



Bellamy Wallace Partnership
Consulting Structural Engineers

CLIENT:

John Cobb Consulting

STRUCTURAL CONDITION REPORT

AT

Vacant Station Building
Highgate Station
Priory Gardens
Highgate
London

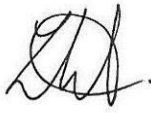
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Contents

		Page
	Title Page	1
	Document Control	2
	Contents Page	3
1.0	Introduction/Summary	4
2.0	Description	4
3.0	External Assessment	5
4.0	Internal Assessment	6
5.0	Discussion	6
6.0	Conclusions	6
7.0	Recommendations	7

Appendix 1 Site Record Photographs

1.0. Introduction/Summary

- 1.1. Bellamy Wallace Partnership LLP were instructed to carry out a visual structural inspection of the vacant station building at Highgate Station and produce a condition report and recommendations in respect of our findings.
- 1.2. Fire damage had occurred at this location and BWP scope of works was to ascertain how this had occurred, damage incurred as a result and ultimately any issues with regards to stability and future/further use.
- 1.3. A site visit was carried out on 19 June 2023; the weather was warm, dry, and bright.
- 1.4. The property was derelict and vacant at the time of the survey, with access provided through a locked gate entrance off Priory Gardens.
- 1.5. No access equipment was used and all dimensions/photos and observations were taken at ground level only.
- 1.6. This report is based upon a visual inspection and no testing of the structure has been carried out.

2.0. Description

- 2.1. The site is in a deep cutting on the North side of Archway Road and immediately adjacent & above Highgate Station on the Northern Line.
- 2.2. The original side platforms, along with the later central island are all still present on site, albeit for the recent fire damage, which had occurred to the vacant station building.
- 2.3. This original, now vacant station building is on the 'up' side platform and had been converted into accommodation, with the newer main station building located beneath a current car parking area and the existing island structure having a stairway access to the Northern Line concourse below, which is currently locked and not in use.
- 2.4. Plastic sheeting covers the track beds, assumed at this stage to mitigate entry and/or water ingress to structures below.
- 2.5. The vacant station building property is of a single storey Victorian load bearing masonry structure, with what appears to be a close couple cut timber roof structure over.
- 2.6. Fire damage had occurred to this portion of the original, vacant building, however given its construction, it had not suffered the same effects as had the timber framed building adjacent.
- 2.7. A lean-to area is present to the rear of this building, with access to the original timber framed building area.

- 2.8. This original timber framed building has suffered extensive fire damage and has been completely razed.
- 2.9. The razed timber structure appears to have been founded off a concrete hard standing, enclosed to the rear by a walled structure, consisting of precast posts and planks, which in turn would appear to be retaining the sloping ground back up to the public footpath above at Priory Gardens.
- 2.10. Debris from the fire was still present during our site inspection.
- 2.11. Records indicate that the fire was first discovered by tenants of the adjacent Café Noir on 2 May 2023, who suggested that youths had been seen accessing this disused area, with the emergency services present on site within approx. one hour. The emergency services then implemented a 'cutting away and damping down' exercise of the existing structure to the vacant station building.
- 2.12. Electrics were isolated and the Priory Garden footpath secured to provide temporary fixing to the gated access of this area, with a more permanent replacement to the fencing provided at a later stage.
- 2.13. Based upon the tenants witnessing the youths accessing this area immediately before the fire, it is assumed that this blaze was as a result of arson, although this has not been conclusively established by way of evidence at this stage.

3.0. External Assessment

- 3.1. The original timber framed building, as previously noted, was completely razed during our site inspection and no further comments can therefore be made at this stage.
- 3.2. As previously stated, this original timber framed building had been founded off what appears to be a concrete hardstanding, of which could be utilised, subject to further investigation, once debris is removed from site.
- 3.3. The precast concrete retaining wall structure, located to the rear of the original timber framed building, was inspected as far as practically possible at the time, and appeared to still be robust in its construction.
- 3.4. A visual inspection of the vacant station building was carried out externally, with movement apparent to the existing and retained masonry walls; evidentially, this appeared to be not only because of the effects from the fire, but also historical foundation movement and this was noted with regards to historical repair work and monitoring points noted at various locations, which could suggest that previous subsidence had, or has, occurred over time.
- 3.5. The roof structure had areas of existing slates lost and during our visual inspection, we were not able to ascertain the extent of all damage to the roof timbers, albeit the ceilings had started to partially collapsed internally.

4.0. Internal Assessment

- 4.1. At the rear entrance area, a ground bearing slab was noted, however internally, there appears to be a raised timber structure to most of the building.
- 4.2. The kitchen area appeared to have been effected at both the walls and ceiling, with extensive vertical cracks noted to the rear load bearing wall next to the entrance; the remaining walls were clad in timber boarding, with the structure not visible at the time of the inspection and cracking to the ceiling boards noted above. It should be reiterated that this rear wall is the load bearing element for the existing roof, of which spans front to rear.
- 4.3. Within the remaining room, the ceiling consisted of T&G boards, which had partially collapsed, exposing what appeared to be a close couple roof structure above, with both vertical and horizontal cracking noted to internal walls within this room also.

5.0. Discussions

- 5.1. Generally, the remaining property is in a poor structural condition, both internally and externally
- 5.2. The movement to the existing masonry, where noted, is likely to be historical and this issue can be seen from the various areas of stepped cracking in the existing masonry, clear rebuilding of elements of masonry panels, movement across the tops of most windows and the inclusion of previously installed tell-tales.
- 5.3. Fire damage is apparent to walls and ceilings throughout, with cracking evident to load bearing walls, in addition to that previously stated.
- 5.4. Movement appears to have occurred at the eaves positions in some locations, which would imply some deflection of the roof structure due to failure because of the fire and associated horizontal spread affecting the top of the existing walls.
- 5.5. Foundations could not be inspected during our visit, but from the historic movement noted, it is assumed that either mass concrete strips are present or, more likely for the age of this building, corbelled masonry bearing off the underlying Clay substructure.
- 5.6. It is apparent that the existing foundation system has been affected by the surrounding vegetation and would require attention, irrespective of whether a refurbishment or demolition & rebuild is undertaken.

6.0. Conclusions

The building, which is now left remaining and as previously noted, is generally in a poor state of repair due to both the historical foundation movement and the fire damage, notwithstanding its age.

The roof structure is currently providing restraint at the eaves of the load bearing walls, albeit now affected by the fire damage and we would advise that access is limited to the internal areas due to the current health and safety issues that this could raise i.e. the instability of these walls and their possible collapse; the timber roof elements would now appear to be in a hazardous state and liable to collapse.

Asbestos is present within the property, albeit in a relatively small amount and location. The recommendations are that this is either encapsulated in situ, or removed in line with HSE Approved Code of Practice L143 2nd Edition.

Any future refurbishment of this structure could raise further health and safety issues when trying to encapsulate this material and it would be our advice that this material be removed in line with the Code of Practice noted above.

Load bearing walls are affected not only from historical foundation movement, but also from the effects of the recent fire and their load carrying capacities are therefore brought into question as a result, notwithstanding the possible loss of restraint from the affected roof structure.

7.0. Recommendations

Based upon the evidential data gathered during our site inspection, along with historical information collected, including the incident timeline and actions of the emergency services, along with the asbestos survey, we would suggest that this remaining building is currently categorised as a dangerous structure.

Given this, it would be our recommendation, based upon health and safety issues highlighted, that this building is carefully demolished and rebuilt.

A full condition survey can be carried out, taking into consideration the health and safety issues raised, with a view to rebuilding in a similar manner and a rebuild could not only be carried out to current safe building regulations, but also include a suitable foundation scheme based upon the existing ground conditions and surrounding vegetation & trees, etc.

We would surmise that any below ground drainage could also be reviewed and upgraded/replaced as part of these works, to current standards and in line with current health and safety issues also.



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APPENDIX 1:
SITE RECORD PHOTOGRAPHS



Picture 1 – Image taken from Google Maps



Picture 2 – Highgate Station looking East, circa 2007. The track beds are covered in corrugated plastic to mitigate issues with the Northern Line below. The original 1867 building in question can be seen on the left-hand side



Photo 1 – Front Elevation facing redundant track



Photo 2 – Front Elevation RHS



Photo 3 – Front Elevation LHS (SW)



Photo 4 – Side (NW) Elevation showing area of razed Timber Building



Photo 5 – Front Elevation movement over top of arched window



Photo 6 - Front Elevation movement below arched window



Photo 7 – Front Elevation Subsidence crack – note previously installed tell-tale monitoring



Photo 8 - Front Elevation movement over top of arched window



Photo 9 - Front Elevation movement and repointing to RHS of window



Photo 10 – Side Elevation (SE) – out of plumb wall



Photo 11 - Side Elevation (SE) movement and rebuilding across top of arched window (note movement still occurring)



Photo 12 - Side Elevation (SE) movement and repointing at side of arched window



Photo 13 - Side Elevation (SE) showing rebuilt structure at corner with Rear



Photo 14 – Rear (NE) Elevation lean-to buttressing wall showing stepped cracking



Photo 15 - Rear (NE) Elevation leading to remains of razed timber building



Photo 16 - Rear (NE) Elevation showing movement and cracking at eaves



Photo 17 – Rear Elevation showing remains of razed timber building – note PC retaining structure supporting raised bank to public footpath



Photo 18 - Rear Elevation showing remains of razed timber building



Photo 19 - Rear Elevation lean-to roof in poor condition



Photo 20 – Internal load bearing wall taken from internal walkway



Photo 21 – Internal lean-to walkway to rear/remains of razed timber building



Photo 22 – Internal kitchen area



Photo 23 – Internal kitchen area showing large vertical crack to load bearing wall



Photo 24 – Internal room off kitchen area showing damage to existing cut roof members



Photo 25 - Internal room off kitchen area showing damage to existing cut roof members



Photo 26 - Internal room off kitchen area showing vertical and horizontal cracking of wall/s



Photo 27 – Kitchen area



Photo 28 – Rear Elevation showing remains of razed timber building – note PC retaining structure supporting raised bank to public footpath