

Our ref: 25-6599
Your ref:



Report for:

Larke Rise
West Didsbury
M20 2UL

Regarding the Structural Inspection of:

Boundary Retaining Wall along Palatine Road
West Didsbury



Date of inspection: 16th October 2025

By: Paul Clifford BSc CEng MStructE ACILA

Weather: dry and sunny

Date of report: 23rd October 2025

1. Brief.

To undertake a visual inspection of the boundary wall fronting onto Palatine Road to comment upon its structural condition and advise accordingly.

2. Limitations.

This report is based upon a visual inspection of the boundary wall and limited to the aspects mentioned above and which we consider to be relevant to the stability of the building at the time of our inspection.

Our observations are reported as one is standing on Palatine Road looking towards the boundary. Slopes and leans area as measured over a 1m digital spirit level.

Our observations are not meant to be a detailed condition report of the structure and only the relevant structural issues are addressed. Our inspection is made from ground level.

This report does not cover any aspects relating to damp ingress, services, drainage or covered elements.

No investigations have been undertaken to determine foundation types, depths or conditions unless we have included this in our brief and a suitable contractor has attended site with us to ascertain such details.

This report is for the sole use of the Client as named on the front page. This report must not be re-produced or transferred in part or whole to any third party without our written permission.

3. General details:

The main part of the property was not accessed. It seems that the development is a mix of old housing, modern flats and modern houses.

The matter of concern is the boundary wall fronting onto the pavement of Palatine Rd to the east of the development. This wall is built in sandstone with a coping and ranges from around 1.0 to 1.2m in height.

The land relating to the development is retained by the boundary wall, with the higher ground level reaching the top of the copings. The wall is likely to be dated to the turn of the 20th century.

The wall was inspected from the public pavement.

General topography/features:

- Levels Palatine Rd is lower than the land to the west of Larke Rise along with the public gardens to the east. Otherwise, the area is reasonably level.
- Land use The immediate area tends to be of residential usage with some parkland.
- Geology The British Geological Maps show that the underlying soils are of
 - a Glaciofluvial sands and gravels overlying
 - Sandstone.
- Vegetation There is extensive vegetation behind the boundary wall. The trees are subject to preservation orders.
- Drainage We have not inspected the below ground drainage.

4. Observations:

As stated earlier, the boundary wall acts as a retaining wall. It is not clear how much of the height of the retained ground is original to the time of construction and how much is built up over the years with decaying vegetation.



Note retained ground levels

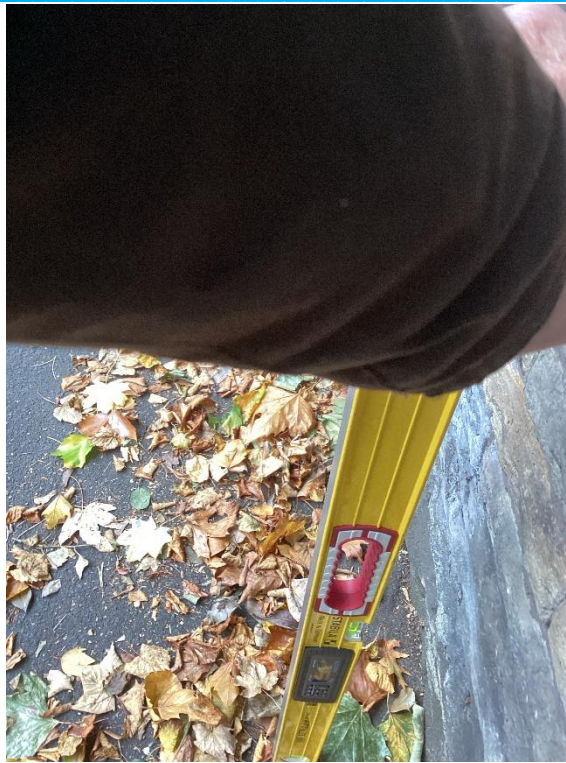
The wall appears to be around 360mm thick, although precise checks could not be made because of the ground covering the coping. As such, in engineering terms it is not strong enough to act as a retaining wall. Nevertheless, it has withstood an estimated 120 years of use without major defects. The bulk of the wall is acceptably vertical in relation to its thickness.

To the right of the pedestrian access to the flats there is a section of localised bulging wall with open joints in the stonework. The bulging primarily affects the lower sections of the wall rather than becoming a full height lean. 1 metre from the back of this section of wall there is a chestnut tree which is leaning towards the public highway.



Damage adjacent to chestnut tree

The section of the wall to the left of the entrance has a total lean of approximately 140mm. This is a little surprising as there is relatively less vegetation in this vicinity consisting of what is thought to be rhododendron.



Lean to the left of the entrance

Still further to the left of what is assumed to be a gas supply pipe there is another leaning length of wall with three main points of lean. The first is a continuation of the Rhododendrons as described above. There are what are believed to be Sycamore trees further back.

The second main point of lean is adjacent to a plane tree which is 1.2 metres to the rear of the wall. There is a gradual lean on the wall of around 100 mm at this point.



Lean adjacent to the plane tree

A little further to the left of this there is a localised area of severe bulging to the wall. The bulge is approximately 250 mm at this point. Coping stones have displaced and the movement of the wall has caused opening of the horizontal and vertical stone bedding joints. There is a Lime tree approximately 700 mm behind this section of wall in line with the area of bulging.



Severe lean adjacent to the lime

To the left of these areas the wall is considerably to be reasonably plumb for its age and construction.

5. Discussions:

Walls of this nature are difficult to assess in engineering terms. Strictly speaking, the wall is nowhere near strong enough to retain the amount of ground that is currently behind it. The matter is not helped because there are no weepholes in the wall to relieve any build-up of water pressure. Having said that, the area is likely to be underlain by sands and gravels and so this may act as a self-regulator preventing excessive build up of groundwater behind the wall. Sands and gravels should allow any build up to flow away relatively quickly.

The walls seem to have stood for some 120 years and so it is perhaps a little simplistic to condemn it on the basis that it is not strong enough to modern engineering standards. The wall generally has withstood the lateral pressure for much and if not all of this time without the majority of it developing excessive leans. Therefore, it seems sensible to adopt a more pragmatic approach than simply relying on engineering calculations. It does mean that risk of collapse could never be totally eliminated, but it is noted that there are long lengths of similar wall in the immediate locality and none of them have suffered from collapse.

Vegetation Maintenance.

The principle reason that the wall has not collapsed is believed to be that the tree and shrubbery growth on the owners land is leading to a root system that is binding the soil together. Thus, the soil is effectively a reinforced earth with the root system providing lateral tying and stability without needing to rely upon lateral support from the boundary wall. Thus, vegetation should not be cut back too severely to maintain this effect.

Tree Removal

There is evidently more severe bulging adjacent to the lime tree as described above. This tree is so close to the rear of the wall that its growth is evidently overloading the structure causing it to bulge. The degree of bulge is such that consideration should be given to dismantling the wall and rebuilding, possibly on a new deeper foundation. At present the depth of the foundation is unclear.

To protect the rebuilt wall from continued growth of the tree it is considered appropriate to ask for removal of the tree. Mention has been made of utilising a root barrier to protect the back of the wall, but this is not considered practical. Given the narrow gap between the face of the tree trunk and the rear of the wall it is doubtful that a barrier can be successfully installed. Even if it were, continued growth of the tree behind the barrier would still tend to push the barrier and therefore the wall laterally. Thus, nothing would be achieved.

A matter for an arborist to consider is the stability of the tree itself. The close proximity of the tree to the wall must limit root growth on that side of the tree. Hence, there must be concern that under a strong easterly wind the tree will have insufficient anchorage through its roots system to resist the wind forces. The tree has therefore the possible potential to collapse. Note that installation of a root barrier will further weaken the root system on that side of the tree. It is also possible that reconstruction of the wall will also involve the cutting of some of the roots, further destabilising the tree.

The next point of concern is adjacent to the plane tree where the wall leans by around 100mm. The amount of lean here is borderline acceptable with the risk that the lean will continue to develop and possibly lead to collapse at some point in the future. An arborist might be able to give some indication as to how much the tree might grow in diameter and at what rate to thus allow a better assessment of the risk to the wall. Again, a root barrier is considered inappropriate for similar reasons as discussed above in that it will involve cutting stabilising roots and in any case will not relieve the lateral pressure from the growth of the tree.

The general area of lean in the areas to the left of the pedestrian entrance is again considered to be within acceptable limits. The condition of the wall will require periodic checks to ensure there is no significant deterioration.

Further to the right adjacent to the chestnut tree it is considered that the degree of bulging is sufficient to warrant localised rebuilding over a narrow section. The chestnut is leaning over towards the highway and so we would question suitability for retention. We are not arboriculturists, but the amount of lean must

significantly impair the lateral stability of the tree with the risk of collapse onto the public highway. Thus, an Arboriculturist report may well suggest its removal.

Summary

In summary, the wall is doing well to have lasted 120 years in engineering terms. On a pragmatic basis we consider that it should be possible to retain the wall for a number of years to come, with localised reconstruction as noted above, should ensure the life of the wall. Nevertheless, the wall is ageing and will continue to deteriorate and develop additional leans on a gradual basis due to the growth of the trees directly behind the wall and the pressures these impart.

6. Conclusions.

We consider that the boundary wall has done well to last as long as it has and should stand for a few more years to come provided regular maintenance is undertaken.

The grounds of the premises require regular maintenance to ensure that there is not excessive vegetation growth, particularly from self-seeding trees. Otherwise, accelerated deterioration of the wall construction will occur. However, the smaller vegetation must not be cut back excessively because the roots are likely to be relieving pressure on the wall.

We do consider that localised reconstruction is recommended in the areas in front of the Lime and Chestnut trees where the wall should be taken down, the foundations grubbed up and replaced with mass concrete strip footings off which a new wall consisting of dense concrete block faced with the existing stonework and capped with the existing copings.

As discussed above, it is recommended that consideration is given to the removal of these two trees for stability reasons. This is something to check with an Arborist.

We trust that this is sufficient for your purposes however should you have any queries please do not hesitate to contact us.

Yours sincerely

Paul Clifford
BSc CEng MIStructE ACILA
For [STL Projects Ltd](#)