block F

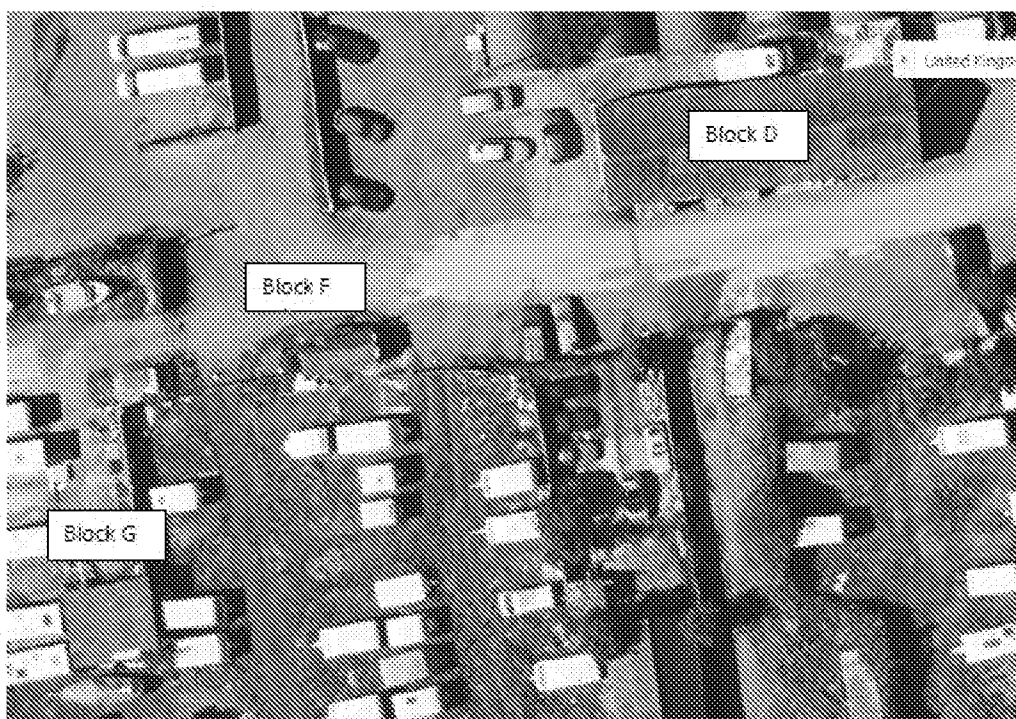


Figure 6 - Site Layout showing closer view of Block D and Block F

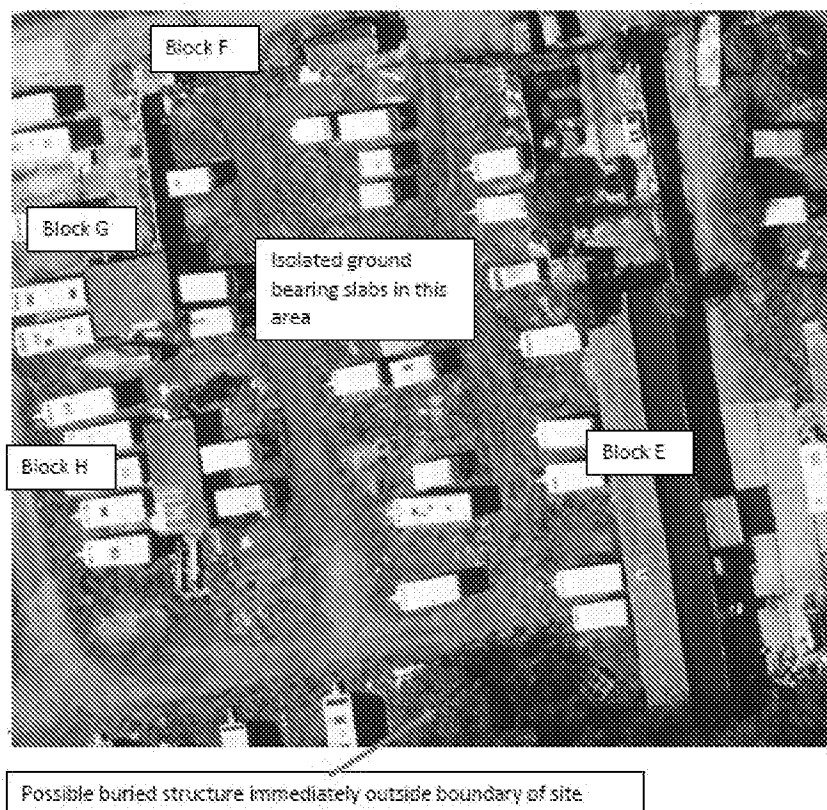


Figure 7 - Site Layout showing closer view of Block E, F G & H

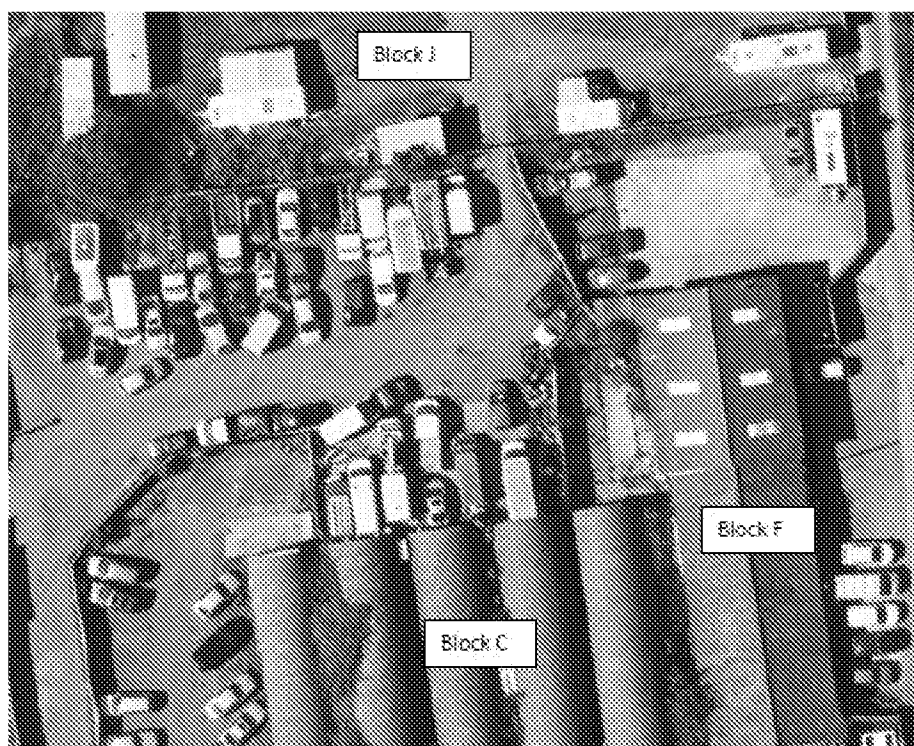
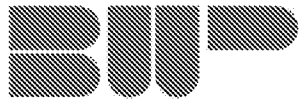


Figure 8 - Site Layout showing closer view of Block J, Block C and Block F



3.0 Block A

- 3.0.1 Block A comprises a brick-built bungalow with load bearing masonry walls. The roof tiles comprise concrete tiles as seen from Photos 1-5.
- 3.0.2 The house is founded on a ground bearing slab, with a raised timber floor to internal areas.
- 3.0.3 Cracking was noted to the masonry walls of the building as shown in photos 6-9.
- 3.0.4 The garage shown in photos 11 and 12 comprises single leaf brick walls. An intermediate beam props the roof mid-length of the garage.
- 3.0.5 In photo 12 cracking can be seen in the wall in the right-hand side of the photo.

3.1 Conclusion

- 3.1.1 The ground bearing slab appears to be settling unevenly as evidenced by the cracking shown in the photos 6 to 10 and 13 and may be subject to heave.
- 3.1.2 Cracking of the ground bearing slab outside the house and in the drive would appear to be indicative of further settlement.
- 3.1.3 The beam propping the roof of the garage appears to have inadequate restraint.
- 3.1.4 Cracks to the walls within the building would appear to be consistent with settlement of the ground bearing slab.



Photo 1 - Block A – Front elevation of bungalow



Photo 2 - Block A – Front elevation of bungalow showing garage



Photo 3 - Block A – Side view of front elevation of bungalow



Photo 4 - Block A – Rear elevation showing chimney



Photo 5 - Block A - Rear elevation showing chimney



Photo 6 - Block A – crack in wall to the right of the of front bay window

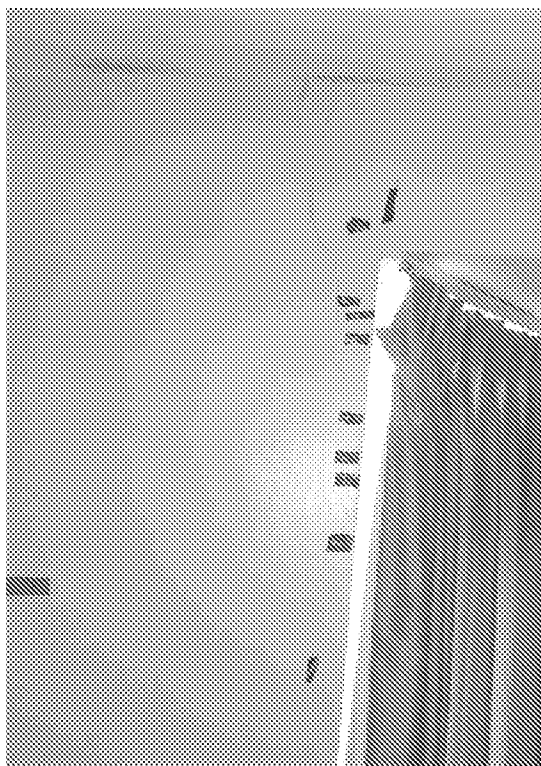


Photo 7 - Block A - crack in wall to the left of front bay window

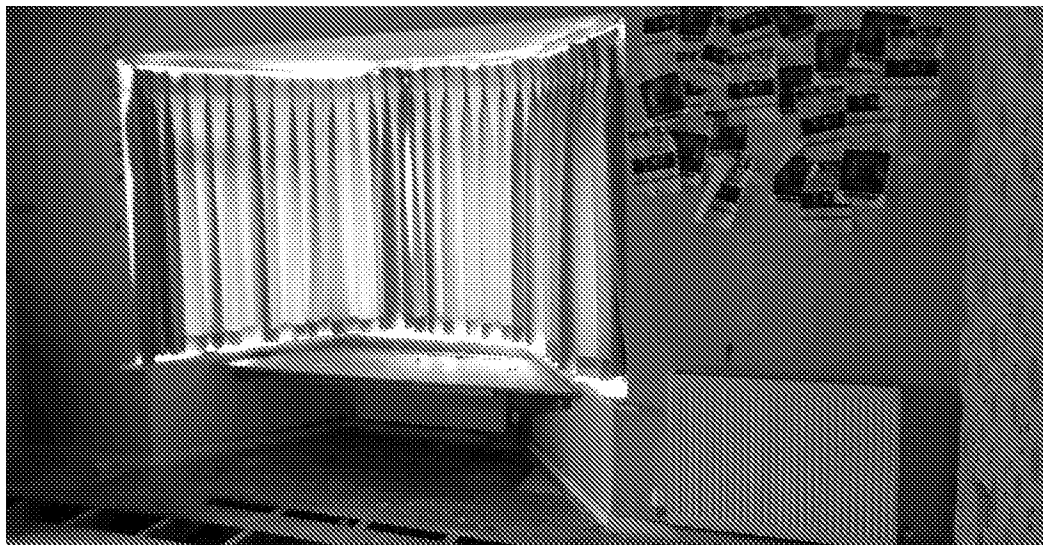


Photo 8 - Block A - front bay window



Photo 9 - Block A - crack in the return wall to the right of front bay window



Photo 10 - Block A - view of concrete slabs at the front of the house



Photo 11 - Block A – view of garage

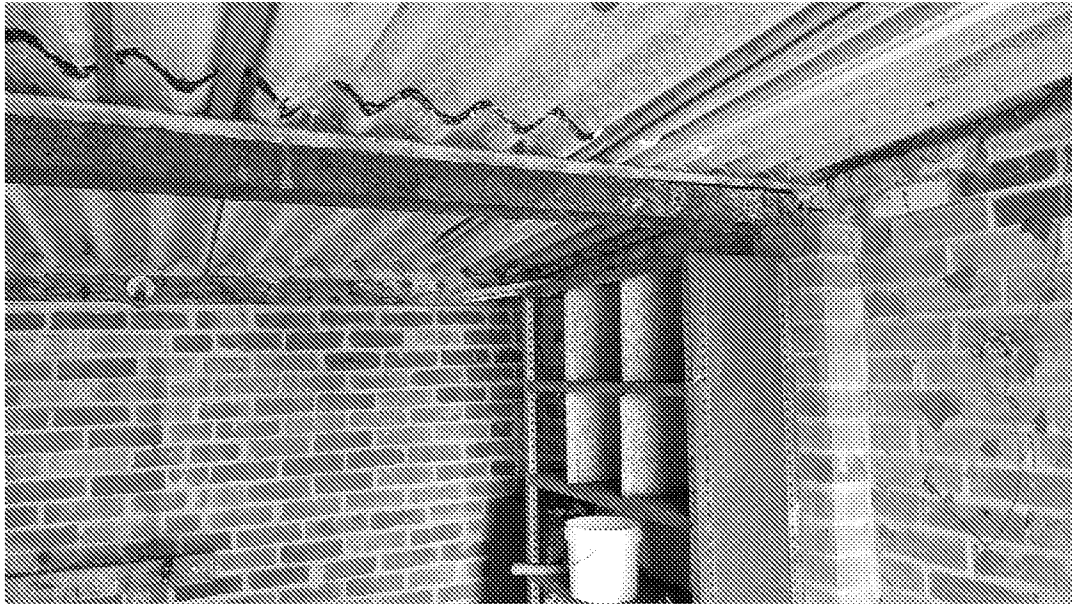


Photo 12 - Block A – view of beam supporting garage roof propped on the brick pier



Photo 13 - Block A – Front elevation - cracking at the front door

4.0 Block B

- 4.0.1 Block B comprises a large shed with load bearing masonry walls. The roof is of corrugated iron construction.
- 4.0.2 The walls comprise stone block with a concrete block vertical extension on top, as shown in photo 17.
- 4.0.3 The roof ceiling would appear to be sagging as can be seen in photo 22.
- 4.0.4 Photo 20 shows the beam that supports the roof trusses to be sagging.
- 4.0.5 Photo 21 shows a prop to support the roof beam that in turn supports the trusses.
- 4.0.6 An extension has been built to the end of the building which appears to be of rendered block. Photo 26 shows cracking to the gable end of the extension wall.

4.1 Conclusion

- 4.1.1 The wall detail in photo 17 with a concrete block vertical extension on top is not of robust construction and the quality of construction cannot be verified.
- 4.1.2 Photo 21 shows a prop to support the roof beam and trusses. This would appear not to meet the requirements of robustness and has the potential for collapse as the removal of this prop could cause the roof to become unsafe.
- 4.1.3 The extension at the end in rendered block is cracking in the gable wall.



Photo 14 – Block B - View of gable end of Block B

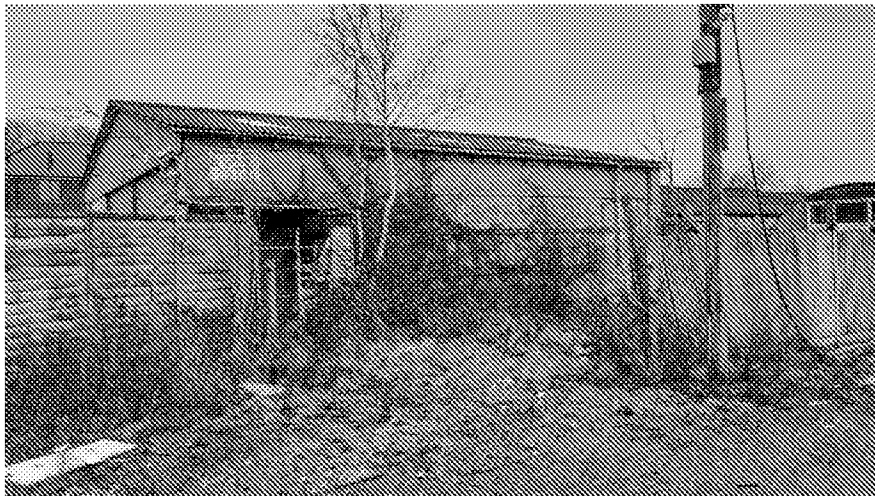


Photo 15 – Block B - View of side elevation of Block B



Photo 16 – Block B – Side elevation – appears to be in stone block



Photo 17 – Block B - Side elevation – vertical extension in concrete block above the stone block



Photo 18 – Block B – Side elevation in stone block



Photo 19 – Block B – internal view



Photo 20 – Block B- Roof truss propped by timber beam



Photo 21 – Block B – vertical prop supporting the beam that props the truss

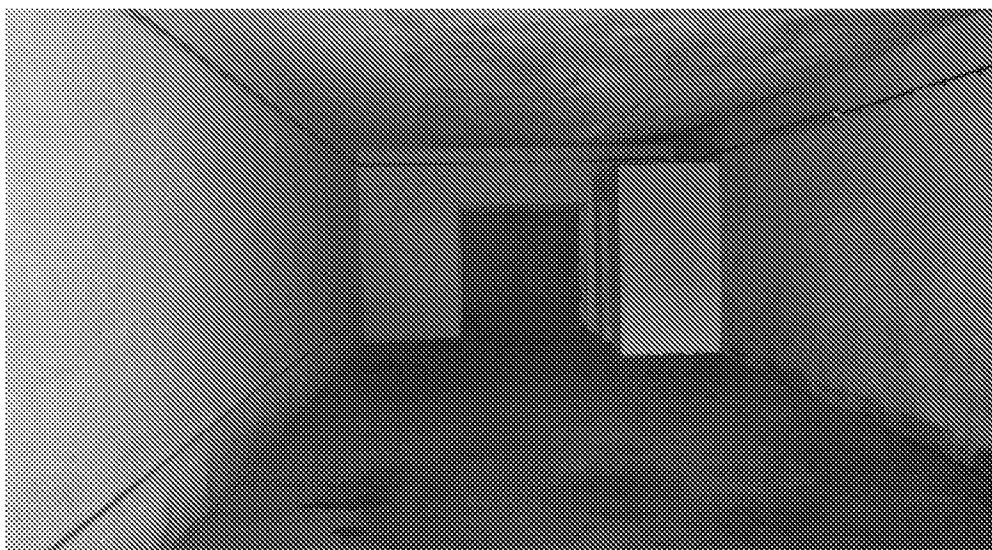


Photo 22 – Block B – internal view



Photo 23 – Block B – side view of the extension at the end



Photo 24 – Block B – side view of the extension at the end



Photo 25 – Block B – side view of the end extension

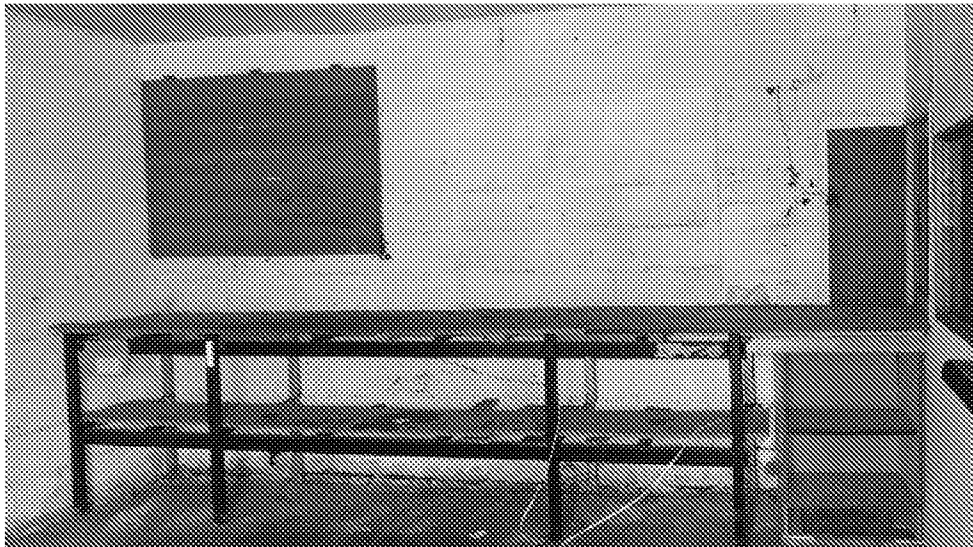


Photo 26 – Block B – internal view in the end extension

5.0 Block C

- 5.0.1 Block C comprises 5no. Nissen style huts comprising concrete block walls with a curved corrugated iron roof. The gable walls are concrete block.
- 5.0.2 In front of hut C5 there appears to be an oil storage bund or petrol interceptor. There was oil present at the site.
- 5.0.3 Photos 29 and 30 show cracking in the ground bearing slab.
- 5.0.4 Photo 35 shows damage and cracking to the gable wall of one of the huts.
- 5.0.5 Photo 36 shows cracking to the gable wall of one of the huts.
- 5.0.6 Photo 37 shows cracking to the ground bearing slab.
- 5.0.7 Photo 38 shows a steel column and beam supporting the roller shutter door in the gable wall of one of the huts. The column is in poor condition.

5.1 Conclusion

- 5.1.1 There is cracking and some damage to the gable walls of the huts.
- 5.1.2 There is cracking indicative of settlement in some of the ground bearing slabs.
- 5.1.3 There was a smell of oil in some of the huts and an oil storage bund or petrol interceptor in front of hut C5. Therefore, there is potentially oil contamination in the ground which might necessitate removing and replacing the ground as part of remediation.



Photo 27 – Block C – Gable end view of Hut C5



Photo 28 – Block C - Gable end view of Hut C5

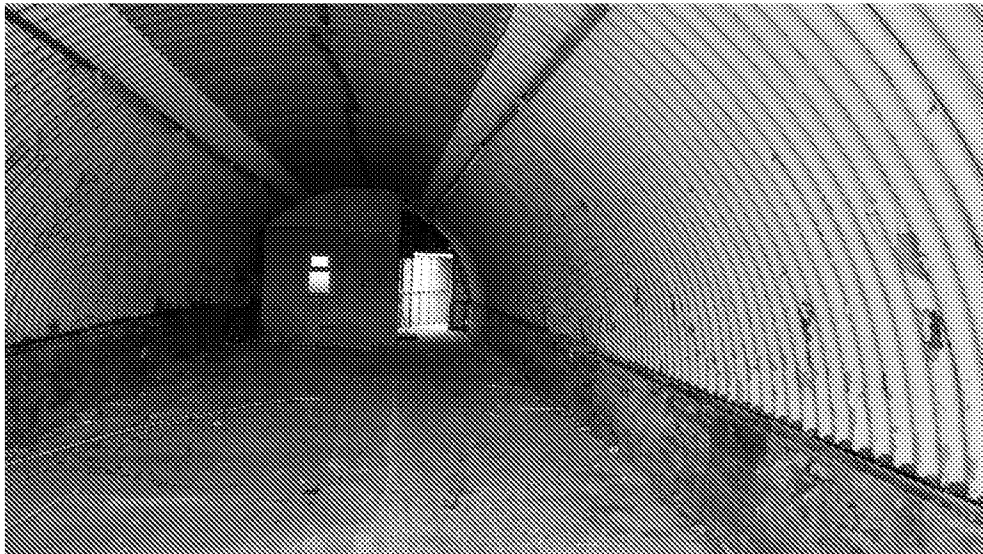


Photo 29 – Block C - Internal view of Hut C5

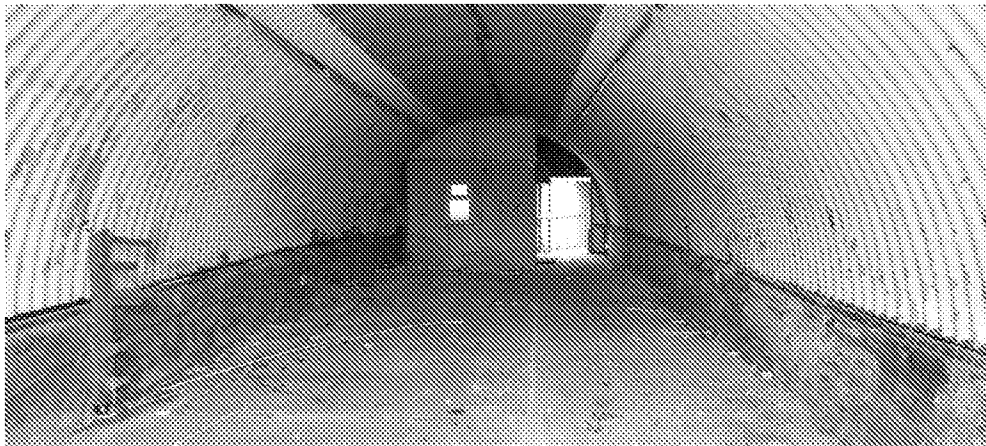


Photo 30 – Block C – Internal view of Hut C5



Photo 31 – Block C – Gable end of Hut C4



Photo 32 – Block C – Oil contamination visible outside Hut C4

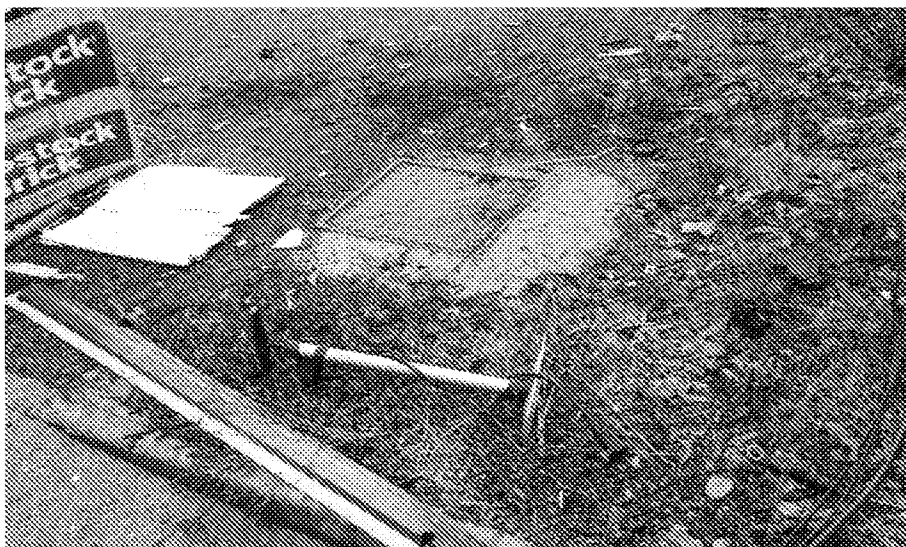


Photo 33 – Block C – Drain cover outside Hut C4



Photo 34 – Block C - Hut C4 – Apparent oil contamination visible



Photo 35 – Block C – Gable entrance of Hut C4 showing damage to the wall

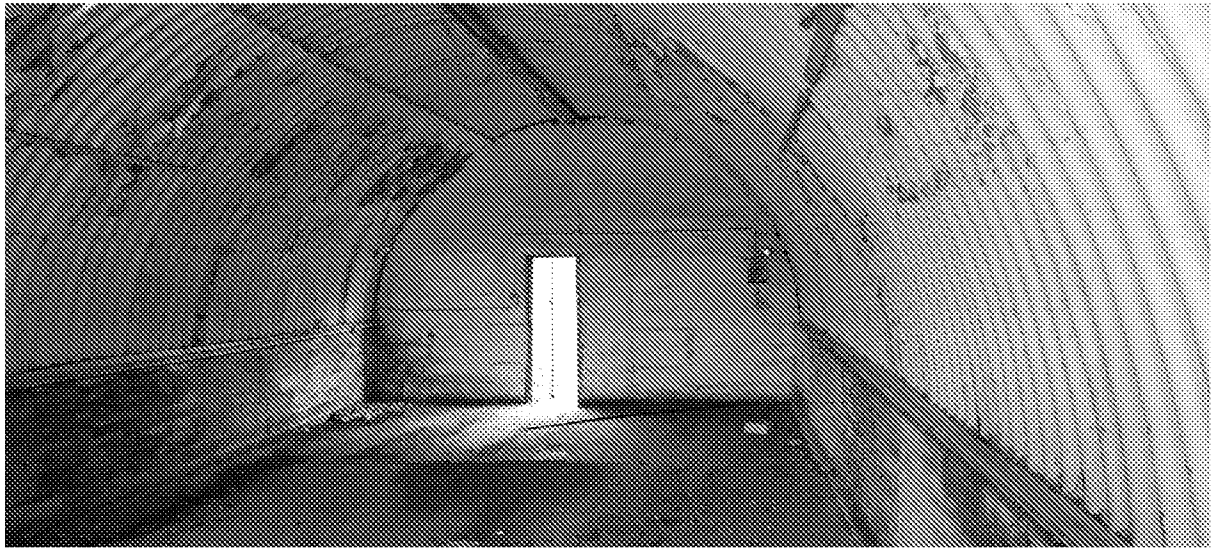


Photo 36 – Block C – Typical internal view of one of the C series huts



Photo 37 – Block C – Roller shutter door at the rear gable



Photo 38 – Block C – Steel frame support to rear roller shutter door – The steel post is badly corroded



Photo 39 – Block C – View between two huts

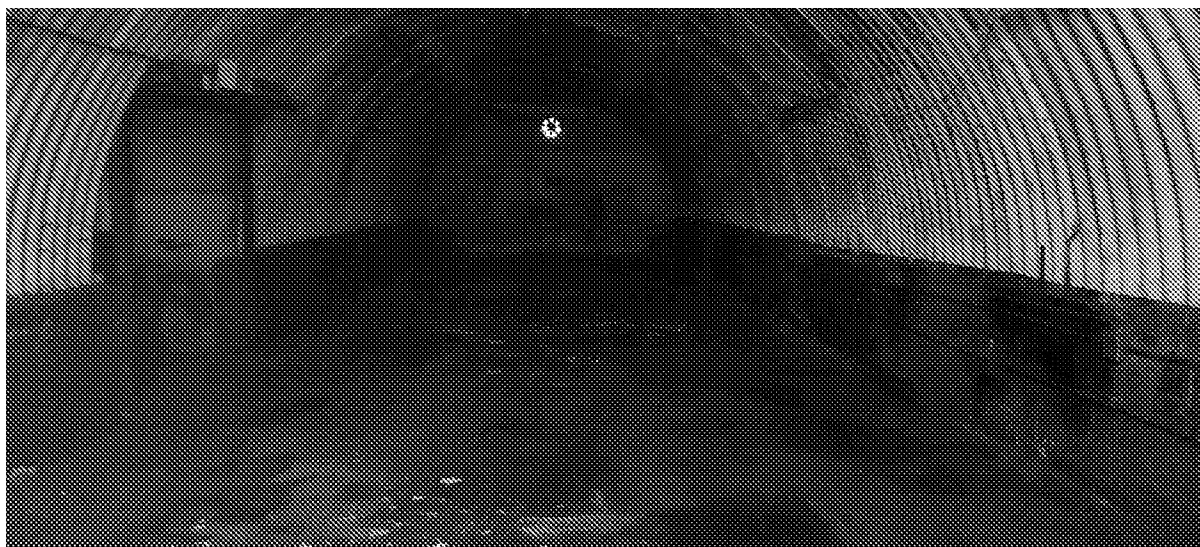


Photo 40 – Block C – Oil contamination inside Hut C1

6.0 Block D

- 6.0.1 Block D comprises a single building in load bearing blockwork with a corrugated cement roof.
- 6.0.2 Photo 41 shows the roof to be sagging unevenly across its length.
- 6.0.3 Photo 44 shows the rear wall of the building leaning outwards
- 6.0.4 Photo 45 shows the roof to be propped with steel props.
- 6.0.5 Photo 46 shows cracking in the ground bearing slab.

6.1 Conclusion

- 6.1.1 The roof is sagging and the props supporting the roof appear to be temporary props rather than permanent construction.
- 6.1.2 There is cracking indicative of settlement in the ground bearing slab.
- 6.1.3 The rear wall is leaning outwards in which could be spread from the roof load above.



Photo 41 – Block D – Side elevation view

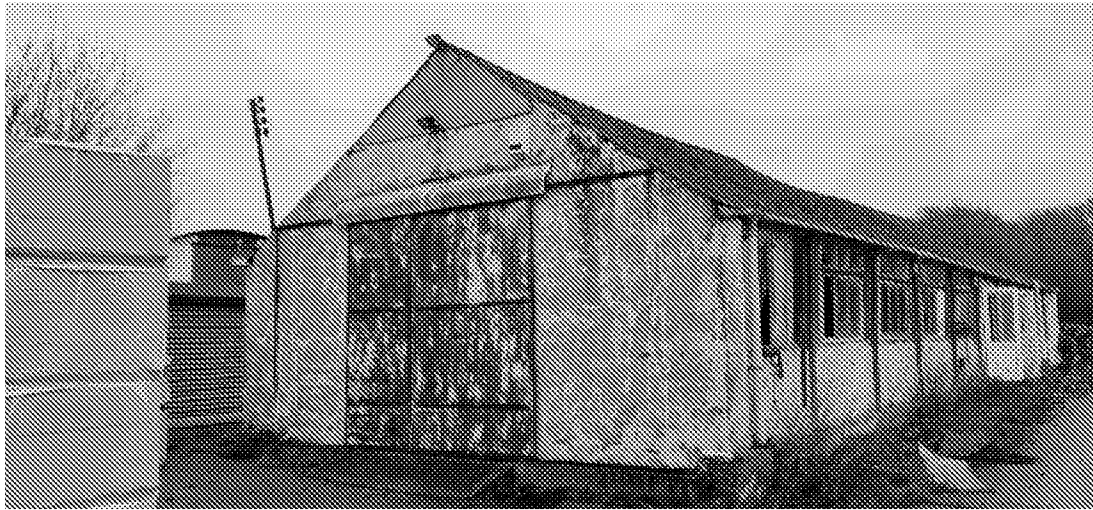


Photo 42 – Block D – Gable end view



Photo 43 – Block D view at the opposite gable

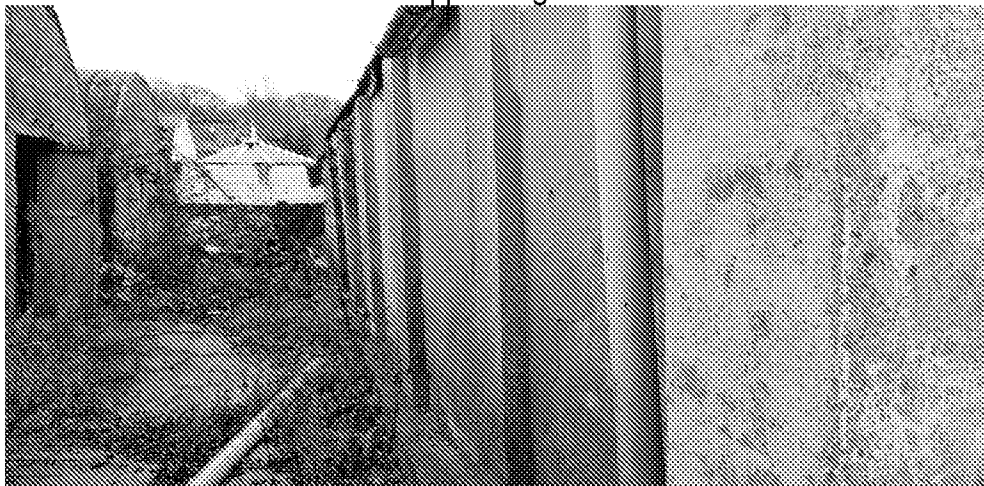


Photo 44 – Block D – View along side rear elevation showing wall leaning

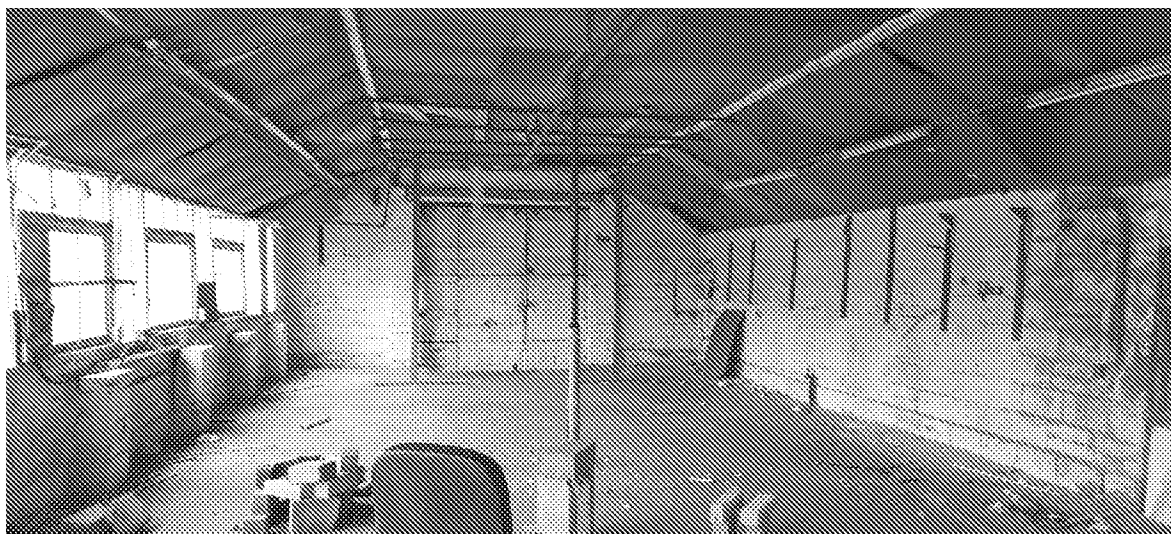


Photo 45 – Block D – view of roof showing vertical prop



Photo 46 – Block D – cracking in the concrete floor



Photo 47 – Block D – Roof beam propping roof trusses

7.0 Block E

- 7.0.1 Block E comprises a single building in load bearing rendered blockwork with a corrugated iron roof.
- 7.0.2 Photo 48 shows the roof to be sagging unevenly.
- 7.0.3 Photo 51 shows cracking in the entrance gable wall.
- 7.0.4 Photo 52 shows the walls propped laterally using precast concrete posts that are strapped to the wall to provide lateral propping to the blockwork wall panels.

7.1 Conclusion

- 7.1.1 The roof is sagging.
- 7.1.2 The gable wall is cracked.
- 7.1.3 The construction method of propping the wall laterally is not robust and is in poor condition. Precast concrete posts are strapped to the wall to provide lateral propping to the blockwork wall panels. This does not appear to be a robust method of propping, which could leave the wall panel without adequate lateral support.



Photo 48 – Block E – View of side elevation



Photo 49 – Block E – View of side elevation



Photo 50 – Block E – View of side elevation



Photo 51 – Block E – View of gable end

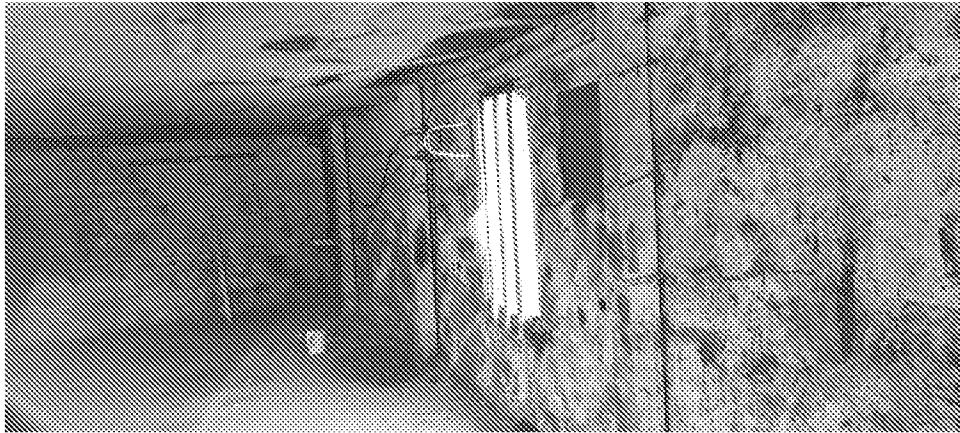


Photo 52 – Block E – View of precast posts providing lateral support to the walls. The posts are connected to the walls by means of straps.

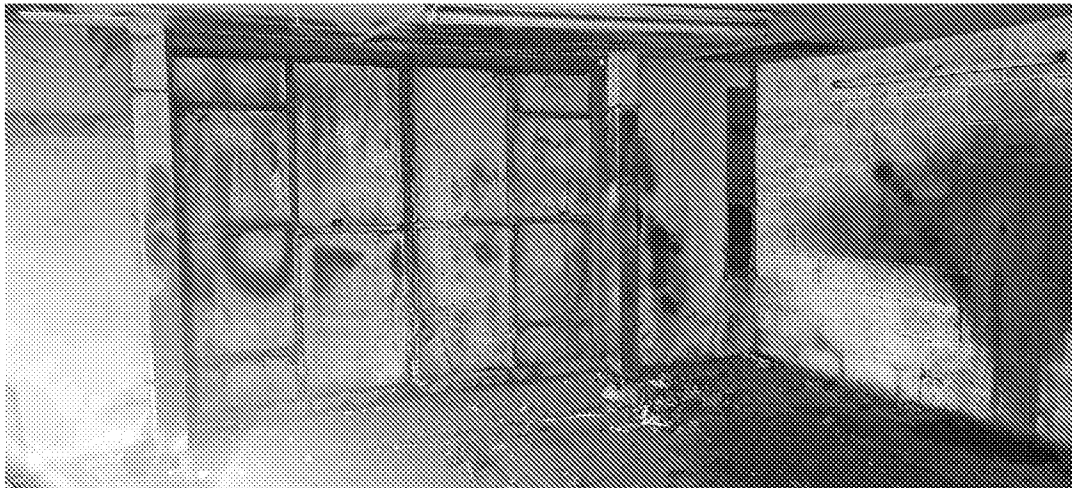


Photo 53 – Block E – Gable entrance



Photo 54 – Block E – Internal view

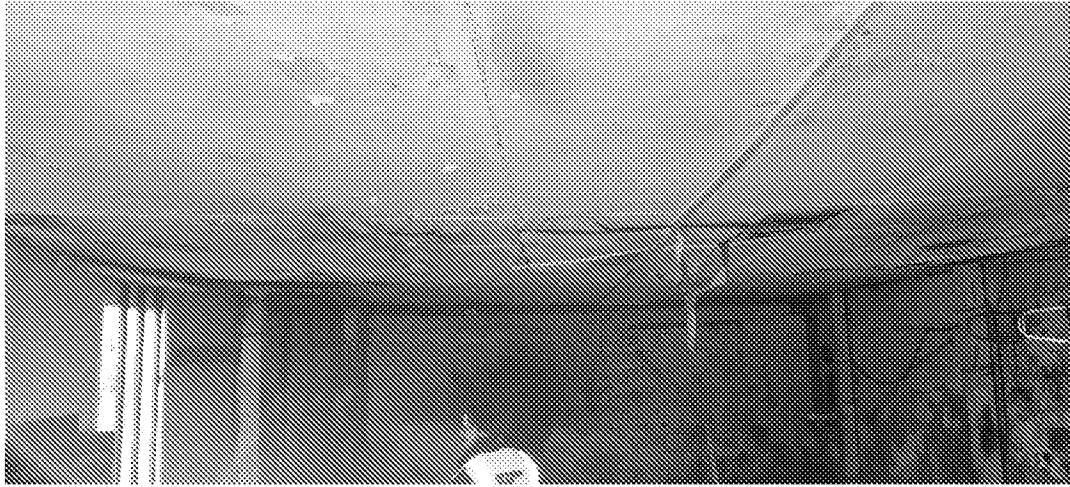


Photo 55 – Block E – View of roof

8.0 Block F

8.1 Block F comprises a single small building in load bearing rendered blockwork with a corrugated iron roof. The building was locked at the time of the visit.

8.2 Photo 56 shows the roof to be sagging unevenly along its ridge and also cable ducts outside the building.

8.1 Conclusion

8.1.1 Access was not possible during our site visit, therefore it is difficult to provide any further comments. However, given the uneven sag of the existing roof ridge and bearing in mind the remaining structures surveyed it would be our conclusion that similar aspects also affect this small building.

8.1.2 Cable ducts outside the building indicate that it might have been a plant room. The cable ducts are redundant and will need to be removed as part of the development.



Photo 56 – Block F – View of the building. The cable ducts are visible outside.



Photo 57 – Block F – Side elevation

9.0 Block G

- 9.0.1 Block G comprises a single small building with corrugated cement panel walls with a corrugated iron roof.
- 9.0.2 Photo 58 shows the building to be dilapidated and sections of wall and roof are missing.

9.1 Conclusion

- 9.1.1 The building is a prefabricated structure and is dilapidated possible due to its age and/ or neglect.



Photo 58 – Block G – Side view – Section of wall and roof missing



Photo 59 – Block G – Side view

10.0 Block H

10.0.1 Block H comprises a single small building with masonry block walls and a corrugated iron roof.

10.0.2 It appears that the building was constructed using a combination of stone and concrete blocks. Photo 60 shows the side wall in stone block and the gable wall in concrete block.

10.0.3 Above the doorway at the gable end the blocks over the lintel were loose.

10.1 Conclusion

10.1.1 The building seems to be a composite construction of a wall in stonework coupled with a wall in blockwork and the two wall types do not seem to be keyed-in properly at the corner where they meet. The building is dilapidated state possibly due to its age and/ or neglect.



Photo 60 – Block H – Side view – Gable end is in concrete block and the side elevations are in stone block.



Photo 61 – Block H – Gable end

11.0 Block J

11.0.1 Block J comprises a single small, prefabricated hut that appears to be constructed of timber and plasterboard.

11.1 Conclusion

11.1.1 The hut is more of a temporary structure akin to a portacabin or caravan than a permanent structure.

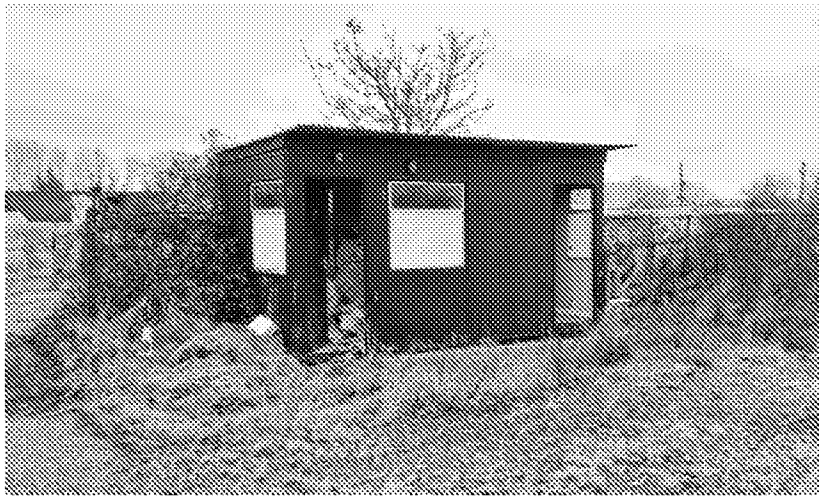


Photo 62 – Block J – View of the hut

12.0 Isolated ground bearing slabs, walls and cable ducts.

12.0.1 Several isolated ground bearing slabs were identified in the area generally. Given that the area was overgrown it was not possible to inspect the entire site to determine how many such ground bearing slabs there were. Photos 63 and 64 show typical ground bearing slabs.

12.0.2 In Photo 63 a cable duct is visible in the right hand side of the photo.

12.0.3 In Photo 63 an isolated block wall is visible in the background.

12.1 Conclusion

12.1.1 The isolated ground bearing slabs would appear to be redundant along with the cable ducts.



Photo 63 – Next to Block F – Isolated ground bearing slab with cable ducts alongside



Photo 64 – Adjacent to Block E - Isolated ground bearing slab

13.0 Possible buried structure adjacent to southern boundary of site

13.0.1 At the southern boundary of the site there appears to be a buried structure. It lies immediately outside the site boundary.

13.1 Conclusion

13.1.1 Given that there might be a buried structure at this location it could affect the foundations of any proposed buildings along the boundary.



Photo 65 – Adjacent to Block E – Possible buried structure just outside the southern site boundary

14.0 Recommendations

14.1 Block A

Given the uneven settlement of the ground bearing slab and the cracking that this appears to have caused to the walls of the house and garage it is recommended that the house and garage be demolished.

14.2 Block B

The vertical wall extension is potentially unsafe, the gable end of the extension is cracking and the roof would appear to be unsafe. Given these factors it is recommended that the building be demolished.

14.3 Block C

- A) The ground bearing slabs show cracking, the gable walls are cracking and damaged and there is the potential of oil contamination in the ground. Given these factors it is recommended that the buildings be demolished.
- B) The existing petrol interceptor should be further inspected in order to ascertain its setting out and extent i.e. depth and form of construction.

14.4 Block D

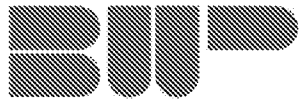
The ground bearing slab is cracking and the rear wall and roof are non-robust and potentially unsafe. The ground bearing slab is cracking, which implies some ground movement and subject to further soils investigation should be removed. The existing roof structure would appear to be of a sub-standard form of construction and is propped temporarily throughout. Spread of the roof at the eaves would appear to have affected the perimeter walls, which now appear out of tolerance. Given these factors it is recommended that the buildings be demolished.

14.5 Block E

Given the factors listed in 7.1 is recommended that the buildings be demolished.

14.6 Block F

Given the factors listed in 8.1 is recommended that the building be demolished.



14.7 Block G

Given the factors listed in 9.1 it is recommended that the building be demolished.

14.8 Block H

Given the factors listed in 10.1 it is recommended that the building be demolished.

14.9 Block J

Given the factor listed in 11.1 it is recommended that the hut be demolished and removed.

14.10 Isolated ground bearing slabs, walls and cable ducts.

Given the factor listed in 12.1 it is recommended that the items listed be removed.

14.11 Possible buried structure adjacent to southern boundary of site

Given the factor listed in 13.1 it is recommended that the potential buried structure be investigated, with its size and extent determined further.